May 2020

DRAFT ENVIRONMENTAL IMPACT REPORT

Montano De El Dorado Phase I and II Master Plan

State Clearinghouse No: 2017072027

PREPARED FOR:

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Draft Environmental Impact Report
for the
Montano De El Dorado Phase I and II Master Plan

State Clearinghouse No. 2017072027

Prepared for

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May 2020

16010110.04

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LIST OF ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
2017 Scoping Plan	California's 2017 Climate Change Scoping Plan
AB	Assembly Bill
ADWF	average dry weather flow
aff	above the finished floor
afy	acre feet per year
amsl	above mean sea level
BMP	best management practice
Board	Board of Supervisors
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CAFÉ	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Energy Codes
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDS	Community Development Services
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH4	methane
CMU	concrete masonry unit
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society

CO	carbon monoxide
CO2	carbon dioxide
County	El Dorado County
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CVP	Central Valley Project
CWA	federal Clean Water Act
cy	cubic yards
dB	decibels
diesel PM	PM exhaust from diesel engines
DOC	California Department of Conservation
DOT	U.S. Department of Transportation
DRA	Debris Recycling Acknowledgment
Drainage Manual	El Dorado County Drainage Manual
EAP	California Energy Action Plan
ECA	Essential Connectivity Area
EDCAQMD	El Dorado County Air Quality Management District
EDCSO	El Dorado County Sheriff's Office
EDCWA	El Dorado County Water Agency
EDH Substation	El Dorado Hills Substation
EDH	El Dorado Hills
EDHCSD	El Dorado Hills Community Services District
EDHFD	El Dorado Hills Fire Department
EDHWWTP	El Dorado Hills Wastewater Treatment Plant
EGU	electric generating unit
EID	El Dorado Irrigation District
EIR	environmental impact report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992
EPCRA	Emergency Planning Community Right-to-Know Act
ESA	federal Endangered Species Act
EVSE	Electric Vehicle Service Equipment
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration

g/s	grams per second
GDPUD	Georgetown Divide Public Utility District
GHG	greenhouse gas
gpd	gallons per day
Grading Manual	Volume III of the County Design and Improvement Standards Manual, Grading, Erosion, and Sediment Control
HAP	hazardous air pollutant
hp	horsepower
HRI	heat rate improvement
HVAC	heating, ventilation, and air conditioning
Hz	hertz
IEPR	Integrated Energy Policy Report
IWRMP	Integrated Water Resources Master Plan
kV	kilovolt
lb	pounds
LCFS	Low Carbon Fuel Standard
L_{dn}	Day-Night Level
LED	light emitting diodes
L_{eq}	Equivalent Continuous Sound Level
LID	low impact development
L_{max}	Maximum Sound Level
LOS	level of service
m	meter
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
mgd	million gallons per day
MMBTU	million British Thermal unit
$MMTCO_2e$	million metric tons of CO2 equivalents
mPa	micro-Pascals
MPOs	metropolitan planning organizations
$MTCO_2e$/year	metric tons of CO2 equivalent per year
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy 2035

N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOP	notice of preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPR	California Governor's Office of Planning and Research
ORMP	Oak Resources Management Plan
PG&E	Pacific Gas and Electric Company
PM_{10}	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1969
ppm	parts per million
PRC	Public Resources Code
project	Montano De El Dorado Phase I and II Master Plan
RCD	El Dorado County Resource Conservation District
RCEM	Sacramento Roadway Construction Emissions Model
RCP	Representative Concentration Pathway
RD	renewable diesel
ROG	reactive organic gases
RPS	renewable portfolio standard
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SAF Plan	State Alternative Fuels Plan
SB	Senate Bill
SCSs	sustainable communities strategies

sf	square feet
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SPL	sound pressure level
SRA	state responsibility areas
SWMP	Western El Dorado County Storm Water Management Plan
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TCR	tribal cultural resources
TGPA-ZOU	Targeted General Plan Amendment and Zoning Ordinance Update
TIM	Traffic Impact Mitigation
TM	Test Method
UAIC	United Auburn Indian Community
US 50	U.S. Route 50
USACE	U.S. Army Corps of Engineers
USBR	United States Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
VdB	vibration decibels
VMT	vehicle miles traveled
WERS	Western El Dorado Recovery Systems
WRDMP	Water Resources Development and Management Plans
WRSRR	Water Resources and Service Reliability Reports
WTP	Water Treatment Plant

EXECUTIVE SUMMARY

INTRODUCTION

This summary is provided in accordance with the California Environmental Quality Act Guidelines (State CEQA Guidelines) (California Code of Regulations [CCR] Section 15123). As stated in the State CEQA Guidelines (CCR Section 15123[a]), "[a]n EIR [environmental impact report] shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the State CEQA Guidelines, this section includes (1) a summary description of the proposed project; (2) a synopsis of environmental impacts and recommended mitigation measures; (3) identification of the alternatives evaluated and of the environmentally superior alternative; (4) a discussion of the areas of controversy associated with the project; and (5) issues to be resolved, including the choice among alternatives.

SUMMARY DESCRIPTION OF THE PROJECT

Location

The project is in El Dorado Hills, California, an unincorporated area of El Dorado County approximately 23 miles east of Sacramento and 20 miles west of Placerville (Figure 2-1). U.S. Route 50 (US 50) is one-half mile north of the project site.

Existing land uses adjacent to the project site include the existing Montano de El Dorado retail center (Phase I) to the north (Figure 2-2), single-family residential uses along Monte Verde Drive (Creekside Greens Development) to the east, and Latrobe Road bordering the western boundary of the site. The southernmost portion of the site tapers to a point just before the intersection of Latrobe Road and Monte Verde Drive.

The project site is approximately 16.8 acres. The northernmost portion contains a graded, gravel-covered area used for additional parking for Phase I. The remainder of the site consists of nonnative annual grassland with rock outcroppings scattered throughout the property. Elevations range from 575 to 640 feet above sea level with slopes ranging between 10 percent and 40 percent.

Summary of Proposed Project

The proposed Montano De El Dorado Phase I and II Master Plan (project) would expand the existing Montano de El Dorado retail center (Phase I) to include additional retail space, an office building, hotel, and a small amphitheater. Phase II would consist of a total of 10 buildings for a total floor area of approximately 75,400 square feet and 143,900 square feet of commercial and office uses. The project would also include the provision of outdoor special events within existing Phase I and within the proposed amphitheater and parking lots within Phase II.

PROJECT OBJECTIVES

The objectives of the project are to:

- capitalize on the site's proximity to a major transportation corridor within El Dorado Hills;
- expand the adjacent Montano de El Dorado retail center (Phase I) with retail, hospitality, and office uses (Phase II);
- provide for the safe and efficient movement of pedestrians and vehicles;
- provide product choice to residents while reducing sales outflow to other counties; and
- provide high quality investment within El Dorado Hills to create jobs and sales tax revenue to the County.

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to State CEQA Guidelines Section 15382, a significant effect on the environment is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." Sections 3.1 through 3.13 of this Draft EIR describe in detail the significant environmental impacts that would result from implementing the project. Chapter 4 provides a discussion of cumulative and growth-inducing impacts. Table ES-1 summarizes the environmental impacts and mitigation measures discussed in these sections.

SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

For the following environmental issue areas, one or more impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project's impacts or the project's contribution to cumulative impacts to a less-than-significant level.

- Project construction activities would generate noise levels substantially higher than ambient conditions. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.10-1).
- Site preparation and grading may include blasting to remove rock outcroppings. Vibration levels generated from blasting activities would exceed FTA's criteria for human disturbance for "infrequent events" at sensitive receptors located within 230 feet and would exceed Caltrans' criteria for structural damage to normal buildings at locations within 80 feet of the blasting site. Because the exact locations where blasting would be conducted are not known at the time of writing this EIR it is possible that project-related blasting activity could expose people and buildings to levels of ground vibration that exceed these standards. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.10-2).
- The project would increase vehicle miles traveled under project and cumulative conditions. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.12-1 and 4-14).

PROJECT ALTERNATIVES

The following provides brief descriptions of the alternatives evaluated in this Draft EIR. The reader is referred to Chapter 5, "Project Alternatives," for a detailed analysis of project alternatives.

- Alternative 1: No Project – No Development Alternative assumes no development of Phase II of the project site. The site would remain in its current condition.
- Alternative 2: Modification of Special Events Alternative assumes project develops as proposed except that the special events would be prohibited from using amplified music or sound systems.
- Alternative 3: Reduced Development Alternative would modify the site design by eliminating Building 8 and its associated loading dock from the Phase II site plan. This would reduce the size of Phase II to approximately 113,900 square feet of commercial and office uses.

AREAS OF CONTROVERSY

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify areas of controversy known to the lead agency, including issues raised by agencies and the public. This section provides a summary of issues raised through scoping and comments on the notice of preparation (NOP) that could be considered controversial. The comment letters received on the NOP are included in Appendix A of this document.

The major areas of controversy associated with the project are:

- increased traffic in project area;
- noise impacts from special events;
- increased crime from expansion of the Montano De El Dorado retail center;
- visual, lighting, and privacy impacts to residences east of the site;
- drainage impacts to the existing drainage canal associated with the existing Phase I of Montano De El Dorado; and
- biological resource impacts from development of the site;

The Draft EIR addresses these issues to the extent that substantial evidence permits, and to the extent that the issues are environmental issues. However, it does not address impacts that are speculative and not reasonably foreseeable.

ISSUES TO BE RESOLVED

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify issues to be resolved in the EIR. The major issues to be resolved by the County are whether:

- phase II be approved for development based on the proposed site plan and associated building heights;
- special events and the proposed amphitheater be allowed as part of the project; and
- whether the project site design should be modified to address concerns of residences east of the site.

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
3.1 Aesthetics			
Impact 3.1-2: Effects to Visual Character of Public Views and Consistency with County Standards The project would change the site from a partially-developed commercial to a fully-developed site with coordinating buildings with internal roadways and landscaping throughout the site. The project site is surrounded by suburban land uses that are of similar scale of the project, including commercial, office, industrial, and residential uses. The change in character of the project site, once fully developed, would be consistent with the visual character of the surrounding area and the site's commercial zoning. Therefore, the project would not substantially degrade the existing visual character of public views or quality of the site and its surroundings and this impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.1-2: Effects of Light and Glare Development of Phase II would include the light fixtures that create new sources of light that could impact adjacent residential uses to the east. In addition, windows and architectural features of buildings could reflect sunlight and create glare conditions. This impact would be significant.	S	Mitigation Measure 3.1-2a: Demonstration of Compliance with County Lighting Standards Final improvement plans will include specifications that demonstrate outdoor lighting is located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way consistent with Title 130, Chapter 130.34 (Outdoor Lighting) of County Code. Mitigation Measure 3.1-2b: Use of Nonreflective Building Materials Final building plans will identify the use of nonreflective building materials and glass that will avoid the creation of glare offsite during the daytime.	LTS
3.2 Air Quality			
Impact 3.2-1: Construction-Generated Emissions of Criteria Air Pollutants and Precursors Construction of the project would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. from site preparation (i.e., clearing, grading, and excavation), off-road equipment, material and equipment delivery trips, worker commute trips, building construction, asphalt paving, and the application of architectural coatings. However, construction activities would not result in emissions of ROG, NO_X, or PM_{10} that would exceed EDCAQMD-recommended thresholds. Therefore, construction-generated emissions of criteria air pollutants and precursors would not conflict with the air quality planning efforts in the region	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
or contribute substantially to the nonattainment status of MCAB with respect to the CAAQS and NAAQS for ozone or the NAAQS for PM_{10} and $PM_{2.5}$. Thus, the emissions generated during the project's construction would not contribute to air quality–related health complications experienced by people living in the MCAB. This impact would be less than significant.			
Impact 3.2-2: Long-Term Operational Emissions of Criteria Air Pollutants and Precursors Implementation of the project would not result in long-term operational emissions of ROG, NO_X, or PM_{10}, that exceed EDCAQMD-recommended mass emission thresholds. Therefore, operational emissions would not conflict with the air quality planning efforts in the region or contribute substantially to the nonattainment status of MCAB with respect to the NAAQS and CAAQS for ozone or the NAAQS for PM_{10} and $PM_{2.5}$. Thus, the project's operational emissions would not contribute to air quality–related health complications experienced by people living in the MCAB. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.2-3: Mobile-Source CO Concentrations Long-term operational mobile-source emissions of CO generated by the implementation of the project would not result in localized concentrations CO that would violate or contribute substantially to exceedances of the applicable NAAQS or CAAQS. Therefore, the project would not expose sensitive receptors to substantial concentrations of CO that could result in adverse health effects. As a result, this impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.2-4: Exposure of Sensitive Receptors to TACs Operational emissions of TACs would not expose off-site receptors to an incremental increase in cancer risk greater than 10 in one million or a hazard index of 1.0 or greater. However, the construction-generated emissions of TACs could expose existing off-site receptors to an incremental increase in cancer risk greater than 10 in one million. This would be a significant impact.	S	Mitigation Measure 3.2-4. Reduce Emissions of Diesel PM from Construction Equipment The applicant shall reduce diesel PM from construction equipment to reduce the level of health risk resulting from construction-generated emissions, such that construction-related cancer risks to nearby residences would not exceed an incremental increase of 10 in one million. Health risks associated with TAC emissions are proportional to the TAC emissions rates. Thus, the project would need to demonstrate a reduction in diesel PM by at least 45 percent from unmitigated estimates to reduce the maximum incremental cancer risk at nearby receptors to less than 10 in one million. This is equivalent to demonstrating annual average diesel PM emissions of no more than 200 lb/year for on-site construction equipment, assuming hauling and pipeline	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		construction activities remain unmitigated. This can be achieved by implementing one of the following two measures: ▶ Require the use of Tier 4 engines for all on-site equipment rated 50-horsepower (hp) or greater, or ▶ Require the contractor to use SMAQMD's Construction Mitigation Tool to demonstrate that the combined usage of on-site construction equipment would not exceed 200 lb of diesel PM per year and submit the tool to El Dorado County for review and approval (SMAQMD 2018).	
Impact 3.2-5: Exposure of Sensitive Receptors to Odors The project may introduce new odor sources into the area, including diesel exhaust emitted during construction, diesel exhaust emitted by delivery trucks during project operations, and potentially cooking and food preparation at restaurants. However, these types of odor sources are not usual for urban areas and typically do not result in a substantial number of odor complaints. For this reason, it is not expected that the would not result in the exposure of sensitive receptors to excessive odors. This impact would be less than significant.	LTS	No mitigation is required.	LTS
3.3 Biological Resources			
Impact 3.3-1: Disturbance to or Loss of Special-Status Plant Species and Habitat Project implementation would include ground disturbance and conversion of grassland habitat, which could result in disturbance to or loss of big-scale balsamroot, if present within the project site. Because the loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a potentially significant impact.	PS	Mitigation Measure 3.3-1: Conduct Survey for Big-Scale Balsamroot, Avoid Plants, or Implement Mitigation for Loss of Plants The following measure shall be implemented to avoid or minimize loss of big-scale balsamroot prior to site construction: ▶ Prior to issuance of grading, building or improvement permits, a qualified botanist shall conduct protocol-level surveys for special-status plants, including the big-scale balsamroot, during the blooming period of identified listed species having the potential to occur on the project site (approximately March to June). Surveys shall include areas where potentially suitable habitat would be removed or disturbed by project activities in accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). The normal blooming period for special-status plants generally indicates the optimal survey periods when the species are most identifiable.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		▶ If big-scale balsamroot or other special-status plants is not found, the botanist shall document the findings in a letter report to CDFW and the County and no further mitigation will be required. ▶ If big-scale balsamroot or other special-status plants are found, the qualified botanist shall consult with CDFW to designate a no-disturbance buffer to prevent loss of the plants. ▶ If big-scale balsamroot are found that cannot be avoided during construction, the project applicant shall consult with CDFW to determine the appropriate mitigation measures for direct and indirect impacts that could occur as a result of project construction. The project applicant shall implement the agreed-upon mitigation measures to achieve no net loss of occupied habitat or individuals. Mitigation measures may include preserving and enhancing existing populations, creation of offsite populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals.	
Impact 3.3-2: Cause Disturbance to or Loss of Burrowing Owl Project implementation would include ground disturbance and conversion of grassland habitat, which could result in disturbance to or loss of burrowing owls or their burrows, if present within the project site. This would be potentially significant impact.	PS	Mitigation Measure 3.3-2: Conduct Survey for Burrowing Owl, Implement Protection Measures or Compensate for Loss of Burrows The following measure shall be implemented to avoid or minimize loss of burrowing owl: ▶ Prior to issuance of grading, building or improvement permits, a qualified biologist shall conduct focused breeding or nonbreeding season surveys for burrowing owls within the project site and within a 1,500-foot buffer of the project site. Surveys shall be conducted in accordance with Appendix D of CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). ▶ If no occupied burrows are found, a memorandum documenting the survey methods and results shall be submitted to CDFW and no further mitigation would be required. ▶ If an active burrow is found during the nonbreeding season (September 1 through January 31), the project applicant shall consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
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		burrowing owl exclusion plan shall be developed, as described in Appendix E of CDFW's 2012 Staff Report. Burrowing owls shall not be excluded from occupied burrows until the proposed project's burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a plan for creation, maintenance, and monitoring of artificial burrows in suitable habitat that provides substitute burrows for displaced owls. ▶ If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and will be provided with a 150- to 1,500-foot protective buffer from construction activities unless a qualified biologist verifies through noninvasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer shall depend on the time of year and level of disturbance as outlined in the CDFW Staff Report (CDFW 2012). The size of the buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to CDFW is implemented to prevent burrowing owls from being detrimentally affected. Once the fledglings are capable of independent survival, the owls can be evicted and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW's 2012 Staff Report. No burrowing owls will be excluded from occupied burrows until the burrowing owl exclusion and relocation plan is approved by CDFW. Following owl exclusion and burrow demolition, the site shall be monitored by a qualified biologist to ensure burrowing owls do not recolonize the site before construction. ▶ If active burrowing owl burrows are found on the site and are destroyed by proposed project implementation, the project applicant shall mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW 2012 Staff Report, which states that permanent impacts to nesting, occupied and satellite burrows, and burrowing owl habitat shall be mitigated such that habitat acreage, number of burrows, and burrowing owls adversely affected are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. The project applicant shall retain a	

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards: ▪ Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat, disturbance levels, potential for conflicts with humans, pets, and other wildlife, density of burrowing owls, and relative importance of the habitat to the species range wide. ▪ If feasible, mitigation lands shall be provided adjacent or proximate to the site so that displaced owls can relocate with reduced risk of take. Feasibility of providing mitigation adjacent or proximate to the proposed project area depends on availability of sufficient suitable habitat to support displaced owls that may be preserved in perpetuity. ▪ If suitable habitat is not available for conservation adjacent or proximate to the proposed project area, mitigation lands shall be focused on consolidating and enlarging conservation areas outside of urban and planned growth areas and within foraging distance of other conservation lands. Mitigation may be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. If mitigation credits are not available from an approved bank and mitigation lands are not available adjacent to other conservation lands, alternative mitigation sites and acreage shall be determined in consultation with CDFW. ▪ If mitigation is not available through an approved mitigation bank and will be completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and if the numbers are maintained over time. Measures of success, as suggested in the 2012 Staff Report, shall include site tenacity, number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.	

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
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Impact 3.3-3: Cause the Disturbance to or Loss of Native Grassland- or Shrub-Nesting Birds Project implementation would include ground disturbance, vegetation removal, and conversion of grassland habitat, which could result in disturbance to or loss of native grassland- or shrub-nesting birds, if present within the project site. This would be potentially significant impact.	PS	Mitigation Measure 3.3-3: Conduct Preconstruction Nesting Bird Surveys and Establish Protective Buffers The following measure shall be implemented to avoid or minimize loss of native nesting birds protected under Section 3503 of the California Fish and Game Code: ▶ To minimize the potential for disturbance to or loss of native bird nests within the grassland or shrub habitat on the project site, vegetation removal activities shall occur only during the nonbreeding season (September 1-January 31). ▶ Before removal of any vegetation or any ground disturbance between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests within any vegetation planned for removal. The surveys shall be conducted no more than 7 days before construction commences. ▶ If no active nests are found during focused surveys, no further action under this measure will be required. ▶ If active nests are located during the preconstruction surveys, the biologist shall notify the project applicant and CDFW. A no-disturbance buffer will be established, and the size of the buffer will be determined by the qualified biologist in consultation with CDFW. Construction activities, including staging, shall be prohibited within the no-disturbance buffer to avoid disturbance to the nesting bird until the nest is no longer active.	LTS
Impact 3.3-4: Interfere with Resident or Migratory Wildlife Corridors or Native Wildlife Nursery Sites Project implementation would include conversion of grassland habitat, which would not substantially impede wildlife movement because the project site is relatively small and surrounded by existing suburban and urban development. The project site does not contain any native wildlife nursery sites. Impacts to wildlife movement corridors and habitat connectivity would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
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3.4 Cultural and Tribal Cultural Resources			
Impact 3.4-1: Adverse Effects to Archaeological Resources Based on documentary research, no evidence suggests that any archaeological resources are present within the project site. However, ground-disturbing construction activities could uncover previously undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. This would be a potentially significant impact.	PS	Mitigation Measure 3.4-1: For All Ground-Disturbing Construction Activities, Halt Ground Disturbance Upon Discovery of Subsurface Archaeological Features In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted and a qualified professional archaeologist shall be retained to assess the significance of the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, the project applicant shall contact the appropriate Native American tribe for their input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist (i.e., because it is determined to constitute a unique archaeological resource), the archaeologist shall develop, and the project applicant shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place (which shall be the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or contiguous block unit excavation and data recovery (when it is the only feasible mitigation, and pursuant to a data recovery plan).	LTS
Impact 3.4-2: Accidental Discovery of Human Remains Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 would make this impact less than significant.	LTS	No mitigation is required.	LTS
Impact 3.4-3: Adverse Effects to Tribal Cultural Resources Consultation with the UAIC has resulted in no resources identified as tribal cultural resources. However, UAIC has identified that there is potential for undiscovered resources and recommended mitigation to protect tribal cultural resources. This impact would be potentially significant.	PS	Mitigation Measure 3.4-3a: Conduct Construction Worker Training Prior to approval of project grading, the applicant will provide evidence that construction worker training on Native American resources has been provided.	LTS

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		Mitigation Measure 3.4-3b: Protection of Discovered Tribal Cultural Resources Should an inadvertent discovery of tribal cultural resources occur, the County and UAIC shall be contacted immediately to evaluate and consult on appropriate and respectful treatment and disposition. If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. UAIC does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the UAIC. Treatment that preserves or restores the cultural character and integrity of a TCR may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record. If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 shall occur, to coordinate for compensation for the impact by replacing or providing substitute resources or environments.	

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3.5 Energy			
Impact 3.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operations Implementation of the project would increase electricity and natural gas consumption at the site relative to existing conditions during short-term construction activities and long-term operational activities. However, the energy needs for construction would be temporary and not require additional capacity or increase peak or base period demands for electricity or other forms of energy. The project would comply with 2019 Title 24 Building Energy Efficiency Standards, which is designed to reduce the wasteful use of energy by increasing the project's energy efficiently. Therefore, implementation of the project would not result in wasteful, inefficient, and unnecessary consumption of energy, and impacts would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.5-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency Compliance with the latest Title 24 requirements would improve overall building energy efficiency compared to similar existing buildings. Therefore, implementation of the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.	LTS	No mitigation is required.	LTS
3.6 Geology and Soils			
Impact 3.6-1: Loss, Injury or Death Resulting from Seismic Hazards Construction and operation of the project would not exacerbate existing seismic hazards and would comply with state and local regulatory design requirements related to seismic hazards (e.g., building codes and other laws and regulations), such that the exposure of people or structures to risk of loss, injury or death resulting from rupture of a known earthquake fault or strong seismic shaking would be avoided or reduced. This impact would be less than significant.	LTS	No mitigation is required.	LTS

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Impact 3.6-2: Create Geologic Hazard and Soil Stability Issues and Associated Soil Erosion Impacts Construction of the project would require earthwork that could destabilize slope and soil conditions. The project is required to comply with County Code and improvement standards for grading and erosion control that are designed to ensure slope and soil stability. This impact would be less than significant.	LTS	No mitigation is required.	LTS
3.7 Greenhouse Gas Emissions and Climate Change			
Impact 3.7-1: Greenhouse Gas Emissions Project construction would generate approximately a total of 2,876 $MTCO_2e$ and operations of the project would generate approximately 2,957 $MTCO_2e$/year. This increase in GHG emissions could have the potential to conflict with the 2017 Scoping Plan; inhibit the state's ability to achieve the statewide GHG targets for 2020, 2030, and 2050; and, therefore, be a cumulatively considerable contribution to climate change. This would be a significant impact.	S	Mitigation Measure 3.7-1a: Reduce Project-Related Construction Greenhouse Gas Emissions The applicant shall incorporate the following measures to reduce construction emissions of GHGs to the extent feasible. Off-Road Equipment Emission Standards Implement Mitigation Measure 3.2-4. Details of these mitigation measures are provided in Section 3.2, "Air Quality." Mitigation Measure 3.2-4 requires diesel engine exhaust controls for heavy-duty construction equipment. Mitigation Measure 3.2-4 is consistent with a local action measure recommended in Appendix B, Local Action, of the 2017 Scoping Plan, which reads, "Require construction vehicles to operate with the highest tier engines commercially available" (CARB 2017:B-8). Alternative Fuels for Diesel-Powered Construction Equipment Require that only renewable diesel (RD) fuel be used in diesel-powered construction equipment. RD fuel must meet the following criteria: ▶ meet California's Low Carbon Fuel Standards and be certified by CARB Executive Officer; ▶ be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables; ▶ contain no fatty acids or functionalized fatty acid esters; and ▶ have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines.	LTS

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Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
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		Electrification of Power Tools and Temporary Office Buildings Use grid-sourced electricity from the local utility, instead of using fossil fuel-based generators, for temporary jobsite power to power tools (e.g., drills, saws, nail guns, welders) and temporary office buildings. This measure is required during all construction phases except site grubbing; site grading; and the installation of electric, water, and wastewater infrastructure. This measure shall be implemented during building demolition, the framing and erection of new buildings, all interior work, and the application of architectural coatings. Electrical outlets shall be designed to PG&E's Greenbook standards and shall be placed in accessible locations throughout the project area. Contractors shall coordinate with the utility to activate a temporary service account prior to proceeding with construction. Implementation of this measure shall be required in the contract the project applicant establishes with its construction contractors. **Mitigation Measure 3.7-1b: Reduce Project-Related Operational Greenhouse Gas Emissions** The applicant shall incorporate the following measures to reduce operational emissions of GHGs to the extent feasible. Building Energy Reduce GHG emissions associated with building energy through the following measures: ▶ Design new buildings to achieve a 10 percent or greater reduction in energy use versus a standard Title 24 code-compliant building through energy efficiency measures consistent with Tier 1 of the 2016 California Green Building Standards Code, Section A5.203.1.2.1. Alternatively, this measure can be met by installing onsite renewable energy systems that achieve equivalent reductions in building energy use. ▶ Install an array of solar panels on the project site to meet the project's full electricity demand on a year-round basis. A solar panel system with a minimum rating of 1,480-kilowatts (kW) would be needed to generate enough emissions-free solar electricity to offset 100 percent of annual electricity demand from the project (estimated at 2,332 megawatt hours per year as shown in Table 3.5-2). A 1,480-kW solar panel system in the El	

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		Dorado County area, would require a footprint of 93,562 sq. ft., assuming a 20 degree southward facing tilt and a module with 16 percent efficiency (National Renewable Energy Laboratory 2019). The exact available surface area for rooftop solar and parking lot solar shade spaces at final buildout is unknown, due to potential architectural and other physical barriers. However, based on preliminary drawings and estimates shown in Figure 2-3, rooftop and parking spaces would likely offer 91,183 and 124,254 square feet in available footprint area for solar installations, respectively. Solar panels may be installed anywhere on site, including, but not limited to rooftops, vehicle parking solar shades, and cleared on-site ground areas. Thus, the project has sufficient surface area to support a solar panel system that will fully offset on-site electricity demands. This system may involve the use of on-site batteries designed for storing solar electricity generated during the daytime for use during times when electricity demand exceeds instantaneous solar electricity generation. The designated amount of solar for each location of an installation would be subject to available rooftop and ground-level surface area and County design, siting, and permitting requirements. ▶ In addition to any solar photovoltaic canopies installed to meet the project's electricity demand, install solar canopies (non-electricity-generating) or plant shade trees throughout the project site to reduce cooling demands on on-site buildings, such that at least 50 percent of parking lot surfaces are shaded. ▶ Electrify or use alternative fuels for as many appliances as feasible, such as those traditionally using natural gas (e.g., space heating, cooking, water heating). Increase the rating of on-site solar panels to match any additional demand on electricity from the conversion of appliances to electric. Encourage tenants to use electric or alternatively-powered appliances over natural gas- or propane-powered appliances through building design and incentives. Design buildings to allow for the use of electric appliances over natural-gas or propane-powered ones. Other incentives can include the reduction of utility fees to tenants through electrification of appliances due to on-site availability of solar generated electricity. Electric alternatives to appliances include electric heat-pump or on-demand water heaters, solar water heaters, induction cooktops,	

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		▶ Use cool pavements on all paved surface areas, to the extent feasible, to lower air temperatures outside buildings and reduce cooling energy demands on on-site buildings. ▶ For buildings or portions of buildings without rooftop solar, design new building rooftops to include Cool Roofs in accordance with the requirements set forth in Tier 2 of the 2016 California Green Building Energy Codes (CALGreen), Sections A4.106.5 and A5.106.11.2, or the most recent version of CALGreen effective at the time of construction. <u>On-Road Transportation</u> Reduce GHG emissions associated with on-road transportation through the following measures: ▶ Install at least 10 percent of parking spaces to include Electric Vehicle Service Equipment (EVSE), or a minimum of 2 spaces to be installed with EVSE for buildings with 2-10 parking spaces. EVSE includes EV charging equipment for each required space connected to a 208/240-Volt, 40-amp panel with conduit, wiring, receptacle, and overprotection devices. ▶ All new loading docks shall be equipped to provide electric power from the grid, including connections for Transportation Refrigeration Units. Signage shall be posted adjacent to loading docks prohibiting engine idling for more than five minutes. ▶ Dedicate preferential parking spaces to vehicles with more than one occupant and Zero Emission Vehicles (including battery electric vehicles and hydrogen fuel cell vehicles). The number of dedicated spaces should be no less than two spaces or five percent of the total parking spaces on the project site, whichever is greater. These dedicated spaces shall be in preferential locations such as near the main entrances to the buildings served by the parking lot and/or under the shade of a structure or trees. These spaces shall be clearly marked with signs and pavement markings. This measure shall not be implemented in a way that prevents compliance with requirements in the California Vehicle Code regarding parking spaces for disabled persons or disabled veterans. ▶ Provide adequate, safe, convenient, and secure on-site bicycle parking racks at retail and commercial buildings. Bicycle parking racks shall be	

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		permanently anchored, be located in a convenient location within 200 feet of the primary visitor's entrance, and be easily visible. The number of bike parking spaces shall be a minimum of 15 percent of new visitor motorized vehicle parking spaces (rounded up to the nearest whole number). At minimum, there should be one two-bike capacity rack. All bicycle parking racks shall: ▪ support bicycles at two points of contact in order to prevent bicycles from falling; ▪ allow locking of bicycle frames and wheels with U-locks; ▪ be constructed of square tubes to resist illegal rack cutting; ▪ be constructed of low-maintenance, weather-resistant materials (galvanized finish resists corrosion); ▪ not require lifting of a bicycle; ▪ be mounted securely to the floor or ground; ▪ be visible to approaching cyclists and pedestrians; and ▪ be under a shelter and protected from rain. ▶ Businesses shall include amenities for employees who commute by bicycle including a shower and changing room, as well as a secure bicycle parking area. The bicycle parking area shall be under a roof and in a locked area that is only accessible by employees. Bicycle parking facilities should be designed in a manner which provides adequate space for all bicycle types, including e-bikes, tandems, recumbent bikes, and cargo bikes, as well as bike trailers. <u>Off-Road Transportation</u> Reduce GHG emissions associated with on-road transportation through the following measures: ▶ All forklifts used at loading docks and truck loading areas shall be electric Class 1, 2 or 3 (based on the vehicle's gross vehicle weight). All loading docks and truck loading areas shall include a dedicated charging station for electric forklifts. Verification shall be provided to or by the lead agency through a regular reporting program, as determined by the lead agency.	

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		▶ Multiple electrical receptacles shall be included on the exterior of new buildings and accessible for purposes of charging or powering electric landscaping equipment and providing an alternative to using fossil fuel-powered generators. The electrical receptacles shall have an electric potential of 100 volts. There shall be a minimum of one electrical receptacle on each side of the building and one receptacle every 100 linear feet around the perimeter of the building. <u>Water</u> Reduce GHG emissions associated with water use through the following measure: ▶ Newly developed buildings shall comply with requirements for water efficiency and conservation as described in the CALGreen Divisions 4.3 and 5.3. The above actions align with local action measures identified in the 2017 Scoping Plan. Mitigation Measure 3.7-1c: Purchase Carbon Offsets The CEQA Guidelines recommend several mitigation options for mitigating GHG emissions. Section 15126.4(C)(3) of the Guidelines states that measures to mitigate the significant effects of GHG emissions may include "off-site measures, including offsets that are not otherwise required…" Through the purchase GHG credits from an approved registry, GHG emissions may be reduced at the project level. GHG reductions must meet the following criteria: ▶ Real-represent reductions actually achieved (not based on maximum permit levels), ▶ Additional/Surplus-not already planned or required by regulation or policy (i.e., not double counted), ▶ Quantifiable-readily accounted for through process information and other reliable data, ▶ Enforceable-acquired through legally binding commitments/agreements, ▶ Validated-verified through accurate means by a reliable third party, and ▶ Permanent-will remain as GHG reductions in perpetuity.	

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		In partnership with offset providers, the project applicant shall purchase carbon offsets to reduce the project's net annual emissions to 0 $MTCO_2e$ from a verified program that meets the above criteria. The applicant shall purchase credits to offset up to 2,876 $MTCO_2e$ of the project's construction-related GHGs prior to the start of construction. Also, prior to commencing operation, the applicant shall also purchase credits to offset the project's operational emissions of up to 2,842 $MTCO_2e$/year multiplied by the number of years of operation between commencement of operation and 2050, which is the target year of Executive Order S-3-05. Actual credits to be purchased may be lower than these upper bounds depending on the effectiveness of Mitigation Measures 3.7-1 and 3.7-2 and any additional reductions due to legislation. Offset protocols and validation applied to the project could be developed based on existing standards (e.g., Climate Registry Programs) or could be developed independently, provided such protocols satisfy the basic criterion of "additionality" (i.e. the reductions would not happen without the financial support of purchasing carbon offsets). Prior to issuing building permits for development within the project, the County shall confirm that the project developer or its designee has fully offset the project's remaining (i.e. after implementation of GHG reduction measures) GHG emissions by relying upon one of the following compliance options, or a combination thereof: ▶ demonstrate that the project developer has directly undertaken or funded activities that reduce or sequester GHG emissions that are estimated to result in GHG reduction credits (if such programs are available), and retire such GHG reduction credits in a quantity equal to the project's remaining GHG emissions; ▶ provide a guarantee that it shall retire carbon credits issued in connection with direct investments (if such programs exist at the time of building permit issuance) in a quantity equal to the project's remaining GHG emissions; ▶ undertake or fund direct investments (if such programs exist at the time of building permit issuance) and retire the associated carbon credits in a quantity equal to the project's remaining GHG emissions; or	

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		▶ if it is impracticable to fully offset the project's GHG emissions through direct investments or quantifiable and verifiable programs do not exist, the project developer or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the project's remaining GHG Emissions.	
3.8 Hazards and Hazardous Materials			
Impact 3.8-1: Create a Significant Hazard Through the Routine Transport, Use, or Disposal of Hazardous Materials or Accidental Release of Hazardous Materials The project would require transport, use, and disposal of hazardous materials during construction and operation in quantities typical of retail, hotel, and office development. The potential for such activities to result in a significant hazard to the public or the environment would be managed through adherence to existing regulations and compliance with the safety procedures mandated by applicable federal, state, and local laws and regulations. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.8-2: Impair Implementation or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan Project construction and operation would not impair implementation of, or interfere with, the County Multi-Jurisdictional Hazard Mitigation Plan. Adequate road design for emergency vehicle access and private vehicle evacuation would be provided, as required under General Plan Policy 6.2.3.2 and El Dorado Hills Fire Department Standard #B-003. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.8-3: Expose People or Structures to Wildland Fire Hazards or Exacerbation of Wildland Fire Hazards The project site is surrounded by developed conditions and Latrobe Road that minimize the risk of wildland fire hazards. Implementation of the project would result in the conversion of the Phase II portion from grassland to a commercial center that would extend water and fire hydrant infrastructure through the site. These improvements would reduce the potential for wildland fire conditions as compared to existing undeveloped conditions. This impact would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
3.9 Hydrology and Water Quality			
Impact 3.9-1: Short-Term Construction-Related Water Quality Degradation Project construction activities would involve extensive grading, movement of soil, and blasting, which could result in erosion and sedimentation, and discharge of other nonpoint source pollutants in onsite stormwater that could then drain to offsite areas and degrade local water quality. To avoid or minimize the potential for adverse construction-related effects on water quality, the project would be required to comply with Central Valley RWQCB and County regulations that protect water quality and minimize erosion. The applicant would also be required to prepare and implement a SWPPP for compliance with the NPDES General Construction Permit. With adherence to existing requirements, impacts related to water quality degradation as a result of soil erosion would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.9-2: Increase in Surface Water Runoff Potentially Exceeding the Capacity of Existing Stormwater Drainage Systems The proposed development would add additional impervious surfaces at the project site, which would increase surface runoff on an ongoing basis. This increase could result in an increase in both the total volume and the peak discharge rate of stormwater runoff, and could result in exceeding the capacity of onsite stormwater systems and greater potential for on- and offsite flooding. However, project proposed drainage improvements would attenuate peak drainage flows to predevelopment conditions. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.9-3: Long-Term Water Quality Degradation The conversion of undeveloped land to urban uses would alter the types, quantities, and timing of contaminant discharges in stormwater runoff. Overall, the project could cause or contribute to long-term discharges of urban contaminants (e.g., oil and grease, trace metals and organics, trash) into the stormwater drainage system compared with existing conditions. The project's drainage improvements include water quality control features consistent with County standards to address stormwater quality. This impact would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
3.10 Noise and Vibration			
Impact 3.10-1: Construction-Generated Noise Levels Project construction would occur over the course of two years and would include the use of heavy-duty equipment and blasting. The project is in close proximity of noise-sensitive receptors, specifically residences located directly east of the site. Construction activities would result in a substantial temporary increase in noise levels. Construction could potentially occur during the evening or nighttime hours, resulting in sleep disturbance at nearby residences. This impact would be significant.	S	Mitigation Measure 3.10-1: Implement Measures to Reduce Exposure to Construction-Generated Noise To minimize noise levels during construction activities, the applicant shall require its construction contractors to comply with the following measures during construction: ▶ All noise-generating construction activity shall occur between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally recognized holidays. ▶ All construction equipment and material staging areas shall be located as far as possible from the residential land uses located along Monte Verde Drive east of the project site, and/or located such that existing topography blocks line-of-site from these land uses to the staging areas. ▶ All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturer recommendations. Equipment engine shrouds shall be closed during equipment operation. ▶ Where feasible and consistent with building codes and other applicable laws and regulations, individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete offsite instead of onsite). ▶ All construction equipment with back-up alarms shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. The self-adjusting backup alarms shall automatically adjust to 5 dBA over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels. In addition to the use of backup alarms, the construction contractor shall consider other techniques such as observers and the scheduling of construction activities to minimize alarm noise. ▶ The applicant or construction contractors shall post visible signs along the perimeter of the construction site that disclose construction times and	SU

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		duration. In addition, residents of homes located directly east of the site shall be provided written notification 48 hours before blasting activities. A contact number for an El Dorado County enforcement officer shall be included where noise complaints can be filed and recorded. The applicant will be informed of any noise complaints and will be responsible for investigating complaints and implementing feasible and appropriate measures to reduce noise at receiving land uses. These may include: ▪ Implementing noise-reducing enclosures and techniques around stationary noise-generating equipment (e.g., concrete mixers, generators, compressors). ▪ For construction activity that occurs near existing sensitive land uses, installation of temporary noise curtains that meet the following parameters: • temporary noise curtains shall be installed as close as possible to the boundary of the construction site within the direct line of sight to the nearby sensitive receptor(s). • temporary noise curtains shall consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side. The noise barrier layer shall consist of rugged, impervious material with a surface weight of at least one pound per square foot.	
Impact 3.10-2: Short-term Construction Vibration Impacts Site preparation and grading may include blasting to remove rock outcroppings. Vibration levels generated from blasting activities would exceed FTA's criteria for human disturbance for "infrequent events" at sensitive receptors located within 230 feet and would exceed Caltrans' criteria for structural damage to normal buildings at locations within 80 feet of the blasting site. Because the exact locations where blasting would be conducted are not known at the time of writing this EIR, it is possible that project-related blasting activity could expose people and buildings to levels of ground vibration that exceed these standards. Therefore, this impact would be significant.	S	Mitigation Measure 3.10-2a: Reduce Blasting-Related Vibration For any blasting that would be conducted within 230 feet from any existing occupied structure, alternatives to traditional blasting (silent demolition), such as non-explosive chemical agents, expansive grout, or other non-explosive technology, shall be used to preclude vibration and noise impacts. Mitigation Measure 3.10-2b: Implement Measures to Reduce Exposure of Buildings and Other Structures to Levels of Ground Vibration That Could Result in Structural Damage and to Limit the Level of Human Annoyance The project applicant shall hire a qualified California-registered geotechnical engineer to perform site-specific evaluation of the geotechnical conditions at the project site. The evaluation shall determine the propagation rate of	SU

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		ground vibration in the area, taking into account local soil conditions, the age of the nearby buildings, and other factors. The evaluation shall determine whether nearby structures and buildings could experience structural damage from blasting activity at the site. The evaluation shall also determine whether nearby residential dwellings and/or commercial land uses would experience levels of ground vibration that exceed FTA's vibration standard of 80 VdB for human response or Caltrans' vibration standard of 0.2 for structural damage to normal dwellings. The evaluation shall also include a geotechnical inspection of all buildings and structures located within 80 feet of locations where impact blasting would occur. The inspection shall document pre-existing conditions, including any pre-existing structural damage. The pre-inspection survey of the buildings shall be completed with the use of photographs, video, or visual inventory, and shall include inside and outside locations. All existing cracks in walls, floors, driveways shall be documented with sufficient detail for comparison during and upon completion of blasting activities to determine whether new actual vibration damage has occurred. The results of both surveys shall be provided to the project applicant for review and acceptance of conclusions. Should damage occur during construction, construction operations shall be halted until the problem activity can be identified. Once identified, the problem activity shall be modified to eliminate the problem and protect the adjacent buildings. Any damage to nearby buildings shall be repaired back to the pre-existing condition at the expense of the project applicant. The evaluation shall also identify site-specific measures to lessen the potential for structural damage and to reduce the potential for human response from ground vibration associated with construction of the site and the project applicant shall require construction contractor(s) to implement the measures identified in the evaluation. Such measures shall include, but are not limited to, the following: ▶ Blasting, earth moving, and ground-disturbance activities shall be phased so as not to occur simultaneously in areas close to off-site sensitive receptors. The total vibration level produced could be substantially less when each vibration source is operated separately;	

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		▶ Designate a disturbance coordinator and post that person's telephone number conspicuously around the construction site and provide to nearby residents. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. The contact information of the disturbance coordinator shall also be provided to the owners of all properties for which a pre-inspection survey is performed; and ▶ Provide advanced notice to owners of all residential land uses, tourist accommodations, and commercial land uses located within 300 feet of where blasting would take place. This noticing shall inform the recipients of when and where blasting would occur, and the types of measures being implemented to lessen the impact at potentially affected receptors. This noticing shall also provide the contact information for the designated disturbance coordinator.	
Impact 3.10-3: Long-Term Traffic-Generated Noise The project would generate approximately 4,400 additional vehicle trips on the local roadway network resulting in increases in traffic noise. However, traffic noise increases would not exceed the incremental increase criteria established in Policy 6.5.1.12 of the County General Plan. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.10-4: Long-Term Operational Noise from On-Site Activities Operation of the project would include on-site truck circulation for shipments and deliveries, as well as waste collection. The proposed truck route would be located on the eastern edge of the site approximately 50 feet from existing single-family homes and would expose these noise-sensitive receptors to noise levels up to 75 dB L_{max}, exceeding the County's daytime, evening and nighttime noise standards of 70 dB, 60 dB and 55 dB L_{max}. This would be a significant impact.	S	Mitigation Measure 3.10-4a: Noise Barrier The project applicant shall design a solid noise barrier (e.g., CMU wall) measuring at least 8 feet in height relative to the truck pass-by route elevation should be constructed along the eastern boundary of the site. The 8 feet in height can be achieved by either a sound wall, a retaining wall, or a combination of the sound wall and retaining wall, provided the barrier blocks line of sight to the residential backyards. The barrier would need to be long enough to ensure that sound would not flank around the ends of the barrier into the neighboring backyards and would need to be constructed at the same base elevation as the final grading of the truck route.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		Mitigation Measure 3.10-4b: Restrict Hours of On-Site Truck Deliveries to Daytime Hours The County shall condition to the project to restrict onsite truck circulation, including waste collection services, between the daytime hours of 7 a.m. and 7 p.m. Evening and nighttime deliveries at the proposed anchor commercial building loading dock or any location onsite shall be prohibited. This restriction shall be included in the required conditional use permit and shall be implemented during project operations.	
Impact 3.10-5: Long-Term Operational Noise Impacts from Stationary or Area Sources Project operation would require the use of emergency generators, heating, ventilation, and air conditioning (HVAC) units, food storage cooling systems, and loading/delivery activity. HVAC units and food storage cooling systems would not expose nearby sensitive receptors to noise levels that exceed applicable County noise standards. However, noise generated from emergency generators and loading/delivery activities could expose nearby noise-sensitive receptors to noise levels that exceed County noise standards. This would be a significant impact.	S	Mitigation Measure 3.10-5a: Implement Mitigation Measure 3.10-4a Mitigation Measure 3.10-5b: Implement Mitigation Measure 3.10-4b Mitigation Measure 3.10-5c: Emergency Generators The project applicant shall include design measures to reduce noise levels from emergency generators. Design measures may include locating generators on the west side of the buildings, as far as possible from nearby noise-sensitive land uses; enclosures designed with noise reduction materials such as weighted barriers, sound absorbers, and multi-layer composites; and quieter generator models. Before construction, the project applicant shall verify that noise reduction design measures sufficiently prevent noise generated by generators from exceeding the County daytime standard of 55 dBA L_{eq} and 70 dBA L_{max} for communities.	LTS
Impact 3.10-6: Long-Term Operational Noise Impacts from On-Site Events Operation of the project would include on-site outdoor events in Phase I and Phase II portions of the site such as movie showings and music concerts at the amphitheater, as well as sales and promotion events throughout the site. Noise generated by amplified speech and music would expose nearby sensitive receptors to noise levels that exceed the County daytime and evening noise standard. This would be a significant impact.	S	Mitigation Measure 3.10-6a: Implement Mitigation Measure 3.10-4a Mitigation Measure 3.10-6b: Implement Measures to Ensure Compliance with El Dorado County Noise Standards at Nearby Residential Land Uses The following measures shall be implemented to ensure that off-site residences are not exposed to noise levels generated by amphitheater events that exceed the County's noise level performance standards for noise-sensitive land uses affected by non-transportation sources in community centers, as presented in Table 3.10-8. ▶ Prohibit events with amplified music or sound during the nighttime hours of 10 p.m. - 7 a.m. ▶ During the sound testing of the amplified sound system prior to each event multiple sound level measurements shall be conducted along the	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
		property line of the most affected residential land uses. The sound level meter used for the sound level measurements should meet a minimum Type 2 compliance and be fitted with the manufacturer's windscreen and calibrated before use. Volume settings shall be adjusted to ensure that the applicable county noise standards will not be exceeded at the residences during the event. ▶ Only hold events with amplified music or sound during daytime hours (i.e., 7 a.m. - 7 p.m.) until it can be demonstrated with sound level measurements conducted during the first two daytime events that the noise generated by amplified events would not expose off-site residences to noise levels that exceed the County's evening noise level performance standards of 45 dB Leq and 55 dB Lmax. If sound level measurements conducted during the first two daytime events indicate that offsite residences would not be exposed to noise levels that exceed these standards, then events with amplified music or sound can be held on the project site during the evening hours of 7 p.m. - 10 p.m.). This evaluation shall be conducted by a qualified noise analyst selected by county staff; however, all funding shall be provided by the applicant. The results of all sound measurements shall be provided to the County. ▶ Prohibit the use of subwoofers during amplified music events.	
3.11 Public Services			
Impact 3.11-1: Adverse Effects to Fire Protection Services Implementation of the project would result in the conversion of the Phase II portion from grassland to a commercial center within the El Dorado Hills Community Region that is currently served by the El Dorado Hills Fire Department. The project would be required to comply with County and El Dorado Hills Fire Department fire protection requirements as well as pay development fees. The project would not trigger the need for new fire facilities. This impact would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
Impact 3.11-2: Adverse Effects to Law Enforcement Services Implementation of the project would result in the expansion of commercial uses in the project area that may result in an increase in law enforcement service calls. However, the project is located within the developed area of the El Dorado Hills Community Region 1/3 mile from the Sheriff El Dorado Hills Substation located at 4354 Town Center Drive and would not trigger the need for new law enforcement facilities. This impact would be less than significant.	LTS	No mitigation is required.	LTS
3.12 Transportation/Traffic			
Impact 3.12-1: Result in a Net Increase in VMT for the Proposed Project The project would result in an increase of approximately 15,280 VMT as compared to existing conditions. This would be a significant impact.	S	Implement Mitigation Measure 3.7-1b: Reduce Project-Related Operational Greenhouse Gas Emissions	SUI
Impact 3.12-2: Impacts to Emergency Access The project site is located in an existing suburban area close to emergency services. Emergency vehicle access to the project site would be designed to County and El Dorado Hills Fire Departments standards to accommodate turning requirements for fire apparatus and emergency vehicles. Thus, this impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.12-3: Conflicts with Bicycle, Pedestrian, and Transit Existing transit, bicycle, and pedestrian facilities in the project vicinity, along with facilities proposed as part of the Phase II development would be adequate to accommodate the project. The project would not adversely affect existing or planned facilities and would not result in unsafe conditions for bicyclists and pedestrians. Thus, this impact would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
3.13 Utilities and Service Systems			
Impact 3.13-1: Adverse Effects Due to Infrastructure Extension Infrastructure facilities necessary to serve Phase II of the project site are located close to the site. Extension of these infrastructure facilities would not result in significant environmental effects. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.13-2: Increased Demands for Water Supply As identified in the EID approved Facility Plan Report for Montano De El Dorado Phase II and the EID 2015 UWMP, sufficient water supply exists to serve buildout of the project under average, dry, and multiple dry years. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.13-3: Increased Wastewater Service Demands As identified in the EID approved Facility Plan Report for Montano De El Dorado Phase II, sufficient wastewater capacity conveyance to serve development of Phase II of the project site. The EDHWWTP has adequate capacity to accommodate the project. This impact would be less than significant.	LTS	No mitigation is required.	LTS
Impact 3.13-4: Impacts to Solid waste Disposal Capacity Development of Phase II of the project site would generate approximately 438 tons of waste annually. This would not exceed the permitted capacity of existing landfill facilities and would not result in the need to expand or construct new landfill facilities. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.1 Cumulative Impacts			
Impact 4-1: Substantial Adverse Cumulative Effect Related to Visual Character and Shadow Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-2: Substantial Adverse Cumulative Effect on Light and Glare	LTS	Would not be cumulatively considerable.	LTS
Impact 4-3: Cumulative Effect on Air Quality	LTS	Would not be cumulatively considerable.	LTS
Impact 4-4: Cumulative Effects to Biological Resources	LTS	Would not be cumulatively considerable.	LTS
Impact 4-5: Cumulative Cultural and Tribal Cultural Resource Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-6: Cumulative Effects Related to Energy Use	LTS	Would not be cumulatively considerable.	LTS
Impact 4-7: Cumulative Hazard Impacts	LTS	Would not be cumulatively considerable.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable			
Impact 4-8: Cumulative Water Quality Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-9: Cumulative Flooding Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-10: Cumulative Construction Noise and Vibration Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-11: Cumulative Traffic Noise Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-12: Cumulative Stationary Noise Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-13: Cumulative Increased Demand for Fire Protection and Law Enforcement Services	LTS	Would not be cumulatively considerable.	LTS
Impact 4-14: Cumulative VMT Impacts	S	Implement Mitigation Measure 3.7-1b: Reduce Project-Related Operational Greenhouse Gas Emissions	SU
Impact 4-15: Cumulative Water Supply Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-16: Cumulative Wastewater Service Impacts	LTS	Would not be cumulatively considerable.	LTS
Impact 4-17: Cumulative Solid Waste Impacts	LTS	Would not be cumulatively considerable.	LTS

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1 INTRODUCTION

1.1 PROJECT OVERVIEW

This environmental impact report (EIR) describes the potential consequences of developing the Montano De El Dorado Phase I and II Master Plan (project). The purpose of an EIR is to evaluate the project's effects on environmental resources, both singularly and in a cumulative context, to examine alternatives to the project as proposed, and identify mitigation measures to reduce or avoid potentially significant effects. This document has been prepared in compliance with the California Environmental Quality Act (CEQA; Sections 21000-21189 of the Public Resources Code [PRC]) and the State CEQA Guidelines (Title 14, Sections 15000-15387 of the California Code of Regulations).

The project is a proposed expansion of the existing Montano retail center (Phase I) located north of the project site. The project would include additional retail space, an office building, a boutique hotel, and a small amphitheater to host occasional events. The project is described in detail in Chapter 2, "Project Description," of this Draft EIR.

1.2 DOCUMENT AND PURPOSE

This draft environmental impact report (Draft EIR) evaluates the environmental impacts of the proposed Montano De El Dorado Phase I and II Master Plan Project. This Draft EIR has been prepared under the direction of El Dorado County in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines. This chapter of the Draft EIR provides information on the following:

- project background,
- CEQA public review process, and
- organization and scope of the Draft EIR.

According to CEQA, preparation of an EIR is required whenever it can be fairly argued, based on substantial evidence, that a proposed project may result in a significant environmental impact. An EIR is an informational document used to inform public-agency decision makers and the general public of the significant environmental impacts of a project, identify possible ways to minimize the significant impacts, and describe reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project. This Draft EIR has been prepared to meet the requirements of a project EIR as defined by Section 15161 of the State CEQA Guidelines. A project EIR focuses on the changes in the physical environment that would result from the implementation of a project, including its planning, construction, and operation. The County's intention in preparing a project EIR is that no further environmental analysis would be required for additional regulatory approvals following approval of the project, absent conditions requiring a subsequent EIR, a supplement to the EIR, or an addendum. (See State CEQA Guidelines Sections 15162–15164.).

1.3 CEQA PUBLIC REVIEW PROCESS

1.3.1 Notice of Preparation

In accordance with PRC Section 21092 and CCR Section 15082, the County issued a notice of preparation (NOP) on July 14, 2017, to inform agencies and the general public that an EIR was being prepared and to invite comments on the scope and content of the document (Appendix A). The NOP was submitted to the State Clearinghouse. In

addition, the NOP was distributed directly to public agencies (including potential responsible and trustee agencies) and interested parties and a Notice of Availability was mailed to residences within a one-mile radius of the project site. The NOP was circulated for a 30-day review period, with comments accepted between July 14, 2017 and August 14, 2017. In accordance with CCR Section 15082 (c), a noticed scoping session for the EIR occurred on August 3, 2017, in the El Dorado Hills Fire Station.

On October 1, 2018, the County recirculated the NOP due to changes in the project since release of the previous NOP in 2017. Changes included project entitlements and the addition of outdoor events. The recirculated NOP was distributed in the same manner as the original NOP and is also included in Appendix A of this Draft EIR. The recirculated NOP was circulated for public review for 30 days, with the public comment period ending on October 31, 2018.

The purpose of an NOP is to provide sufficient information about the project and its potential environmental impacts to allow agencies and interested parties the opportunity to provide a meaningful response related to the scope and content of the EIR, including mitigation measures that should be considered and alternatives that should be addressed (CCR Section 15082[b]). Comments submitted in response to the NOP are used by the lead agency to identify broad topics to be addressed in the EIR. Comments on environmental issues received during the NOP public comment periods are considered and addressed in this Draft EIR.

1.3.2 Draft EIR

This Draft EIR is being circulated for public review and comment for a period of 60 days. During the public comment period, written comments from the general public as well as organizations and agencies on the Draft EIR's accuracy and completeness may be submitted to the lead agency. Please send all comments to:

Tom Purciel, Associate Planner
El Dorado County Planning and Building Department, Planning Services Division
2850 Fairlane Court, Building C
Placerville, CA 95667
Email: montano@edcgov.us
Fax: (530) 642-0508

Agencies that will need to use the EIR when considering permits or other approvals for the project should provide the name of a contact person, phone number, and email address. Comments provided by email should include the name and physical address of the commenter.

Copies of this Draft EIR are available for public review at the following locations:

- El Dorado County Planning and Building Department, Planning Services Division, 2850 Fairlane Court, Building C, Placerville, CA 95667
- El Dorado County Library, 345 Fair Lane, Placerville, CA 95667
- El Dorado County Library, 7455 Silva Valley Parkway, El Dorado Hills, CA 95762
- El Dorado County Library, 2500 Country Club Drive, Cameron Park, CA 95682.

The Draft EIR is also available for public review online at: http://www.edcgov.us/government/planning

1.3.3 Response to Comments/Final EIR and Project Consideration

Upon completion of the public review and comment period, a Final EIR will be prepared that will include both written and oral comments on the Draft EIR received during the public-review period, responses to those comments, and any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR will comprise the EIR for the project.

Before adopting the Montano De El Dorado Phase I and II Master Plan, the lead agency, is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the County.

1.4 ORGANIZATION AND SCOPE OF THE DRAFT EIR

This Draft EIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Chapter 3, "Environmental Setting and Analysis" and Section 3.1, "Aesthetics"):

"Executive Summary": This chapter introduces the Montano De El Dorado Phase I and II Master Plan project; provides purpose and scope of the Draft EIR; project background, summary, and alternatives; public scoping; areas of controversy and issues to be resolved; and a list of impacts and mitigation measures.

Chapter 1, "Introduction": This chapter provides a description of the document and its purpose, project background, CEQA review process, and effects found not to be significant.

Chapter 2, "Project Description": This chapter describes the location, goals, and objectives for the project, and describes the project elements in detail.

Chapter 3, "Environmental Setting and Analysis": The sections within this chapter evaluate the expected environmental impacts generated by the project, arranged by subject area (e.g., Air Quality, Biological Resources). Within each subsection of Chapter 3, the regulatory background, existing conditions (when the technical data and analysis for each environmental issue area was commenced), analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after development of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 3.2-1, Impact 3.2-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.2-2 would be Mitigation Measure 3.2-2.

This Draft EIR includes an evaluation of the following environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- Aesthetics,
- Air Quality,
- Biological Resources,
- Cultural and Tribal Cultural Resources,
- Energy,
- Geology and Soils,
- Greenhouse Gas Emissions and Climate Change,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Noise and Vibration,
- Public Services,
- Transportation/Traffic, and
- Utilities and Service Systems.

This Draft EIR uses the following standard terminology:

- "No impact" means no change from existing conditions (no mitigation is needed).
- "Less-than-significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).
- "Potentially significant impact" means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).
- "Significant impact" means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).
- "Significant and unavoidable impact" means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

Chapter 4, "Other CEQA-Mandated Sections": This chapter evaluates cumulative impacts, growth-inducing impacts, and discloses any significant and unavoidable adverse impacts.

Chapter 5, "Project Alternatives": This chapter evaluates alternatives to the Montano De El Dorado Phase I and II Master Plan project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two alternative development options. The environmentally superior alternative is identified.

Chapter 6, "References": This chapter identifies the organizations and persons consulted during preparation of this Draft EIR and the documents and individuals used as sources for the analysis.

Chapter 7, "Report Preparers": This chapter identifies the preparers of the document.

1.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study did not need to be prepared because the County decided to prepare an EIR from the outset of environmental review. This option is permitted under State CEQA Guidelines Section 15063(a), which states that if the Lead Agency determines an EIR will be required for a project, the Lead Agency need not conduct further initial review and may begin work on the EIR. Under the CEQA statutes and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the project; review of applicable planning documents and CEQA documentation; field work; feedback from public and agency consultation; and comments received on the NOP (see Appendix A of this Draft EIR).

The analysis conducted for this document determined that the project would result in certain effects found not to be significant, and therefore, those effects would not need detailed discussion. This section describes certain environmental resource topics that contained no significant effects and the reasoning and evidence supporting those conclusions.

- Agricultural and Forest Resources,
- Land Use and Planning,
- Mineral Resources,
- Population and Housing, and
- Libraries, Public Schools, and Recreation.

1.5.1 Agricultural and Forest Resources

On the California Department of Conservation Important Farmland Map, the project site is designated as Grazing Land and surrounded by Urban and Built-Up Land with the exception of Grazing Land located east of the project site and Latrobe Road (DOC 2018). No recent agricultural or grazing uses have occurred on the site and the site has remained inactive. The site does not contain soils designated as Important Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance) (DOC 2018), is not zoned for agricultural uses, and is not enrolled in a Williamson Act contract. The project site also does not contain any forest conditions. Thus, the project would have **no impact** on agricultural and forest resources.

1.5.2 Land Use and Planning

The project site includes existing retail uses (Phase I) and vacant land designated for commercial use. The project site is within an area characterized by a mix of commercial and residential development. Development of Phase II would not divide an established community as the project would not interfere with existing circulation in the area.

The project site is currently zoned Regional Commercial – Design Control (CR-DC). The project would rezone the site to Regional Commercial – Planned Development (CR-PD). The CR zone provides for large-scale retail services for a regional trade area. The CR zone applies to regional shopping centers that serve a market beyond the community and are located along arterials and at major intersections that provide convenient automobile access. The Design Control and Planned Development designations are combining zone designations within the CR zoning. The DC combining zone includes standards and site review procedures. The PD combining zone implements the General Plan by providing innovative planning and development techniques that allow the use of flexible development standards; provide for a combination of different land uses which are complimentary, but may not in all aspects conform to the existing zoning regulations; allow clustering of intensive land uses to minimize impacts on various natural resources; avoid cultural resources where feasible; promote more efficient utilization of land; reflect the character, identity and scale of local communities; protect suitable land for agricultural uses; and minimize use compatibility issues and environmental impacts. For both the DC and the PD combining zones, allowed uses are consistent with the base zoning. In this case, the base zoning for the project site would remain CR and only the combining zone designation would change. Thus, the project would be consistent with existing zoning and would not conflict with adopted land use policies, plans, or ordinances.

Thus, the project would have **no impact** on land use and planning.

1.5.3 Mineral Resources

The California Geologic Survey has mapped mineral and mineral aggregate resources in El Dorado County. The MZ-3a(v) designation covers the site and the surrounding area, a designation defined as areas containing known mineral occurrences of undetermined mineral resource significance for deposits formed by volcanogenic processes. For other minerals, the site is designated MRZ-4, defined as areas of unknown mineral resource significance (California Department of Conservation, California Geological Survey 2001). The County General Plan does not indicate the project vicinity is within an important mineral resource area (El Dorado County 2004: Figure C0-1). No mineral extraction operations exist at the property and there are no oil and gas extraction wells within or in the vicinity of the property. Therefore, **no impact** to mineral resources of significance would occur and this issue is not discussed further in the EIR.

1.5.4 Population and Housing

The project would include the construction and operation of new commercial business, including a hotel and retail space, as an extension of the existing Phase I. The project would not include any residential uses and would therefore not increase population in the area. Furthermore, the types of uses are such that employees would likely be from the surrounding community instead of requiring specialized labor to relocate from other areas. Because the project site is currently vacant, project implementation would not displace existing housing or people. Thus, the project would have **no impact** on population and housing.

1.5.5 Libraries, Public Schools, and Recreation

The project does not include any dwelling units or other uses that would be expected to generate new residents in the area. Generally, impacts related to schools, parks, and libraries are based on the number of residents served. Thus, if the project would not generate new residents, there would be no impacts on existing schools, parks, or libraries. Thus, the project would have **no impact** on these issue areas.

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The proposed Montano De El Dorado Phase I and II Master Plan (project) would expand the existing Montano de El Dorado retail center (Phase I) to include additional retail space, an office building, hotel, and a small amphitheater. The project would also include the provision of outdoor special events within existing Phase I and within the proposed amphitheater and parking lots within Phase II.

2.2 PROJECT LOCATION AND SETTING

The project is in El Dorado Hills, California, an unincorporated area of El Dorado County approximately 23 miles east of Sacramento and 20 miles west of Placerville (see Figure 2-1). U.S. Route 50 (US 50) is one-half mile north of the project site.

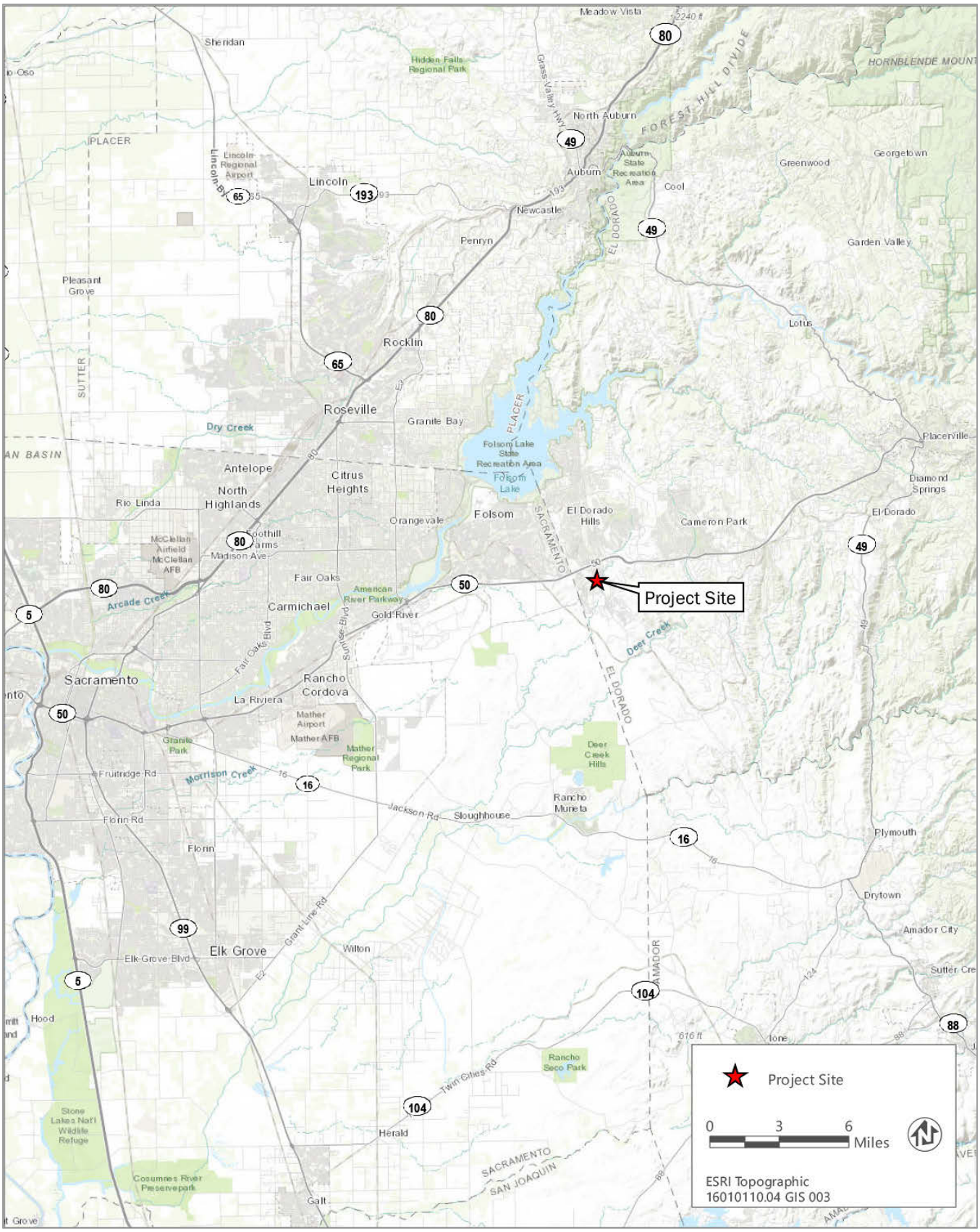
Existing land uses adjacent to the project site include the existing Phase I to the north (Figure 2-2), single-family residential uses along Monte Verde Drive (Creekside Greens Development) to the east, and Latrobe Road bordering the western boundary of the site. The southernmost portion of the site tapers to a point just before the intersection of Latrobe Road and Monte Verde Drive.

The project site is approximately 16.8 acres. The northernmost portion contains a graded, gravel-covered area used for additional parking for Phase I. The remainder of the site consists of nonnative annual grassland with rock outcroppings scattered throughout the property. Elevations range from 575 to 640 feet above sea level with slopes ranging between 10 percent and 40 percent.

2.3 PROJECT OBJECTIVES

The objectives of the project are to:

- capitalize on the site's proximity to a major transportation corridor within El Dorado Hills;
- expand the adjacent Montano de El Dorado retail center (Phase I) with retail, hospitality, and office uses (Phase II);
- provide for the safe and efficient movement of pedestrians and vehicles;
- provide product choice to residents while reducing sales outflow to other counties; and
- provide high quality investment within El Dorado Hills to create jobs and sales tax revenue to the County.



Source: Adapted by Ascent Environmental in 2017

Figure 2-1 Regional Location

Source: Adapted by Ascent Environmental in 2017

Figure 2-2 Project Location

2.4 PROJECT DESCRIPTION

2.4.1 Project Design

The project would expand the existing Phase I to include additional retail space, an office building, a boutique hotel, and a small amphitheater to host occasional events. A total of 10 buildings are proposed for a total floor area of approximately 75,400 square feet and 143,900 square feet of commercial and office uses. Figure 2-3 illustrates the location, square footage, and parking areas associated with each building. Conceptual building elevations and architectural design drawings for each building are provided in Appendix B.

RETAIL AND RESTAURANTS

The retail and restaurant elements of the project include eight buildings containing a total of approximately 75,300 square feet (sf) of space. These buildings would range in size from 3,665 sf to 29,968 sf. Identified in Figure 2-3 as Buildings 1 through 8, the retail and restaurant buildings would be primarily located near the eastern and western boundaries of the site, with one retail building (Building 3) located near the center. Building height would range between 24 and 50 feet above the finished floor (aff) of the building, with some architectural elements reaching 70 feet (see Figures 2-4 through 2-10 and Appendix B for the complete set of proposed building designs).

OFFICE

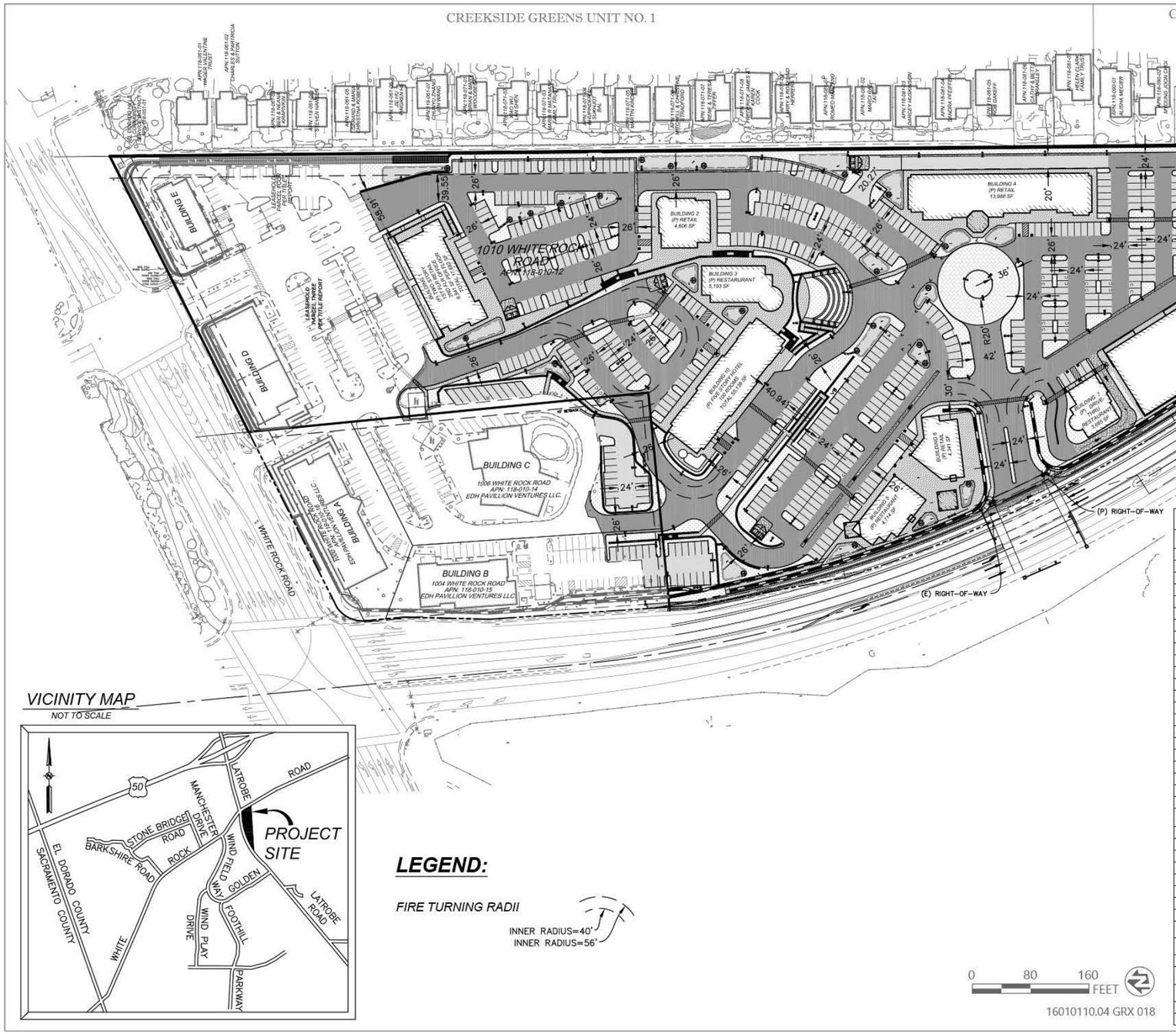
A 4,607-sf office building is proposed in the southernmost portion of the site with a maximum height of 43 feet (Building 9). Building 1, in the northeast portion of the site, is proposed with a maximum height of 40 feet aff, and would contain approximately 8,841 sf of office uses on the second floor and 8,841 sf of retail space on the first floor.

HOTEL

A 55,136 sf, five-story hotel is proposed on the northwestern portion of the project site (Building 10). Figure 2-4 illustrates proposed conceptual elevations and architectural design of the proposed hotel. The hotel would include up to 100 guest rooms, meeting rooms, a lobby area, a pool, and other typical amenities featured in boutique non-full-service hotels (e.g., a small sundry sales area, minimal bar area, and hotel office). The hotel building would be diagonally positioned in the northern portion of the project site. The hotel building height would be 47 feet aff, with some architectural elements reaching 52 feet aff.

AMPHITHEATER

A small amphitheater is proposed near the center of the site to host occasional events (Figure 2-5). The amphitheater would be constructed in a lowered grade configuration to reduce noise impacts in nearby neighborhoods. As shown in Figure 2-6, the stage area would be located at a lower elevation than the top of the viewing area to the south and lower than the grade level of Building 3, just north of the amphitheater (see Figure 2-6). Sound barrier walls would surround the stage on three sides and heavy landscaping would further dampen noise and add ambiance. The seating area facing the stage would be a combination concrete/grass "step down" area that gradually transitions to the lowered stage area. Typical events may include plays, music, outdoor movie nights, and local celebrations. Music events would be limited to a maximum of one night per week with limited amplification. Except for summertime movie events that may conclude at 10:00 p.m., all other events at the amphitheater would conclude by 9:00 p.m.



MONTANO DE EL DORADO PARKING BREAKDOWN

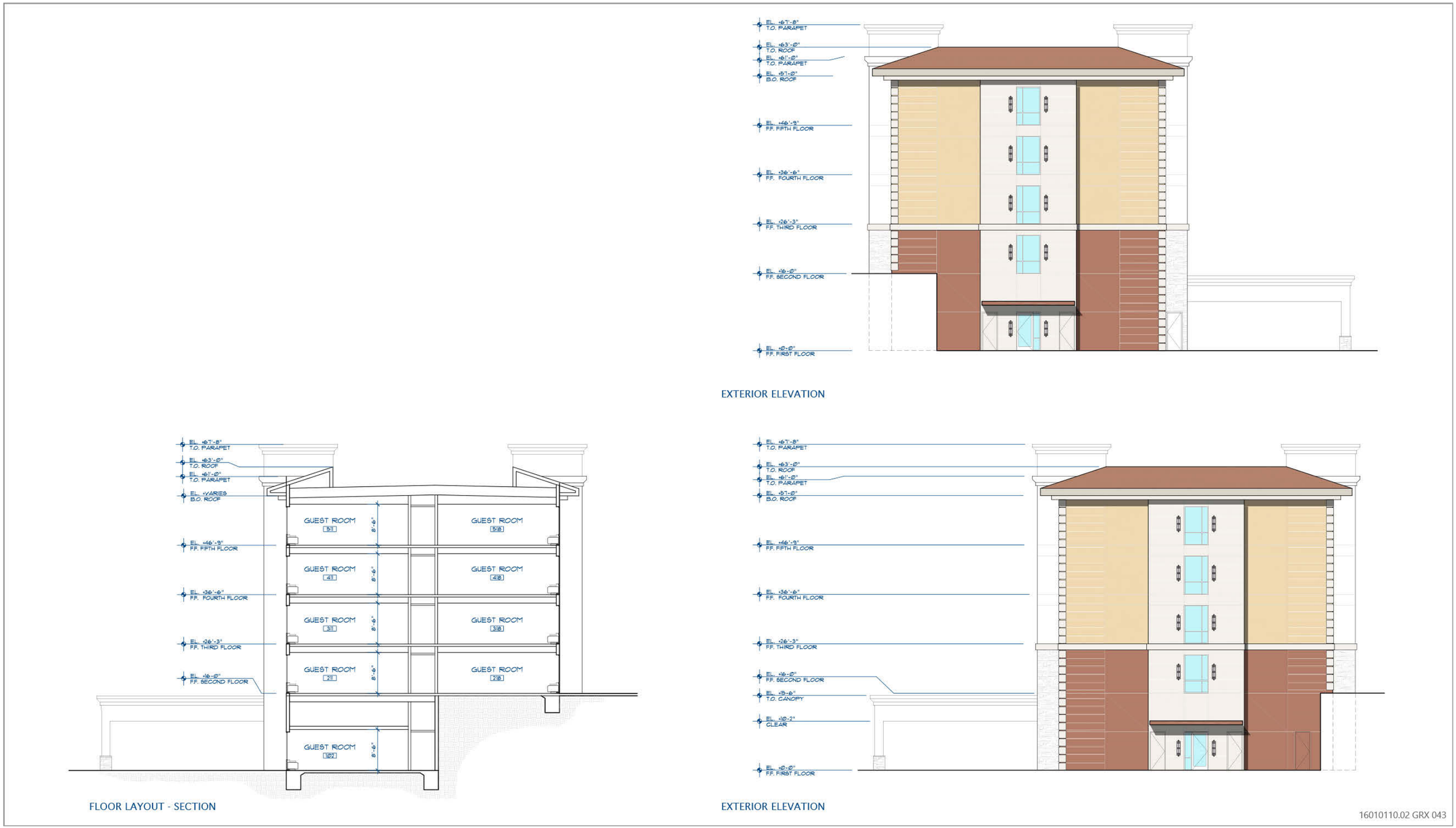
BLDG.	USE	# OF FLOORS	SF/FLR	SF TOTAL	# ROOMS / # EMPLOYEES / # ATMs	PARKING RATE	PER	MINIMUM REQ	ST	TOTAL / BLDG.
EXISTING										
A	RESTAURANT	1	11885	11885		1	300 SF DINING RM	39.62		
					25	1	2 EMPLOYEES	12.50	52.12	53
B	RETAIL	1	7650	7650		1	300 SF	25.50	25.50	26
C	RETAIL	1	9227	9227		1	300 SF	30.76		
	RETAIL	2	9227	9227		1	300 SF	30.76	61.51	62
D	RESTAURANT	1	9470	9470		1	300 SF DINING RM	31.57		
					25	1	2 EMPLOYEES	12.50	44.07	45
E	BANK	1	4071	4071		1	250 SF	16.28		
					1	1	ATM	1	17.28	18
SUB-TOTAL 1				51530						204
PROPOSED										
1	RETAIL	12	8841	8841		1	300 SF	29.47		
1	OFFICE		8841	8841		1	250 SF	35.36	64.83	65
2	RETAIL	1	4606	4606		1	300 SF	15.35	15.35	16
3	RESTAURANT	1	5193	5193		1	300 SF DINING RM	17.31		
3					25	1	2 EMPLOYEES	12.50	29.81	30
4	RETAIL	1	13988	13988		1	300 SF	46.63	46.63	47
5	RESTAURANT	1	4714	4714		1	300 SF DINING RM	15.71		
5					25	1	2 EMPLOYEES	12.50	28.21	29
6	RETAIL	1	4341	4341		1	300 SF	14.47	14.47	15
7	DRIVE-THRU RESTAURANT	1	3665	3665		1	300 SF GFA	12.22	12.22	13
8	GENERAL COMMERCIAL	1	29968	29968		1	200 SF AUA	149.84	149.84	150
9	OFFICE	1	4607	4607		1	250 SF	18.43	18.43	19
10	HOTEL	2, 3, 4, & 5	11260	45040	100	1.2	GUEST ROOM	120.00		
10	OFFICE	1	1246	1246		1	50% OF 250 SF	2.49		
10	CHECK-IN ENTRY	1	1850	1850		1	50% OF 300 SF	3.08		
10	BAR	1	3500	3500		1	300 SF	11.67		
10					12	1	2 EMPLOYEES	6.00		
10	MEETING ROOMS	1	3500	3500		1	50% OF 50 SF	35.00	178.24	179
SUB-TOTAL 2				143900						563
ESTIMATED PARKING REQUIRED										767
PARKING PROVIDED							REGULAR	COMPACT	ACCESSIBLE	
	EXISTING						158	73	10	241
	PROPOSED						468	39	19	526
TOTAL	PROVIDED						626	112	29	767

Source: Image prepared and provided by RFE Engineering, Inc. in 2019

Figure 2-3 Preliminary Site Plan

Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-4a Proposed Hotel – Conceptual Elevations and Design

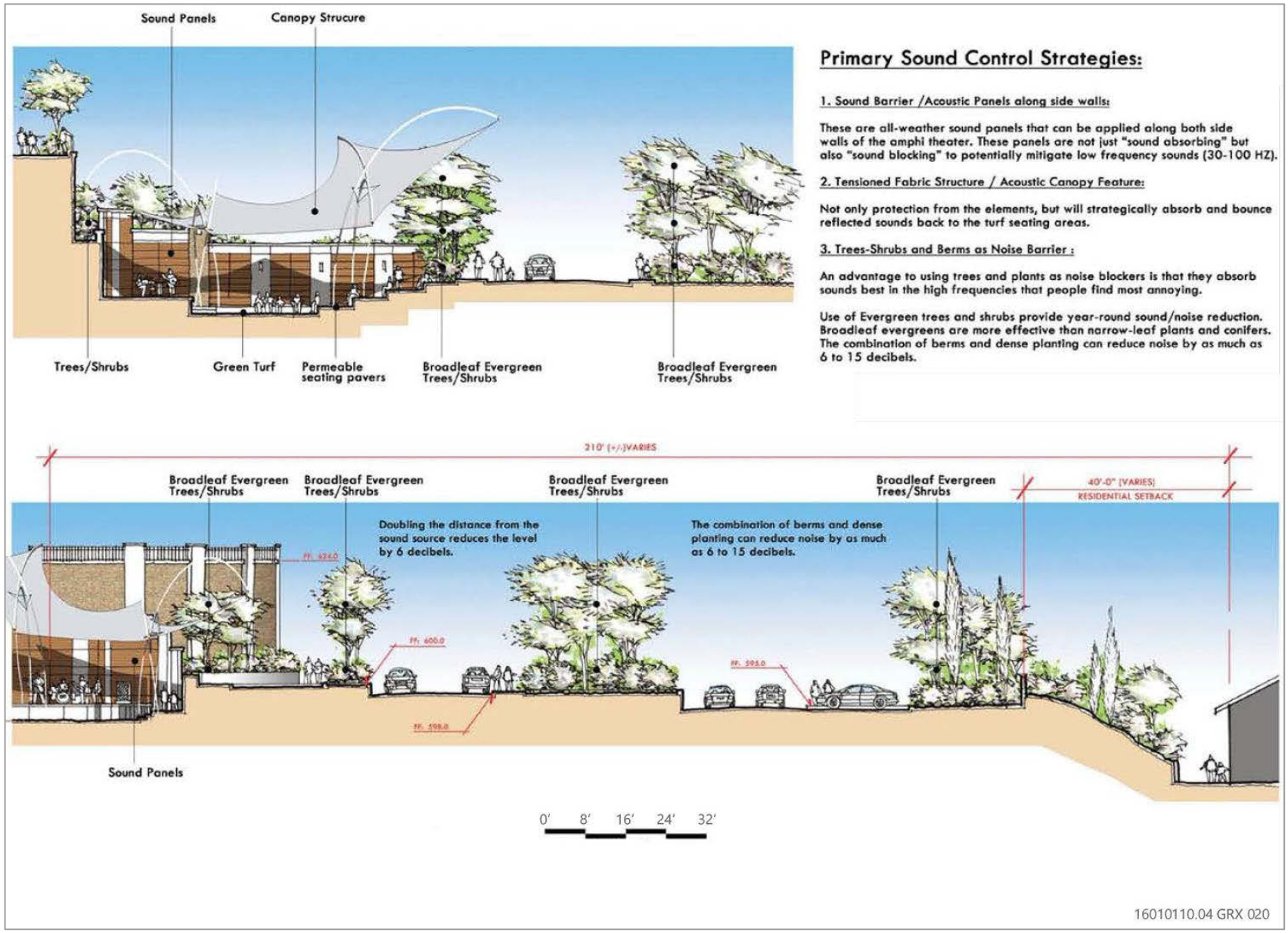


Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-4b Proposed Hotel – Conceptual Elevations and Design

Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-5 Views of Proposed Amphitheater



Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-6 Proposed Amphitheater Partial Site Sections

Source: Image prepared and provided by RFE Engineering, Inc. in 2019

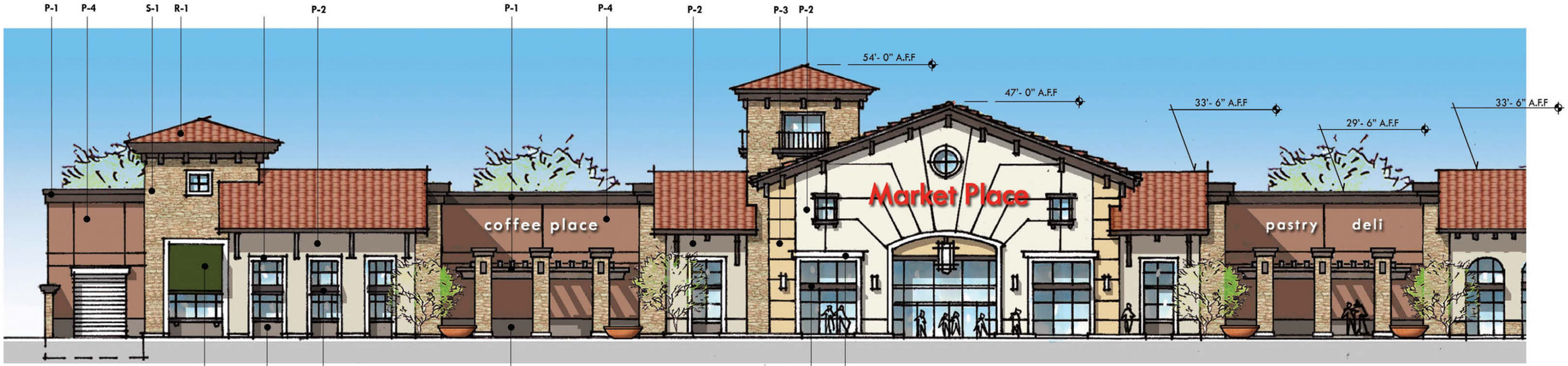
Figure 2-7 Building 1 Conceptual Elevation and Design

Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-8a Building 4 Conceptual Elevation and Design

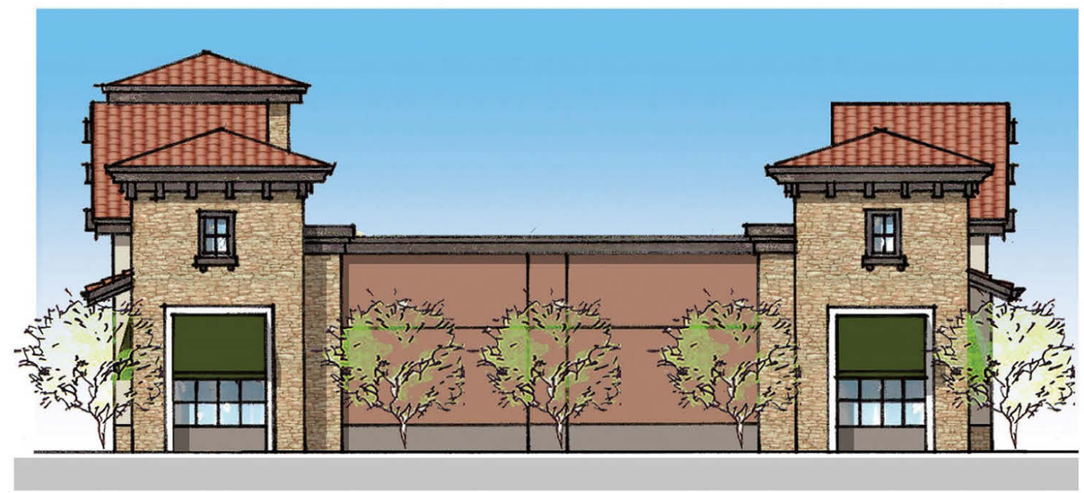
Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-8b Building 4 Conceptual Elevation and Design



East Elevation

East Elevation (cont'd)



North Elevation

16010110.04 GRX 040

Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-9a Building 8 Conceptual Elevation and Design

West Elevation

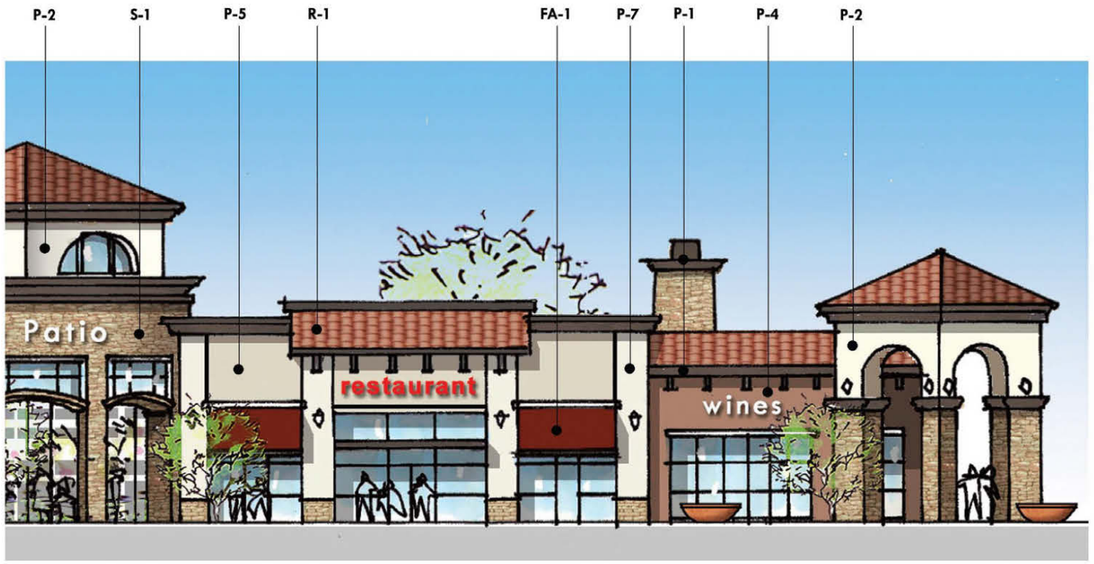
West Elevation (cont'd)

South Elevation

16010110.04 GRX 041

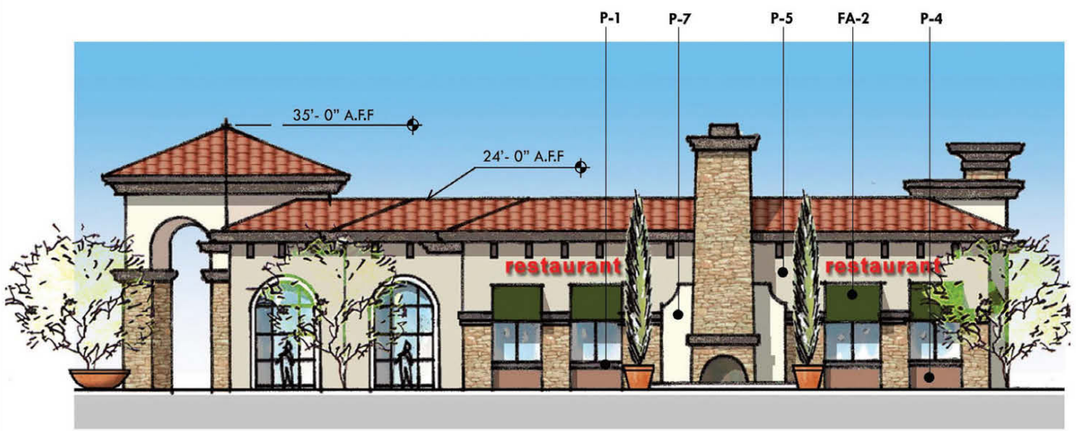
Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-9b Building 8 Conceptual Elevation and Design

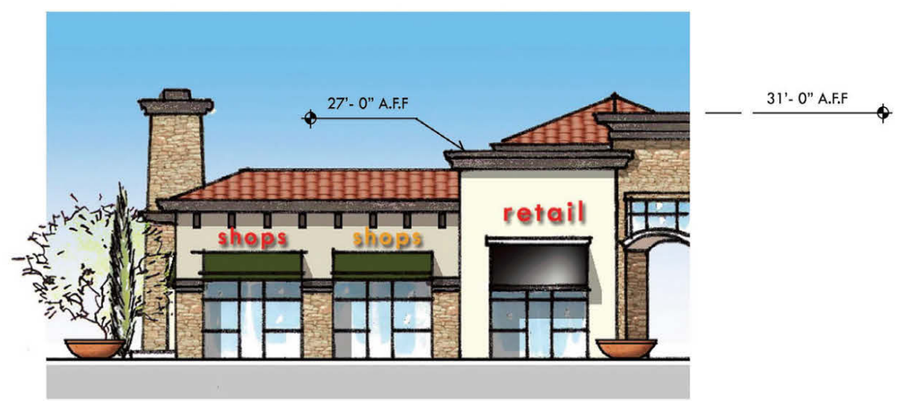


Northeast Elevation

North Elevation



Northwest Elevation



South Elevation

16010110.04 GRX 039

Source: Image produced and provided by Borges Architectural Group in 2016

Figure 2-10 Building 5 Conceptual Elevation and Design

2.4.2 Site Access, Circulation, Parking, and Project Frontage Improvements

The primary entrances to the project would be the existing, signalized Post Street at White Rock Road and extending a private commercial driveway from Post Street to the proposed Latrobe Road entrance. The primary roadway that bisects the shopping center would be extended from the currently constructed Post Street at White Rock Road, southward through the plaza and terminating at the proposed signalized Latrobe Road entrance. This would be the main entrance to the proposed development. An existing secondary point of ingress/egress (right in/right out only) for the existing retail center is located along White Rock Road. Another secondary point of ingress/egress (right in/right out only) is proposed on Latrobe Road near the southern tip of the project site. Approximately 526 new parking spaces would serve the site (see Figure 2-3), including five to 10 electric vehicle recharging stations.

A new curb, gutter, and sidewalk with a total width of 6-feet are proposed adjacent to the existing right-of-way of Latrobe Road fronting the project site, and would be consistent with existing curb, gutter, and sidewalk fronting the Phase I retail center. The portion of the sidewalk from the south entrance to Monte Verde Drive would be a shared use sidewalk that is 10 feet in width. It would be an extension of the Latrobe Trail, a class I paved bike path.

An analysis and identification of recommended roadway improvements for the project to comply with El Dorado County General Plan Transportation policies are provided in Section 3.12.4, "Non-CEQA Traffic Operations Analysis." It is anticipated that the County would require the following conditions of approval to be applied to the project:

1) Construct the fiber optic interconnect (aka Intelligent Transportation System [ITS]) and perform signal coordination and timing modifications as necessary, between signalized intersections on Latrobe Road from Golden Foothill Parkway (north) to the US 50 eastbound ramps, concurrent with the primary driveway signal, and required improvements to the Latrobe Road/Golden Foothill Parkway intersection (see next condition). All improvements are subject to review and approval by County Department of Transportation. The fiber optic interconnect cable and associated signal coordination may be reimbursable, if the El Dorado Hills ITS project is approved by the Board of Supervisors.

2) Construct recommended roadway Improvement #1 (as discussed in Section 3.12.4, "Non-CEQA Operations Analysis"), Latrobe Road / Golden Foothill Parkway (north) intersection improvements prior to issuance of any building permit. Building permits may be issued if the applicant has obtained construction plan approval for the signal modifications, and entered into a road improvement agreement with the County for this work (including surety and insurance requirements of the County). Building permits may also be issued where the County has entered into a road improvement agreement with others for this construction of these improvements.

3) Construct recommended roadway Improvements #3 and #5 (as discussed in Section 3.12.4, "Non-CEQA Operations Analysis"), Latrobe Road / White Rock intersection improvements prior to issuance of any building permit. Building permits may be issued if the applicant has obtained construction plan approval for the signal modifications, and entered into a road improvement agreement with the County for this work (including surety and insurance requirements of the County). Building permits may also be issued where the County has entered into a road improvement agreement with others for this construction of these improvements.

4) If any of the above listed Improvements are constructed by others or added to the 20-year Capital Improvement Program and the improvements have been identified in the Traffic Impact Mitigation Fee Program prior to development levels in the project site that would require this mitigation, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards those improvements.

2.4.3 Landscaping

As shown in Figures 2-11a and 2-11b, the landscape plan proposes trees and shrubs throughout the site. Along Latrobe Road, frontage plantings would be consistent with frontage plant material at the existing Phase I. A blend of evergreen and fast growing deciduous trees would be planted along the eastern boundary of the project site. A blend of evergreen shrubbery, grasses, and rushes are proposed in all on-site low impact development (LID) water quality basins. As proposed, trees would create shade over more than 60 percent of paved parking areas on the project site. All landscape plant materials and irrigation would comply with California Landscape Model Water Efficiency Landscape Ordinance (DWR 2015).

2.4.4 Infrastructure Improvements

RETAINING WALLS

Retaining walls are proposed along the Latrobe Road frontage to match in type and kind the existing walls at Phase I. The tallest wall along Latrobe Road is expected to be 19 feet and located near the northwest corner of Building 8. The new retaining walls along Latrobe Road are proposed behind the new proposed right-of-way (separate from this project, a six-lane divided road is planned on Latrobe Road per El Dorado County Standard Plan RS-01). The proposed four-lane layout provides a small strip of landscaped area between the back of the sidewalk and retaining wall which would visually buffer site views from Latrobe Road (see Figures 2-11a and 2-11b). A segmental or concrete masonry unit (CMU) retaining wall is proposed along the eastern project boundary.

At the northernmost point along the project site's eastern boundary, there is an existing crib wall that was constructed as part of the Phase 1 project. At this point, the proposed grade would be approximately 15.7 feet above the adjacent residential grade to the east. Proceeding south, the grade diminishes until the project site and adjacent residential lots are even. From that point heading south, the project site would be below the grade of the existing residential lots to the east and a retaining wall would be constructed between the project site and the residential parcels. This southern retaining wall would be approximately 18 feet at its highest point at the southernmost end of the project site.

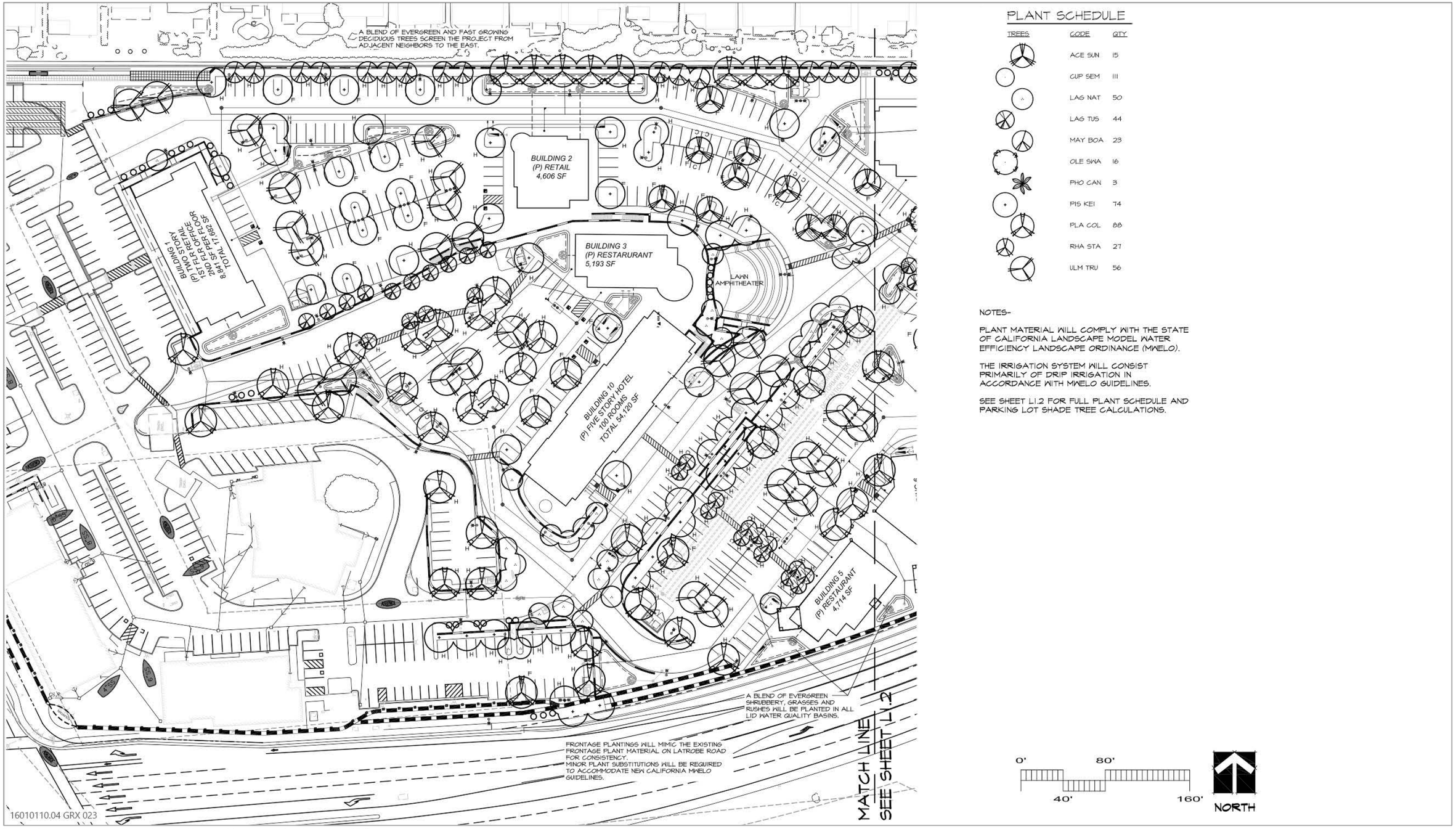
Additional internal retaining walls are proposed because of the large grade differential. All retaining walls would be constructed in conformance with El Dorado Hills (EDH) Design Guidelines and County standards.

WATER

The project would construct on-site water infrastructure improvements that would tie into existing water pipelines in Phase I and in Latrobe Road west of the site (Figure 2-12a and 2-12b). The existing municipal water grid system would be extended and connected to the project site. Water supply would be provided by El Dorado Irrigation District (EID).

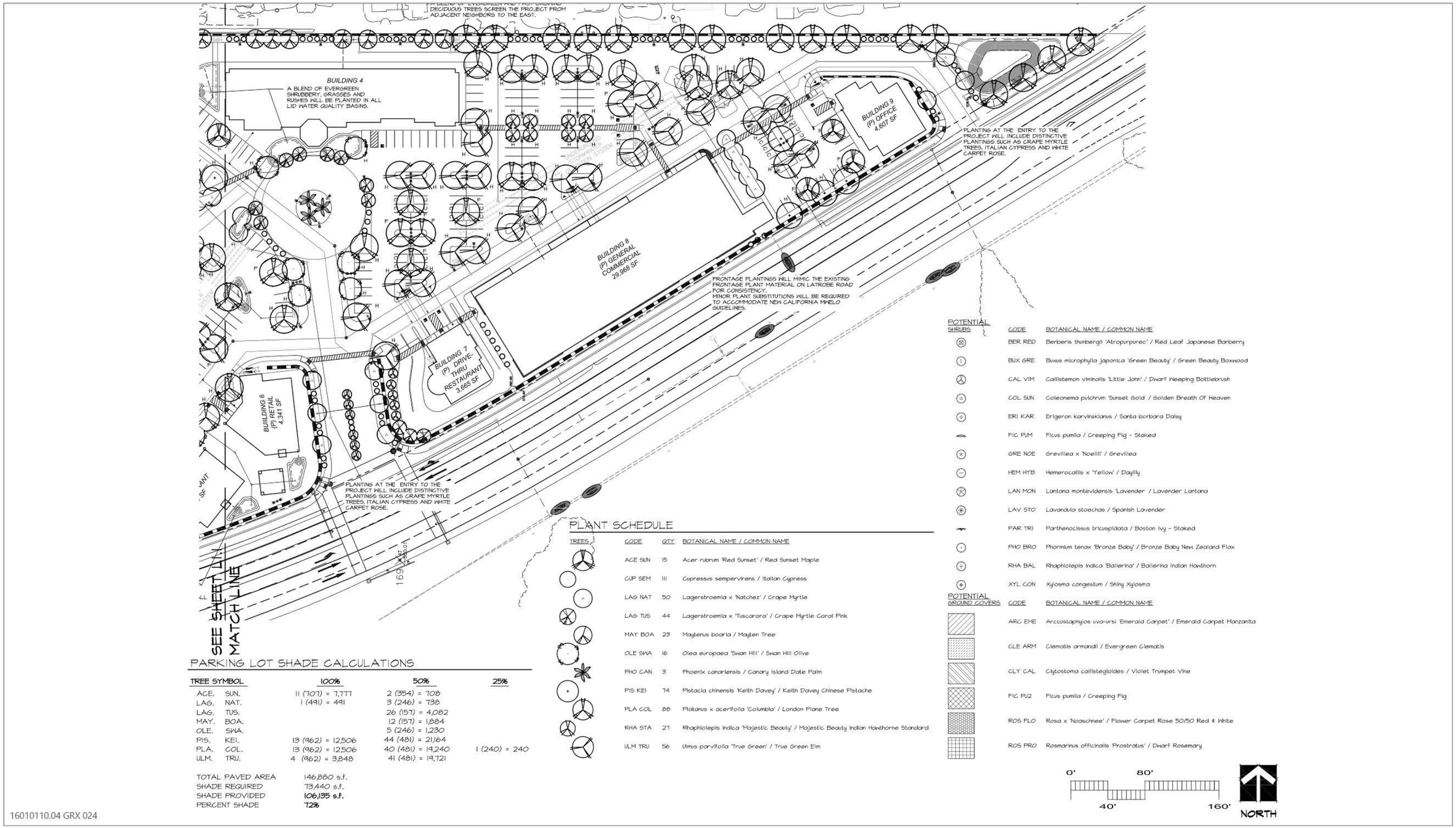
WASTEWATER

The project would also construct on-site wastewater infrastructure improvements that would tie into the existing sewage lines located in Phase I. Offsite improvements would include the construction of an 8-inch wastewater conveyance pipeline from the southern portion of the project site within Latrobe Road and Golden Foothill Parkway to interconnect with an existing 8-inch pipeline (Figure 2-12b and Figure 2-12c). The project would be served by the EID's El Dorado Hills Collection System, which consists of a series of lift stations, force mains, and gravity mains that convey wastewater to the El Dorado Hills Wastewater Treatment Plant.



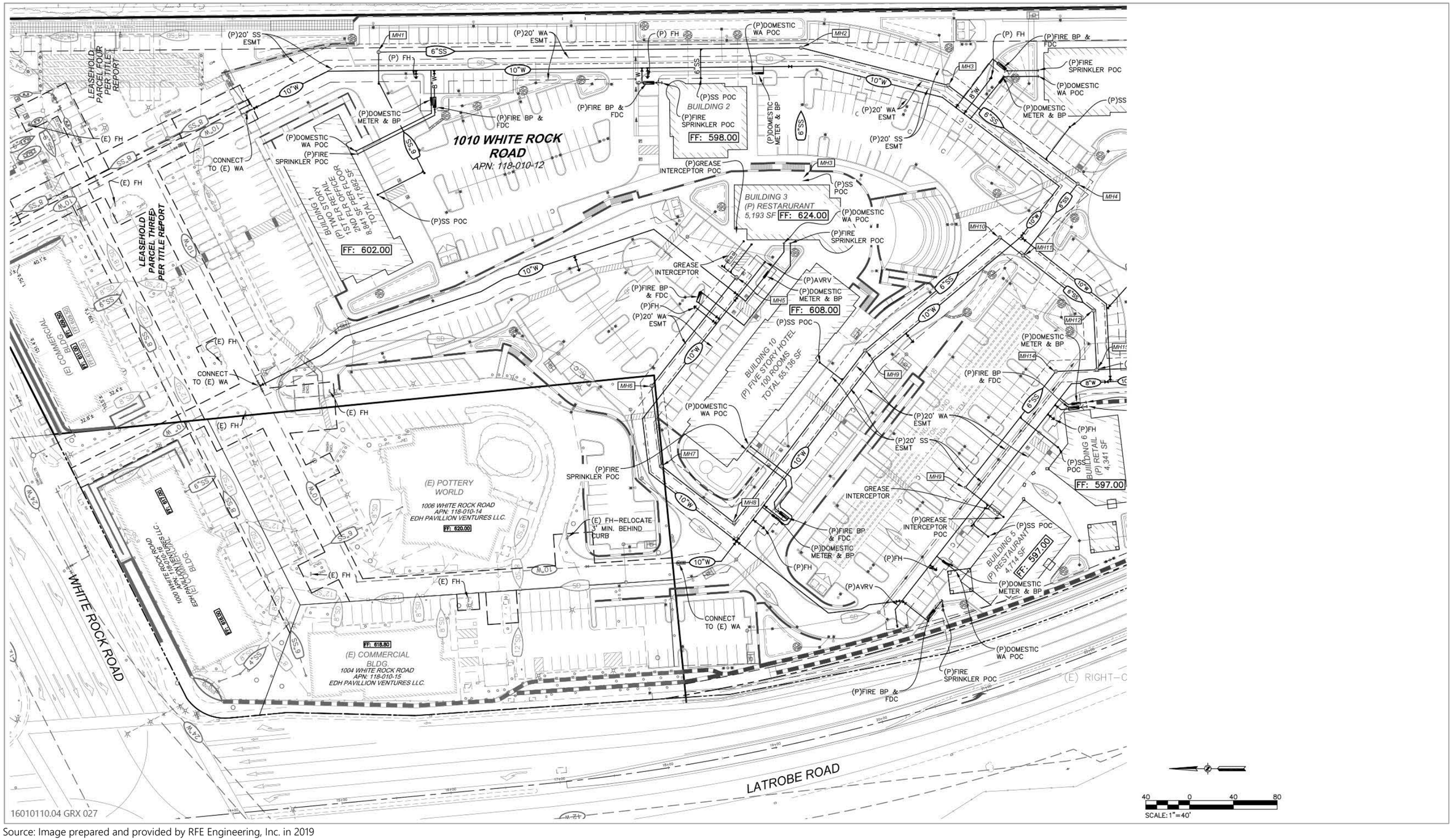
Source: Image prepared and provided by Yamaskai Landscape Architecture in 2017

Figure 2-11a Landscape Plan - Northern Portion of Site



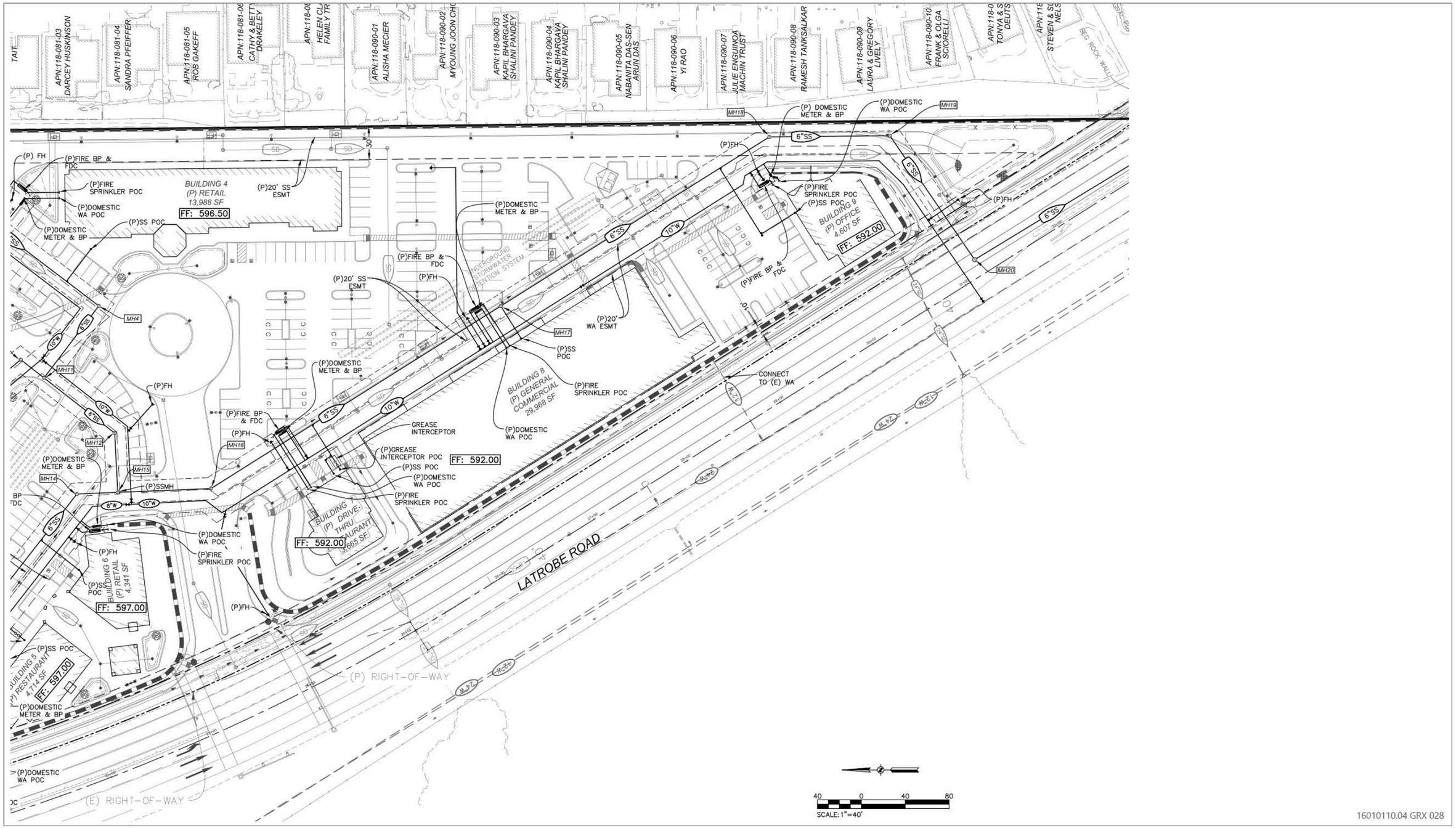
Source: Image prepared and provided by Yamaskai Landscape Architecture in 2017

Figure 2-11b Landscape Plan - Southern Portion of Site



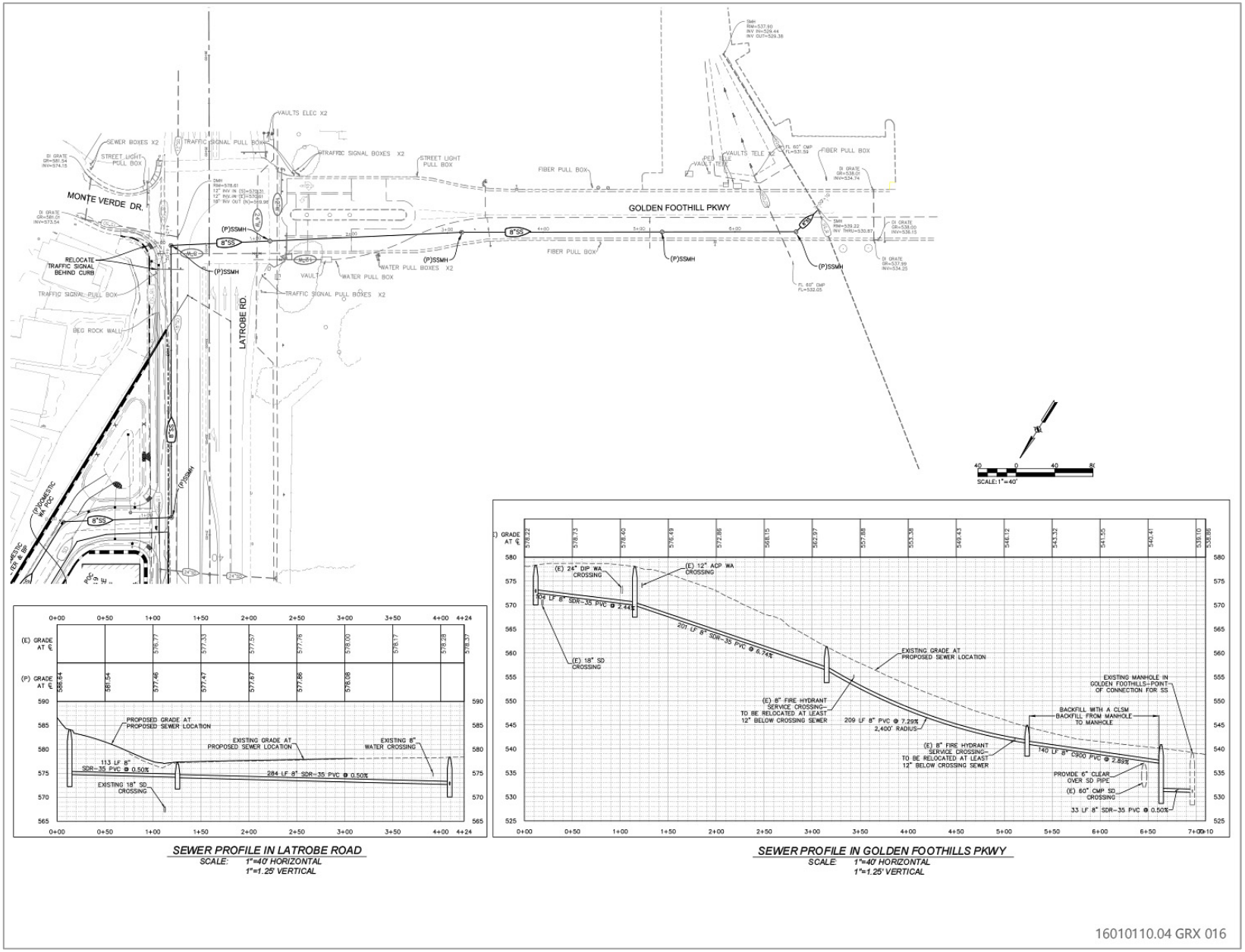
Source: Image prepared and provided by RFE Engineering, Inc. in 2019

Figure 2-12a Preliminary Water and Sanitary Sewer Plan - Northern Portion of the Site



Source: Image prepared and provided by RFE Engineering, Inc. in 2019

Figure 2-12b Preliminary Water and Sanitary Sewer Plan - Southern Portion of the Site



Source: Image prepared and provided by RFE Engineering, Inc. in 2016

Figure 2-12c Off-Site Wastewater Improvements

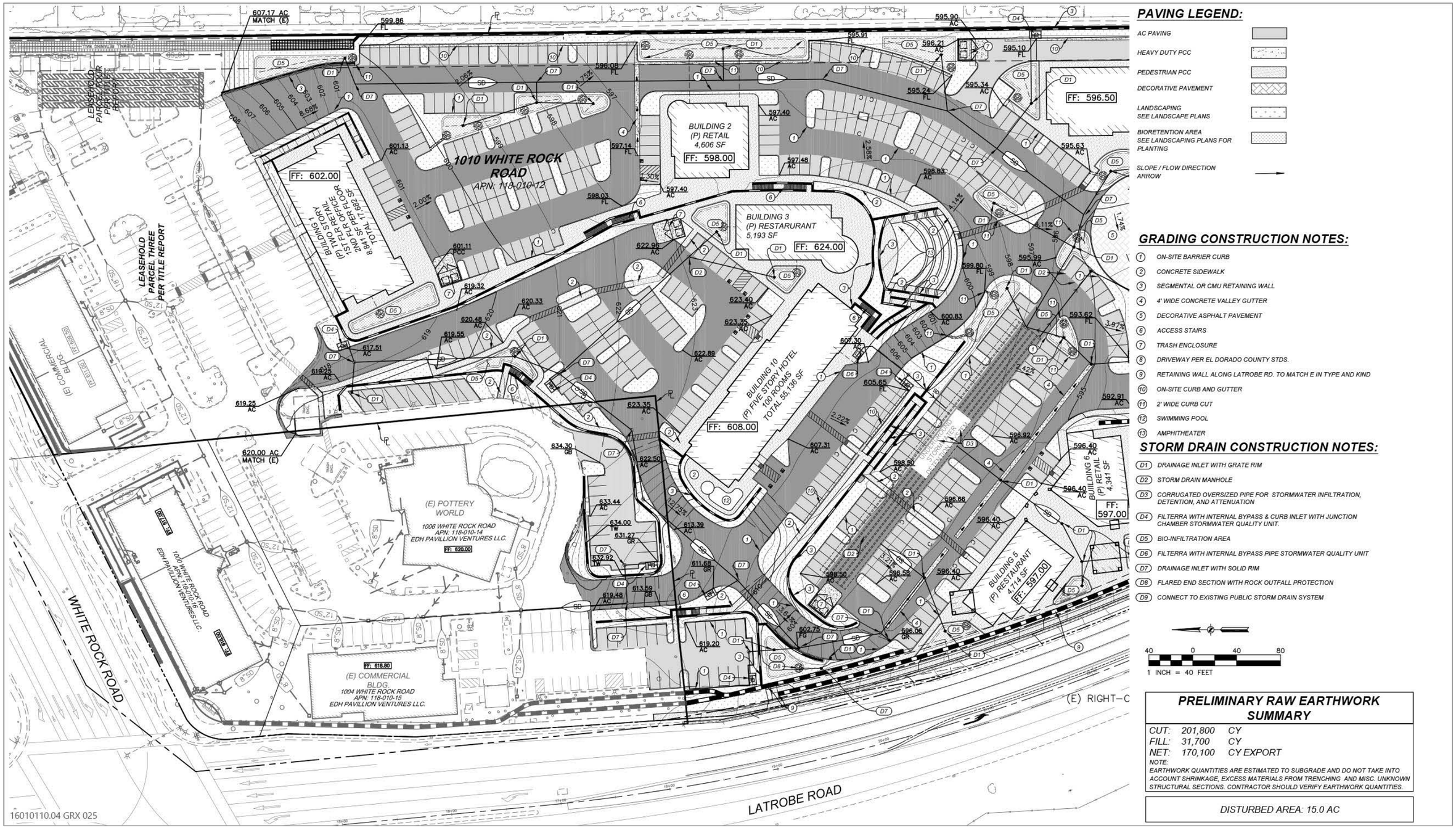
STORMWATER

In compliance with El Dorado County stormwater requirements, including the El Dorado County Drainage Manual and the Western El Dorado County Storm Water Management Plan (SWMP), new storm drain improvements would be constructed (see Figures 2-13a and 2-13b). In planning improvements for the project, several goals from the Manual and SWMP were considered:

- El Dorado County Drainage Manual
  - Safely convey the storm runoff from an event with an average recurrence interval of 10 years without the headwater depth exceeding the culvert barrel height.
  - The depth of flow or ponding shall not exceed a level which would cause inundation of building sites. One food of freeboard shall be maintained between building finished floor elevation and water surface elevation resulting from a storm runoff event with an average recurrence interval of 100 years.
  - The post development 10-year peak flow shall not exceed the pre development 10-year peak flow.
- Western El Dorado County SWMP
  - Provide site design measures, source controls, and storm water quality treatment consistent with the SWMP. Size the storm water quality treatment/Low Impact Development (LID) measures to sufficiently treat the 85th percentile 24-hour storm event capture.
  - Verify that post development flows will not exceed pre development flows for the 2-year, 24-hour storm.

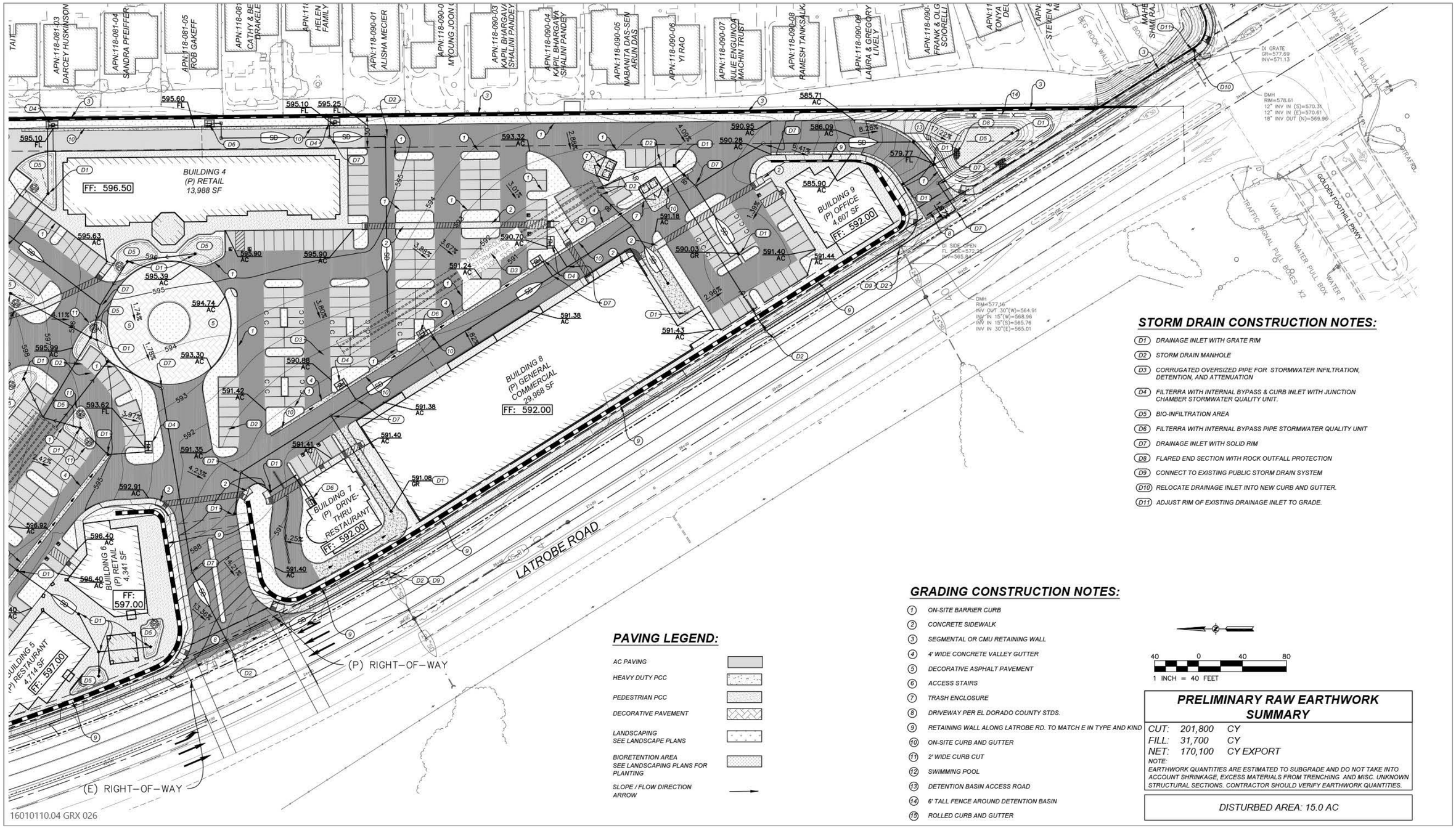
To meet these requirements, improvements would include on-site and off-site drainage inlets, manholes, and pipelines designed to collect and convey stormwater to one of the two 24-inch storm drains beneath Latrobe Road. On-site storm drainage improvements would include Low Impact Development (LID) features, underground stormwater detention piping, and aboveground basins to detain runoff such that pre-development flow volumes are maintained. LID and water quality treatment BMPs used in the project design to treat stormwater runoff would include rooftop and impervious area disconnection, bioretention facilities, and Filterra stormwater quality units. Filterra units treat stormwater similarly to bioretention and biofiltration facilities. Stormwater treatment occurs by flow through engineered soil and a French drain, after which the storm water is discharged into the underground storm drain system. In the parking area and rive aisle in front of Buildings 5 and 6, where bioretention/biofiltration and Filterra inlets would be challenging, stormfilter inlets would be used. After stormwater treatment, water would be conveyed to underground detention systems. The LID measures would provide water quality benefits and attenuation of the peak flows before entering the underground detention system.

A preliminary drainage plan and additional detail are provided in Appendix D of this EIR.



Source: Image prepared and provided by RFE Engineering, Inc. in 2019

Figure 2-13a Preliminary Grading, Drainage, and Paving Plan - Northern Portion of the Site



Source: Image prepared and provided by RFE Engineering, Inc. in 2019

Figure 2-13b Preliminary Grading, Drainage, and Paving Plan - Southern Portion of the Site

ENERGY, LIGHTING PLAN, AND ENERGY EFFICIENT MEASURES

The project area is within the Pacific Gas and Electric (PG&E) service area for natural gas and electricity. Electrical and natural gas facilities are stubbed out in the existing Phase I and would be extended south into the project site.

The reader is referred to Section 3.5, "Energy," for an analysis of project energy demands.

To maintain conformance with the existing Phase I, the project would provide "night sky friendly" parking lot lights and matching sconce building lights similar to the existing Phase I. All outdoor lighting on the project site would be light emitting diodes (LED) and would conform to EDH Design Guidelines and County Standards. During construction and parking lot light installation, lighting at Phase I would also be converted from incandescent to LED. All on-site light fixtures would be directed away from adjacent properties. To reduce energy consumption, solar arrays would be installed on the parapets of the new buildings to assist in the power generation of the common areas (house panels). As described above, between five and 10 electric vehicle charging stations would also be provided.

2.4.5 Project Construction

Project construction is assumed to start in 2020 and be completed in two years in the following phases:

- Phase 1 (January 2020 – June 2021)
  - Site mass grading
  - Site infrastructure and drainage improvements
  - Offsite wastewater conveyance improvements
  - Construction of parking areas and all other paved areas
  - Construction of buildings 5, 6, 7, 8, and 10
  - Construction of amphitheater
- Phase 2 (June 2021 – March 2022)
  - Construction of buildings 3, 4, and 9
- Phase 3 (March 2022 – November 2022)
  - Construction of building 1 and 2

Market and economic conditions would ultimately determine the actual timing of site development.

Prior to commencement of any construction, the project applicant would be required to obtain construction approvals, including a grading permit, improvement plans, facility improvement plan, food facility plan, public pool review and approval, and building permits. Construction of the project would include finish grading to establish necessary pads and foundations. The grading plan for the project is shown in Figures 2-13a and 2-13b above. Grading activities at the site would result in approximately 201,800 cubic yards (cy) of cut and 31,700 cy of fill with up to 170,100 cy of soil to be exported off-site. The location of where exported soil would be taken to was not known at the time of the preparation of this EIR.

The number of construction workers would vary with different phases of construction. It is estimated that up to 35 construction workers would be on-site during each construction phase of the project.

Project construction may also include blasting if significant rock outcroppings are encountered during site grading. Blasting required during project construction would be consistent with local industry techniques for hard rock removal on mass grading projects. This would include layout of anticipated blast points, likely in a grid pattern, mobilization and drilling of holes with air track drill rigs, drilling of holes to just below the excavation depth, setting of charges in the holes, saturating the hear surface materials to minimize airborne dust, and covering the grades with

blast mats. Due to the proximity of existing structures, it is anticipated that seismic vibration monitoring would be conducted at the edges of the project site.

The following construction machinery may be used:

- concrete/industrial saw,
- rubber tired or track dozer,
- tractors/loaders/backhoes,
- excavators,
- bobcats,
- drill rig,
- off-highway trucks,
- grader,
- scraper,
- crane,
- tower crane,
- man-lift,
- boom lift,
- construction elevator,
- scissor lift,
- forklift,
- concrete trucks,
- concrete pump trucks,
- asphalt spreader,
- roller/compactor,
- generator set,
- welding machine,
- compressor,
- haul trucks, and
- painting equipment.

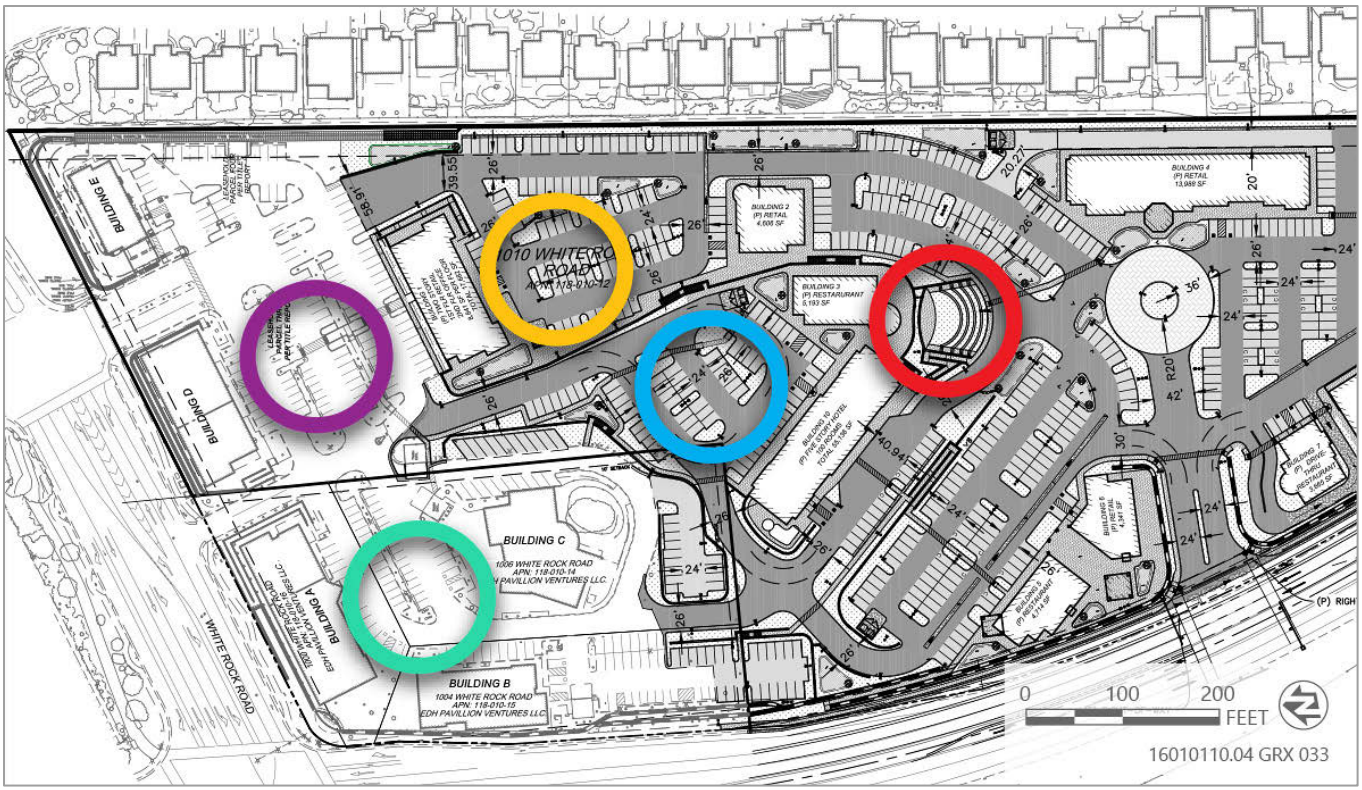
Where feasible and available, diesel construction equipment would be powered by Tier 3 or Tier 4 engines as recommended by the California Air Resources Board and the U.S. Environmental Protection Agency. In addition, if available for on-site delivery, diesel construction equipment would be powered with renewable diesel fuel that is compliant with California's Low Carbon Fuel Standards and certified as renewable by the California Air Resources Board Executive Officer.

2.4.6 Project Hours of Operation

Hours of operation for the project would be typical for the proposed uses. Retail and restaurant hours of operation would range from 6:00 a.m. to 10:00 p.m. The office building would typically operate from 8:00 a.m. to 6:00 p.m. on weekdays and the hotel would operate 24 hours a day. All events at the amphitheater would be required to end by 9:00 p.m., except for occasional outdoor movie nights (April–September), which may end as late as 10:00 p.m.

2.4.7 Outdoor Special Events

The project may include outdoor special events within existing Phase I and within the proposed amphitheater and parking lots within Phase II (Figure 2-14). Events at the proposed amphitheater would not conduct music more than once per week and would not be in operation for any music, plays, and presentations later than 9:00 p.m. All events would end no later than 9:00 p.m. except occasional outdoor movie nights (April–September) which would end at 10:00 p.m.



Source: RFE Engineering, adapted by Ascent in 2019

Figure 2-14 Locations of Potential Special Events

Potential outdoor events (Table 2-1) could consist of uses either the same or similar to the following:

Table 2-1 Sample Outdoor Special Events Schedule (Illustrative Only)

Typical Month	Typical Events	Anticipated Location on Site (see Figure 2-11)	Attendance Estimate
January	▶ Community Blood Drive at the Amphitheater	Red	100
February	▶ Bridal Fashion Show at the Amphitheater	Red	100
March	▶ Fashion Show at the Amphitheater	Red	100
	▶ Montano Chile Cookoff/plaza Wide Craft Fair Charity Event	Green	200
April	▶ Easter Event/Egg Hunt	Orange	100
	▶ Monday Movie at Montano - Amphitheater	Red	75
	▶ St. Patrick's Day Event	Purple	75
May	▶ Memorial Day Music - Amphitheater	Red	150
	▶ El Dorado Music Theater (EDMT) Play (4 days)	Red	150
	▶ Local Wine Crush and Arts Festival	Green	350
	▶ Monday Movie at Montano - Amphitheater	Red	75
	▶ Amphitheater Music – limited amplification 5:30pm-8:30pm	Red	75
June	▶ Farmers Market 2nd Saturday	Orange	175
	▶ Taste of El Dorado County – Food, Wine, and Crafts	Green	150
	▶ Monday Movie at Montano - Amphitheater	Red	75
	▶ Amphitheater Music – limited amplification 5:00 pm-8:00 pm	Red	150

Table 2-1 Sample Outdoor Special Events Schedule (Illustrative Only)

Typical Month	Typical Events	Anticipated Location on Site (see Figure 2-11)	Attendance Estimate
July	▶ July 4th Celebration in Coordination with Town Center	Orange	300
	▶ Farmers Market 2nd Saturday	Orange	175
	▶ Amphitheater Music – limited amplification 5:30pm-8:30pm (Saturdays)	Red	150
	▶ Monday Movie at Montano - Amphitheater	Red	150
August	▶ Farmers Market 2nd Saturday	Orange	175
	▶ El Dorado Music Theater (EDMT) Play - Amphitheater	Red	150
	▶ Amphitheater Music – limited amplification 5:30pm-8:30pm (Saturdays)	Red	150
	▶ Perks and Paws Festival to Benefit Humane Society	Orange	300
	▶ Monday Movie at Montano - Amphitheater	Red	75
September	▶ 9/11 Patriots/Veterans Event	Blue	150
	▶ Farmers Market 2nd Saturday	Orange	175
	▶ Monday Movie at Montano - Amphitheater	Red	75
	▶ Amphitheater Music – limited amplification 5:30pm-8:30pm (Saturdays)	Red	75
October	▶ Oktoberfest (2-4 days) Primarily at 36 Handles Pub.	Purple	350
	▶ Craft Brew Tasting and Blue Grass	Green	50
	▶ Monday Movie at Montano - Amphitheater	Red	50
	▶ Classic Car Show	Orange	150
November	▶ Cornish Craft Festival and Merchant Each Saturday (Thanksgiving to Christmas) Plaza Wide	Phase I and II	250
	▶ Talent Show to Benefit Charity Groups	Red	150
December	▶ Cornish Craft and Merchant Festival Each Saturday (Thanksgiving to Christmas) Plaza Wide	Phase I and II	250
	▶ Christmas Special/Charity Event	Phase I and II	250

2.5 REQUESTED ENTITLEMENTS

2.5.1 Proposed Entitlement Requests

- Rezone (Z15-0002) of 16.85-acre property from Regional Commercial - Design Control (CR-DC) to Regional Commercial - Planned Development;
- Commercial Tentative Parcel Map (P15-0006) of 16.85-acre property creating a total of 12 commercial lots, ranging from 0.719 acre to 3.48 acres in size, as part of the proposed Montano De El Dorado Phase II Development Plan;
- Planned Development Permit (PD15-0004) for the existing Montano De El Dorado Phase I Development and the proposed Phase II expansion. The proposed Phase II of the development would include approximately 74,000 square feet of retail/commercial space within eight buildings, 6,000 square feet of office space, 63,000 square feet, 99-room hotel, and an amphitheater; and
- Conditional Use Permit (S17-0015) for outdoor special events and office uses to take place within existing Phase 1 and proposed Phase II

3 ENVIRONMENTAL SETTING AND ANALYSIS

APPROACH TO THE ENVIRONMENTAL ANALYSIS

This Draft EIR evaluates and discloses the environmental impacts associated with the Montano De El Dorado Phase I and II Master Plan, 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 Regulation, Title 14, Chapter 3, Section 1500, et seq.). The technical sections under Chapter 3 of this Draft EIR present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the Notice of Preparation (NOP) prepared for the project (see Appendix A of this Draft EIR). Chapter 4, "Cumulative Impacts," evaluates cumulative impacts and whether the project would result in a cumulatively considerable contribution to these impacts. Chapter 5, "Project Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the proposed project, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 4, "Other CEQA-Mandated Sections," includes an analysis of the project's growth inducing impacts, as required by Section 21100(b)(5) of CEQA.

Technical sections under Chapter 3 of this Draft EIR each include the following components.

Existing Conditions: This subsection presents the existing environmental conditions on the project site and in the surrounding area as appropriate at the time the Notice of Preparation was re-released on October 1, 2018. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected. For example, traffic impacts resulting from the proposed project are assessed for the regional roadway network, whereas cultural-resource impacts from the proposed project are assessed for the project site only.

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, State, and local levels are each discussed as appropriate.

Environmental Impacts and Mitigation Measures: This subsection presents thresholds of significance and discusses potentially significant effects of the Montano De El Dorado Phase I and II Master Plan on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described, including technical studies upon which the analyses rely. The thresholds of significance are defined and thresholds for which the project would have no impact are disclosed and dismissed from further evaluation. Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of level of significance of the impact is defined in bold text. A "less-than-significant" impact is one that would not result in a substantial adverse change in the physical environment. A "potentially significant" impact or "significant" impact is one that would result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in accordance with the State CEQA Guidelines Section 15126.4.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how the they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less- than-significant levels. Significant-and-unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(b). Significant-and-unavoidable impacts are also summarized in Chapter 5, "Other CEQA-Mandated Sections."

References: The full references associated with the parenthetical references found throughout the EIR and can be found in Chapter 6, "References," organized by section number.

ENVIRONMENTAL ISSUES NOT EVALUATED FURTHER IN THIS DRAFT EIR

As discussed in Section 1.5 of this Drat EIR, the following topics are not discussed further in this Draft EIR:

- Agricultural and Forest Resources,
- Land use and Planning,
- Mineral Resources,
- Population and Housing, and
- Libraries, Public Schools, and Recreation.

3.1 AESTHETICS

This section provides a description of existing visual conditions (physical features that make up the visible landscape, near the Montano De El Dorado Phase I and II Master Plan Project site) and an assessment of changes to those conditions that would occur from project implementation. The effects of the project on the visual environment are defined in terms of the project's physical characteristics and potential visibility, the extent to which the project's presence would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have where the project would alter existing public views.

Comments were received on the NOP regarding visual impacts on private backyard views from residences east of the site and lighting. These issues are discussed below.

3.1.1 Environmental Setting

VISUAL CHARACTER OF THE PROJECT SITE

The proposed project site is in El Dorado Hills, California, an unincorporated area of the County. The Phase I portion of the project site has already been developed with commercial structures. These buildings have stucco exteriors with rock accents and tile roofs. Phase I is landscaped with trees, groundcover, and shrubs. Phase I is located above the grade of Latrobe Road and street frontage includes a fountain at the corner of Latrobe Road and White Rock Road, and retaining walls and landscaping along Latrobe Road and White Rock Road (see Figures 3.1-1 and 3.1-2).

With the exception of a paved area located at the northern boundary, the Phase II portion of the project site is undeveloped with grasses and rock outcroppings. Phase II consists of slope conditions to the south and southwest with elevations ranging from approximately 575 to 640 feet above sea level (see Figures 3.1-1 and 3.1-3). Phase I and the northern portion of Phase II ground elevation is higher than the single-family residences adjacent to the site (approximately 35 feet difference between project site eastern boundary to the rear yards of the adjacent residences). However, the elevation of Phase II decreases to the south and becomes level with the residences approximately 1,260 feet south of White Rock Road. South of this point the Phase II site has a lower elevation than the residences becomes lower than the existing residences. The lowest point along the eastern boundary is approximately 30 feet below the ground elevation of the residences.

SITE VISIBILITY

Because of the topography of the site and surrounding areas, views of the Phase II portion of the site are generally limited to private and commercial properties that are adjacent to the site. Open public views of Phase II are generally limited to its frontage along Latrobe Road. This is due to the local topography (hills) where Phase I exists that obstructs public views from vehicles traveling south on Latrobe Road until after the Latrobe Road/White Rock Road intersection (see Figures 3.1-1 and 3.1-4a). Public views from northbound traffic on Latrobe Road are obstructed by hills until the Latrobe Road/Golden Foothills Parkway/Monte Verde Drive intersection (see Figures 3.1-1 and 3.1-4b). West of Latrobe Road, distant public views of the site are available to motorists on nearby streets (i.e. White Rock Road, Windfield Way, and Golden Foothill Parkway) and to nearby commercial and office uses.

VISUAL CHARACTER OF THE SURROUNDING AREA

The existing visual character of the project area consists of suburban development. These land use conditions are consistent with the extent of development in the El Dorado Hills Community Region as designated under the El Dorado County General Plan. The visual character of adjacent areas include the following features:

- The El Dorado Hills Town Center to the north that includes a mix of commercial and office uses (see Figure 3.1-5).
- Single-family residential uses along Monte Verde Drive to the east (see Figure 3.1-6).
- Latrobe Road and the El Dorado Hills Business Park to the west and south that consists of commercial, office, and, light industrial land uses. The El Dorado Hills Business Park is partially developed with vacant parcels visible from Latrobe Road.

Source: Ascent Environmental in 2019

Figure 3.1-1 Locations of Project Site Photo Views

Source: Adapted by Ascent Environmental in 2019

Photo 1: View of Montano De El Dorado Phase I from Latrobe Road/ White Rock Road Intersection.

Source: Adapted by Ascent Environmental in 2019

Photo 2: View of Onsite Conditions at Montano De El Dorado Phase I

Figure 3.1-2 Views of Montano De El Dorado Phase I

Source: Adapted by Ascent Environmental in 2019

Photo 3: View of Northern Portion of Montano De El Dorado Phase II Site from Phase I Site

Source: Adapted by Ascent Environmental in 2019

Photo 4: View of Southern Portion of Montano De El Dorado Phase II Site

Figure 3.1-3 Onsite Views of Phase II

Source: Adapted by Ascent Environmental in 2019

Photo 5: View from Southbound Latrobe Road at Latrobe Road/ White Rock Road Intersection

Source: Adapted by Ascent Environmental in 2019

Photo 6: Frontage View of Phase II Site From Latrobe Road South of Latrobe Road/ White Rock Road Intersection

Figure 3.1-4a Public Views of Phase II

Source: Adapted by Ascent Environmental in 2019

Photo 7: View from Northbound Latrobe Road at Latrobe Road/Golden Foothills Parkway/Monte Verde Drive Intersection

Figure 3.1-4b Public Views of Phase II

Source: Adapted by Ascent Environmental in 2019

Photo 8: View of El Dorado Hills Town Center From Town Center Boulevard

Source: Adapted by Ascent Environmental in 2019

Photo 9: View of Hotel at El Dorado Hills Town Center

Figure 3.1-5 Visual Character of the El Dorado Hills Town Center North of the Project Site

Source: Adapted by Ascent Environmental in 2019

Photo 10: View of Single-Family Residences East of the Project Site

Figure 3.1-6 Visual Character East of the Project Site

LIGHT AND GLARE CONDITIONS

The Phase I portion of the project site includes existing exterior lighting fixtures on buildings and throughout the parking lot. Various sources of nighttime lighting associated with development are located adjacent to the project site. Existing sources of light include street lights along project roadways; lights in parking lots, along walkways, and on the exteriors of buildings; and interior lights in buildings.

Natural and artificial light reflect off various surfaces and can create localized occurrences of daytime and nighttime glare. Buildings and structures made with glass, metal, and polished exterior roofing materials exist in the area; however, there are no reported occurrences of excessive daytime or nighttime glare in the project vicinity.

3.1.2 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to aesthetics, light, and glare are applicable to the Montano Development Project.

STATE

California Scenic Highway Program

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation (Caltrans). The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view.

The program includes a list of eligible highways and officially designated scenic highways, and includes a process for the designation of official State or County Scenic Highways. The project site is not located within view of a state scenic highway. The nearest highways subject to this program are located approximately 12 miles east of the project site: State Route 49, an Eligible Designated State Scenic Highway, and a segment of U.S. Route 50 that is an Officially Designated State Scenic Highway (Caltrans 2011).

LOCAL

El Dorado County General Plan

The El Dorado County General Plan Land Use Element includes policies related to land use topics, including visual resources. Relevant policies from the Land Use Element include:

- Policy 2.3.1.2: The Zoning Ordinance shall include consideration of a standard for parking lot shading and provision of street trees in all new development projects.
- Policy 2.4.1.4 Strip commercial development shall be precluded in favor of clustered contiguous facilities. Existing strip commercial areas shall be developed with common and continuous landscaping along the street frontage, shall utilize common driveways, and accommodate parcel-to-parcel internal automobile and non-automobile circulation where possible.
- Policy 2.5.2.1 Neighborhood commercial centers shall be oriented to serve the needs of the surrounding area, grouped as a clustered, contiguous center where possible, and should incorporate but not be limited to the following design concepts as further defined in the Zoning Ordinance:
  - maximum first floor building size should be sized to be suitable for the site;
  - allow for Mixed Use Developments;
  - no outdoor sales or automotive repair facilities;
  - reduced setback with landscaping and walkways;
  - interior parking, or the use of parking structure;
  - bicycle access with safe and convenient bicycle storage area;
  - on-street parking to reduce the amount of on-site parking;
  - community bulletin boards/computer kiosks;
  - outdoor artwork, statues, etc., in prominent places; and
  - pedestrian circulation to adjacent commercial centers.
- Policy 2.5.2.2 New commercial development should be located nearby existing commercial facilities to strengthen existing shopping locations and avoid strip commercial.
- Policy 2.5.2.3 New community shopping centers should also contain the applicable design features of Policy 2.5.2.1.

- Policy 2.8.1.1 Development shall limit excess nighttime light and glare from parking area lighting, signage, and buildings. Consideration will be given to design features, namely directional shielding for street lighting, parking lot lighting, sport field lighting, and other significant light sources, that could reduce effects from nighttime lighting. In addition, consideration will be given to the use of automatic shutoffs or motion sensors for lighting features in rural areas to further reduce excess nighttime light.

El Dorado County Zoning Ordinance

The County Zoning Ordinance (Title 130 of the County Code) regulates land development and includes standards related to aesthetics. Section 130.22.030 establishes height standards and restricts buildings to 50 feet in height with the exception of accessory/architectural features that may be up to 20 percent higher than the height requirements (Section 130.30.060[C]). Outdoor lighting is required to be located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way (Section 130.34.020).

3.1.3 Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential aesthetic and visual resource impacts are based on the architectural renderings of the project, field review of the project area, and review of the visual character of the project area based on field review and photographs in 2018 and 2019. In determining the level of significance, this analysis assumes that the project would comply with the identified relevant County General Plan policies and regulations in County Code.

THRESHOLDS OF SIGNIFICANCE

An impact on aesthetics, light, and glare is considered significant if implementation of the project would do any of the following:

- 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 public views the site and its surroundings;
- conflict with applicable zoning and other regulations governing scenic quality, or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

ISSUES NOT DISCUSSED FURTHER

A scenic vista is generally considered to be a location from which the public can experience unique and exemplary high-quality views—typically from elevated vantage points that offer panoramic views. Latrobe Road adjacent to the project site is identified as an important scenic viewpoint for its views of rolling hills and occasional views of the Sacramento Valley to the west (El Dorado County 2014). However, the project site is not located within this scenic vista. The visual character of the site is that of undeveloped nonnative grasslands and its visual context is also greatly influenced by surrounding development (i.e., suburban and commercial buildings, roadways, and associated infrastructure). Views of the site are not unique to vacant lots within and near El Dorado Hills and do not constitute a scenic vista. Impacts to scenic vistas are not discussed further in this EIR.

The project site is not located within view of a state scenic highway. The nearest highways subject to this program are located approximately 12 miles east of the project site: State Route 49, an Eligible Designated State Scenic Highway, and a segment of U.S. Route 50 that is an Officially Designated State Scenic Highway (Caltrans 2011). Impacts to scenic highways are not discussed further in this EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.1-2: Effects to Visual Character of Public Views and Consistency with County Standards

The project would change the site from a partially-developed commercial to a fully-developed site with coordinating buildings with internal roadways and landscaping throughout the site. The project site is surrounded by suburban land uses that are of similar scale of the project, including commercial, office, industrial, and residential uses. The change in character of the project site, once fully developed, would be consistent with the visual character of the surrounding area and the site's commercial zoning. Therefore, the project would not substantially degrade the existing visual character of public views or quality of the site and its surroundings and this impact would be **less than significant**.

Development of Phase II would include development of 10 separate buildings and associated landscaping and roadways. Thus, the project would change the existing visual character from a partially-developed site to a fully-developed site.

Phase II would interconnect and blend into Phase I through onsite driveway connections and sidewalk connections consistent with General Plan policies 2.4.1.4 and 2.5.2.2. As part of the landscape plan for the project, a blend of evergreen and fast-growing deciduous trees would line the eastern project boundary to screen views of the project from adjacent residences. Along the western side of the project site, Phase II would extend landscaping and wall treatments from Phase I. Landscaping internal to the project site would include a variety of vegetation such as shade trees in parking areas and blend of evergreen shrubbery, grasses, and rushes in all on-site low impact development (LID) water quality basins. Pedestrian and circulation amenities would also contribute to the visual character and quality of the new development. The project would include marked pathways and plazas to enhance visitor experience and contribute to the aesthetics of the site. Proposed buildings in Phase II would be similar scale and massing as buildings in Phase I and in the El Dorado Hills Town Center and would blend into the suburban visual character of the project area from public views along Latrobe Road as well as distant public views along White Rock Road, Windfield Way, and Golden Foothill Parkway (comparison of Figures 2-4 through 2-10 with 3.1-2, 3.1-3, and 3.1-5). Thus, this impact would be **less than significant**.

It is acknowledged that site development would alter the visual character of private views for single-family residences along the eastern boundary of the site. Features of Phase II buildings would be within the private rear yard line of sight and would obstruct views to the west based on review of project grading plans and proposed building locations and elevations. Prominent buildings that would be within these private views due to height and the ground elevation include the following:

- Building 1: 40-foot building height and a ground elevation approximately 35-40 feet higher than residents east of the building.
- Building 10: 50-foot building height and a ground elevation approximately 30 feet higher than residents east of the building.
- Building 4: 40-foot building height with a 70-foot spire and a ground elevation approximately 0-10 feet higher than residents east of the building

The reader is referred to site plan, building heights, and building location provided in Chapter 2, "Project Description." However, these impacts to private views are not treated as significant environmental impacts under CEQA.

Mitigation Measures

No mitigation is required.

Impact 3.1-2: Effects of Light and Glare

Development of Phase II would include the light fixtures that create new sources of light that could impact adjacent residential uses to the east. In addition, windows and architectural features of buildings could reflect sunlight and create glare conditions. This impact would be **significant**.

The project site is partially developed and includes existing interior and exterior lighting. With development of Phase II, sources of nighttime lighting would be added and would increase nighttime lighting in the area with a type and intensity of lighting consistent with commercial development located north and west of the project site. However, this lighting could spillover on adjacent areas and residences east of the site resulting in adverse nighttime lighting impacts in conflict with County development standards (Title 130, Section 130.34.020 of County Code). In addition, architectural features and windows of the buildings could potentially reflect sunlight during certain times of the year (based on the angle of the sun) and create glare conditions on adjoining land areas and roadways. Therefore, this impact is considered **significant**.

Mitigation Measures

Mitigation Measure 3.1-2a: Demonstration of Compliance with County Lighting Standards

Final improvement plans will include specifications that demonstrate outdoor lighting is located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way consistent with Title 130, Chapter 130.34 (Outdoor Lighting) of County Code.

Mitigation Measure 3.1-2b: Use of Nonreflective Building Materials

Final building plans will identify the use of nonreflective building materials and glass that will avoid the creation of glare offsite during the daytime.

Significance after Mitigation

Implementation of Mitigation Measure 3.1-2a would ensure compliance with County lighting standards that would ensure offsite areas are not exposed to spillover lighting, This would likely be accomplished through shielding of the lighting fixture. Mitigation Measure 3.1-2b would require the use of nonreflective building materials and glass to avoid glare. Implementation of these mitigation measures would reduce this impact to **less than significant**.

3.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable air quality regulations, and an analysis of potential short- and long-term air quality impacts that could result from implementation of the project. The methods of analysis for short-term construction, long-term regional (operational), local mobile-source, toxic air emissions, and odors are consistent with the guidance from the El Dorado County Air Quality Management District (EDCAQMD), the California Air Resources Board (CARB), and the U.S. Environmental Protection Agency (EPA).

Comments received in response to the notice of preparation pertaining to air quality were taken into consideration in this analysis included concerns regarding construction-generated fugitive dust impacts.

3.2.1 Environmental Setting

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The project site is located in a portion of western El Dorado County that is part of the Mountain Counties Air Basin (MCAB). The MCAB comprises portions of Placer County and El Dorado County, and all of Plumas, Sierra, Nevada, Amador, Calaveras, Tuolumne, and Mariposa counties. The MCAB includes the central and northern Sierra Nevada Mountains. Elevations range from several hundred feet in the foothills to over 10,000 feet above mean sea level along the Sierra crest.

Ambient concentrations of air pollutant emissions are determined by the amount of pollutants emitted and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and the presence of sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as climate, meteorology, and topography, in addition to the level of emissions by existing air pollutant sources.

The MCAB generally experiences warm, dry summers and wet winters. During the summer, in the western portion of the MCAB where the project site is located, temperatures often exceed 85 degrees Fahrenheit (°F) coupled with clear sky conditions, which is favorable for ozone formation. Local climatology of the project site is best represented by ambient temperature measurements at the Western Regional Climate Center-operated Represa Station in El Dorado County. Maximum temperatures occur during July and reach 90°F on average. Minimum temperatures can be as low as 38°F during winter months (WRCC 2012). Average annual precipitation of approximately 23 inches (0.3 inches of snowfall) occurs primarily during the months of November through March (WRCC 2012). Average annual wind blows from the south (WRCC 2002).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. A brief description of key criteria air pollutants in the MCAB is provided below. Emission source types and health effects are summarized in Table 3.2-1. El Dorado County's attainment status for the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQS) are shown in Table 3.2-2.

Ozone

Ozone is a photochemical oxidant (a substance whose oxygen combines chemically with another substance in the presence of sunlight) and the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_X) in the presence of sunlight. ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NO_X are a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels.

Emissions of the ozone precursors ROG and NO_X have decreased over the past several years because of more stringent motor vehicle standards and cleaner burning fuels. Emissions of ROG and NO_X decreased from 2000 to 2010 and are projected to continue decreasing from 2010 to 2035 (CARB 2013a).

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NO_X and are reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local sources of NO_X emissions (EPA 2018a).

Particulate Matter

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred PM_{10}. PM_{10} consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2013a). Particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$) includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. PM_{10} emissions in the MCAB are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, farming operations, construction and demolition, and particles from residential fuel combustion. Direct emissions of PM_{10} are projected to remain relatively constant through 2035. Direct emissions of $PM_{2.5}$ have steadily declined in the MCAB between 2000 and 2010 and then are projected to increase very slightly through 2035. Emissions of $PM_{2.5}$ in the MCAB are dominated by the same sources as emissions of PM_{10} (CARB 2013a).

Table 3.2-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis

Table 3.2-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

1. Acute health effects refers to immediate illnesses caused by short-term exposures to criteria air pollutants at fairly high concentrations. An example of an acute health effect includes fatality resulting from short-term exposure to carbon monoxide levels in excess of 1,200 parts per million.

2. Chronic health effects refers to cumulative effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations. An example of a chronic health effect includes the development of cancer from prolonged exposure to particulate matter at concentrations above the national ambient air quality standards.

Sources: EPA 2018a

Table 3.2-2 Attainment Status Designations for County of El Dorado

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour)[1]	Nonattainment (1-hour) Classification-Serious[2]
	Nonattainment (8-hour)[3] Classification=Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[4] Classification=Severe	
Respirable particulate matter (PM_{10})	Unclassified (24-hour)	Nonattainment (24-hour)
		Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Nonattainment (Annual)	Unclassified (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)[5]	Unclassified/Attainment (1-Hour)	Attainment (1-hour)
		Attainment (24-hour)
Lead (Particulate)	Unclassified/Attainment (3-month rolling avg.)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Unclassified (24-hour)

Notes:

1. Air Quality meets federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply.
2. Per Health and Safety Code (HSC) § 40921.5(c), the classification is based on 1989 – 1991 data, and therefore does not change.
3. 1997 Standard.
4. 2008 Standard.
5. 2010 Standard.

Source: EPA 2019 and CARB 2018a

TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality* (CARB 2013a), the majority of the estimated health risks from toxic air contaminants (TACs) can be attributed to relatively few compounds, the most important being diesel PM. Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Overall, levels of most TACs, except para-dichlorobenzene and formaldehyde, have decreased since 1990 (CARB 2013a).

Naturally Occurring Asbestos

Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Naturally occurring asbestos (NOA), which was identified as a TAC by CARB in 1986, is located in many parts of California and is commonly associated with serpentine soils and rocks.

An asbestos map of western El Dorado County prepared by El Dorado County shows the location of individual parcels and areas within the following four categories considered to be subject to elevated risk of containing NOA (El Dorado County 2018):

- Found Area of NOA,
- Quarter Mile Buffer for Found Area of NOA,
- More Likely to Contain Asbestos, and
- Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line.

The northeast corner of the project site shares a boundary with a location identified as a Quarter Mile Buffer for Found Area of NOA (El Dorado County 2018). However, the project site itself is not identified as any of the four categories listed above.

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. Odor sources of concern can include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants.

EXISTING EMISSIONS SOURCES

CARB's emissions inventory summarizes emissions of criteria air pollutants and ozone precursors within the MCAB for various source categories in 2012 (the year for which the most recent data are available). According to the emissions inventory, mobile sources account for the greatest contribution to the estimate annual average for air pollutant levels of ROG and NO_X totaling approximately 18 percent and 58 percent, respectively, of all emissions. Areawide sources comprise approximately 84 and 74 percent of the MCAB's PM_{10} and $PM_{2.5}$ emissions, respectively (CARB 2013b).

CARB also estimates emissions per county. In 2012, mobile sources made up 55 and 92 percent of ROG and NO_X emissions in El Dorado County. Similar to trends in the MCAB, areawide sources account for approximately 90 and 78 of PM_{10} and $PM_{2.5}$ emissions, respectively, in the county (CARB 2013c).

Regarding emissions of diesel PM, emissions from diesel mobile sources are projected to continue to decrease after 2010 due to the implementation of various emission control regulations. Overall, statewide emissions are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2013a:3-8). Sources of diesel PM at and around the project site include diesel trucks and backup diesel generators.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants.

Existing land uses near the project site include approximately 200 single family homes along the eastern project boundary. Creekside Greens Parks is approximately 250 feet from the project's northeast boundary.

3.2.2 Regulatory Setting

Air quality surrounding the project site is regulated through the efforts of various federal, state, regional, and local government agencies. These agencies work to improve air quality through legislation, planning, policy-making, education, and a variety of other programs. The agencies responsible for improving the air quality within the air basins are discussed below.

FEDERAL

EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

Criteria Air Pollutants

The CAA required EPA to establish the NAAQS. As shown in Table 3.2-3, EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), NO_2, sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead. The primary standards protect the public health and the secondary standards protect public welfare. The CAA also requires each state to prepare a State Implementation Plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

EPA and the National Highway Traffic Safety Administration (NHTSA) regulate emissions from on-road vehicles. In 2012, EPA and NHTSA, issued final rules to further reduce emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 Federal Register [FR] 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon (77 FR 62630). Transportation plans, such as this, rely on steadily cleaner tailpipe emissions from motor vehicles to achieve federal clean air standards (e.g., Conformity). However, on April 2, 2018, EPA administrator announced a final determination that the current standards should be revised. On August 2, 2018, the U.S. Department of Transportation (DOT) and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light trucks, and retaining the current model year 2020 standards through model year 2026, establish new standards covering model years 2021 through 2026. Vehicles operating in the County would be subject to the CAFE standards. However, at the time of writing this Draft EIR, the SAFE Rule has not been formally adopted by EPA, and 17 states—including California—have filed a lawsuit against EPA. The timing for ultimate approval of the SAFE Rule and the outcome of any pending or potential lawsuits (and how such could delay or affect its implementation) are unknown at this time. The SAFE Rule's impact on future motor vehicle emissions is also unknown.

Further, though the U.S. Congress preempted states from issuing any standard relating to the control of emissions from new motor vehicles, an exception was made for California in recognition of California's policy leadership and its particular problems with smog caused by vehicles. Congress included a carve-out for California that is still enshrined in the CAA today. This special exemption allows California to issue its own vehicle emission standards if it seeks a federal preemption "waiver" from EPA. As long as California's vehicle emission standards protect public health and welfare at least as strictly as federal law and are necessary to meet compelling and extraordinary conditions, the law requires EPA to grant California's request for a preemption waiver. Each time California adopts new vehicle emission standards, the state applies to EPA for a preemption waiver for those standards (e.g., over 100 have been approved). However, EPA is also proposing, in addition to the SAFE Rule but as a separate action, to revoke California's waiver that would allow the state to keep the 2021-2025 standards in place. The ultimate revocation of California's waiver and the outcome of any related lawsuits (and how such could delay or affects its implementation) is unknown at this time alongside on how future motor vehicle emissions could be affected. However, if less strict standards for model years 2021 through 2026 were actually implemented, emissions could increase.

Table 3.2-3 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[1,2]	National (NAAQS)[3]	
			Primary[2,4]	Secondary[2,5]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[5]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	—	—
	3-hour	—	—	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard
Lead [6]	Calendar quarter	—	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	—	—
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard

Table 3.2-3 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[1,2]	National (NAAQS)[3]	
			Primary[2,4]	Secondary[2,5]
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national standards	
Sulfates	24-hour	25 µg/m^3		
Vinyl chloride [6]	24-hour	0.01 ppm (26 µg/m^3)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million (by volume).

1. California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

3. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

4. National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

5. National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

6. The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. This allows for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: EPA 2016 and CARB 2016

Toxic Air Contaminants/Hazardous Air Pollutants

TACs, or in federal parlance, hazardous air pollutants (HAPs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis or genetic damage; or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants, for which acceptable levels of exposure can be determined and for which ambient standards have been established (Table 3.2-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and, in California, CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum achievable control technology or best available control technology (BACT) for toxics to limit emissions.

STATE

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish the CAAQS (Table 3.2-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides air districts with the authority to regulate indirect emission sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots Act) (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, PM exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate BACT for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB has adopted diesel PM control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

LOCAL

El Dorado County Air Quality Management District

Criteria Air Pollutants

EDCAQMD attains and maintains air quality conditions in El Dorado County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean-air strategy of EDCAQMD includes preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, and issuing permits for stationary sources of air pollution. EDCAQMD 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 CCAA.

All projects in El Dorado County are subject to adopted EDCAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of the project may include the following:

- **EDCAQMD Rule 202—Visible Emissions.** A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated as number 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- **EDCAQMD Rule 215—Application of Architectural Coatings.** No person shall: (i) manufacture, blend, or repackage for sale within EDCAQMD; (ii) supply, sell, or offer for sale within EDCAQMD; or (iii) solicit for application or apply within EDCAQMD, any architectural coating with a VOC content in excess of the corresponding specified manufacturer's maximum recommendation. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.
- **EDCAQMD Rule 223-1—Fugitive Dust.**
  - **Visible Emissions Not Allowed Beyond the Boundary Line:** A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emission source.
  - Visible Emissions from Active Operations: In addition to the requirements of Rule 202, Visible Emissions, a person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as number 2 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
  - Concentration Limit: A person shall not cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter (24-hour average) when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other EPA-approved equivalent method for PM_{10} monitoring.
  - Track-Out onto Paved Public Roadways: Visible roadway dust as a result of active operations, spillage from transport trucks, and the track-out of bulk material onto public paved roadways shall be minimized and removed.

    The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventative measures, and removed within 1 hour from adjacent streets any time track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations.

    All visible roadway dust tracked-out upon public paved roadways as a result of active operations shall be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous

operations. Wet sweeping or a High Efficiency Particulate Air filter equipped vacuum device shall be used for roadway dust removal.

Any material tracked-out, or carried by erosion, and clean-up water, shall be prevented from entering waterways or storm water inlets as required to comply water quality control requirements.

- Minimum Dust Control Requirements: The following dust mitigation measures are to be initiated at the start and maintained throughout the duration of the construction or grading activity, including any construction or grading for road construction or maintenance.
  - Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered.
  - The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 mph unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 mph from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.
  - Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
  - Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.
  - Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt, from being released or tracked offsite.
  - When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended. No trucks are allowed to transport excavated material offsite unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either covered with tarps; or wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6 inches from the top and that no point of the load extends above the top of the cargo compartment.
- Wind-Driven Fugitive Dust Control: A person shall take action(s), such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.

- EDCAQMD Rule 501—General Permit Requirements. Any person operating an article, machine, equipment, or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain a written permit from the Air Pollution Control Officer. Stationary sources subject to the requirements of EDCAQMD Rule 522, Federal Operating Permit Program, must also obtain a Title V permit pursuant to the requirements and procedures of that rule.

Toxic Air Contaminants

At the local level, air pollution control or management districts may adopt and enforce CARB's control measures. All stationary sources with the potential to emit TACs are required to obtain permits from EDCAQMD under Rule 501, General Permit Requirements; Rule 523, New Source Review; and Rule 522, Federal Operating Permit. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures.

Sources that require a permit are analyzed by EDCAQMD (e.g., health risk assessment) based on their potential to emit TACs. If it is determined that the project will emit toxics in excess of EDCAQMD's threshold of significance for TACs (identified below), sources have to implement the BACT for TACs to reduce emissions. If a source cannot reduce

the risk below the threshold of significance even after the BACT has been implemented, the air district will deny the permit required by the source.

EDCAQMD is also responsible for implementing and enforcing asbestos-related regulations and programs. This includes implementation of Title 17, Sections 93105 and 93106 of the California Code of Regulations (Asbestos Airborne Toxic Control Measure-Asbestos-Containing Serpentine) and the county's Naturally Occurring Asbestos and Dust Protection Ordinance. Regulated activities include construction or digging on a site containing NOA in rock or soils and the sale and use of serpentine material or rock containing asbestos materials for surfacing (El Dorado County 2004).

In addition to addressing fugitive dust, EDCAQMD's Rule 223 also addresses NOA emissions during construction activities. Rule 223-1 is intended to limit fugitive dust emissions from construction-related activities and also requires immediate reporting upon discovery of NOA in construction areas. Rule 223-2 is intended to reduce the amount of asbestos particulate matter entrained in the ambient air as a result of any construction or construction-related activities that disturbs or potentially disturbs NOA by requiring actions to prevent, reduce or mitigate asbestos emissions. The County's Air Pollution Control Officer may provide an exemption from Rule 223-2 if a Professional Geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock, or asbestos, is likely to be found in the area to be disturbed.

The presence of NOA on the site triggers specific county requirements and additional recommendations as listed in El Dorado County Air Quality Management District Rule 223-2. Rule 223-2 regulates grading in asbestos review areas and requires that finished grade surface asbestos concentrations be below 0.25 percent as measured by CARB Test Method (TM) 435; potentially requiring testing and management for asbestos during grading followed by the testing of finished grades for asbestos. All export soil/rock is required to be tested along with the completion of special documentation to accompany the export. Public disclosure is required for properties containing asbestos.

Odors

EDCAQMD has determined some common types of facilities that have been known to produce odors: wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Because offensive odors rarely cause any physical harm, and federal and state air quality regulations do not contain any requirements for their control, EDCAQMD has no rules or standards related to odor emissions other than their nuisance rules:

- **EDCAQMD Rule 205—Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property. The provisions of Rule 205 do not apply to odors emanating from agriculture operations necessary for the growing of crops or raising of fowl or animals.

Any actions related to odors are based on citizen complaints to local governments and EDCAQMD.

El Dorado County General Plan

The Health, Safety, and Noise Element of the El Dorado County General Plan provides county-wide goals and polices aimed at improving air quality. Goals and policies in this element parallel those identified in the State and federal plans applicable to El Dorado County.

The following policies related to asbestos are designed to meet Goal 6.3 of the General Plan:

- **Policy 6.3.1.1:** The County shall require that all discretionary projects and all projects requiring a grading permit, or a building permit that would result in earth disturbance, that are located in areas likely to contain NOA (based on mapping developed by the California Department of Conservation [DOC]) have a California-registered geologist knowledgeable about asbestos-containing formations inspect the project area for the presence of asbestos using appropriate test methods. The County shall amend the Erosion and Sediment Control Ordinance to include a section that addresses the reduction of thresholds to an appropriate level for grading permits in

areas likely to contain NOA (based on mapping developed by the DOC). The Department of Transportation and the County Air Quality Management District shall consider the requirement of posting a warning sign at the work site in areas likely to contain NOA based on the mapping developed by the DOC.

- Policy 6.3.1.2: The County shall establish a mandatory disclosure program, where potential buyers and sellers of real property in all areas likely to contain NOA (based on mapping developed by the DOC) are provided information regarding the potential presence of asbestos subject to sale. Information shall include potential for exposure from access roads and from disturbance activities (e.g., landscaping).

The following policies related to Goal 6.7 of the general plan, which is "[s]trive to achieve and maintain ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board" and "[m]inimize public exposure to toxic or hazardous air pollutants and air pollutants that create unpleasant odors."

- Policy 6.7.6.2: New facilities in which sensitive receptors are located (e.g., residential subdivisions, schools, childcare centers, playgrounds, retirement homes, and hospitals) shall be sited away from significant sources of air pollution.
- Policy 6.7.7.1: The County shall consider air quality when planning the land uses and transportation systems to accommodate expected growth, and shall use the recommendations in the most recent version of the El Dorado County Air Quality Management (AQMD) Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act, to analyze potential air quality impacts (e.g., short-term construction, long-term operations, toxic and odor-related emissions) and to require feasible mitigation requirements for such impacts. The County shall also consider any new information or technology that becomes available before periodic updates of the Guide. The County shall encourage actions (e.g., use of light-colored roofs and retention of trees) to help mitigate heat island effects on air quality

3.2.3 Impacts and Mitigation Measures

METHODOLOGY

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors were assessed in accordance with EDCAQMD-recommended methodologies, where available. Where published EDCAQMD recommendations were not available, EDCAQMD staff recommend using guidance developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD) (Baughman, pers. comm., 2019).

Emissions of criteria air pollutants and precursors from the construction and operation of the main project site were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CAPCOA 2016). Emissions from the off-site installation of the proposed sewer pipeline were calculated using the Sacramento Roadway Construction Emissions Model (RCEM), recommended by SMAQMD for linear construction projects, including pipelines. (SMAQMD 2019:3-5).

Construction

Short-term construction-related emissions of criteria air pollutants and precursors were calculated using project-specific information (e.g., size, area to be graded, area to be paved) where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod and RCEM that are based on the project's location and land use type.

Construction is anticipated to start in 2020 and last through 2022 and would be conducted in three non-overlapping phases. Construction is assumed to occur six days per week for no more than eight hours per day. The project would result in the construction of a regional shopping center that includes sit-down and fast-food restaurants, retail, general office buildings, hotel, general commercial land uses, amphitheater, storm drain basin, paved areas, landscaping, and sewer infrastructure. Table 3.2-4 summarizes the assumed CalEEMod land use types and sizes used

for emissions modeling, based on the project details shown in Chapter 2, "Project Description," and communication with the applicant. Other additional assumptions can be found in Appendix C.

Table 3.2-4 Construction Phasing

Phase	Years
Phase 1	January 2020 – June 2021
Phase 2	June 2021 – March 2022
Phase 3	March 2022 – November 2022

Notes: Construction phasing based on 6-day weeks.

Source: Compiled by Ascent Environmental in 2019.

The construction phasing schedule, shown in Table 3.2-5, was estimated based on phasing shown in Table 3.2-4. Due to the higher number of buildings assigned to Phase 1, Phase 1 is assumed to have the longest duration out of the three phases. Site preparation, mass grading, paving, and infrastructure-related construction components are assumed to be fully completed in Phase 1, with mass grading estimated to take one year. No demolition activity is assumed because the existing site is a green field site with no existing structures.

Table 3.2-5 Land Use Assumptions for Emissions Modeling by Construction Phase

Building Number[1]/Description	Construction Phase	CalEEMod Land Use Type	Building Area (sq. ft.)
Building #5	1	High Turnover Sit-Down Restaurant	4,714
Building #6	1	Regional Shopping Center	4,341
Building #7	1	Fast Food Restaurant with Drive Thru	3,665
Building #8	1	Supermarket	29,968
Building #10	1	Hotel Quality Restaurant General Office Building	48,136 3,500 3,500
Amphitheater	1	Arena[2]	5,500[3]
Storm Drain	1	City Park	5,000[3]
Parking Area	1	Parking Lot	102,890
Other Paved Surfaces (e.g., driveways)	1	Other Asphalt Surfaces	206,970
All Concrete Areas	1	Other Non-Asphalt Surfaces	89,288
All Pipelines	1	Added as an additional trenching construction activity	12,250[4]
Building #3	2	High Turnover Sit-Down Restaurant	5,193
Building #4	2	Regional Shopping Center	13,988
Building #9	2	General Office Building	4,607
Building #1	3	Regional Shopping Center General Office Building	8,841 8,841
Building #2	3	Regional Shopping Center	4,606

Notes: sq. ft. = square feet, ft = feet, in = inch. Other modeling assumptions can be found in Appendix C.

1. Based on designations shown in Figure 2-3.
2. Used as a conservative proxy land use. Actual construction and operations related to the amphitheater may be lower than a similar sized arena.
3. Estimated based on drawings in Figure 2-3.
4. Based on a 2,450 ft length and 5 ft width disturbance. 5 ft width used as a conservative assumption for installation of the proposed 8-in pipe.

Source: Compiled by Ascent Environmental in 2019.

The proposed offsite sewer pipeline, shown in Figure 2-12c in the Project Description, is assumed to be 2,450 feet (ft) long and require a trenching width of 5 feet and depth of ten feet. Based on the pipeline drawing, it is assumed that trenching would occur on existing roadways. As such, no mass grading or grubbing would be required for pipeline construction.

Specific CalEEMod and RCEM model assumptions, such as equipment horsepower and hours of use per day, and inputs for these calculations can be found in Appendix C.

Operations

Operational emissions of criteria air pollutants and precursors were estimated using project-specific information, where available, and default values in CalEEMod based on the project's location and land use. Mobile-source emissions were modeled in CalEEMod Version 2016.3.2 using the number of project-generated vehicle trips provided by the traffic analysis provided in Section 3.12, "Transportation/Traffic." Indirect emissions associated with one-site consumption of natural gas, the use of consumer products, and landscape maintenance activities were estimated using the applicable modules of CalEEMod. Operational emissions from all sources were estimated for full buildout of the project which would become fully operational in 2023. It was conservatively assumed that the 29,968-sq. ft. "General Commercial" building (Building 8), shown in Figure 2-3, would be operated as a supermarket. Supermarkets tend to have higher natural gas consumption and use and storage of consumer products than other commercial land uses. Detailed model assumptions and inputs for these calculations can be found in Appendix C.

As recommended by EDCAQMD, CO impacts were assessed qualitatively, using the screening criteria set forth by SMAQMD and results of the traffic analysis described in Section 3.12, "Transportation/Traffic."

The assessment of odor-related impacts is based on the types of odor sources associated with the land uses that would be developed under the project and their location relative to existing off-site sensitive receptors.

Health Risk Assessment

The level of health risk from exposure to construction- and operation-related TAC emissions was assessed quantitatively. This assessment was based on the proximity of TAC-generating activity to off-site sensitive receptors, the number and types of diesel-powered construction equipment being used, and the duration of potential TAC exposure. The primary TAC that would occur from construction and operations and evaluated in this analysis is diesel PM. Emissions of other TACs during operations, such as chemicals that may be used for medical or research purposes, would be negligible, based on the proposed commercial land uses. In addition, the project would not result in the operation of large stationary sources, such as those characteristic of industrial land uses.

Construction- and operation-related emissions of diesel PM were obtained from the PM_{10} exhaust results of the CalEEMod and RCEM runs. Both models assume construction equipment run on diesel. Construction diesel PM would be generated by on-road vehicle traffic (e.g., vendor and hauling trips) and off-road diesel equipment operation (e.g., construction equipment). Operational diesel PM would result from occasional testing of an on-site diesel emergency generator for the potential supermarket at Building #8 and idling by diesel truck at loading docks at the same building.

Modeling Approach

Dispersion modeling was conducted in CARB-approved American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee modeling system (AERMOD) Version 18081, with a unit emission rate of 1.0 grams per second (g/s) for all modeled sources (EPA 2018b). This approach enabled the output files to be assigned appropriate emission rates and cancer and noncancer risk values to estimate benzene and diesel PM concentrations and cancer and noncancer risk levels from each individual source at each receptor location. The modeling included all standard regulatory default options, including the use of urban dispersion parameters and elevated terrain.

Meteorological Data

Pre-processed 5-year meteorological data from 2010-2014 collected at the Sacramento Executive Airport station was obtained from SMAQMD (SMAQMD 2017). The Sacramento Executive Airport station is the nearest and most representative meteorological station to project site with available meteorological data. A wind rose displaying the wind speed and wind direction is shown in Appendix C. As discussed above, the wind direction is primarily from the south. Dispersion modeling applied a time-averaged, simplified representation of turbulent, atmospheric transport to approximate how pollutants are carried, mixed, dispersed, and diluted by the local winds.

Receptor Grid

The nearest sensitive receptors are located along the eastern boundary of the project site. A receptor grid with 100-meter spacing was placed out to one kilometer from project site boundary to assess the potential cancer and noncancer risk at surrounding residences.

Construction-Generated Toxic Air Contaminants

For the main project site where construction activities would occur, construction emission sources were modeled as an array of adjacent volume sources. Each volume source was assumed to have 25 ft (7.6 meter [m]) sides, an internal lateral dimension of 3.5 m, and an internal vertical dimension of 1.0 m, the latter two attributes were calculated from the length of the volume source side based on calculations recommended in SMAQMD's guidance (SMAQMD 2013:2). For modeling purposes, it is assumed that onsite construction activity would occur evenly across the project site.

Offsite pipeline construction to the southwest of the main construction activities was modeled as a line source to represent a series of volume sources. The line sources represent construction activity that would occur along the pipeline. This line source was assumed to have a with a 5.1 m plume height and 10.0 m plume width based on the assumption that representative equipment operating along the pipeline construction would approximately have a height of three meters and a vehicle width of four meters.

This line source was assumed to have an adjacent configuration of volume sources with the same dimensions as the volume sources modeled for the main project site.

Haul routes were modeled as a line source, also representing series of volume sources, with a 5.1 m plume height, 13.6 m plume width, and a 2.6 m release height. These were calculated in AERMOD based on the assumption that trucks traveling on these routes would have an average height of 3.0 m and travel on two-lane roads that are 7.6 m (25 ft) wide. The haul route to the project side was modeled for the extent of Latrobe Road spanning from the southwest corner of the project site 12,111 m up to the nearest ramps to and from Highway 50.

PM dispersion from fugitive dust was not evaluated because fugitive dust not have a health risk value assigned by OEHHA or CARB (CARB 2018b).

Cancer risk levels at offsite receptors were estimated using the risk module of CARB's Hotspots Analysis Reporting Program, Version 19121, (HARP2), using default risk parameters and an exposure duration of three years for cancer risks (CARB 2019).

Operational Toxic Air Contaminants

Two sources of diesel PM were assumed to occur during operations: a diesel-powered emergency generator and diesel truck idling, both occurring at the assumed supermarket site at Building #8. Both the generator and loading docks were assumed to be located at the south end of the building. Each of these sources were modeled as point sources.

For the emergency generator, the exhaust stack parameters were assumed to be similar to a 350 kW Caterpillar standby generator, which has a stack height of 2.2 m, stack exhaust temperature of 493°C, and an exhaust flow rate of 94.4 cubic meters per minute (Caterpillar 2013). The generator was modeled assuming testing would occur only twice per year, 30 minutes at a time. The analysis does not account for actual emergency operation, which is speculative.

For idling trucks, modeling parameters for trailers with vertical exhaust systems was available from the San Joaquin Valley Air Pollution Control District (SJVAPCD 2006:75). It was assumed that no more than three deliveries would occur per week, no more than one truck would be idling at a time, and idling time would be limited to five minutes per CARB regulations.

Cancer risk levels at off-site receptors were estimated using the risk module of HARP, using default risk parameters, including a default exposure duration of 30 years for residential cancer risks (CARB 2019).

THRESHOLDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines and EDCAPCD recommendations, a project's impact to air quality is considered significant if it would do any of the following:

- result in construction-generated criteria air pollutant or precursor emissions that exceed the EDCAQMD-recommended thresholds of 82 average pounds (lb) per day for ROG and NO_X;
- result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the EDCAQMD-recommended thresholds of 82 average lb per day for ROG and NO_X;
- result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm;
- expose sensitive receptors to a substantial incremental increase in health risks from exposure to TAC emissions that exceed 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater; or
- create objectionable odors affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

Impacts related to the disturbance of NOA are not discussed further because the project site is not located in an area identified as likely having NOA or being within a quarter mile buffer of areas likely to have NOA.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Construction-Generated Emissions of Criteria Air Pollutants and Precursors

Construction of the project would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. from site preparation (i.e., clearing, grading, and excavation), off-road equipment, material and equipment delivery trips, worker commute trips, building construction, asphalt paving, and the application of architectural coatings. However, construction activities would not result in emissions of ROG, NO_X, or PM_{10} that would exceed EDCAQMD-recommended thresholds. Therefore, construction-generated emissions of criteria air pollutants and precursors would not conflict with the air quality planning efforts in the region or contribute substantially to the nonattainment status of MCAB with respect to the CAAQS and NAAQS for ozone or the NAAQS for PM_{10} and $PM_{2.5}$. Thus, the emissions generated during the project's construction would not contribute to air quality–related health complications experienced by people living in the MCAB. This impact would be **less than significant**.

Construction-related activities would generate emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from off-road equipment used for clearing, grading, and excavation; on-road trucks used for material delivery and equipment hauling; worker commute trips; asphalt paving; and the application of architectural coatings. Fugitive dust PM_{10} and $PM_{2.5}$ emissions would be associated primarily with ground disturbance and vary as a function of soil silt content, soil moisture, wind speed, and acreage of disturbance. PM_{10} and $PM_{2.5}$ are also contained in exhaust from off-road equipment and on-road vehicles. Emissions of ozone precursors, ROG and NO_X, would be associated primarily with the exhaust

generated by off-road equipment and on-road vehicles. The application of architectural coatings would result in off-gas emissions of ROG.

Emissions were estimated using the construction module of CalEEMod (CAPCOA 2016) and are summarized in Table 3.2-6. Construction is anticipated to begin January 2020 and last approximately 31 months. Detailed modeling assumptions and input parameters are provided in Appendix C.

Table 3.2-6 Summary of Average Daily Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction (lb/day)

Construction Year	ROG	NO_X	PM_{10}			$PM_{2.5}$		
			Fugitive	Exhaust	Total	Fugitive	Exhaust	Total
2020	6.47	77.75	8.82	2.68	11.50	3.84	2.47	6.36
2021	8.93	18.14	1.53	0.76	2.30	0.44	0.71	1.15
2022	3.73	4.05	0.05	0.22	0.27	0.00	0.16	0.22
Average Daily Emissions	6.38	33.31	3.47	1.22	4.69	1.43	1.11	2.58
EDCAQMD Threshold of Significance	82	82	NA			NA		

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with aerodynamic diameter of 2.5 micrometers or less

Maximum emissions include EDCAQMD's fugitive dust control measures under Rule 223-1.

See Appendix C for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019

As shown in Table 3.2-6, daily emissions of ROG, NO_X, and PM_{10} would not exceed the respective thresholds. Therefore, the project's construction-related emissions would not conflict with air quality planning efforts in the region or result in a cumulatively considerable net increase in any criteria pollutant for which the region has been designated as nonattainment with respect to the NAAQS or CAAQS. Moreover, because the NAAQS and CAAQS were established to be protective of public health, adverse health impacts to receptors are not anticipated. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.2-2: Long-Term Operational Emissions of Criteria Air Pollutants and Precursors

Implementation of the project would not result in long-term operational emissions of ROG, NO_X, or PM_{10}, that exceed EDCAQMD-recommended mass emission thresholds. Therefore, operational emissions would not conflict with the air quality planning efforts in the region or contribute substantially to the nonattainment status of MCAB with respect to the NAAQS and CAAQS for ozone or the NAAQS for PM_{10} and $PM_{2.5}$. Thus, the project's operational emissions would not contribute to air quality–related health complications experienced by people living in the MCAB. This impact would be **less than significant**.

Project operations would result in the generation of emissions of criteria air pollutants and precursors. Mobile-source emissions would be generated employees and shoppers driving vehicles traveling to and from the project site, as well as delivery and maintenance vehicles. As identified in Section 3.12, "Transportation/Traffic," the project would generate an estimated 4,365 additional daily vehicle trips.

Emissions would also be generated by the on-site combustion of natural gas for space and water heating and landscape maintenance equipment such as mowers and leaf blowers. The application of architectural coatings, as

part of regular maintenance, and the use of various consumer products such as cleaning chemicals would also generate off-gas emissions of ROG.

Table 3.2-7 summarizes the average daily operational emissions of criteria air pollutants and precursors. Emissions were calculated using CalEEMod and are based on the proposed land use type and number of trips (Appendix C).

Table 3.2-7 Summary of Average Daily Operational Emissions of Criteria Air Pollutants and Precursors at Full Buildout (2023) (lb/day)

Emissions Source	ROG	NO_X	PM_{10}			$PM_{2.5}$		
			Fugitive	Exhaust	Total	Fugitive	Exhaust	Total
Landscape Maintenance	4	0	<1	<1	<1	<1	<1	<1
Natural Gas Combustion	0	1	<1	<1	<1	<1	<1	<1
Mobile Sources (Vehicle Trips)	6	15	11	<1	11	3	<1	3
Emergency Generator	<1	<1	<1	<1	<1	<1	<1	<1
Total	10	16	11	<1	11	3	<1	3
EDCAQMD Threshold of Significance	82	82	NA			NA		

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; EDCAQMD = El Dorado County Air Quality Management District

Total values may not sum exactly due to rounding. See Appendix C for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019

As shown in Table 3.2-7, daily average emissions of ROG, NO_X and PM_{10} would not exceed the mass emission thresholds recommended by EDCAQMD. Therefore, the project's operational emissions would not conflict with air quality planning efforts in the region or result in a cumulatively considerable net increase in any criteria pollutant for which the region has been designated as nonattainment with respect to the NAAQS or CAAQS. Nonattainment designations in the MCAB with respect to the NAAQS and CAAQS, would not conflict with air quality planning efforts in the region. Moreover, because the NAAQS and CAAQS were established to be protective of public health, adverse health impacts to receptors are not anticipated. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.2-3: Mobile-Source CO Concentrations

Long-term operational mobile-source emissions of CO generated by the implementation of the project would not result in localized concentrations CO that would violate or contribute substantially to exceedances of the applicable NAAQS or CAAQS. Therefore, the project would not expose sensitive receptors to substantial concentrations of CO that could result in adverse health effects. As a result, this impact would be **less than significant**.

Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain meteorological conditions, CO concentrations near roadways and/or intersections may increase to unhealthy levels at nearby sensitive land uses, such as residential units, hospitals, schools, and child care facilities. Thus, it is recommended that CO not be analyzed at the regional level, but at the local level.

Based on the traffic analysis described in Section 3.12, "Transportation/Traffic," at complete build out, the project is estimated to generate an additional 4,365 average daily trips.

SMAQMD recommends a screening methodology to determine whether CO emissions generated by traffic at congested intersections would have the potential to exceed, or contribute to an exceedance of, the 8-hour CAAQS of 9.0 ppm or the 1-hour CAAQS of 20.0 ppm. The screening methodology consists of two tiers of screening criteria. If the first tier is not met, then the second tier may be applied. The two tiers of screening following criteria are as follows (SMAQMD 2016:4-8):

First-Tier

A project would not result in, or contribute to, a localized exceedance of the NAAQS or CAAQS for CO if:

- Traffic generated by the project would not result in deterioration of intersection LOS to LOS E or F, and
- The project would not contribute additional traffic to an intersection that already operates at LOS E or F.

Second-Tier

If all the following criteria are met, a project would result in a less-than-significant impact to air quality for local CO:

- The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited; and
- The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average (as identified by CalEEMod model).

Based on the traffic study conducted for the project (see Section 3.12, "Transportation/Traffic"), the addition of project-generated traffic to existing conditions (i.e., existing-plus-project conditions) would result in the downgrading of the intersection of White Rock Road and Post Street from LOS D to E. This fails to meet the first-tier of screening criteria. However, the project would meet all requirements under the second-tier of screening criteria and would not result in an intersection volume greater than 31,600 vehicles per hour. Therefore, operations-related local mobile-source emissions of CO would not result in a violation or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 ppm or the 8-hour CAAQS of 9 ppm. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.2-4: Exposure of Sensitive Receptors to TACs

Operational emissions of TACs would not expose off-site receptors to an incremental increase in cancer risk greater than 10 in one million or a hazard index of 1.0 or greater. However, the construction-generated emissions of TACs could expose existing off-site receptors to an incremental increase in cancer risk greater than 10 in one million. This would be a **significant** impact.

The exposure of off-site sensitive receptors to health risk associated with TACs generated by the construction and operation of the project are discussed separately below. Diesel PM is the focus of these discussions because it would be the predominant TAC emitted during project construction and operation.

The potential cancer risk from the inhalation of diesel PM outweighs the potential for all other diesel PM–related health impacts (i.e., noncancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2018b). Cancer risk from TAC exposure is expressed as the excess cancer cases per one million exposed individuals, typically over a lifetime of exposure. Chronic and acute exposure to noncarcinogenic TACs is expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure level.

The dose to which receptors are exposed is the primary factor used to determine health. Dose is a function of the concentration of a substance in the environment and the duration of exposure to the substance. It is positively correlated with time, meaning that a longer exposure period would result in a higher risk exposure level for any

exposed receptor. Thus, the risks estimated for an exposed individual are higher if the exposure occurs over a longer period. According to OEHHA, health risk assessments, which determine the exposure of sensitive receptors to TACs, should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015:5-23, 5-24).

Construction-Related TACs

Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of heavy-duty off-road diesel equipment used for preparing the site (e.g., clearing and grading), trenching, paving, moving building materials around the site, and applying architectural coatings. This analysis focuses primarily on heavy-duty construction equipment used on-site and along the corridor of the new sewer pipeline that may affect nearby off-site sensitive receptors. Average annual exhaust emissions of PM_{10} are based on average daily exhaust emissions, as shown in Table 3.2-6, which is considered a surrogate for diesel PM, would be approximately 444 lb/year during the 31-month construction period.

Based on the air dispersion modeling and risk calculations discussed above, offsite receptors would not be exposed to a hazard index for noncarcinogenic acute and chronic risk greater than 0.001. However, construction-generated emissions of diesel PM would result in an increased cancer risk of between 10 and 18 chances in one million at receptors located within 70 feet of the eastern side of the project site. This level of cancer risk exposure at homes in this area would exceed EDCAQMD's recommended incremental increase threshold of 10 in one million. Detailed air dispersion modeling and risk assessment results can be found in Appendix C. Considering EDCAQMD thresholds of significance of 10 chances in a million for cancer risk and a noncancer health index threshold of less than one, the project would result in the exposure of any nearby sensitive receptors to TAC concentrations that exceed applicable thresholds of significance during construction.

Operational TACs

Operation of the proposed land uses on the project site would result in the long-term emissions of diesel PM. Diesel PM would be emitted by haul trucks carrying goods to and from the site, and during the periodic testing of an emergency backup diesel generator. Based on the average daily emissions shown Table in 3.2-7, average annual emissions of diesel PM generated by project operations would be approximately be 2.1 lb/year.

Based on the air dispersion modeling and risk calculations discussed above, operational emissions of diesel PM would result in an increased cancer risk less than 0.01 chances in one million and noncancer risks of less than 0.000003 at any offsite locations. Detailed air dispersion modeling and risk assessment results can be found in Appendix C. These risk levels would not exceed EDCAQMD's recommended incremental increase threshold of 10 in one million for cancer risk or a hazard index of 1.0 for acute and chronic risk.

Summary

In summary, health risks associated with emissions of TACs during operation would not exceed applicable thresholds of significance. However, construction-related emissions of TACs would result in an incremental increase in cancer risk greater than 10 in one million at existing sensitive receptors. This would be a **significant** impact.

Mitigation Measures

Mitigation Measure 3.2-4. Reduce Emissions of Diesel PM from Construction Equipment

The applicant shall reduce diesel PM from construction equipment to reduce the level of health risk resulting from construction-generated emissions, such that construction-related cancer risks to nearby residences would not exceed an incremental increase of 10 in one million. Health risks associated with TAC emissions are proportional to the TAC emissions rates. Thus, the project would need to demonstrate a reduction in diesel PM by at least 45 percent from unmitigated estimates to reduce the maximum incremental cancer risk at nearby receptors to less than 10 in one million. This is equivalent to demonstrating annual average diesel PM emissions of no more than 200 lb/year for on-site construction equipment, assuming hauling and pipeline construction activities remain unmitigated. This can be achieved by implementing one of the following two measures:

- Require the use of Tier 4 engines for all on-site equipment rated 50-horsepower (hp) or greater, or
- Require the contractor to use SMAQMD's Construction Mitigation Tool to demonstrate that the combined usage of on-site construction equipment would not exceed 200 lb of diesel PM per year and submit the tool to El Dorado County for review and approval (SMAQMD 2018).

Significance after Mitigation

Implementation of Mitigation Measure 3.2-4 would reduce the level of cancer risk exposure at off-site locations to less than 10 in one million. Therefore, this impact would be **less than significant**.

Impact 3.2-5: Exposure of Sensitive Receptors to Odors

The project may introduce new odor sources into the area, including diesel exhaust emitted during construction, diesel exhaust emitted by delivery trucks during project operations, and potentially cooking and food preparation at restaurants. However, these types of odor sources are not usual for urban areas and typically do not result in a substantial number of odor complaints. For this reason, it is not expected that the would not result in the exposure of sensitive receptors to excessive odors. This impact would be **less than significant**.

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the affected receptors. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generate citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose a substantial number of people to objectionable odors would be deemed to have a significant impact.

Sensitive receptors in proximity to the project site include residences to the east and a community park to the northeast. Minor odors from the use of heavy-duty diesel equipment, and the laying of asphalt during project-related construction activities would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance.

The operation of the restaurants and food vendors during special events on the project site, may result in the release of odorous emissions. However, these are not the type of land uses that typically generate odor complaints. Moreover, all of these odor sources are not typically considered to be unusual or objectionable in urban areas. Also, any new odor sources would be subject to EDCAQMD Rule 205, Nuisance. For these reasons, implementation of the project is not expected to result in exposure of a substantial number of people to objectionable odors. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

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3.3 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the project. The data reviewed in preparation of this analysis included:

- results of California Natural Diversity Database (CNDDB) record search of the Buffalo Creek, Clarksville, Coloma, Folsom, Folsom SE, Latrobe, Pilot Hill, Rocklin, and Shingle Springs U.S. Geological Survey 7.5-minute quadrangles (CNDDB 2019);
- results of California Native Plant Society (CNPS), Rare Plant Program database search of the Buffalo Creek, Clarksville, Coloma, Folsom, Folsom SE, Latrobe, Pilot Hill, Rocklin, and Shingle Springs U.S. Geological Survey 7.5-minute quadrangles (CNPS 2019);
- *Results of Biological and Aquatic Resource Evaluation for the Montano de El Dorado Phase III Project, El Dorado County, CA* (Sycamore Environmental Consultants, Inc. 2013);
- *Evaluation of Western Pond Turtle Potential to Occur, Montano de El Dorado Phase III Project, El Dorado County, CA* (Sycamore Environmental Consultants, Inc. 2018); and
- aerial photographs of the project site.

Comments were received from residents who live in the area in response to the notice of preparation regarding wetlands and impacts to wildlife. These issues are addressed below.

3.3.1 Environmental Setting

REGIONAL SETTING

El Dorado County's diversity of native flora and fauna can be attributed to a combination of unique physical characteristics that have resulted in a wide diversity of habitats. These unique physical features include a wide range of elevations and varied terrain, diverse substrate material, large tracts of contiguous natural habitat, and a broad range of climatic conditions. Habitats are generally distributed in an integrated mosaic pattern across the county. Coniferous forest is dominant at higher elevations in the eastern half; oak and hardwood habitats are found mostly in the central region; and annual grassland, chaparral, agriculture, and urban development are found primarily in the western third of the county (El Dorado County 2004).

LOCAL SETTING

According to a biological and aquatic resource evaluation competed for the project site, the only biological community that occurs within the project site is nonnative grassland (Sycamore Environmental Consultants, Inc. 2013). The nonnative grassland is dominated by rye grass (*Festuca perennis*), medusa head (*Elymus caput-medusae*), storksbill (*Erodium botrys*), ripgut brome (*Bromus diandrus*), and winter vetch (*Vicia villosa* ssp. *villosa*). The project site contains only one shrub species, poison oak (*Toxicodendron diversilobum*), and does not contain trees (Sycamore Environmental Consultants, Inc. 2013).

SPECIAL-STATUS SPECIES

Special-status species are plants and animals that are legally protected under CESA (Fish and Game Code, Section 2050 et seq.), ESA, or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For this EIR, special-status species are defined as:

- species listed or proposed for listing as threatened or endangered under the ESA (50 CFR Section 17.12 for listed plants, 50 CFR Section 17.11 for listed animals) and various notices in the *Federal Register* for proposed species;

- species that are candidates for possible future listing as threatened or endangered under the ESA (75 CFR Section 69222);
- species that are listed or proposed for listing by the State of California as threatened or endangered under CESA of 1984 (14 CCR Section 670.5);
- plants considered by California Department of Fish and Wildlife (CDFW) to be "rare, threatened, or endangered in California" (California Rare Plant Ranks 1A, 1B, 2A, and 2B) (CNDDB 2019; CNPS 2019);
- species that meet the definition of rare or endangered under State CEQA Guidelines Section 15380;
- animals fully protected in California (Fish and Game Code, Section 3511 for birds, Section 4700 for mammals, and Section 5050 for reptiles and amphibians); or
- animal species of special concern to CDFW.

The term "species of special concern" is applied by CDFW to animals not listed under ESA or CESA, but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time, and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Tables 3.3-1 and 3.3-2 provide lists of the special-status plant and wildlife species, respectively, that have been documented in the project area or within the nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site. The tables describe the species' regulatory status, habitat, and potential for occurrence on the site. A total of 23 special-status plant species and 31 special-status animal species were determined to be present or potentially present within the nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site (CNDDB 2019, CNPS 2019, Tables 3.3-1 and 3.3-2).

Table 3.3-1 Special-Status Plant Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]			Habitat	Potential for Occurrence[2]
	Federal	State	CRPR		
Jepson's onion *Allium jepsonii*	—	—	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. On serpentine soils in Sierra foothills, volcanic soil on Table Mountain. On slopes and flats; usually in an open area. 1,165–3,707 feet in elevation. Blooms April-August.	Not expected to occur. The project site does not contain serpentine or volcanic soils.
Big-scale balsamroot *Balsamorhiza macrolepis*	—	—	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 115–4,806 feet in elevation. Blooms March-June.	May occur. The project site contains potentially suitable grassland habitat for this species. A survey for big-scale balsamroot was conducted in 2013, and the species was not observed (Sycamore Environmental Consultants, Inc. 2013). However, because the survey was conducted over five years ago, this species could have colonized within the project site since the survey.
Stebbins' morning-glory *Calystegia stebbinsii*	FE	SE	1B.1	Chaparral, cismontane woodland. In open areas on red clay soils of the Pine Hill formation; gabbro or serpentine. 984–2,379 feet in elevation. Blooms April-July.	Not expected to occur. The project site does not contain red clay, gabbro, or serpentine soil.

Table 3.3-1 Special-Status Plant Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]			Habitat	Potential for Occurrence[2]
	Federal	State	CRPR		
Chaparral sedge *Carex xerophila*	—	—	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Serpentinite, gabbroic. 902–2,526 feet in elevation. Blooms March-June.	Not expected to occur. The project site does not contain gabbro or serpentine soil. Chaparral, woodland, and forest habitats do not occur within the project site.
Pine Hill ceanothus *Ceanothus roderickii*	FE	—	1B.1	Chaparral, cismontane woodland. Gabbroic or serpentine soils; often in disturbed areas with an ensemble of other rare plants. 853–2,067 feet in elevation. Blooms April-June.	Not expected to occur. The project site does not contain red clay, gabbro, or serpentine soil.
Red Hills soaproot *Chlorogalum grandiflorum*	—	—	1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates; often in disturbed areas. 804–4,068 feet in elevation. Blooms May-June.	Not expected to occur. The project site does not contain gabbro or serpentine soil. Chaparral, woodland, and forest habitats do not occur within the project site.
Bisbee Peak rush-rose *Crocanthemum suffrutescens*	—	—	3.2	Often on serpentine, gabbroic, or Ione formation soils; in openings in chaparral. 148–2,756 feet in elevation. Blooms April-August.	Not expected to occur. The project site does not contain gabbro or serpentine soil. Chaparral habitat does not occur within the project site.
Dwarf downingia *Downingia pusilla*	—	—	2B.2	Vernal lake and pool margins with a variety of associates. 3–1,608 feet in elevation. Blooms March-May.	Not expected to occur. The project site does not contain vernal pools.
Starved daisy *Erigeron miser*	—	—	1B.3	Upper montane coniferous forest. Rocky, granitic outcrops. 5,085–9,104 feet in elevation. Blooms June-October.	Not expected to occur. The project site does not contain forest habitat.
Tuolumne button-celery *Eryngium pinnatisectum*	—	—	1B.2	Vernal pools, cismontane woodland, lower montane coniferous forest. Volcanic soils; vernal pools and mesic sites within other natural communities. 230–3,002 feet in elevation. Blooms May-August.	Not expected to occur. The project site does not contain vernal pools.
Pine Hill flannelbush *Fremontodendron decumbens*	FE	—	1B.2	Chaparral, cismontane woodland. Rocky ridges; gabbro or serpentine endemic; often among rocks and boulders. 1,394–2,510 feet in elevation. Blooms April-July.	Not expected to occur. The project site does not contain gabbro or serpentine soil. Chaparral or woodland habitats do not occur within the project site.
El Dorado bedstraw *Galium californicum* ssp. *sierrae*	FE	—	1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. In pine-oak woodland or chaparral. Restricted to gabbroic or serpentine soils. 427–1,919 feet in elevation. Blooms May-June.	Not expected to occur. The project site does not contain gabbro or serpentine soil. Chaparral, woodland, and forest habitats do not occur within the project site.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	—	SE	1B.2	Marshes, swamps, and vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 33–7,792 feet in elevation. Blooms April-August.	Not expected to occur. The project site does not contain marsh, swamp, or vernal pool habitat.
Parry's horkelia *Horkelia parryi*	—	—	1B.2	Chaparral, cismontane woodland. Openings in chaparral or woodland; especially known from the Ione formation in Amador County. 279–3,658 feet in elevation. Blooms April-September.	Not expected to occur. The project site does not contain chaparral or woodland habitat.
Northern California black walnut *Juglans hindsii*	—	—	1B.1	Riparian forest, riparian woodland. Few extant native stands remain; widely naturalized. Deep alluvial soil associated with a creek or stream. 0–2,100 feet in elevation. Blooms April-May.	Not expected to occur. The project site does not contain riparian woodland habitat and does not contain any trees.

Table 3.3-1 Special-Status Plant Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]			Habitat	Potential for Occurrence[2]
	Federal	State	CRPR		
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	—	—	1B.2	Valley and foothill grassland. Restricted to the edges of vernal pools in grassland. 98–328 feet in elevation. Blooms March-May.	Not expected to occur. The project site does not contain vernal pools.
Legenere *Legenere limosa*	—	—	1B.1	In beds of vernal pools. 3–2,887 feet in elevation. Blooms April-June.	Not expected to occur. The project site does not contain vernal pools.
Pincushion navarretia *Navarretia myersii* ssp. *myersii*	—	—	1B.1	Vernal pools, wetland. Clay soils within non-native grassland. 148–328 feet in elevation. Blooms April-May.	Not expected to occur. The project site does not contain vernal pools or other wetlands.
Slender Orcutt grass *Orcuttia tenuis*	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 82–5,758 feet in elevation. Blooms May-September.	Not expected to occur. The project site does not contain vernal pools or other wetlands.
Sacramento Orcutt grass *Orcuttia viscida*	FE	SE	1B.1	Vernal pools, wetland. 49–279 feet in elevation. Blooms April-July.	Not expected to occur. The project site does not contain vernal pools or other wetlands.
Layne's ragwort *Packera layneae*	FT	—	1B.2	Chaparral, cismontane woodland. Serpentine or gabbro soils; occasionally along streams. 656–3,560 feet in elevation. Blooms April-August.	Not expected to occur. The project site does not contain gabbro or serpentine soil. Chaparral and woodland habitats do not occur within the project site.
Sanford's arrowhead *Sagittaria sanfordii*	—	—	1B.2	In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,133 feet in elevation. Blooms May-October.	Not expected to occur. The project site does not contain wetland or other aquatic habitat.
El Dorado County mule ears *Wyethia reticulata*	—	—	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Stony red clay and gabbroic soils; often in openings in gabbro chaparral. 607–2,067 feet in elevation. Blooms April-August.	Not expected to occur. The project site does not contain red clay or gabbro soils. Chaparral, woodland, and forest habitat does not occur within the project site.

Notes: CRPR = California Rare Plant Rank

1. Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected by ESA)

FT Federally Listed as Threatened (legally protected by ESA)

State:

SE State Listed as Endangered (legally protected by CESA)

California Rare Plant Ranks:

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)

0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

2. Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.

Likely to occur: Suitable habitat is available and there have been nearby recorded occurrences of the species.

Sources: CNDDB 2019; CNPS 2019; Sycamore Environmental Consultants, Inc. 2013

Table 3.3-2 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Amphibians and Reptiles				
California red-legged frog *Rana draytonii*	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not expected to occur. The project site does not contain suitable aquatic habitat for this species.
California tiger salamander *Ambystoma californiense*	FT	ST	Cismontane woodland, meadow and seep, riparian woodland, valley and foothill grassland, vernal pool, and wetlands. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur. The project site does not contain vernal pool or other wetland habitat.
Coast horned lizard *Phrynosoma blainvillii*	—	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Not expected to occur. The project site does not contain suitable sandy wash or shrub habitat for this species.
Foothill yellow-legged frog *Rana boylii*	—	CE SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Not expected to occur. The project site does not contain suitable aquatic habitat for this species.
Giant gartersnake *Thamnophis gigas*	FT	ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not expected to occur. The project site does not contain suitable aquatic habitat for this species.
Western pond turtle *Actinemys marmorata*	—	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg-laying.	Not expected to occur. While there are several known occurrences of western pond turtle within creeks and streams in the vicinity of the project site, there are extensive barriers between this aquatic habitat and the project site; including retaining walls, roads, fences, and residential development (Sycamore Environmental Consultants, Inc. 2018).
Western spadefoot *Spea hammondii*	—	SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not expected to occur. The project site does not contain suitable vernal pool habitat for this species.
Birds				
Bald eagle *Haliaeetus leucocephalus*	FD	SE FP	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not expected to occur. The project site does not contain suitable tree nesting habitat adjacent to aquatic habitat for this species.

Table 3.3-2 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Bank swallow *Riparia riparia*	—	ST	Riparian scrub, riparian woodland. Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. The project site does not contain suitable bank or cliff nesting habitat for this species.
Burrowing owl *Athene cunicularia*	—	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	May occur. The project site contains potentially suitable grassland nesting habitat for this species. Burrowing owls have been observed recently within approximately 2 to 5 miles of the project site in similar grassland habitat (eBird 2019). During a 2013 survey for biological resources, no burrowing owls or suitable burrows were observed within the project site (Sycamore Environmental Consultants, Inc. 2013). However, ground squirrels, and as a result, burrowing owls could have colonized the project site in the over 5 years since the survey was conducted.
California black rail *Laterallus jamaicensis coturniculus*	—	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not expected to occur. The project site does not contain suitable marsh habitat for this species.
Golden eagle *Aquila chrysaetos*	—	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur. The project site does not contain suitable tree nesting habitat for this species.
Grasshopper sparrow *Ammodramus savannarum*	—	SSC	Valley and foothill grassland. Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Not expected to occur. The grassland habitat within the project site is unlikely to provide suitable nesting habitat for this species, because the vegetation is nearly all annual, is not particularly dense, and would not provide adequate nest concealment (Sycamore Environmental Consultants, Inc. 2013).
Loggerhead shrike *Lanius ludovicianus*	—	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Not expected to occur. The project site does not contain suitable shrub habitat for this species.
Northern harrier *Circus cyaneus*	—	SSC	Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not expected to occur. While this species has been observed in the vicinity of the project site (eBird 2019), the grassland habitat within the project site is unlikely to provide suitable nesting habitat for this species, because the vegetation is nearly all annual, is not particularly dense, and would not provide adequate nest concealment.

Table 3.3-2 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Purple martin *Progne subis*	—	SSC	Broadleaved upland forest, lower montane coniferous forest. Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	Not expected to occur. The project site does not contain suitable tree or structure nesting habitat for this species.
Swainson's hawk *Buteo swainsoni*	—	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Not expected to occur. The project site does not contain suitable tree nesting habitat for this species.
Tricolored blackbird *Agelaius tricolor*	—	ST SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.	Not expected to occur. The project site does not contain suitable riparian nesting habitat for this species.
White-tailed kite *Elanus leucurus*	—	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Not expected to occur. The project site does not contain suitable tree nesting habitat for this species.
Yellow warbler *Setophaga petechia*	—	SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Not expected to occur. The project site does not contain suitable riparian nesting habitat for this species.
Yellow-breasted chat *Icteria virens*	—	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Not expected to occur. The project site does not contain suitable riparian nesting habitat for this species.
Fish				
Delta smelt *Hypomesus transpacificus*	FT	SE	Aquatic, estuary. Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	Not expected to occur. The project site does not contain suitable aquatic habitat for this species.
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT		Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. The project site does not contain suitable aquatic habitat for this species.

Table 3.3-2 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT		Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Not expected to occur. The project site does not contain elderberry shrubs; thus, does not contain suitable habitat for this species.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT		Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected to occur. The project site does not contain suitable vernal pool habitat for this species.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE		Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not expected to occur. The project site does not contain suitable vernal pool habitat for this species.
Western bumble bee *Bombus occidentalis*	—	SC	Western bumble bee was once very common in the western United States but has recently undergone a dramatic decline in abundance and distribution and is no longer present across much of its historic range. Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	Not expected to occur. The project site is within the historic range of this species. However, western bumble bee has recently undergone a decline in abundance and distribution and is no longer present across much of its historic range. In California, western bumble bee populations are currently largely restricted to high elevation sites in the Sierra Nevada (Xerces Society 2018). There are several historic occurrences of western bumble bee in El Dorado County, but most of them are within higher elevation areas in El Dorado National Forest or the Lake Tahoe Basin Management Unit east of the project site (CNDDB 2019). Additionally, although bumble bees can forage and disperse over long distance, isolated patches of habitat do not provide high quality habitat for this species (Xerces Society 2018). While the project site contains grassland habitat with some floral resources that could be utilized by bumble bees, it is completely surrounded by urban and residential development, and does not have connectivity with other natural grassland habitat. Viable bumble bee populations typically require approximately 750-2,500 acres of suitable habitat, which is much larger than the project site (Xerces Society 2018).

Table 3.3-2 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Mammals				
American badger *Taxidea taxus*	—	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. The project site does not contain friable soils and is surrounded by urban development.
Fisher - West Coast DPS *Pekania pennanti*	FC	SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Not expected to occur. The project site does not contain suitable forest habitat for this species.
Pallid bat *Antrozous pallidus*	—	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not expected to occur. The project site does not contain suitable roosting habitat for this species.
San Joaquin kit fox *Vulpes macrotis mutica*	FE	ST	Chenopod scrub, valley and foothill grassland. Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	Not expected to occur. The project site is outside of the known range of this species.

Notes: CNDDB = California Natural Diversity Database; DPS = distinct population segment.

[1] Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected)
FT Federally Listed as Threatened (legally protected)
FC Federal Candidate Species
FD Federally Delisted

State:

FP Fully protected (legally protected)
SSC Species of special concern (no formal protection other than CEQA consideration)
SE State Listed as Endangered (legally protected)
ST State Listed as Threatened (legally protected)
SC State Candidate for listing (legally protected)

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.

Likely to occur: Suitable habitat is available and there have been nearby recorded occurrences of the species.

Sources: CNDDB 2019; eBird 2019; Sycamore Environmental Consultants, Inc. 2013; Sycamore Environmental Consultants, Inc. 2018

Wetlands and Waters of the United States

The project site does not contain wetlands or waters of the United States potentially subject to jurisdiction under Section 404 and 401 of the Clean Water Act (CWA). The project site is bordered by three drainage ditches: two along Latrobe Road on the west edge of the project site and one along the northeast edge of the project site. All of the drainage ditches are human-made, associated with the adjacent roads and residential development, and do not contain riparian habitat (Sycamore Environmental Consultants, Inc. 2013).

Wildlife Movement Corridors

The California Essential Habitat Connectivity Project was commissioned by the California Department of Transportation to identify areas mapped as Essential Connectivity Areas (ECA) or natural landscape blocks, in part, to reduce dangerous wildlife-vehicle collisions (Spencer et al. 2010). The project site is located within a natural landscape block due to the relatively contiguous grassland habitat in the area surrounding the project site. However, the project site is surrounded completely by urban development, including Latrobe and White Rock Road, houses, shopping centers, and parking lots. Potential wildlife movement corridors, or essential connectivity areas, have been modeled northeast of the project site associated primarily with streams and creeks.

3.3.2 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the ESA (16 U.S. Code Section 1531 et seq.), USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Two sections of the ESA address take. Section 10 regulates take if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting the action. However, if a project would result in take of a federally-listed species and federal discretionary action (even if a non-federal agency is the overall lead agency) is involved (i.e., a federal agency must issue a permit), the involved federal agency consults with USFWS under Section 7 of the ESA. Because this project may involve federal permits, interagency cooperation under Section 7 of the ESA is required. Section 7 of the ESA outlines procedures for federal interagency cooperation to protect and conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS and the National Marine Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

Bald and Golden Eagle Protection Act

Under the Bald and Golden Eagle Protection Act, it is illegal to take bald eagles, including their parts, nests, or eggs unless authorized. "Take" is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Disturb means to agitate or bother a bald or golden eagle to a degree that causes or is likely to cause (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment. In addition to immediate impacts, this definition also addresses impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

Clean Water Act

Section 404 of the CWA requires project proponents to obtain a permit from USACE before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce,

tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Many surface waters and wetlands in California meet the criteria for waters of the United States.

In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the action would uphold state water quality standards.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it will be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." Habitat destruction or alteration is not considered a take as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in 50 CFR Section 10.13. The list includes nearly all birds native to the United States.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from CDFW is required for projects that could result in the take of a plant or animal species listed by the state as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass," unlike the federal definition. As a result, the threshold for take is higher under CESA than under the federal ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 Incidental Take Permit.

California Fish and Game Code

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take.

Section 1602 of the Fish and Game Code states that all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do the following without first notifying CDFW:

- substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation. CDFW jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW streambed alteration agreement must be obtained for any action that would result in an impact on a river, stream, or lake.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Act, waters of the state fall under the jurisdiction of the appropriate RWQCB. The RWQCB must prepare and periodically update water quality control plans (basin plans). Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control point and nonpoint sources of pollution to achieve and maintain these standards. The RWQCB's jurisdiction includes federally protected waters as well as areas that meet the definition of "waters of the state." Waters of the state is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 of the CWA, provided they meet the definition of waters of the state. Actions that affect waters of the state, including wetlands, must meet the RWQCB's waste discharge requirements. This issue is addressed comprehensively in Section 4.7, "Hydrology and Water Quality," as well as herein with respect to biological resources.

LOCAL

El Dorado County General Plan

The adopted El Dorado County General Plan Conservation and Open Space Element discusses significant natural resources in the County, including aquatic habitat, special-status species, and sensitive habitats, and establishes goals, objectives, and policies related to these topics. Relevant policies from the El Dorado County General Plan include:

- Policy 7.3.3.1: For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features. For wetlands, the delineation shall be conducted using the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual.
- Policy 7.4.1.1: The County shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment and management of ecological preserves consistent with County Code Chapter 17.71 and the USFWS *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).
- Policy 7.4.2.1: The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.
- Policy 7.4.2.2: The County shall continue to support the Noxious Weed Management Group in its efforts to reduce and eliminate noxious weed infestations to protect native habitats and to reduce fire hazards.
- Policy 7.4.2.8: Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County through a Biological Resource Mitigation Program (Program). The Program will result in the conservation of:
  - Habitats that support special status species;
  - Aquatic environments including streams, rivers, and lakes;
  - Wetland and riparian habitat;
  - Important habitat for migratory deer herds; and
  - Large expanses of native vegetation.

El Dorado County General Plan Biological Resources Policy Update and Oak Resources Management Plan

The El Dorado County Board of Supervisors adopted the Biological Resources Policy Update and Oak Resources Management Plan (ORMP) in October 2017. The Biological Resources Policy Update included revisions to the General Plan objectives, policies, and implementation measures to establish a comprehensive Biological Resource Mitigation Program. The objective of this program is to conserve special-status species habitat, aquatic habitat, wetland and riparian habitat, habitat for migratory deer herds, and large expanses of native vegetation. The ORMP updated and

revised the existing Oak Woodland Management Plan, and now defines mitigation requirements for impacts to oak woodlands, individual native oak trees, and heritage trees; and also outlines El Dorado County's strategy for oak resource management and conservation. The ORMP establishes an in-lieu fee payment option for impacts to oak woodlands and oak trees and identifies Priority Conservation Areas where oak woodland conservation efforts will be focused.

3.3.3 Impact and Mitigation Measures

METHODOLOGY

This impact evaluation is based on existing biological resource evaluations, review of aerial photographs, and review of existing databases that address biological resources in the project vicinity as described above.

THRESHOLDS OF SIGNIFICANCE

An impact on biological resources would be significant if implementation of the project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

ISSUES NOT DISCUSSED FURTHER

Sensitive Natural Communities and Riparian Habitats

No portion of any sensitive natural community or any riparian habitat occur within the project site. This issue is not discussed further.

Wetlands or other Waters of the United States or State

The project site does not contain any aquatic habitat, including wetlands, ponds, irrigation ditches, or streams. This issue is not discussed further.

Consistency with Local Policies or Ordinances

The El Dorado County General Plan and ORMP provide protection for natural resources such as aquatic habitat, oak woodlands, and sensitive plant species known as the Pine Hill endemics. The project site does not contain aquatic habitat, trees, suitable habitat for Pine Hill endemic plant species, or any other natural resources outlined in these plans. Therefore, there would be no conflict with local plans or policies. This issue is not discussed further.

Consistency with Habitat Conservation Plans

No adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan applies to the project site. Therefore, this impact is not discussed further.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Disturbance to or Loss of Special-Status Plant Species and Habitat

Project implementation would include ground disturbance and conversion of grassland habitat, which could result in disturbance to or loss of big-scale balsamroot, if present within the project site. Because the loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a **potentially significant** impact.

A total of 23 special-status plant species were identified as having potential to occur within the vicinity of the project site (Table 3.3-1; CNDDB 2019, CNPS 2019). Of these 23 species, one has potential to occur on the project site: big-scale balsamroot (*Balsamorhiza macrolepis*). This species is associated with grassland habitat, which is present within the project site. A survey for big-scale balsamroot was conducted in 2013, and the species was not observed (Sycamore Environmental Consultants, Inc. 2013). However, because the survey was conducted over five years ago, this species could have colonized within the project site since the survey.

Development of the project site, including ground disturbance associated with construction of roads or buildings, could result in disturbance or direct loss of these special-status plants, if present on the project site. Loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species; thus, this would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.3-1: Conduct Survey for Big-Scale Balsamroot, Avoid Plants, or Implement Mitigation for Loss of Plants

The following measure shall be implemented to avoid or minimize loss of big-scale balsamroot prior to site construction:

- Prior to issuance of grading, building or improvement permits, a qualified botanist shall conduct protocol-level surveys for special-status plants, including the big-scale balsamroot, during the blooming period of identified listed species having potential to occur on the project site (approximately March to June). Surveys shall include areas where potentially suitable habitat would be removed or disturbed by project activities in accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). The normal blooming period for special-status plants generally indicates the optimal survey periods when the species are most identifiable.
- If big-scale balsamroot or other special-status plants is not found, the botanist shall document the findings in a letter report to CDFW and the County and no further mitigation will be required.
- If big-scale balsamroot or other special-status plants are found, the qualified botanist shall consult with CDFW to designate a no-disturbance buffer to prevent loss of the plants.
- If big-scale balsamroot are found that cannot be avoided during construction, the project applicant shall consult with CDFW to determine the appropriate mitigation measures for direct and indirect impacts that could occur as a result of project construction. The project applicant shall implement the agreed-upon mitigation measures to achieve no net loss of occupied habitat or individuals. Mitigation measures may include preserving and enhancing existing populations, creation of offsite populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-1 would reduce significant impacts on big-scale balsamroot to a **less-than-significant** level because it would require applicants to identify, avoid, or compensate for loss of special-status plants.

Impact 3.3-2: Cause Disturbance to or Loss of Burrowing Owl

Project implementation would include ground disturbance and conversion of grassland habitat, which could result in disturbance to or loss of burrowing owls or their burrows, if present within the project site. This would be **potentially significant** impact.

Burrowing owl (*Athene cunicularia*) is a CDFW species of special concern and may occur within the project site. The grassland habitat within the project site may provide potentially suitable breeding or wintering habitat for this species. Burrowing owls have been observed recently within approximately 5 miles of the project site within similar grassland habitat (eBird 2019). Development of the project site, including ground disturbance associated with construction of roads or buildings, could result in disturbance to burrowing owls, potentially resulting in nest abandonment or nest failure and subsequent mortality of chicks or eggs. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.3-2: Conduct Survey for Burrowing Owl, Implement Protection Measures or Compensate for Loss of Burrows

The following measure shall be implemented to avoid or minimize loss of burrowing owl:

- Prior to issuance of grading, building or improvement permits, a qualified biologist shall conduct focused breeding or nonbreeding season surveys for burrowing owls within the project site and within a 1,500-foot buffer of the project site. Surveys shall be conducted in accordance with Appendix D of CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012).
- If no occupied burrows are found, a memorandum documenting the survey methods and results shall be submitted to CDFW and no further mitigation would be required.
- If an active burrow is found during the nonbreeding season (September 1 through January 31), the project applicant shall consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan shall be developed, as described in Appendix E of CDFW's 2012 Staff Report. Burrowing owls shall not be excluded from occupied burrows until the proposed project's burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a plan for creation, maintenance, and monitoring of artificial burrows in suitable habitat that provides substitute burrows for displaced owls.
- If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and will be provided with a 150- to 1,500-foot protective buffer from construction activities unless a qualified biologist verifies through noninvasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer shall depend on the time of year and level of disturbance as outlined in the CDFW Staff Report (CDFW 2012). The size of the buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to CDFW is implemented to prevent burrowing owls from being detrimentally affected. Once the fledglings are capable of independent survival, the owls can be evicted and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW's 2012 Staff Report. No burrowing owls will be excluded from occupied burrows until the burrowing owl exclusion and relocation plan is approved by CDFW. Following owl exclusion and burrow demolition, the site shall be monitored by a qualified biologist to ensure burrowing owls do not recolonize the site before construction.

- If active burrowing owl burrows are found on the site and are destroyed by proposed project implementation, the project applicant shall mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW 2012 Staff Report, which states that permanent impacts to nesting, occupied and satellite burrows, and burrowing owl habitat shall be mitigated such that habitat acreage, number of burrows, and burrowing owls adversely affected are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. The project applicant shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:
  - Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat, disturbance levels, potential for conflicts with humans, pets, and other wildlife, density of burrowing owls, and relative importance of the habitat to the species range wide.
  - If feasible, mitigation lands shall be provided adjacent or proximate to the site so that displaced owls can relocate with reduced risk of take. Feasibility of providing mitigation adjacent or proximate to the proposed project area depends on availability of sufficient suitable habitat to support displaced owls that may be preserved in perpetuity.
  - If suitable habitat is not available for conservation adjacent or proximate to the proposed project area, mitigation lands shall be focused on consolidating and enlarging conservation areas outside of urban and planned growth areas and within foraging distance of other conservation lands. Mitigation may be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. If mitigation credits are not available from an approved bank and mitigation lands are not available adjacent to other conservation lands, alternative mitigation sites and acreage shall be determined in consultation with CDFW.
  - If mitigation is not available through an approved mitigation bank and will be completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and if the numbers are maintained over time. Measures of success, as suggested in the 2012 Staff Report, shall include site tenacity, number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-2 would reduce significant impacts on burrowing owl to a **less-than-significant** level because burrowing owls would be avoided and protected from construction activities, or a qualified biologist in consultation with CDFW would relocate owls and compensate for project-related loss of suitable occupied habitat.

Impact 3.3-3: Cause the Disturbance to or Loss of Native Grassland- or Shrub-Nesting Birds

Project implementation would include ground disturbance, vegetation removal, and conversion of grassland habitat, which could result in disturbance to or loss of native grassland- or shrub-nesting birds, if present within the project site. This would be **potentially significant** impact.

Native migratory bird nests are protected under Section 3503 of the California Fish and Game Code, which states that it is illegal to take, possess, or needlessly destroy the nest or eggs of any bird. Native birds protected under California Fish and Game Code could potentially nest within the grassland habitat or the poison oak shrubs within the project site. Removal of vegetation and conversion of grassland habitat could disturb these nesting birds if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.3-3: Conduct Preconstruction Nesting Bird Surveys and Establish Protective Buffers

The following measure shall be implemented to avoid or minimize loss of native nesting birds protected under Section 3503 of the California Fish and Game Code:

- To minimize the potential for disturbance to or loss of native bird nests within the grassland or shrub habitat on the project site, vegetation removal activities shall occur only during the nonbreeding season (September 1-January 31).
- Before removal of any vegetation or any ground disturbance between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests within any vegetation planned for removal. The surveys shall be conducted no more than 7 days before construction commences.
- If no active nests are found during focused surveys, no further action under this measure will be required.
- If active nests are located during the preconstruction surveys, the biologist shall notify the project applicant and CDFW. A no-disturbance buffer will be established, and the size of the buffer will be determined by the qualified biologist in consultation with CDFW. Construction activities, including staging, shall be prohibited within the no-disturbance buffer to avoid disturbance to the nesting bird until the nest is no longer active.

Significance after Mitigation

Mitigation Measure 3.3-3 would reduce significant impacts to a **less-than-significant** level because grassland- or shrub-nesting native birds would be avoided and protected from construction activities.

Impact 3.3-4: Interfere with Resident or Migratory Wildlife Corridors or Native Wildlife Nursery Sites

Project implementation would include conversion of grassland habitat, which would not substantially impede wildlife movement because the project site is relatively small and surrounded by existing suburban and urban development. The project site does not contain any native wildlife nursery sites. Impacts to wildlife movement corridors and habitat connectivity would be **less than significant**.

The project site is located within an area of relatively contiguous grassland habitat to the east, west, and south within the Sierra Nevada foothills, and is considered a natural landscape block. Land to the north and south of the project site has been developed for commercial uses. Land to the east has been developed for residential uses. The project site is bordered by the four-lane Latrobe Road to the west and two-lane White Rock Road to the north. The project site does not contain portions of any creeks or rivers that would serve as wildlife corridors, nor does the project site contain any nursery sites. Because of the relatively small size of the project site and its proximity to existing and future urban development, the project site is not expected to provide significant connectivity for wildlife movement between important habitats or core areas within the region or contain any portion of a major or local wildlife corridor. Therefore, impacts to wildlife corridors or nursery sites would be **less than significant**.

Mitigation Measures

No mitigation is required.

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3.4 CULTURAL AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include pre-historic resources, historic-era resources, and "tribal cultural resources" (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or architectural) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Tribal cultural resources were added as a resource subject to review under CEQA, effective January 1, 2015 under AB 52. This is a new category of resources under CEQA and includes site features, places, cultural landscapes, sacred places or objects, which are of cultural value to a tribe.

One comment letter regarding cultural resources was received in response to the notice of preparation. The Native American Heritage Commission requested AB 52 and SB 18 compliance information. SB 18 does not apply to the project because there not a General Plan amendment is not associated with the project (which is the trigger for SB 18 compliance). SB 18 is also not a CEQA requirement and therefore is not discussed in this section. AB 52 compliance is described below.

The primary source of information for this section is the Cultural Resource Assessment of the Proposed Montano De El Dorado Project Area prepared by Peak & Associates (2013) and the El Dorado County General Plan Draft Environmental Impact Report (El Dorado County 2003).

3.4.1 Environmental Setting

REGIONAL PREHISTORY

Until relatively recent years, the study of Sierran archeology lagged far behind the central valley and coastal areas in terms of developing regional chronologies and other basic aspects of systematic study of the prehistory of the area. The first effective synthesis of Sierran archeology was produced by Heizer and Elsasser (1953, cited in Peak & Associates 2013:1), and further refined by Elsasser (1960, cited in Peak & Associates 2013:1). Since that time, major archeological projects in the Sierra have proliferated, largely because of work on water projects and other cultural resources management-based research efforts. For the northern Sierra alone, archeological sequences, based on excavation of stratified sites and other data, are available for the Lake Tahoe vicinity (Elston 1979, 1972; Elston and Davis 1972; Elston et al. 1977, cited in Peak & Associates 2013:1), the Lake Oroville locality (Jewell 1964; Olsen and Riddell 1963; Ritter 1968, 1970a, cited in Peak & Associates 2013:1), and for the proposed Auburn Reservoir area. The latter, being of most relevance to the current project area, will be discussed briefly.

There have been several archeological reconnaissance surveys conducted in the Auburn Reservoir area, but the great majority of prehistoric sites recorded (i.e., milling stations, surface lithic scatters, small, single-component sites) are relatively uninformative in terms of larger regional research goals. Sites that have been excavated include a chert quarry (Crew 1970, cited in Peak & Associates 2013:1) and five midden sites, all reported during Phases II and III of the Auburn Reservoir Project (Ritter, ed. 1970, cited in Peak & Associates 2013:1). The most informative of these is the Spring Garden Ravine site (CA-Pla-101), which contained three well-defined strata (Ritter 1970b, cited in Peak & Associates 2013:1). The characteristics of the cultural deposit in these strata have been used to define the cultural sequence in the Auburn region.

The lowest stratum (C) has been radiocarbon dated at about 1400 B.C., and contains an assemblage similar to the Martis Complex, as defined at high-elevation sites in the Sierra. The artifacts include large projectile points (mostly of basalt and slate), atlatl (dart-thrower) weights, numerous core tools, and several varieties of grinding implements. The collection would not look out of place had it been found in Martis Valley. The next stratum (B) is less easily defined, and appears to represent a transition between cultures represented by the upper and lower strata. Some of this transitional appearance may be attributable to simple physical mixing of deposits, but the basic stratigraphic integrity of the site is indicated by consistency of the two radiocarbon dates from stratum B (A.D. 1039 ± 80 and 976 ± 90). The upper stratum contains small projectile points (arrowheads), hopper mortars, and other artifacts comparable to recent archeological collections elsewhere in the northern foothills. Stratum A is, therefore, probably a manifestation of the ancestral Nisenan, the Indian group inhabiting the area at the time of Euro-American contact.

ETHNOLOGY

The project area lies in the territory attributed to the Nisenan--a branch of the Maidu group of the Penutian language family. Tribes of this family dominated the Central Valley, San Francisco Bay areas, and western Sierra Nevada foothills at the coming of the white man. The Nisenan controlled the drainages of the Yuba, Bear, and American rivers, along with the lower portion of the Feather River. The tribes of this whole region referred to themselves as Nisenan, meaning "people," in contrast to the surrounding tribes, in spite of close linguistic and cultural similarities. For this reason, they are usually named by this term rather than the more technical "Southern Maidu." In any event, the local main village was of more importance to the people than the tribal designation, and groups identified themselves by the name of the central village.

The northern boundary of this Nisenan territory has not been clearly established due to similarity in language to neighboring groups. The eastern boundary appears to be the crest of the Sierra Nevada mountain range. The southern boundary was likely a few miles south to the confluence of the American and Sacramento rivers on the valley floor and the western boundary extended from this point upstream to the mouth of the Feather River.

The Valley Maidu settlement pattern was basically oriented to major river drainages, with ancillary villages located on tributary streams and sloughs. Major villages often supported a population exceeding five hundred people. The inhabitants had an intimate knowledge of the environs within their territory.

The Nisenan who occupied the foothills and lower Sierra Nevada mountain elevations selected village sites on ridges and large flats or meadows near the major streams. These villages tended to have smaller populations than those in the great valley, and it was not uncommon for family groups to have their abodes located away from the main village (Wilson and Towne 1978:389).

Both the valley and foothill people lived by hunting and gathering, with the latter being more important. Acorns in the forms of meal, soup or bread provided the staple diet, augmented by a wide variety of seeds and tubers. Hunting and fishing were regularly practiced, but provided less of the diet than vegetable foods. The bedrock mortar and pestle were employed to process the acorn meats into flour, and the mortar cups are frequently found throughout the range of oak trees. Both salmon and eel were caught at nearby Salmon Falls.

Religion was in the form of the "Kuksu Cult," a widespread pattern among the California Indians. Ceremonies congregated in the semi-subterranean dancehouse located at the central village and "cry sites" where the annual mourning ceremony for the dead took place. Later, the religious revival of the ghost dance also affected this area.

In 1833, the great epidemic swept through the Sacramento Valley. This epidemic has been attributed to malaria (Cook 1955:308, cited in Peak & Associates 2013:4), and is estimated to have killed seventy-five percent of the native population, leaving only a shadow of the original Maidu to face the intruding miners and settlers. The Nisenan of the mountain areas felt little of the impact of European settlement in California as compared to the Valley Nisenan, who were subjected to some missionization. The Mountain Nisenan, remote from these early impacts, were overwhelmed by the gold rush. Native ways of life were almost totally abandoned, and today only a few families in Placer, Nevada, Yuba, and El Dorado counties identify themselves as Nisenan and can speak the language (Wilson and Towne 1978, cited in Peak & Associates 2013:3).

HISTORIC SETTING

Regional History

As the word of James Marshall's gold discovery spread throughout the world, prospectors began arriving in California. Following Marshall's example, the first place these men searched for gold was along the rivers and streams of the foothills and valleys. When mining claims along the major rivers of the gold country became scarce, prospectors moved to smaller drainages. Many communities grew up during this era to provide goods and services to miners, including the nearby site of Clarksville. Modern White Rock Road to the north of the project area follows an important route utilized for freighting goods to the mines in California and Nevada, before the completion of the transcontinental railroad in 1868.

Early placer mining became replaced in importance by hard-rock mining in the region. The agricultural value of the land was soon recognized, and the lands of the area claimed for use by permanent settlers. The region in the low foothills was originally claimed by a number of individuals who attempted to make a living by farming and ranching.

The landowners soon discovered that the long dry period between May and October with no rainfall caused the grasses to dry off, leaving the land useless for grazing livestock except in the winter and spring. Cattle and sheep ranchers were forced to move their herds to the mountains to a summer range. This was not cost-efficient except for landowners who had large tracts of land at the lower elevations to support large herds that could be moved seasonally. As a result, many sold their small tracts to their neighbors and moved on to other pursuits, with some families amassing thousands of acres in the region for their cattle and sheep.

The project area is part of the holdings of the Euer family who still maintain a ranch on White Rock Road. Sophary Euer was a native of Switzerland, who came to America in 1855, to California in 1857, and to El Dorado County in 1867. In 1883, he had 1,500 acres in his foothill range and over 1,000 acres in his summer range in the mountains. Sophary Euer was a dairyman (Sioli 1883:241, cited in Peak & Associates 2013:5).

RECORDS SEARCHES, SURVEYS, AND CONSULTATION

NCIC Records Search

Staff members at the North Central Information Center (NCIC) conducted a confidential records search for the project site and a surrounding 0.25-mile radius on May 15, 2013. There are no sites recorded within the record search area. Adjacent to the record search area, a site record was prepared for White Rock Road. NCIC staff also searched the Historic Property Data File for El Dorado County, Archaeological Determinations of Eligibility, the California Inventory of Historic Resources, California State Historic Landmarks, and Points of Historic Interest, and found no relevant listings. Three historic maps were also reviewed.

A non-confidential records search was completed on April 4, 2019 and determined that the project area does not contain any prehistoric-period resources or historic-period cultural resources (NCIC 2019). The results concluded that there is low potential for locating prehistoric- or historic-period cultural resources in the immediate vicinity of the proposed project area, and that the project site is in an area that is not sensitive (NCIC 2019). Outside the project site, but within the 1/4-mile radius, the broader search area contains two prehistoric-period resources and three historic-period cultural resources: prehistoric-era bedrock milling features, hose pit, and midden and historic-era road, refuse scatters, pits, and structure pads (NCIC 2019).

Pedestrian Surveys

The project site was surveyed on May 27, 2013 by Peak & Associates. The survey covered the open land with narrow transects, no more than 5 meters in width. Surface visibility was fair, but several small scrapes were made to observe the natural sediments.

In some portions of the project area, heavy grass and occasional poison oak bushes obscured soil, but the occasional rodent disturbance allowed inspection. There was obvious mechanical disturbance through most of the project area,

with piles of native stone that had been pushed together. The stone and undisturbed boulders were examined closely for pit and groove artwork but none was noted, nor were any signs of wear for food processing (bedrock mortars).

No surface evidence was found of prehistoric or historic cultural resources within the project site.

Tribal Cultural Resources

Native American Consultation

The 7 individuals contacted for the project, as recommended by the NAHC, included representatives from the Ione Band of Miwok Indians, T'si-Akim Maidu, Nashville-El Dorado Miwok, Washoe Tribe of Nevada and California, United Auburn Indian Community of the Auburn Rancheria, Shingle Springs Band of Miwok Indians, and the Wilton Rancheria. These individuals were contacted in a letter dated August 2, 2017 that was transmitted via U.S. Postal Service. The letter included a brief description of the proposed project and included a location map.

On August 22, 2017, the United Auburn Indian Community (UAIC) responded to request consultation for this project; all existing cultural resource assessments and records searches, GIS files of the project site, and a UAIC Tribal Monitor. Field review of the project site with County and UAIC staff occurred in March 2019. On March 28, 2019 Steve Hutchason from UAIC requested that the consultation be closed provided that UAIC recommended mitigation is applied to the project (Hutchason 2019). These recommend mitigation have been incorporated in the analysis below.

3.4.2 Regulatory Setting

FEDERAL

Section 106 of the National Historic Preservation Act

Federal protection of cultural resources is legislated by (a) the National Historic Preservation Act of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP).

Section 106 of the National Historic Preservation Act and accompanying regulations (36 Code of Federal Regulations Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and requires consideration of effects on properties that are listed in, or may be eligible for listing in, the NRHP. The NRHP is the nation's master inventory of known historic resources. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural value.

The formal criteria (36 Code of Federal Regulations 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:
    a. Association with events that have made a significant contribution to the broad patterns of history (events);
    b. Association with the lives of persons significant in the past (persons);
    c. Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture); or
    d. Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

STATE

California Register of Historical Resources

All properties listed in or formally determined eligible for listing in the NRHP are eligible for the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria for listing eligibility. A resource may be eligible if it:

1. Is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. Is associated with the lives of persons important to local, California, or national history;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity.

California Environmental Quality Act

CEQA (Public Resources Code Section 21000, *et seq*.) and the State CEQA Guidelines (California Code of Regulations, Section 15000, *et seq*.) are the principal regulatory controls addressing impacts on historical and paleontological resources in California. Projects with the potential to adversely affect significant cultural resources must be reviewed through the CEQA process. As the designated CEQA lead agency for approval of the project, the County of El Dorado is responsible for complying with CEQA's requirements regarding the identification of feasible measures to mitigate significant adverse changes to historical and paleontological resources and ensuring that the measures are enforceable through permit conditions, agreements, or other measures.

Whenever a resource cannot be avoided by project activities, impacts will be addressed and mitigated as outlined in Section 15331 of the State CEQA Guidelines.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both State and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and the county coroner be notified. If the remains are of a Native American, the coroner must notify NAHC. The NAHC then notifies those persons most likely to be descended from the Native American's remains. This act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

California Health and Safety Code

Section 7050.5 (b) of the California Health and Safety code specifies protocol when human remains are discovered. The code states:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are

discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

LOCAL

El Dorado County General Plan

The Conservation and Open Space Element of the El Dorado County General Plan contains the following policies related to the preservation of cultural resources that are applicable to the project.

- **Policy 7.5.1.3:** Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.
- **Policy 7.5.1.4:** Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation's California Points of Historic Interest and California Inventory of Historic Resources.

3.4.3 Impacts and Mitigation Measures

METHODOLOGY

The impact analysis for prehistoric- and historic-period archaeological resources is based on the findings and recommendations of the report titled *Cultural Resource Assessment of the Proposed Montano De El Dorado Project Area* prepared (Peak & Associates 2013). The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the proposed project would result in a significant impact if it would:

- cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5;
- cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5;
- disturb any human remains, including those interred outside of formal cemeteries; or
- cause a substantial adverse change in significance of a tribal cultural resource.

ISSUES NOT DISCUSSED FURTHER

As described above, no historic architectural resources were identified on the project site. Therefore, project construction and operation would have no impact on historical resources, and these issues are not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.4-1: Adverse Effects to Archaeological Resources

Based on documentary research, no evidence suggests that any archaeological resources are present within the project site. However, ground-disturbing construction activities could uncover previously undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. This would be a **potentially significant** impact.

Based on documentary research, no evidence suggests that any archaeological resources are present within the project site. However, ground-disturbing construction activities could uncover previously undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5.

Mitigation Measures

Mitigation Measure 3.4-1: For All Ground-Disturbing Construction Activities, Halt Ground Disturbance Upon Discovery of Subsurface Archaeological Features

In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted and a qualified professional archaeologist shall be retained to assess the significance of the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, the project applicant shall contact the appropriate Native American tribe for their input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist (i.e., because it is determined to constitute a unique archaeological resource), the archaeologist shall develop, and the project applicant shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place (which shall be the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or contiguous block unit excavation and data recovery (when it is the only feasible mitigation, and pursuant to a data recovery plan).

<u>Level of Significance after Mitigation</u>

Implementation of Mitigation Measure 3.4-1 would reduce impacts on previously unknown archaeological resources by requiring work to stop in the area of the find and requiring consultation with a qualified professional to assess the significance of the find. Because the requirements of Mitigation Measure 3.4-1 would protect previously undiscovered archaeological resources, this impact would be reduced to a **less-than-significant** level.

Impact 3.4-2: Accidental Discovery of Human Remains

Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 would make this impact **less than significant**.

Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097.

These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the appropriate County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant, and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.4-3: Adverse Effects to Tribal Cultural Resources

Consultation with the UAIC has resulted in no resources identified as tribal cultural resources. However, UAIC has identified that there is potential for undiscovered resources and recommended mitigation to protect tribal cultural resources. This impact would be **potentially significant**.

As discussed above, the NAHC records search did not identify the presence of any tribal cultural resources. El Dorado County conducted consultation with UAIC. While no tribal cultural resources on the site were identified, UIAC recommended mitigation to ensure undiscovered resources are protected.

Mitigation Measures

Mitigation Measure 3.4-3a: Conduct Construction Worker Training

Prior to approval of project grading, the applicant will provide evidence that construction worker training on Native American resources has been provided.

Mitigation Measure 3.4-3b: Protection of Discovered Tribal Cultural Resources

Should an inadvertent discovery of tribal cultural resources occur, the County and UAIC shall be contacted immediately to evaluate and consult on appropriate and respectful treatment and disposition. If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. UAIC does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the UAIC. Treatment that preserves or restores the cultural character and integrity of a TCR may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record. If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation

with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 shall occur, to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

Level of Significance after Mitigation

Implementation of Mitigation Measure 3.4-3a and 3.4-3b would reduce impacts on previously unknown tribal cultural resources by requiring work to stop in the area of the find and requiring consultation with a qualified professional to assess the significance of the find. Because the requirements of these mitigation measures would protect previously undiscovered resources, this impact would be reduced to a **less-than-significant** level.

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3.5 ENERGY

This section was prepared pursuant to Appendices G and F of the CEQA Guidelines, which require that EIRs include a discussion of the potential energy impacts of projects. The analysis considers whether the project would result in an environmental impact related to inefficient, wasteful, and unnecessary consumption of energy as well as consistency with a relevant plan the promotes the use of renewable energy resources. Relevant federal, state, and local regulations, policies, and plans related to energy consumption are disclosed as well as a characterization of energy consumption within the project area. An evaluation of the project's energy demand is also evaluated.

No comments to the notice of preparation related to energy consumption were submitted.

3.5.1 Environmental Setting

PHYSICAL SETTING

Energy Facilities and Services in the Project Area

Electric and natural gas services in the County of El Dorado is provided by the Pacific Gas and Electric Company (PG&E). There are existing electrical and natural gas infrastructure facilities along White Rock Road and Latrobe Road. Two sets of medium-voltage electrical distribution power lines consisting of one set of wood pole structures supporting typical 34.5-kilovolt (kV) single-circuit lines owned by PG&E are located across Latrobe Road west of the project area and across White Rock Road north of the project area. In additional, two parallel sets of high-voltage electrical distribution power lines each consisting of one set of steel pole structures supporting 230-kV double-circuit lines owned by PG&E are located across White Rock Road north of the project area.

Energy Types and Sources

In 2014, the world total energy consumption was about 566 quadrillion Btu, 17 percent of which occurred within the U.S. In 2017, fossil fuels provide approximately 82 percent of the energy used in the U.S., nuclear power provides about 8.6 percent, and renewable energy provides approximately 9.4 percent (EIA 2017a). California is the most populous state in the U.S., and its energy consumption is second only to Texas; however, California has the lowest per capita energy consumption rate in the U.S. (EIA 2017b).

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas. In 2017, approximately 28 percent of natural gas consumed in the state was used to generate electricity. Residential land uses represented approximately 20 percent of California's natural gas consumption with the balance consumed by the industrial, resource extraction, and commercial sectors (EIA 2018). Power plants in California generate approximately 70 percent of the in-state electricity demand, with large hydroelectric in the Pacific Northwest and power plants in the Southwestern U.S. generating the remaining electricity (CEC 2018a). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. PG&E is the primary electricity supplier in El Dorado County. As of 2017, PG&E was powered by 33 percent renewables, including biomass, geothermal, small hydroelectric, solar, and wind (CEC 2018b).

Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including:

- biodiesel,
- electricity,

- ethanol (E-10 and E-85),
- hydrogen,
- natural gas (methane in the form of compressed and liquefied natural gas),
- propane,
- renewable diesel (including biomass-to-liquid),
- synthetic fuels, and
- gas-to-liquid and coal-to-liquid fuels.

California has a growing number of alternative fuel vehicles through the joint efforts of the California Energy Commission (CEC), California Air Resources Board, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of June 2019, California contained over 21,000 alterative fueling stations (AFDC 2019).

COMMERCIAL ENERGY USE

Commercial buildings represent just under one-fifth of U.S. energy consumption with office space, retail, and educational facilities representing about half of commercial sector energy consumption. In aggregate, commercial buildings consumed 47 percent of building energy consumption and approximately 18 percent of U.S. energy consumption. In comparison, the residential sector consumed approximately 22 percent of U.S. energy consumption (EIA 2019:Table 2).

ENERGY USE FOR TRANSPORTATION

Transportation is the second largest energy consumer nationwide, accounting for 28 percent of the total national energy use (EIA 2019:Table 2). On-road vehicles are estimated to consume approximately 80 percent of California's transportation energy demand, with cars, trucks, and buses accounting for nearly all of the on-road fuel consumption. Petroleum products (gasoline, diesel, jet fuel) account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2015).

On-road vehicles use about 90 percent of the petroleum consumed in California. The California Air Resources Board (CARB) estimates that 83 million gallons of gasoline and diesel were consumed in El Dorado County in 2016, an increase of approximately 615,000 gallons of fuel from 2010 levels (CARB 2017).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature. For an analysis of greenhouse gas (GHG) production and the project's impacts on climate change, refer to Section 3.7, "Greenhouse Gas Emissions and Climate Change."

3.5.2 Regulatory Setting

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the U.S. Environmental Protection Agency's [EPA] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the California Code of Regulations sets forth energy standards for buildings. Further, the State provides rebates/tax credits for installation of renewable energy systems, and offers the Flex Your Power program promotes conservation in multiple areas. At the local level, individual cities and counties establish policies in their general plans and climate action plans (CAPs) related to the energy efficiency of new development and land use planning and to the use of renewable energy sources.

FEDERAL

Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the country. EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, DOT is authorized to assess penalties for noncompliance. Under the Energy Independence and Security Act of 2007 (described below), the CAFE standards were revised for the first time in 30 years.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally-fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

On August 2, 2018, the U.S. Department of Transportation (DOT) and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light trucks, and retaining the current model year 2020 standards through model year 2026, establish new standards covering model years 2021 through 2026. Vehicles operating in the County would be subject to the CAFE standards. However, at the time of writing this Draft EIR, the SAFE Rule has not been formally adopted by EPA, and 17 states—including California—have filed a lawsuit against EPA. The timing for ultimate approval of the SAFE Rule and the outcome of any pending or potential lawsuits (and how such could delay or affect its implementation) are unknown at this time. The SAFE Rule's impact on future motor vehicle emissions is also unknown.

Affordable Clean Energy Rule

In June 2019, the EPA, under authority of the Clean Air Act section 111(d), issued the Affordable Clean Energy rule which provides guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states are required to submit plans to the EPA which demonstrate the use of specifically listed retrofit technologies and operating practices to achieve carbon dioxide reduction though heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emissions reduction for carbon dioxide generated from coal fired EGUs (EPA 2019).

STATE

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as CEC. The creation of the act occurred as a response to the state legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced state policy for siting power plants to reduce potential environmental impacts, and additionally sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings that ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code), which have been updated regularly and remain in effect today. The act additionally directed CEC to cooperate with the Office of Planning and Research, the California Natural Resources Agency, and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all environmental impact reports required on local projects.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the California Energy Action Plan (EAP) Update (CPUC 2008). The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003). Further, in response to the CEC's 2003 and 2005 *Integrated Energy Policy Reports*, Governor Davis directed CEC to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2030.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to: "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (Public Resources Code Section 25301(a)). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every two years and an update every other year. The 2017 IEPR is the most recent IEPR, which was adopted March 16, 2018. The 2017 IEPR provides a summary of priority energy issues currently facing the State, outlining strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally-responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the State's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California's nuclear power plants.

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018). More detail about these regulations is provided in Section 3.7, "Greenhouse Gas Emissions and Climate Change."

Senate Bill 1078: California Renewables Portfolio Standard Program

SB 1078 (Chapter 516, Statutes of 2002) establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward by SB 1078 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcome of this legislation will impact regional transportation powered by electricity. As of 2016, the State has reported that 21 percent of electricity is sourced from certified renewable sources (see Section 3.5.1, "Environmental Setting").

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with ARB and in consultation with other state, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Executive Order S-06-06

Executive Order (EO) S-06-06, signed on April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The Executive Order establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 40 percent of its biofuels within California by 2020 and 75 percent by 2050. The Executive Order also calls for the State to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies those barriers and recommends actions to address them so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 plan and provides a more detailed action plan to achieve the following goals:

- increase environmentally- and economically-sustainable energy production from organic waste;
- encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications;

- create jobs and stimulate economic development, especially in rural regions of the state; and
- reduce fire danger, improve air and water quality, and reduce waste.

As of 2017, 2.3 percent of the total electricity system power in California was derived from biomass (CEC 2018a).

Senate Bill X1-2: California Renewable Energy Resources Act

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2019 California Energy Code was adopted by CEC on May 9, 2018 and will apply to projects constructed after January 1, 2020. The 2019 California Energy Code is designed to move the State closer to its zero-net energy goals for new residential development. It does so by requiring all new residences to install enough renewable energy to offset all the electricity needs of each residential unit (California Code of Regulations (CCR), Title 24, Part 6, Section 150.1(c)4). CEC estimates that the combination of mandatory on-site renewable energy and prescriptively-required energy efficiency standards will result in a 53 percent reduction in new residential construction as compared to the 2016 California Energy Code. Non-residential buildings are anticipated to reduce energy consumption by 30 percent as compared to the 2016 California Energy Code primarily through prescriptive requirements for high-efficiency lighting (CEC 2018c). The Energy Code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

Legislation Associated with Greenhouse Gas Reduction

The State has passed legislation that aims to reduce greenhouse gas emissions, which often have an added benefit of reducing energy consumption. SB 32 requires a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. Executive Order B-30-15 sets a long-term target of reducing statewide GHG emissions by 80 percent below 1990 levels by 2050.

SB 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. The Advanced Clean Cars program, approved by CARB, combines the control of GHG emissions and criteria air pollutants and the increase in the number of zero-emission vehicles into a single package of standards. The program's zero-emission vehicle regulation requires battery, fuel cell and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

Implementation of the State's legislation associated with GHG reduction will have the co-benefit of reducing California's dependency of fossil fuel and making land use development and transportation systems more energy efficient.

More details about legislation associated with GHG reduction are provided in the regulatory setting of Section 3.7, "Greenhouse Gas Emissions and Climate Change."

LOCAL

El Dorado County General Plan

The El Dorado County El Dorado Hills General Plan includes the following policies applicable to the energy efficiency of new development and reducing community-wide energy consumption in El Dorado County:

- Policy 5.6.2.1 Require energy conserving landscaping plans for all projects requiring design review or other discretionary approval.
- Policy 5.6.2.2 All new subdivisions should include design components that take advantage of passive or natural summer cooling and/or winter solar access, or both, when possible.

3.5.3 Impacts and Mitigation Measures

METHODOLOGY

Levels of construction- and operation-related energy consumption by the project was measured in megawatt-hours of electricity, million British Thermal unit (MMBTU) of natural gas, gallons of gasoline, and gallons of diesel fuel. Energy consumption estimates were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer program, the Road Construction Emissions Model version 9.0. Where project-specific information was not known, model default values based on the project's location and approximate land use types were used. Model runs were applied with the same assumptions used in the analyses in Sections 3.2 "Air Quality" and 3.7 "Greenhouse Gas Emissions and Climate Change."

THRESHOLDS OF SIGNIFICANCE

The following significance criteria area based on CEQA Guidelines Appendix G (energy), under which implementation of the project would have a potentially significant adverse impact if the project would:

- result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ISSUES NOT DISCUSSED FURTHER

Electrical and natural gas facilities are located along the White Rock Road and existing in Phase I of the overall site. No offsite infrastructure improvements that could trigger environmental impacts would occur. Thus, this issue is not further discussed in the EIR.

Impact 3.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operations

Implementation of the project would increase electricity and natural gas consumption at the site relative to existing conditions during short-term construction activities and long-term operational activities. However, the energy needs for construction would be temporary and not require additional capacity or increase peak or base period demands for electricity or other forms of energy. The project would comply with 2019 Title 24 Building Energy Efficiency Standards, which is designed to reduce the wasteful use of energy by increasing the project's energy efficiently. Therefore, implementation of the project would not result in wasteful, inefficient, and unnecessary consumption of energy, and impacts would be **less than significant**.

Appendix G of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to prevent or reduce "wasteful, inefficient and unnecessary" energy usage. Neither the law nor the State CEQA Guidelines establish thresholds that define when energy consumption is considered wasteful, inefficient and unnecessary. Compliance with CCR Title 24 Energy Efficiency Standards would result in energy-efficient buildings. However, compliance with building codes does not adequately address all potential energy impacts during construction and operation. For example, energy would be required to transport people and goods to and from the project site. Energy use is discussed by anticipated use type below.

Construction-Related Energy

Energy would be required to operate and maintain construction equipment and transport construction materials. The one-time energy expenditure required to construct the physical buildings and infrastructure associated with the Project would be nonrecoverable. Most energy consumption would result from operation of off-road construction equipment and on-road vehicle trips associated with commutes by construction workers and haul trucks trips.

Table 3.5-1 summarizes the levels of energy consumption associated with the construction of the Project by year. Most of the construction-related energy consumption would be associated with off-road equipment and the transport of equipment and waste using on-road haul trucks for all three phases of construction. An estimated 29,203 gallons of gasoline and 155,314 gallons of diesel fuel would be used during construction of the project (Appendix C).

Table 3.5-1 Construction Energy Consumption

Year	Diesel (Gallons)	Gasoline (Gallons)
2020	128,522	19,665
2021	20,701	9,506
2022	6,092	31
Total	**155,314**	**29,203**

Notes: Gasoline gallons include on-road gallons from worker trips. Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

Source: Calculations by Ascent Environmental in 2019

The energy needs for project construction would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Associated energy consumption would be typical of that associated with commercial projects in an urban setting. Automotive fuels would be consumed to transport people to and from the project site. Energy would be required for construction elements and transport construction materials. The one-time energy expenditure required to construct the physical infrastructure associated with the project would be nonrecoverable. There is no atypical construction related energy demand associated with the proposed project. Non-renewable energy would not be consumed in a wasteful, inefficient and unnecessary manner when compared to other construction activity in the region.

Operational Building Energy and Stationary Sources

The project would increase electricity and natural gas consumption in the region relative to existing conditions. However, the new facilities would, at a minimum, be built to 2019 Title 24 Building Energy Efficiency Standards, which are 30 percent more efficient than 2016 Standards. With respect to stationary sources, the project could include the operation of one new diesel emergency generator to support a possible supermarket tenant at Building 8. Table 3.6-2 summarizes the levels of energy consumption associated with the operation of the project for the first full year (2023) of operations.

Table 3.5-2 Operational Energy Consumption During the First Year of Operation (2023)

Energy Type	Energy Consumption	Units
Electricity	2,332	MWh/year
Natural Gas	3,471	MMBTU/year
Gasoline	219,197	gal/year
Diesel	6,901	gal/year

Notes: MWh/year = megawatt-hours per year; MMBTU/year = million British thermal units per year, gal/year = gallons per year.

Source: Calculations by Ascent Environmental in 2019

Operation of the project would be typical of commercial uses requiring electricity for lighting, climate control, kitchen facilities, and miscellaneous appliances. Title 24 Building Energy Efficiency Standards would be integrated into the project to reduce the projects energy demands.

Fuel consumption associated with project-related vehicle trips would not be considered wasteful, inefficient or unnecessary in comparison to other similar developments in the region. Fuel consumptions was estimated using the estimated annual vehicle miles traveled (5,576,513 miles) from the CalEEMod model outputs and estimated miles per gallon from the CARB mobile source emissions inventory EMFAC2014 database that is used in CalEEMod version 2016.3.2 (CARB 2014). Accordingly, the project is estimated to consume 219,197 gallons per year of gasoline and 6,901 gallons of diesel per year (see Appendix C). State and federal regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, inefficient and unnecessary use of energy for transportation. Additionally, the project is near single-family and multi-family residential land uses. This project in addition to the El Dorado Hills Town Center commercial uses would likely reduce VMT from neighboring residences that may otherwise travel further to shop. Although this potential reduction in VMT was not quantified, this effect would align with intent of the regional El Dorado County 2035 Regional Transportation Plan to reduce regional VMT.

According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In addition to compliance with the 2019 Title 24 Building Energy Efficiency Standards, the implementation of Mitigation Measure 3.7-1b would require the applicant to install building energy and transportation design features that would reduce the project's use of non-renewable energy. These design features include, installation of a solar panel system, installation of electric vehicle chargers for visitors, and an enhanced pedestrian and bike network. With these design features, the project's energy consumption through construction, building operation, and transportation would not be considered wasteful, inefficient, or unnecessary. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.5-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

Compliance with the latest Title 24 requirements would improve overall building energy efficiency compared to similar existing buildings. Therefore, implementation of the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

Relevant plans that pertain to the efficient use of energy include the EAP, which focuses on energy efficiency; demand response; renewable energy; the supply and reliability of electricity, natural gas, and transportation fuels; and achieving GHG reduction targets (CPUC 2008).

Building Energy Efficiency and Renewable Energy Use

Although the project would require more energy use than the existing site, the project would be designed with energy efficiency design features under the 2019 Title 24 Building Energy Efficiency Standards. These standards establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building installation and roofing, and lighting. The project would offset a portion of its baseline energy use with the installation of a renewable solar panel system. In addition, PG&E, which provides energy service to the project site, is subject to California's RPS to increase procurement from eligible renewable energy resource to 33 percent of total procurement by 2020 and to 50 percent of total procurement by 2030. PG&E achieved the 33 percent renewable portfolio in 2017 and is assumed to meet the 2030 target (CEC 2018b).

Transportation

Transportation energy demand from the implementation of the project would be reduced by federal and State regulations including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program. In addition, the project is surrounded by adjacent residential land uses. This arrangement allows for promotion of alternative forms of transportation such as walking and biking, while reducing transportation fuel demands.

The project would directly support EAP goals and strategies by offsetting grid-based non-renewable electricity use with the installation of a solar renewable energy system, conserving energy with the installation of energy efficiency design features, and encouraging alternative forms of transportation. Therefore, impacts would be **less than significant**.

In addition, the project will encourage use of renewable energy under Mitigation Measure 3.7-1b which will further reduce project-related non-renewable energy consumption.

Mitigation Measures

No mitigation is required.

3.6 GEOLOGY AND SOILS

This section describes current conditions relative to geology and soils at the project site. It includes a description of soils and mineral resources, analysis of environmental impacts, and recommendations for mitigation measures for any significant or potentially significant impacts. The primary source of information used for this analysis is the Geotechnical Engineering Study Update for Montano De El Dorado Phase II, prepared by Youngdahl Consulting Group, Inc., June 2017.

No comment letters regarding geology and soils were received in response to the Notice of Preparation (see Appendix A).

3.6.1 Environmental Setting

REGIONAL GEOLOGY

The project site is located at the western base of the foothills region of the Sierra Nevada Mountain Range. The Sierra Nevada geomorphic province is composed of northwest-trending metamorphic, volcanic, and igneous rocks that stretch from Bakersfield to Lassen Peak. It includes the Sierra Nevada and a broad belt of western foothills. Rocks in the project area are deformed, metamorphosed remnants of Paleozoic and Mesozoic oceanic crust and volcanic islands added to the continent during subduction along the western coast of North America that were later intruded by plutonic rocks (rocks that cooled from magma underground) in various locations (Busch 2001).

LOCAL GEOLOGY

The project site is underlain by metavolcanics rocks of the Copper Hill formation of the Jurassic Period (Youngdahl 2017) which is associated with mostly mafic to andesitic pyroclastic rocks, lava, and pillow lava (USDIGS/CDMG 1976). The weathering of the bedrock materials has contributed largely to the overburden soils on the project site. According to the California Geological Survey map published in 2000 (Open File Report 2000-02), the site is not identified as being a location where naturally occurring asbestos occurs (Youngdahl 2017).

Paleontological Resource Potential

Paleontological resources consist of vertebrate, invertebrate, and plant fossils. These resources are usually found in sedimentary and metasedimentary deposits. As noted above, the project site geology consist of metavolcanics rocks of the Copper Hill formation and are not known to contain paleontological resources.

TOPOGRAPHY AND DRAINAGE

The terrain at the project site generally slopes from the northeast to the southwest and includes multiple rock outcrops. In its existing condition, most of the site is undeveloped with well-established grasses and intermittent trees. The terrain would be best described as rolling hills that generally slope from the northeast to the southwest. As described in the Preliminary Drainage Study for Montano De El Dorado Phase III (included as Appendix C in this Draft EIR), the site area generally is divided into three main shed areas. Roughly the northeastern third of the site (Appendix C, Shed Area A-X1 as shown on the Pre-Construction Shed Map) slopes in an easterly direction, toward an existing concrete drainage ditch along the east property line. The northwestern portion of the site, making up over half of the site (Appendix C, Shed Area A-X2) slopes in a southwesterly direction toward Latrobe Road. It is tributary to an existing storm drain that passes beneath Latrobe Road, approximately 1,150 feet south of the intersection of Latrobe Road and White Rock Road. The southern tip comprising approximately 13 percent of the site (Appendix C, Shed A-X3) slopes in a westerly direction toward another storm drain that passes beneath Latrobe Road. The highest part of the dividing ridge is located at northern edge of the adjacent retail development at an elevation of about 638 feet. The terrain

slopes radially away from this area. The east facing slope is relatively steep, with slopes up to approximately 3:1. There is a concrete drainage ditch located near the east property line, which runs along the back of the existing residential lots, intercepts the runoff and conveys it northerly to a drainage inlet near the far northeast corner of the property. The west and southwest facing slopes toward Latrobe Road are also relatively steep with slopes up to approximately 5:1. There are rock lined drainage ditches along the east side of Latrobe Road which intercept runoff from the subject property and convey flows to two separate 24-inch culvert crossings of Latrobe Road.

GROUNDWATER

Groundwater was not observed at excavated test pits on the site, however, at varying times of the year groundwater may occur as perched on less weathered rock and/or be present in the fractures and seams of weathered rock found beneath the site (Youngdahl 2017). The soil survey for the site describes the depth to groundwater to be more than 80 inches (NRCS 2016).

SOILS

Native surface soils are composed of silty sand with gravel in medium dense condition in the upper 2 to 3 feet. Underlying the native soils is highly weathered, moderately fractured metavolcanics bedrock (Youngdahl 2017). Soils encountered on the site are not considered expansive.

Soil survey data contained in the drainage study shows that approximately 83 percent of the soils on the site are classified as Auburn very rocky silt loam with 2 to 30 percent slopes (RFE Engineering 2016). The remaining soils are comprised of Auburn silt loam 2 to 30 percent slopes, and Argonaut gravelly loam 2 to 15 percent slopes. All soils on the site are within the hydrologic soil group D, defined as soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.

EARTHQUAKE INDUCED LIQUEFACTION, SURFACE RUPTURE POTENITAL AND SETTLEMENT

Liquefaction is the sudden loss of soil shear strength and sudden increase in porewater pressure caused by shear strains, as could result from an earthquake. Research has shown that saturated, loose to medium-dense sands with a silt content less than about 25 percent, and located within the top 40 feet are most susceptible to liquefaction and surface rupture/lateral spreading.

Land subsidence is the gradual settling or sinking of an area with very little horizontal motion. Subsidence can be induced by both natural and human phenomena. Natural phenomena include shifting of tectonic plates and dissolution of limestone resulting in sinkholes. Subsidence related to human activity includes pumping water, oil, and gas from underground reservoirs; collapse of underground mines; drainage of wetlands; and soil compaction.

Due to the absence of a permanently elevated groundwater table, the relatively low seismicity of the area, and the relatively shallow depth to bedrock, the potential for seismically induced damage due to liquefaction, surface ruptures, and settlement is considered negligible for the site (Youngdahl 2017).

EXPANSIVE SOILS

Expansive soils (also known as shrink-swell soils) are soils that contain expansive clay minerals that can absorb significant amounts of water. The presence of these clay minerals makes the soil prone to large changes in volume in response to changes in water content. When an expansive soil becomes wet, water is absorbed and it increases in volume, and as the soil dries it contracts and decreases in volume. This repeated change in volume over time can produce enough force and stress on buildings, underground utilities, and other structures to damage foundations, pipes, and walls.

However, potentially expansive soils were not identified in the Geotechnical Engineering Study Update prepared for the project (Youngdahl 2017).

SLOPE INSTABILITY

Mass wasting refers to the collective group of processes that characterize down slope movement of rock and unconsolidated sediment overlying bedrock. These processes include landslides, slumps, rockfalls, flows, and creeps. Many factors contribute to the potential for mass wasting, including geologic conditions as well as the drainage, slope, and vegetation of the site.

The existing slopes on the project site were observed to have adequate vegetation on the slope face, appropriate drainage away from the slope face, and no apparent tension cracks or slump blocks in the slope face or at the head of the slope. No other indications of slope instability such as seeps or springs were observed. Additionally, due to the absence of permanently elevated groundwater table., the relatively low seismicity of the area, and the relatively shallow depth to rock, the potential for seismically induced slope instability for the existing slopes is considered negligible (Youngdahl 2017).

SEISMICITY

Most earthquakes originate along fault lines. A fault is a fracture in the Earth's crust along which rocks on one side are displaced relative to those on the other side due to shear and compressive crustal stresses. Most faults are the result of repeated displacement that may have taken place suddenly and/or by slow creep (Bryant and Hart 2007). The state of California has a classification system that designates faults as either active, potentially active, or inactive, depending on how recently displacement has occurred along them. Faults that show evidence of movement within the last 11,000 years (the Holocene geologic period) are considered active, and faults that have moved between 11,000 and 1.6 million years ago (comprising the later Pleistocene geologic period) are considered potentially active.

The project is in the Bear Mountains Fault Zone, on which the last full displacement occurred in the Late Quaternary Period (i.e., during the last 700,000 years) (Jennings and Bryant 2010). The inferred location of the West Bear Mountain Fault is less than 1 mile east of the project site (Busch 2001).

According to the Fault Activity Map of California and Adjacent Areas (Jennings and Bryant 2010) and the Peak Acceleration from Maximum Credible Earthquakes in California, no active faults are earthquake fault zones (Special Studies Zones) are located on the project site. No evidence of recent or active faulting was observed during previous field studies on the site (Youngdahl 2017).

3.6.2 Regulatory Setting

FEDERAL

National Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Public Resources Code [PRC] Section 2621-2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors, and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act defines criteria for identifying active faults, giving legal support to terms such as active and inactive, and establishes a process for reviewing building proposals in Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across these zones is strictly regulated if they are "sufficiently active" and "well-defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as within the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Bryant and Hart 2007). 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. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Section 2690–2699.6) is to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act's provisions are similar in concept to those of the Alquist-Priolo Act: The State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

California Building Code

The California Building Code (CBC) (California Code of Regulations, Title 24) is based on the International Building Code. The CBC has been modified from the International Building Code for California conditions, with more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control. The CBC contains a provision that provides for a preliminary soil report to be prepared to identify "…the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects." (CBC Chapter 18 Section1803.1.1.1).

LOCAL

El Dorado County General Plan

The adopted El Dorado County General Plan (2004) Conservation and Open Space Element discusses significant natural resources in the County, including geology and soils, and establishes goals, objectives, and policies related to these topics. Relevant policies from the El Dorado County General Plan include:

- **Policy 6.3.2.5:** Applications for development of habitable structures shall be reviewed for potential hazards associated with steep or unstable slopes, areas susceptible to high erosion, and avalanche risk. Geotechnical studies shall be required when development may be subject to geological hazards. If hazards are identified, applicants shall be required to mitigate or avoid identified hazards as a condition of approval. If no mitigation is feasible, the project will not be approved.

- Policy 7.1.2.1: Development or disturbance shall be prohibited on slopes exceeding 30 percent unless necessary for access. The County may consider and allow development or disturbance on slopes 30 percent and greater when:
  - Reasonable use of the property would otherwise be denied.
  - The project is necessary for the repair of existing infrastructure to avoid and mitigate hazards to the public, as determined by a California registered civil engineer or a registered engineering geologist.
  - Replacement or repair of existing structures would occur in substantially the same footprint.
  - The use is a horticultural or grazing use that utilizes "best management practices (BMPs)" recommended by the County Agricultural Commission and adopted by the Board of Supervisors.

  Access corridors on slopes 30 percent and greater shall have a site-specific review of soil type, vegetation, drainage contour, and site placement to encourage proper site selection and mitigation. Septic systems may only be located on slopes under 30 percent. Roads needed to complete circulation/access and for emergency access may be constructed on such cross slopes if all other standards are met.
- Policy 7.1.2.2: Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.
- Policy 7.1.2.3: Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.

El Dorado County Code

Chapter 15.14 of the County Code covers grading and requires grading and drainage plans to be developed for major development projects. Volume III of the County Design and Improvement Standards Manual, Grading, Erosion, and Sediment Control (Grading Manual), implements those standards. The Grading Manual includes standards for geotechnical, geologic, drainage, and soil studies that are required for development projects.

The County requires that grading plans must meet the following conditions:

- The proposed grading would not endanger public health, safety or welfare.
- Cuts and fills do not exceed a combined total of five hundred (500) cubic yards.
- The grading does not involve an access road serving three or more existing or potential residences.
- A fill intended to support structures is not proposed;
- All proposed cuts or fills would be designed to avoid adverse effects on any adjacent structure or property;
- The construction of drainage or sediment-control structures, culverts or facilities would not be required.
- The alteration of an existing drainage course would not occur;
- An unstable slope condition would not be created.
- The grading would not affect the channelized flow of the 100-year storm event.
- The plan is prepared by the property owner of record for the subject parcel as allowed under Section 6744 of the Business and Professions Code.
- The submitted plans meet all other requirements of the County Design and Improvement Standards Manual.

The grading plan must be prepared by a California professional civil engineer and must contain a detailed erosion and sediment control plan. The plan must be designed to prevent increased discharge of sediment at all stages of grading and development, from initial disturbance of the ground to project completion, and shall be consistent with all local, state, and federal rules and regulations. It must include an effective revegetation program to stabilize all disturbed areas that will not be otherwise protected.

The County's Design and Improvement Standards Manual provides required erosion and sediment control measures that are applicable to subdivisions, roadways, and other types of developments. Specifically, Volume III: Grading, Erosion and Sediment Control, describes the criteria for when an erosion and sediment control plan is required. When required, erosion and sediment control plans must comply with the County's adopted stormwater management plans and requirements.

3.6.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The examination of geology, soils, and mineral resources is based on information obtained from reviews of:

- the project site;
- available literature, including documents published by the County of El Dorado, State and federal agencies, and published information dealing with geotechnical conditions in the project area;
- applicable elements from the County of El Dorado General Plan;
- Preliminary Drainage Study for Montano De El Dorado Phase III, RFE Engineering, Inc., December 2016; and
- Geotechnical Engineering Study Update prepared for the Montano De El Dorado Phase II, Youngdahl Consulting Group, Inc., June 2017.

THRESHOLDS OF SIGNIFICANCE

A geology and soils impact is considered significant if implementation of the project would do any of the following. These thresholds of significance are based on State CEQA Guidelines Appendix G and were determined appropriate for this project due to its existing geologic, soil, and slope conditions.

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)
  - Strong seismic ground shaking
  - Seismic-related ground failure, including liquefaction
  - Landslides
- Result in substantial soil erosion or the loss of topsoil;
- 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;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property;
- 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; and/or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

ISSUES NOT DISCUSSED FURTHER

Expansive soils can absorb significant amounts of water and make the soil prone to large changes in volume in response to changes in water content. Repeated change in volume over time can produce enough force and stress on buildings, underground utilities, and other structures to damage foundations, pipes, and walls. However, the Geotechnical Engineering Study Update prepared for the project did not identify potentially expansive soils on the site (Youngdahl 2017). Therefore, no impact is expected and this topic is not further addressed in the Draft EIR.

The project would connect into the El Dorado Irrigation District public wastewater treatment conveyance facilities and would not involve the construction and operation of a septic or alternative wastewater disposal system. Thus, no impact is expected and this tope is not further addressed in the Draft EIR.

As described in Section 3.6.1, "Environmental Setting," the project site geologic conditions would not support paleontological resources. Thus, no impact is expected and this tope is not further addressed in the Draft EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: Loss, Injury or Death Resulting from Seismic Hazards

Construction and operation of the project would not exacerbate existing seismic hazards and would comply with state and local regulatory design requirements related to seismic hazards (e.g., building codes and other laws and regulations), such that the exposure of people or structures to risk of loss, injury or death resulting from rupture of a known earthquake fault or strong seismic shaking would be avoided or reduced. This impact would be **less than significant**.

The California Supreme Court decision in California Building Industry Association v. Bay Area Air Quality Management District has resulted in changes to CEQA with regard to the effects of existing environmental conditions on a project's future users or residents. The effects of the environment on a project are generally outside the scope of CEQA unless the project would exacerbate these conditions, as concluded by the California Supreme Court (see California Building Industry Association v. Bay Area Air Quality Management District [2015] 62 Cal.4th 369, 377 ["we conclude that agencies generally subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users."]). Changes to the State CEQA Guidelines to reflect this decision were adopted on December 28, 2018. CEQA cannot be used by a lead agency to require a developer or other agency to obtain an EIR or implement mitigation measures solely because the occupants or users of a new project would be subjected to the level of hazards specified.

Site development would involve minor on-site grading that would not alter the geologic conditions of the project site or region that would increase the potential or severity of seismic hazards. Development would be designed and constructed in accordance with the seismic design requirements of the 2016 CBC. The CBC standards require the design of structures to consider seismic hazards present at the site and the intended use, or nature of occupancy, of the structure. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.6-2: Create Geologic Hazard and Soil Stability Issues and Associated Soil Erosion Impacts

Construction of the project would require earthwork that could destabilize slope and soil conditions. The project is required to comply with County Code and improvement standards for grading and erosion control that are designed to ensure slope and soil stability. This impact would be **less than significant**.

As identified in Chapter 2, "Project Description," the project would require grading and construction of retaining walls to establish the finished grades necessary for site development. Chapter 15.14 of the County Code covers grading and requires grading and drainage plans to be developed for major development projects. The County requires that grading would not endanger public health, safety or welfare as well as that unstable slope condition would not be created. The grading plan must be prepared by a civil engineer and must contain a detailed erosion and sediment control plan (stormwater pollution prevention plan). The plan must be designed to prevent increased discharge of sediment at all stages of grading and development from initial disturbance of the ground to project completion.

Compliance with County grading and drainage requirements would ensure that project site development would not result in adverse slope or erosion impacts. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This chapter presents a summary of the current state of climate change science and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; quantification of project-generated GHG emissions and discussion about their potential contribution to global climate change; and analysis of the project's resiliency to climate change-related risks.

Comments to the notice of preparation related to GHG emissions included recommendations for construction and operational mitigation measures as well as concerns regarding increased vehicle miles traveled (VMT) from project implementation. These comments were taken into consideration for this analysis.

3.7.1 Environmental Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Physical Scientific Basis of Greenhouse Gas and Climate Change

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-generated emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropomorphic increase in GHG concentrations and other anthropomorphic forcing (IPCC 2014:5). This warming is observable considering the 20 hottest years ever recorded occurred within the past thirty years (McKibben 2018).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately one day), GHGs have long atmospheric lifetimes (one year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with perfect certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remain stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Greenhouse Gas Emission Sources and Sinks

As discussed previously, GHG emissions are attributable in large part to human activities. CO_2 is the main byproduct of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, organic material decomposition in landfills, and the burning of forest fires (Black et al. 2017). Nitrous oxide emissions are largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water); respectively, these are the two of the most common processes for removing CO_2 from the atmosphere.

The total GHG inventory for California in 2016 was 429 million metric tons of CO_2 equivalents ($MMTCO_2e$) (CARB 2018a). This is less than the 2020 target of 431 $MMTCO_2e$ equal to the inventory for 1990 (CARB 2018b:1). Table 3.7-1 summarizes the statewide GHG inventory for California.

Table 3.7-1 Statewide GHG Emissions by Economic Sector

Sector	Percent
Transportation	41
Industrial	23
Electricity generation (in state)	10
Electricity generation (imports)	6
Agriculture	8
Residential	7
Commercial	5
Not specified	<1

Source: CARB 2018a

Effects of Climate Change on the Environment

According to the IPCC, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 1.5 degrees Celsius (°C) (2.7 degrees Fahrenheit [°F]) by 2040. This 1.5 warming represents a global average indicating that portions of the earth will experience more dramatic warming than others. Oceans, which supports high specific heat, will experience less dramatic warming as compared to continents, particularly in inland regions.

According to *California's Fourth Climate Change Assessment*, if global GHGs are reduced at a moderate rate, California will experience average daily high temperatures that are warmer than the historic average by 2.5 °F from 2006 to 2039, by 4.4 °F from 2040 to 2069, and by 5.6 °F from 2070 to 2100; and if GHG emissions continue at current rates then California will experience average daily high temperatures that are warmer than the historic average by 2.7 °F from 2006 to 2039, by 5.8 °F from 2040 to 2069, and by 8.8 °F from 2070 to 2100 (OPR 2019:23). The potential effects of this warming in California are well documented.

Since its previous climate change assessment in 2012, California has experienced several of the most extreme natural events in its recorded history: a severe drought from 2012-2016, an almost non-existent Sierra Nevada winter snowpack in 2014-2015, increasingly large and severe wildfires, and back-to-back years of the warmest average temperatures (OPR 2019:56). According to CNRA's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018:55). In contrast, the northern Sierra Nevada experienced its wettest year on record during the 2016—2017 water year (CNRA 2018:64). The changes in precipitation exacerbate wildfires throughout California through a cycle of high vegetative growth coupled with dry, hot periods which lowers the moisture content of fuel loads. As a result, the frequency, size, and devastation of forest fires increases. In November 2018, the Camp Fire completely destroyed the town of

Paradise in Butte County and caused 85 fatalities, becoming the State's deadliest fire in recorded history. Moreover, changes in the intensity of precipitation events following wildfires can also result in devastating landslides. In January 2018 following the Thomas Fire, 0.5 inches of rain fell over just 5 minutes in Santa Barbara causing destructive mudslides formed from the debris and loose soil left behind by the fire. These mudslides resulted in 21 deaths.

As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018:190–192).

Temperature increases and changes to historical precipitation patterns will likely affect ecologically productivity. Existing habitats may migrate from climatic changes where possible, and those that lack the ability to retreat will be severely threatened. Altered climatic conditions dramatically endangers the survival of arthropods which could have cascading effects throughout ecosystems (Lister and Garcia 2018). Conversely, a warming climate may support the populations of other insects such as ticks and mosquitos, which transmit diseases harmful to human health such as the Zika virus, West Nile virus, and Lyme disease (European Commission Joint Research Centre 2018).

Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (CNRA 2018:64, 116–117, 127; OPR 2019:63). The effects of climate change will also have an indirect adverse impact on the economy as more severe natural disasters cause expensive, physical damage to communities and the state.

Additionally, adjusting to the physical changes associated with climate change can produce mental health impacts such as depression and anxiety.

Cal-Adapt is a climate change scenario planning tool developed by the California Energy Commission (CEC) that downscales global climate model data to local and regional resolution under two emissions scenarios. The Representative Concentration Pathway (RCP) 8.5 scenario represents a business-as-usual future emissions scenario, and the RCP 4.5 scenario represents a future with reduced GHG emissions. According to Cal-Adapt, annual average maximum temperatures in the project area are projected to rise by 5.9°F to 10.9°F by 2099, with the low and high ends of the range reflecting the lower and higher emissions increase scenarios (CEC 2019). Annual average minimum temperatures are expected to rise within a similar range.

The project area experienced an annual average high temperature of 73.3°F between 1961 and 1990. Under the RCP 4.5 scenario, the county's annual average high temperature is projected to increase by 5.2°F to 78.5°F by 2050 and increase an additional 0.7°F to 79.2°F by 2099 (CEC 2019). Under the RCP 8.5 scenario, the county's annual average high temperature is projected to increase by 5.6°F to 78.9°F by 2050 and increase an additional 5.0°F to 83.9°F by 2099 (CEC 2019).

The project area experienced an average precipitation of 24.2 inches per year between 1961 and 1990. Under the RCP 4.5 scenario, the county is projected to experience an increase of 9.2 inches to 33.4 inches per year by 2050 and decrease to 25.6 inches per year by 2099 (CEC 2019). Under the RCP 8.5 scenario, the project area is projected to experience an increase of 14.5 inches to 28.7 inches per year by 2050 and decrease to 28.7 inches per year by 2099 (CEC 2019).

3.7.2 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States ruled that CO_2 is an air pollutant as defined under the federal Clean Air Act and that the U.S. Environmental Protection Agency (EPA) has the authority to regulate GHG emissions.

In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the federal Clean Air Act.

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 *Federal Register* [FR] 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630). However, on April 2, 2018, EPA administrator announced a final determination that the current standards should be revised. On August 2, 2018, the U.S. Department of Transportation (DOT) and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light trucks, and retaining the current model year 2020 standards through model year 2026, establish new standards covering model years 2021 through 2026. Vehicles operating in the County would be subject to the CAFE standards. However, at the time of writing this Draft EIR, the SAFE Rule has not been formally adopted by EPA, and 17 states—including California—have filed a lawsuit against EPA. The timing for ultimate approval of the SAFE Rule and the outcome of any pending or potential lawsuits (and how such could delay or affect its implementation) are unknown at this time. The SAFE Rule's impact on future motor vehicle emissions is also unknown.

In 2015, EPA unveiled the Clean Power Plan. The purpose of the plan was to reduce CO_2 emissions from electrical power generation by 32 percent relative to 2005 levels within 25 years. EPA is proposing to repeal the Clean Power Plan because of a change to the legal interpretation of Section 111(d) of the federal Clean Air Act, on which the Clean Power Plan was based. The comment period on the proposed repeal closed April 26, 2018.

In June 2019, the EPA, under authority of the Clean Air Act section 111(d), issued the Affordable Clean Energy rule which provides guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states are required to submit plans to the EPA which demonstrate the use of specifically listed retrofit technologies and operating practices to achieve carbon dioxide reduction though heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emissions reduction for carbon dioxide generated from coal fired EGUs (EPA 2019).

STATE

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 directs California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than two degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the California Air Resources Board (CARB), outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). CARB and other state agencies also released the 2030 Draft Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal of Executive Order B-55-18. The Plan furthers the state's goals through improving the carbon sequestration potential of the state's natural and working lands through improved soil health and forest management strategies.

The state has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Cap-and-Trade Program

CARB administers the state's cap-and-trade program, which covers GHG emission sources that emit more than 25,000 metric tons of CO_2 equivalent per year ($MTCO_2e$/year), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles. In addition, the program's zero-emission vehicle regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2016a:15). By 2025, when the rules will be fully implemented, GHG emissions from the statewide fleet of new cars and light-duty trucks will be reduced by 34 percent and cars will emit 75 percent less smog-forming pollution than the statewide fleet in 2016 (CARB 2016b:1).

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million zero-emission vehicles on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 electric vehicle–charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity of California's transportation fuels. The LCFS applies to fuels used by on-road motor vehicles and by off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the state legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to adopt sustainable communities strategies (SCSs) showing reductions in GHG emissions from passenger cars and light trucks in their respective regions for 2020 and 2035 (CARB 2018c:1). These SCSs link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Tahoe Basin. The project site is in El Dorado County and governed by SACOG. Under SB 375, SACOG adopted its most recent *Metropolitan Transportation Plan/Sustainable Communities Strategy 2035* (MTP/SCS) in 2016. SACOG was tasked by CARB to achieve a 7 percent per capita reduction compared to 2012 emissions by 2020 and a 16 percent per capita reduction by 2035, both of which CARB confirmed the region would achieve by implementing the MTP/SCS (SACOG 2016:172; CARB 2018c:1). In March 2018, CARB promulgated revised targets tasking SACOG to achieve a 7 percent and a 19 percent per capita reduction by 2020 and 2035, respectively (CARB 2018c:1). SACOG is required to complete an updated MTP/SCS by February 2020. CARB's 2018 Progress Report indicates that SACOG, as well as many other MPOs in the state, are not on track to achieve these reduction targets (CARB 2018c:21–22).

Legislation Associated with Electricity Generation

The state has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code (2016) is scheduled to be replaced by the 2019 standards on January 1, 2020. The 2019 California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. Additionally, new residential units will be required to include solar panels, sized to offset the estimated electrical requirements of each

unit (CCR, Title 24, Part 6, Section 150.1[c]14). CEC estimates that the combination of required energy-efficiency features and mandatory solar panels in the 2019 California Energy Code will result in new residential buildings that use 53 percent less energy than those designed to meet the 2016 California Energy Code. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficiency lighting (CEC 2018).

LOCAL

Environmental Vision for El Dorado County Resolution No. 29-2008

The El Dorado County Board of Supervisors adopted Resolution No. 29-2008, the "Environmental Vision for El Dorado County," on March 25, 2008. The Resolution sets forth goals and calls for implementation of positive environmental changes to reduce global impact, improve air quality and reduce dependence on landfills, promote alternative energies, increase recycling, and encourage local governments to adopt green and sustainable practices. As it relates to global climate change and GHG emissions, the resolution establishes goals that include, but are not limited to, the following (El Dorado County 2008):

- Transportation, Traffic, and Transit
  - Reduce carbon emissions and GHGs
  - Promote carpooling and reduce vehicle miles traveled
  - Promote pedestrian and bicycling commuting
  - Expand transit opportunities
  - Promote programs and designs that reduce traffic congestion
- Planning and Construction
  - Promote the design of sustainable communities
  - Encourage pedestrian/cycling-incentive planning
  - Encourage energy-efficient development
- Energy
  - Promote the use of alternative fuels and fuel conservation programs
  - Promote clean, energy efficient heating and cooling

El Dorado County General Plan

The El Dorado County General Plan does not specifically include policies or goals to reduce GHG emissions. However, the general plan provides countywide goals and polices aimed at improving energy efficiency, transportation efficiency, and reducing air emissions, all of which would reduce or sequester GHGs. Such policies include the following:

- **Policy TC-1p:** The County shall encourage street designs for interior streets within new subdivisions that minimize the intrusion of through traffic on pedestrians and residential uses while providing efficient connections between neighborhoods and communities.
- **Policy 5.6.2.1:** Require energy conserving landscaping plans for all projects requiring design review or other discretionary approval.
- **Policy 5.6.2.2:** All new subdivisions should include design components that take advantage of passive or natural summer cooling and/or winter solar access, or both, when possible.

3.7.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

GHG emissions associated with the proposed project would be generated during project construction and by operation of the facility after it is built. Estimated levels of construction- and operation-related GHGs are presented below. The project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions.

The El Dorado County Air Quality Management District (EDCAQMD) EDCAQMD recommends using GHG methodology guidance developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD) (Baughman, pers. comm., 2019). Based on this recommendation, GHG emissions from the construction and operation of the project were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CAPCOA 2016), as recommended in SMAQMD guidance. Emissions from the off-site installation of the proposed sewer pipeline were calculated using the Sacramento Roadway Construction Emissions Model (SMAQMD 2019:3-5), which was designed by SMAQMD for linear construction projects such as pipelines and is recommended by multiple air districts in California.

Construction-Related Greenhouse Gas Emissions

Construction-related GHG emissions were calculated using project-specific information (e.g., size, area to be graded, area to be paved) where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod and Roadway Construction Emissions Model that are based on the project's location, size, and land use type.

Construction is anticipated to start in 2020 and last through 2022 and would be conducted in three non-overlapping phases. The project would result in the construction of a regional shopping center that includes sit-down and fast-food restaurants, retail stores, general office buildings, a hotel, general commercial land uses, an amphitheater, a storm drain basin, paved areas, landscaping, and sewer infrastructure. Tables 3.2-4 and 3.2-5, in Section 3.2 "Air Quality," summarize the assumed CalEEMod land use types, sizes, and construction schedule used for emissions modeling, based on the project details shown in Figures 2-3 and 2-8 in Section 2, "Project Description." Detailed assumptions can be found in Appendix C.

The proposed off-site sewer pipeline, shown in Figure 2.8 in Section 2, "Project Description," would be approximately 2,450 feet long and require a trenching width of five feet and depth of ten feet. Because trenching would occur on existing roadways, no mass grading or grubbing would be required for pipeline construction.

Specific CalEEMod and Roadway Construction Emissions Model assumptions and input parameters, such as equipment horsepower and hours of use per day, and inputs for these calculations can be found in Appendix C.

Operational Greenhouse Gas Emissions

Operational GHG emissions were estimated using project-specific information, where available, and default values in CalEEMod based on the project's location, size, and land use type. Mobile-source emissions were modeled in CalEEMod Version 2016.3.2 using the number of project-generated vehicle trips estimated by the traffic analysis, which is further described in Section 3.12, "Transportation/Traffic." Emissions associated with on-site consumption of natural gas, landscape maintenance activities, and a potential emergency diesel generator were estimated using the applicable modules of CalEEMod. Operational emissions from all sources were estimated for full buildout of the project which would become fully operational in 2023. It was conservatively assumed that the 29,968-square foot (sq. ft.) "General Commercial" building (Building 8), shown in Figure 2-3, may be operated as a supermarket. Supermarkets tend to have higher natural gas consumption than other commercial land uses and would likely operate an emergency generator. Detailed model assumptions and inputs for these calculations can be found in Appendix C.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue, as the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact to climate change is addressed as a cumulative impact.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans, and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

In California, some counties, cities, and air districts have developed guidance and thresholds for determining the significance of GHG emissions that occur within their jurisdiction. El Dorado County is the CEQA lead agency for the project and is, therefore, responsible for determining whether an impact would be considered significant.

Some guidance for evaluating a project's GHG emissions is provided in CARB's 2017 Scoping Plan. To set the stage for how California would meet targets set forth by SB 32 of 2016, the 2017 Scoping Plan suggests several approaches for showing a project's consistency with State targets. The following text pertains to project-level CEQA analysis (CARB 2017:151-152):

> Absent conformity with an adequate geographically specific GHG reduction plan… [CARB] recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, result in no contributing to GHG impacts, is an appropriate overall objective for new development…
>
> Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply that the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan, the State's long-term GHG goals, and climate change science.
>
> To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emission, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.

EDCAQMD currently does not have recommended GHG thresholds or guidance based on the statewide GHG target mandated by SB 32. Also, the time of writing this Draft EIR, El Dorado County does not have an adopted Climate Action Plan consistent with State CEQA Guidelines Section 15185.5(b). Thus, El Dorado County does not have the option of evaluating GHGs associated with the program based on the program's consistency with such a GHG reduction plan. As noted above, CARB has suggested that "Lead agencies have the discretion to develop evidence-based numeric thresholds consistent with the 2017 Scoping Plan, the State's long-term GHG goals, and climate change science." Such an undertaking, however, would be an enormous challenge to the County, given its limited fiscal and staff resources. At the time of writing this EIR, no counties or air districts in California have developed such a threshold that is aligned with the 2017 Scoping Plan and the 2030 statewide GHG target mandated by SB 32.

Based on the overall objective of the 2017 Scoping Plan Update, a "no-net-increase" threshold is applied for the purposes of the GHG impact analysis for this project. The intent of this analysis is not to present the use of a no-net-increase threshold as a generally applied threshold of significance for GHG impacts. Its use in this EIR is related directly to the facts surrounding the project type and lack of availability of other reliable threshold options. A project that results

in no net increase in GHG emissions would not result in a substantial increase in GHGs or conflict with local or State plans adopted for the purpose of reducing GHG emissions.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Greenhouse Gas Emissions

Project construction would generate approximately a total of 2,876 $MTCO_2e$ and operations of the project would generate approximately 2,957 $MTCO_2e$/year. This increase in GHG emissions could have the potential to conflict with the 2017 Scoping Plan; inhibit the state's ability to achieve the statewide GHG targets for 2020, 2030, and 2050; and, therefore, be a cumulatively considerable contribution to climate change. This would be a **significant** impact.

GHG emissions associated with the project would be generated during project construction and subsequent operation of the new land uses. Estimated levels of construction- and operations-related GHGs are presented below.

Construction-Generated Greenhouse Gas Emissions

Project-related construction activities would result in the generation of GHG emissions. Off-road construction equipment, materials transport, and worker commute during construction of the project would result in tailpipe emissions of GHGs from fuel combustion (see Section 3.2, "Air Quality," for construction activity, duration, and equipment types). Based on modeling conducted for the project, it is estimated that construction would generate a total of 2,876 $MTCO_2e$ over the duration of the construction period (2020-2022). Table 3.7-2 shows the estimated levels of GHG emissions associated with project construction. See Appendix C for detailed input parameters and modeling results.

Table 3.7-2 Mitigated Construction and Operational Greenhouse Gas Emissions

Emissions Sector	Unmitigated Emissions
On-Site Construction Equipment	1,573
Off-Site Worker Commute	1,302
Total Construction GHG Emissions	**2,842**

Notes: Totals may not add due to rounding. $MTCO_2e$ = metric tons of carbon dioxide equivalent
See Appendix C for detailed input parameters and modeling results.
Source: Data provided by Ascent Environmental in 2019

Operational Greenhouse Gas Emissions

Operation of the project would result in mobile-source GHG emissions associated with vehicle trips to and from the project site (i.e., project-generated VMT); energy-source emissions from electricity and natural gas use; area-source emissions from operation of landscape maintenance equipment; stationary-source emissions from periodic testing a backup emergency generator; anaerobic decomposition of landfilled waste; and energy use associated with the treatment and conveyance of water and wastewater. Carbon sequestration provided by the planting and maintenance of 507 new trees on the project site would occur during the life of the project and would reduce the total annual GHG emissions. The estimated levels of GHG emissions associated with project operations are reported in Table 3.7-3.

As shown in Table 3.7-3, operation of the project would generate 2,842 MT CO_2e/year. These emissions, along with the one-time emissions of 115 $MTCO_2e$ associated with project construction could have the potential to conflict with the 2017 Scoping Plan; inhibit the state's ability to achieve the statewide GHG targets for 2020, 2030, and 2050; and, therefore, be a cumulatively considerable contribution to climate change. This would be a **significant** impact.

Table 3.7-3 Operational Greenhouse Gas Emissions

Emissions Sector	GHG Emissions ($MTCO_2e$/year)
Landscape Maintenance	<1
Electricity Consumption (Off-Site Emissions)	681
Natural Gas Combustion (On-Site Emissions)	186
Vehicle Trips (Mobile Sources)	2,100
Stationary Source	<1
Solid Waste Disposal	220
Water Consumption and Wastewater Treatment	14
Vegetation Sequestration	-359
Total Operational GHG Emissions	**2,842**

Notes: Totals may not add due to rounding. Electricity is based on CalEEMod default PG&E emission factors from 2008, therefore electricity emissions are conservatively high. $MTCO_2e$/year = metric tons of carbon dioxide–equivalent per year.

See Appendix C for detailed input parameters and modeling results.

Source: Data provided by Ascent Environmental in 2019

Mitigation Measures

Mitigation Measure 3.7-1a: Reduce Project-Related Construction Greenhouse Gas Emissions

The applicant shall incorporate the following measures to reduce construction emissions of GHGs to the extent feasible.

Off-Road Equipment Emission Standards

Implement Mitigation Measure 3.2-4. Details of these mitigation measures are provided in Section 3.2, "Air Quality." Mitigation Measure 3.2-4 requires diesel engine exhaust controls for heavy-duty construction equipment. Mitigation Measure 3.2-4 is consistent with a local action measure recommended in Appendix B, Local Action, of the 2017 Scoping Plan, which reads, "Require construction vehicles to operate with the highest tier engines commercially available" (CARB 2017:B-8).

Alternative Fuels for Diesel-Powered Construction Equipment

Require that only renewable diesel (RD) fuel be used in diesel-powered construction equipment. RD fuel must meet the following criteria:

- meet California's Low Carbon Fuel Standards and be certified by CARB Executive Officer;
- be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables;
- contain no fatty acids or functionalized fatty acid esters; and
- have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines.

Electrification of Power Tools and Temporary Office Buildings

Use grid-sourced electricity from the local utility, instead of using fossil fuel-based generators, for temporary jobsite power to power tools (e.g., drills, saws, nail guns, welders) and temporary office buildings. This measure is required during all construction phases except site grubbing; site grading; and the installation of electric, water, and wastewater infrastructure. This measure shall be implemented during building demolition, the framing and erection of new buildings, all interior work, and the application of architectural coatings. Electrical outlets shall be designed to PG&E's Greenbook standards and shall be placed in accessible locations throughout the project area. Contractors shall coordinate with the

utility to activate a temporary service account prior to proceeding with construction. Implementation of this measure shall be required in the contract the project applicant establishes with its construction contractors.

Mitigation Measure 3.7-1b: Reduce Project-Related Operational Greenhouse Gas Emissions

The applicant shall incorporate the following measures to reduce operational emissions of GHGs to the extent feasible.

Building Energy

Reduce GHG emissions associated with building energy through the following measures:

- Design new buildings to achieve a 10 percent or greater reduction in energy use versus a standard Title 24 code-compliant building through energy efficiency measures consistent with Tier 1 of the 2016 California Green Building Standards Code, Section A5.203.1.2.1. Alternatively, this measure can be met by installing onsite renewable energy systems that achieve equivalent reductions in building energy use.
- Install an array of solar panels on the project site to meet the project's full electricity demand on a year-round basis. A solar panel system with a minimum rating of 1,480-kilowatts (kW) would be needed to generate enough emissions-free solar electricity to offset 100 percent of annual electricity demand from the project (estimated at 2,332 megawatt hours per year as shown in Table 3.5-2). A 1,480-kW solar panel system in the El Dorado County area, would require a footprint of 93,562 sq. ft., assuming a 20 degree southward facing tilt and a module with 16 percent efficiency (National Renewable Energy Laboratory 2019). The exact available surface area for rooftop solar and parking lot solar shade spaces at final buildout is unknown, due to potential architectural and other physical barriers. However, based on preliminary drawings and estimates shown in Figure 2-3, rooftop and parking spaces would likely offer 91,183 and 124,254 square feet in available footprint area for solar installations, respectively. Solar panels may be installed anywhere on site, including, but not limited to rooftops, vehicle parking solar shades, and cleared on-site ground areas. Thus, the project has sufficient surface area to support a solar panel system that will fully offset on-site electricity demands. This system may involve the use of on-site batteries designed for storing solar electricity generated during the daytime for use during times when electricity demand exceeds instantaneous solar electricity generation. The designated amount of solar for each location of an installation would be subject to available rooftop and ground-level surface area and County design, siting, and permitting requirements.
- In addition to any solar photovoltaic canopies installed to meet the project's electricity demand, install solar canopies (non-electricity-generating) or plant shade trees throughout the project site to reduce cooling demands on on-site buildings, such that at least 50 percent of parking lot surfaces are shaded.
- Electrify or use alternative fuels for as many appliances as feasible, such as those traditionally using natural gas (e.g., space heating, cooking, water heating). Increase the rating of on-site solar panels to match any additional demand on electricity from the conversion of appliances to electric. Encourage tenants to use electric or alternatively-powered appliances over natural gas- or propane-powered appliances through building design and incentives. Design buildings to allow for the use of electric appliances over natural-gas or propane-powered ones. Other incentives can include the reduction of utility fees to tenants through electrification of appliances due to on-site availability of solar generated electricity. Electric alternatives to appliances include electric heat-pump or on-demand water heaters, solar water heaters, induction cooktops,
- Use cool pavements on all paved surface areas, to the extent feasible, to lower air temperatures outside buildings and reduce cooling energy demands on on-site buildings.
- For buildings or portions of buildings without rooftop solar, design new building rooftops to include Cool Roofs in accordance with the requirements set forth in Tier 2 of the 2016 California Green Building Energy Codes (CALGreen), Sections A4.106.5 and A5.106.11.2, or the most recent version of CALGreen effective at the time of construction.

On-Road Transportation

Reduce GHG emissions associated with on-road transportation through the following measures:

- Install at least 10 percent of parking spaces to include Electric Vehicle Service Equipment (EVSE), or a minimum of 2 spaces to be installed with EVSE for buildings with 2–10 parking spaces. EVSE includes EV charging equipment for each required space connected to a 208/240-Volt, 40-amp panel with conduit, wiring, receptacle, and overprotection devices.
- All new loading docks shall be equipped to provide electric power from the grid, including connections for Transportation Refrigeration Units. Signage shall be posted adjacent to loading docks prohibiting engine idling for more than five minutes.
- Dedicate preferential parking spaces to vehicles with more than one occupant and Zero Emission Vehicles (including battery electric vehicles and hydrogen fuel cell vehicles). The number of dedicated spaces should be no less than two spaces or five percent of the total parking spaces on the project site, whichever is greater. These dedicated spaces shall be in preferential locations such as near the main entrances to the buildings served by the parking lot and/or under the shade of a structure or trees. These spaces shall be clearly marked with signs and pavement markings. This measure shall not be implemented in a way that prevents compliance with requirements in the California Vehicle Code regarding parking spaces for disabled persons or disabled veterans.
- Provide adequate, safe, convenient, and secure on-site bicycle parking racks at retail and commercial buildings. Bicycle parking racks shall be permanently anchored, be located in a convenient location within 200 feet of the primary visitor's entrance, and be easily visible. The number of bike parking spaces shall be a minimum of 15 percent of new visitor motorized vehicle parking spaces (rounded up to the nearest whole number). At minimum, there should be one two-bike capacity rack.

  All bicycle parking racks shall:

  - support bicycles at two points of contact in order to prevent bicycles from falling;
  - allow locking of bicycle frames and wheels with U-locks;
  - be constructed of square tubes to resist illegal rack cutting;
  - be constructed of low-maintenance, weather-resistant materials (galvanized finish resists corrosion);
  - not require lifting of a bicycle;
  - be mounted securely to the floor or ground;
  - be visible to approaching cyclists and pedestrians; and
  - be under a shelter and protected from rain.
- Businesses shall include amenities for employees who commute by bicycle including a shower and changing room, as well as a secure bicycle parking area. The bicycle parking area shall be under a roof and in a locked area that is only accessible by employees. Bicycle parking facilities should be designed in a manner which provides adequate space for all bicycle types, including e-bikes, tandems, recumbent bikes, and cargo bikes, as well as bike trailers.

Off-Road Transportation

Reduce GHG emissions associated with on-road transportation through the following measures:

- All forklifts used at loading docks and truck loading areas shall be electric Class 1, 2 or 3 (based on the vehicle's gross vehicle weight). All loading docks and truck loading areas shall include a dedicated charging station for electric forklifts. Verification shall be provided to or by the lead agency through a regular reporting program, as determined by the lead agency.
- Multiple electrical receptacles shall be included on the exterior of new buildings and accessible for purposes of charging or powering electric landscaping equipment and providing an alternative to using fossil fuel-powered generators. The electrical receptacles shall have an electric potential of 100 volts. There shall be a minimum of one

electrical receptacle on each side of the building and one receptacle every 100 linear feet around the perimeter of the building.

Water

Reduce GHG emissions associated with water use through the following measure:

- Newly developed buildings shall comply with requirements for water efficiency and conservation as described in the CALGreen Divisions 4.3 and 5.3.

The above actions align with local action measures identified in the 2017 Scoping Plan.

Mitigation Measure 3.7-1c: Purchase Carbon Offsets

The CEQA Guidelines recommend several mitigation options for mitigating GHG emissions. Section 15126.4(C)(3) of the Guidelines states that measures to mitigate the significant effects of GHG emissions may include "off-site measures, including offsets that are not otherwise required…" Through the purchase GHG credits from an approved registry, GHG emissions may be reduced at the project level. GHG reductions must meet the following criteria:

- Real—represent reductions actually achieved (not based on maximum permit levels),
- Additional/Surplus—not already planned or required by regulation or policy (i.e., not double counted),
- Quantifiable—readily accounted for through process information and other reliable data,
- Enforceable—acquired through legally binding commitments/agreements,
- Validated—verified through accurate means by a reliable third party, and
- Permanent—will remain as GHG reductions in perpetuity.

In partnership with offset providers, the project applicant shall purchase carbon offsets to reduce the project's net annual emissions to 0 $MTCO_2e$ from a verified program that meets the above criteria. The applicant shall purchase credits to offset up to 2,876 $MTCO_2e$ of the project's construction-related GHGs prior to the start of construction. Also, prior to commencing operation, the applicant shall also purchase credits to offset the project's operational emissions of up to 2,842 $MTCO_2e$/year multiplied by the number of years of operation between commencement of operation and 2050, which is the target year of Executive Order S-3-05. Actual credits to be purchased may be lower than these upper bounds depending on the effectiveness of Mitigation Measures 3.7-1 and 3.7-2 and any additional reductions due to legislation. Offset protocols and validation applied to the project could be developed based on existing standards (e.g., Climate Registry Programs) or could be developed independently, provided such protocols satisfy the basic criterion of "additionality" (i.e. the reductions would not happen without the financial support of purchasing carbon offsets).

Prior to issuing building permits for development within the project, the County shall confirm that the project developer or its designee has fully offset the project's remaining (i.e. after implementation of GHG reduction measures) GHG emissions by relying upon one of the following compliance options, or a combination thereof:

- demonstrate that the project developer has directly undertaken or funded activities that reduce or sequester GHG emissions that are estimated to result in GHG reduction credits (if such programs are available), and retire such GHG reduction credits in a quantity equal to the project's remaining GHG emissions;
- provide a guarantee that it shall retire carbon credits issued in connection with direct investments (if such programs exist at the time of building permit issuance) in a quantity equal to the project's remaining GHG emissions;
- undertake or fund direct investments (if such programs exist at the time of building permit issuance) and retire the associated carbon credits in a quantity equal to the project's remaining GHG emissions; or
- if it is impracticable to fully offset the project's GHG emissions through direct investments or quantifiable and verifiable programs do not exist, the project developer or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the project's remaining GHG Emissions.

Significance after Mitigation

Table 3.7-4 summarizes the estimated levels of operations GHG emissions with implementation of Mitigation Measures 3.7-1a through 3.7-1c. Mitigated emissions from Mitigation Measure 3.7-1 were calculated assuming the diesel used during construction would be 100 percent renewable, meaning that the GHG emissions from renewable diesel exhaust would not contribute to a net increase in GHG emissions in the atmosphere as compared to fossil fuels. The mitigated levels of GHG emissions from Mitigation Measure 3.7-1b were estimated using CalEEMod by offsetting energy use with 100 percent renewable energy, accounting for increased transit accessibility within 0.25 mile of the project site, and improving a pedestrian network within the project site and connecting off-site land uses. Incorporating electric vehicle charging stations and bike accessibility was not available through CalEEMod's mitigation module and was not quantified. Although these latter two aspects of the recommended mitigation measure would likely further reduce emissions, it is currently speculative to quantify the reductions due to the variability associated with travel behavior. Reductions from Mitigation Measure 3.7-1a were assumed to be encompassed by the reductions from Mitigation Measure 3.7-1b. The remaining GHG emissions are to be mitigated with the purchase of carbon offset credits. Based on these assumptions, the implementation of Mitigation Measures 3.7-1a through 3.7-1c would reduce operational GHG emissions to a net-zero level. The impact would be **less than significant with mitigation**.

Table 3.7-4 Mitigated Construction and Operational Greenhouse Gas Emissions

Emissions Sector	Unmitigated Emissions	Emissions Reduced After Mitigation	Total Mitigated $MTCO_2e$/year
Construction Emissions			
On-Site Construction Equipment	1,573	1,573	0
Off-Site Worker Commute	1,302	0	1,302
Carbon Offsets	-	1,302	-1,302
Total Construction GHG Emissions	**2,842**	**2,842**	**0**
Operational Emissions			
Landscape Maintenance	<1	0	<1
Electricity Consumption (Off-Site Emissions)	681	681	0
Natural Gas Combustion (On-Site Emissions)	186	18.79	168
Vehicle Trips (Mobile Sources)	2,100	379	1,721
Stationary Source	<1	0	<1
Solid Waste Disposal	220	0	220
Water Consumption and Wastewater Treatment	14	0	14
Vegetation Sequestration	-359	0	-359
Carbon Offsets	-	1,764	-1,763
Total Operational GHG Emissions	**2,842**	**2,842**	**0**

Notes: Totals may not add due to rounding. Electricity is based on CalEEMod default PG&E emission factors from 2008, therefore electricity emissions are conservative. $MTCO_2e$ = metric tons of carbon dioxide equivalent; CalEEMod = California Emissions Estimator Model v 2016.3.2; PG&E = Pacific Gas and Electric; GHG = Greenhouse Gas

See Appendix C for detailed input parameters and modeling results.

Source: Data provided by Ascent Environmental in 2019

As indicated in Table 3.7-4, implementation of Mitigation Measures 3.7-1a through 3.7-1c would substantially reduce the project's GHG emissions. The combined effect of the mitigation measures would be sufficient in meeting the net zero significance threshold. Therefore, the project would not conflict with CARB's 2017 Scoping Plan or an established state GHG reduction target (e.g., SB 32). The impact would be **less than significant**.

3.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential presence of hazards and hazardous materials on and near the project site, and evaluates the effects that project implementation could have on the health of the public and the environment. The evaluation is based on a Phase I Environmental Site Assessment (Youngdahl 2017) and other data cited below.

Comments were received on the NOP regarding the potential for the presence of naturally occurring asbestos. These issues are discussed below.

3.8.1 Environmental Setting

WILDLAND FIRE CONDITIONS

Wildland fire is defined by the National Wildfire Coordinating Group as "any non-structure fire that occurs in vegetation or natural fuels" (National Wildfire Coordinating Group 2014). Wildland fire may be started by natural processes (primarily lightning) or it may be started (intentionally and accidentally) by human activities, such as smoking, debris burning, and equipment operation. For this reason, the risk of fire increases where there is human access into wildland areas. Emergency fire access plays a major role in determining whether a fire can be quickly extinguished or whether it will spread. Topography is a primary factor for assessing the fire hazard of an area. As slopes increase, fires spread faster, and accessibility by fire crews and equipment often decreases.

The State Board of Forestry identifies those lands where the California Department of Forestry and Fire Protection (CAL FIRE) has the primary duty for wildland fire prevention and suppression; these lands are commonly known as state responsibility areas (SRAs). CAL FIRE has mapped the fire hazard potential within SRAs based on relevant factors such as fuels, terrain, and weather. The hazards are described according to their potential to cause ignition of buildings. The maps classify land into Fire Hazard Severity Zones of moderate, high, and very high. The maps are based on data and models describing development patterns, estimated fire behavior characteristics over a 30- to 50-year time horizon, and expected burn probabilities, to quantify the likelihood and nature of vegetation fire exposure to new construction. The project site is mapped as an in a moderate fire hazard severity zone (CAL FIRE 2007).

KNOWN AND POTENTIAL CONTAMINATION

The Phase I Environmental Site Assessment (Youngdahl 2017) did not identify the presence or likely presence of hazardous substances or petroleum products on the Phase II portion of project site due to a past release or conditions that pose a material threat of a future release to the environment. The Phase I included query of: the State Water Resources Control Board's database, which identified two permitted underground storage tanks within 0.5 mile of the project site that are not considered to pose a risk; the California Department of Toxic Substances Control Board's Envirostor database, which did not return any records within 1 mile of the project site; and the Environmental Management Department for El Dorado County, which concluded that there are no records associated with the project site.

No structures are, or have been, located on the Phase II project site. The Phase I portion of the project site has already been developed with commercial structures and is not considered a potential source of contamination due to the age and type of development. Therefore, there is not a potential for site soils to be affected by potentially hazardous building materials, such as asbestos, lead-based paint, and termiticides (Youngdahl 2017).

NATURALLY OCCURRING ASBESTOS

Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Naturally occurring asbestos (NOA), which was identified as a toxic air contaminant by CARB in 1986, is located in many parts of California and is commonly associated with serpentine soils and rocks.

An asbestos map of western El Dorado County prepared by El Dorado County shows the location of individual parcels and areas within the following four categories considered to be subject to elevated risk of containing NOA (El Dorado County 2018):

- Found Area of NOA,
- Quarter Mile Buffer for Found Area of NOA,
- More Likely to Contain Asbestos, and
- Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line.

The northeast corner of the project site shares a boundary with a location identified as a Quarter Mile Buffer for Found Area of NOA (El Dorado County 2018). However, the project site itself is not identified as any of the four categories listed above.

PROXIMITY TO AIRPORTS

The Cameron Airpark Airport is located approximately 5 miles northeast of the project site. It is a public use airport with two runways and an average of 99 daily operations. The project site is not within the Airport Influence Area of the Cameron Park Airport established in the Land Use Compatibility Plan (El Dorado County Airport Land Use Commission 2012).

EMERGENCY RESPONSE AND EVACUATION

Emergency response is addressed in El Dorado County's Hazardous Waste Management Plan and Multi-Hazard Functional Emergency Response Plans. Emergency response is provided by the El Dorado County Environmental Management Department, the El Dorado County Office of Emergency Services, and the El Dorado Hills Fire Department. El Dorado County Sheriff's Office and Office of Emergency Services use the Emergency Notification System to alert county residents about public health and public safety emergencies including evacuations due to wildland fires, hazardous material spills, and urgent law enforcement operations (El Dorado Hills Fire Department 2013).

3.8.2 Regulatory Setting

FEDERAL

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA) was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. EPCRA establishes requirements regarding emergency planning and "community right-to-know" reporting on hazardous and toxic chemicals.

EPCRA requires states and local emergency planning groups to develop community emergency response plans for protection from a list of extremely hazardous substances (40 Code of Federal Regulations [CFR] 355 Appendix A). The community right-to-know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. In California, EPCRA is implemented through the California Accidental Release Prevention Program.

Hazardous Materials Transportation Act

The U.S. Department of Transportation (DOT) has developed regulations in Titles 10 and 49 of the CFR pertaining to the transport of hazardous substances and hazardous wastes. The Hazardous Materials Transportation Act is administered by the Research and Special Programs Administration of DOT. The act provides DOT with a broad mandate to regulate the transport of hazardous materials, with the purpose of adequately protecting the nation

against risk to life and property that is inherent in the commercial transport of hazardous materials. The DOT regulations that govern the transport of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers.

Federal Occupational Safety and Health Act

The U.S. Department of Labor regulates worker health and safety at the federal level. The Federal Occupational Safety and Health Act of 1970 authorizes states (including California) to establish their own safety and health programs with Occupational Safety and Health Administration approval.

STATE

California Code of Regulations

The California Department of Industrial Relations regulates implementation of worker health and safety in California. The Department of Industrial Relations includes the Division of Occupational Safety and Health, which acts to protect workers from safety hazards through its California Occupational Safety and Health Administration program and provides consultative assistance to employers. California standards for workers dealing with hazardous materials are contained in Title 8 of the California Code of Regulations and include practices for all industries (General Industrial Safety Orders), and specific practices for construction and other industries. Workers at hazardous waste sites (or working with hazardous wastes, as might be encountered during excavation of contaminated soil) must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response regulations. Additional regulations have been developed for construction workers potentially exposed to asbestos. California Occupational Safety and Health Administration enforcement units conduct onsite evaluations and issue notices of violation to enforce necessary improvements to health and safety practices.

Division 4.5, Environmental Health Standards for the Management of Hazardous Waste, of Title 22 Social Security contains the DTSC's hazardous waste regulations. Regional Water Quality Control Board regulations are contained in Title 27 of the California Code of Regulations. Title 26 is a compilation of toxic regulations issued by state regulatory agencies that are also found in the original titles assigned to each agency.

Hazardous Waste Control Act

The Hazardous Waste Control Act regulates the identification, generation, transportation, storage, and disposal of materials the State of California has deemed hazardous.

Hazardous Waste and Substances Sites List

The Hazardous Waste and Substances Sites List, also known as the Cortese List, is a planning document used by the State of California and its various local agencies to comply with the CEQA requirements to provide information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires that the California Environmental Protection Agency update the list annually.

Wildfire Responsibility Areas/State Responsibility Areas

The state provides protection to private, undeveloped land. CAL FIRE implements statewide laws aimed at reducing wildfire hazards, including in wildland-urban interface areas. The laws apply to SRAs, which are defined as areas in which the state has primary financial responsibility for preventing and suppressing fires, as determined by the State Board of Forestry pursuant to PRC Sections 4125 and 4102. Fire safe regulations address road standards for fire equipment access, standards for signage, minimum water supply requirements for emergency fire use, and fuel breaks and greenbelts, among others. Fire protection outside SRAs is the responsibility of federal or local jurisdictions. These areas are referred to by CAL FIRE as federal responsibility areas and local responsibility areas, respectively.

LOCAL

El Dorado County General Plan

The following goals and associated policies are established in the Public Health, Safety, and Noise Element of the El Dorado County General Plan and are applicable to the project.

- **Policy 6.2.1.1:** Implement Fire Safe ordinance to attain and maintain defensible space through conditioning of tentative maps and in new development at the final map and/or building permit stage.
- **Policy 6.2.3.1:** As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible fire protection district that, concurrent with development, adequate emergency water flow, fire access, and firefighting personnel and equipment will be available in accordance with applicable State and local fire district standards.
- **Policy 6.2.3.2:** As a requirement of new development, the applicant must demonstrate that adequate access exists, or can be provided to ensure that emergency vehicles can access the site and private vehicles can evacuate the area.
- **Policy 6.2.3.4:** All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.
- **Policy 6.6.1.2:** Prior to the approval of any subdivision of land or issuing of a permit involving ground disturbance, a site investigation, performed by a Registered Environmental Assessor or other person experienced in identifying potential hazardous wastes, shall be submitted to the County for any subdivision or parcel that is located on a known or suspected contaminated site included in a list on file with the Environmental Management Department as provided by the State of California and federal agencies. If contamination is found to exist by the site investigations, it shall be corrected and remediated in compliance with applicable laws, regulations, and standards prior to the issuance of a new land use entitlement or building permit.

El Dorado County Hazardous Waste Management Plan

Objectives of the El Dorado County Hazardous Waste Management Plan include promoting source reduction and proper management of hazardous materials at businesses; developing public education programs; promoting clean-up of contaminated sites; minimizing improper disposal of hazardous wastes; developing siting criteria for hazardous waste management facilities; ensuring emergency response capabilities; and coordination of hazardous waste planning efforts with the public and private sectors, as well as local and state plans.

El Dorado County Multi-Hazard Functional Emergency Operations Plans

The El Dorado County Multi-Hazard Functional Emergency Operations Plans provide guidance and protocols for the County's response to extraordinary large-scale emergency situations, including wildland fire. Numerous local, state, and federal agencies, as well as private businesses and nonprofit organizations, would be involved in the response to wildland fires, including the local fire protection districts, CAL FIRE, U.S. Forest Service, and law enforcement agencies.

El Dorado County Code

Chapter 8.09 (Vegetation Management and Defensible Space) of Title 8 of the County Code requires the removal or abatement of all hazardous vegetation and combustible material, which constitutes a fire hazard which may endanger or damage neighboring property. Section 8.09.070(F) establishes defensible space requirements for parcels in, upon, or adjoining land that is covered with flammable material.

El Dorado Hills Fire Department Standards for Access

Standard #B-003 (Emergency Apparatus Access Ways) requirements include: roadway access distances from structures, roadway design must handle the weight of fire apparatus equipment, two points of access during construction activities, roadway width, vertical clearance and turning radii standards.

El Dorado County Air Quality Management District Rule 223-2

Rule 223-2 regulates grading in asbestos review areas and requires that finished grade surface asbestos concentrations be below 0.25 percent as measured by CARB Test Method (TM) 435; potentially requiring testing and management for asbestos during grading followed by the testing of finished grades for asbestos. All export soil/rock is required to be tested along with the completion of special documentation to accompany the export. Public disclosure is required for properties containing asbestos.

3.8.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hazard impacts are based on the current conditions of the project site as identified in the Phase I Environmental Site Assessment (Youngdahl 2017) and the technical information cited above in Section 3.8.1, "Environmental Setting."

The Phase I Environmental Site Assessment (Youngdahl 2017) was prepared in accordance with the American Society for Testing and Materials Standard E1527-13. The evaluation included a review of government records; review of historical data, such as topographic maps; review of reports previously conducted for the site; a site reconnaissance; and a questionnaire completed by an individual representing the owner of the site. The results of these efforts are summarized in the discussion of existing setting, above. It is assumed that the project would obtain all necessary building permits and comply with the provisions of applicable regulations, including implementation of standard best management practices (BMPs).

Potential impacts related to emergency response and evacuation, as well as potential loss as a result of wildland fire, are related to traffic management and availability of public services. As referenced below, these topics are also discussed in Section 3.11, "Public Services," and 3.12, "Transportation/Traffic."

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards is considered significant if implementation of the project would do any of the following:

- 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;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site that is included on a list of hazardous-materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- 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, result in a safety hazard or excessive noise for people residing or working in the project area;
- impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan;
- expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires;
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;

- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

ISSUES NOT DISCUSSED FURTHER

The Phase I Environmental Site Assessment did not identify the presence or likely presence of hazardous substances or petroleum products on the Phase II portion of project site due to a past release or conditions that pose a material threat of a future release to the environment. The Phase I included query of: the State Water Resources Control Board's database, which identified two permitted underground storage tanks within 0.5 mile of the project site that are not considered to pose a risk; the California Department of Toxic Substances Control Board's Envirostor database, which did not return any records within 1 mile of the project site; and the Environmental Management Department for El Dorado County, which concluded that there are no records (list of hazardous materials sites pursuant to Government Code Section 65962.5) associated with the project site (Youngdahl 2017). Impacts related to locating the project on site included on a list of hazardous materials sites pursuant to Government Code Section 65962.5 is not discussed further in this EIR.

The project is located within 0.25 miles of new John Adams Academy Charter School at 4250 Town Center Boulevard. However, the project would not handle hazardous or acutely hazardous materials, substances, or waste. The reader is referred to Section 3.2, "Air Quality," for an analysis of toxic air contaminants. This impact is not discussed further in this EIR.

The Cameron Airpark Airport is located approximately 5 miles northeast of the project site. The project site is not within the Airport Influence Area of the Cameron Park Airport established in the Land Use Compatibility Plan and would not result in a safety hazard. Impacts related to airport hazards is not discussed further in this EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Create a Significant Hazard Through the Routine Transport, Use, or Disposal of Hazardous Materials or Accidental Release of Hazardous Materials

The project would require transport, use, and disposal of hazardous materials during construction and operation in quantities typical of retail, hotel, and office development. The potential for such activities to result in a significant hazard to the public or the environment would be managed through adherence to existing regulations and compliance with the safety procedures mandated by applicable federal, state, and local laws and regulations. This impact would be **less than significant**.

<u>Construction</u>

Construction activities associated with the project would involve transportation, use, storage, and disposal of hazardous materials and petroleum products commonly used at construction sites (such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals). Standard accident and hazardous materials recovery training and procedures--enforced by the state and followed by private state-licensed, certified, and bonded transportation companies and contractors—reduce the potential for hazards associated with this routine use. Hazardous materials would be transported to the project area according to applicable hazardous materials transport and handling laws and regulations (such as the DOT Office of Hazardous Materials Safety regulations for the safe transportation of hazardous materials described in Title 49 of the CFR), and would only be stored in proper containers within a secured construction staging area. Hazardous wastes (including used oil, used oil filters, used gasoline containers, spent batteries, and other items) would be collected regularly and disposed of in accordance with all applicable laws and regulations.

As required under state and federal law, plans for notification and evacuation of site workers and local residents and other persons nearby in the event of a hazardous materials release would be in place throughout construction. Inspections would be conducted to verify consistent implementation of general construction permit conditions and BMPs to avoid and minimize the potential for spills and releases, and of the immediate cleanup and response thereto. BMPs include, for example, the designation of special storage areas and labeling, containment berms, coverage from rain, and concrete washout areas. Compliance with various federal, state, and local regulations would minimize the risk of a spill or accidental release of hazardous materials.

As identified above, the Phase I Environmental Site Assessment did not identify the presence or likely presence of hazardous substances or petroleum products on the Phase II portion of project site due to a past release or conditions that pose a material threat of a future release to the environment.

Operation

Retail, hotel, and office land uses do not typically involve transport, use, or disposal of significant quantities of hazardous materials. Generally, small quantities of hazardous materials, such as paints, cleaning chemicals, and fertilizers, are used for routine maintenance within these types of land uses. As described above for construction, conformance with established regulations and policies would reduce the potential for improper handling of materials and wastes that could result in accidental releases. In addition, the El Dorado County EMD inspects businesses that handle hazardous materials and responds to hazardous material spills and releases.

Summary

Adherence to existing regulations and compliance with the safety procedures mandated by applicable federal, state, and local laws and regulations would minimize the risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with construction and implementation of the proposed project to a **less-than-significant** level.

Mitigation Measures

No mitigation is required.

Impact 3.8-2: Impair Implementation or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan

Project construction and operation would not impair implementation of, or interfere with, the County Multi-Jurisdictional Hazard Mitigation Plan. Adequate road design for emergency vehicle access and private vehicle evacuation would be provided, as required under General Plan Policy 6.2.3.2 and El Dorado Hills Fire Department Standard #B-003. This impact would be **less than significant**.

Phase II of project site is vacant and does not currently have an internal roadway system. The project involves construction of Phase II that would expand the commercial center and provide additional access points along Latrobe Road that would be consistent with General Plan Policy 6.2.3.2 and El Dorado Hills Fire Department Standard #B003. Project implementation would not impair implementation of, or interfere with, the County Multi-Jurisdictional Hazard Mitigation Plan. Thus, the project would result in a **less-than-significant** impact.

Mitigation Measures

No mitigation is required.

Impact 3.8-3: Expose People or Structures to Wildland Fire Hazards or Exacerbation of Wildland Fire Hazards

The project site is surrounded by developed conditions and Latrobe Road that minimize the risk of wildland fire hazards. Implementation of the project would result in the conversion of the Phase II portion from grassland to a commercial center that would extend water and fire hydrant infrastructure through the site. These improvements would reduce the potential for wildland fire conditions as compared to existing undeveloped conditions. This impact would be **less than significant**.

The project would be constructed in a suburban area of El Dorado County, within an area of moderate fire hazard. There is existing commercial development to the north and established residences are located to the east and south. Latrobe Road bounds the site on the west. Phase II site development would eliminate existing grasslands that are a potential fuel source for wildland fires. Commercial development would include buildings, paved conditions, maintained landscaping, and the extension of water and fire hydrant infrastructure that would substantially reduce the potential for wildland fire hazards. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

3.9 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions at the project site, and evaluates potential hydrology and receiving water-quality impacts of the proposed Montano De El Dorado Phase I and II Master Plan Project.

Comments were received on the Notice of Preparation (NOP) regarding the potential existence of an underground seep on the project site. Perched groundwater conditions are discussed below. NOP comments were also received regarding drainage and potential water quality impacts of the project. These comments are also addressed below.

3.9.1 Environmental Setting

HYDROLOGY AND DRAINAGE

Regional Hydrology

Climate

The climate of the El Dorado Hills area is Mediterranean, with cool wet winters and warm dry summers. The mean annual precipitation in the project vicinity, for the period between 1893 and 2012, was approximately 23 inches, the majority of which occurred from October through April. During the period of record, annual precipitation has varied from 8 inches (1976) to 47 inches (1983), with a one-day high of 6 inches of precipitation on February 25, 2007 (WRCC 2012).

Hydrology

El Dorado County contains four major watersheds: the Tahoe Watershed, the Middle Fork American River, the South Fork American River, and the Cosumnes River. The project site is located within the South Fork American River Watershed, and drains into the Cosumnes River Watershed. The South Fork American River watershed encompasses the central portion of the county, and extends from the Echo Summit west to Folsom Reservoir. Major tributaries within the South Fork American River Watershed include Silver Fork American River, Silver Creek, Slab Creek, Rock Creek, and Weber Creek. Other water features within the watershed include Caples Lake, Silver Lake, Lake Aloha, Weber Reservoir, Ice House Reservoir, Union Valley Reservoir, Junction Reservoir, Camino Reservoir, Brush Creek Reservoir, Slab Creek Reservoir, and Chili Bar Reservoir (El Dorado County 2003).

The Cosumnes River watershed is within the southern portion of El Dorado County and south of the South Fork American River Watershed. The Cosumnes River Watershed extends from Iron Mountain Ridge west to where the Cosumnes River enters Sacramento County. Tributaries to the Cosumnes River include the South, Middle, and North Fork Cosumnes Rivers, Canyon Creek, Deer Creek, and Carson Creek. Bass Lake and Sly Park Reservoir are also located in the Carson Creek watershed, which is tributary to the Cosumnes River watershed (El Dorado County 2003).

Hydrology in the area is dominated by irrigation runoff and seasonal stormwater runoff from surrounding developments and direct precipitation. Precipitation primarily occurs as snowfall in the upper elevations of the watershed and rainfall in the lower elevations (El Dorado County 2003).

Geologic conditions and associated fragmented/fractured rock groundwater systems limit access to groundwater within the county. Recharge, movement, and storage of water in rock fractures are also limited. As such, the long-term reliability of groundwater within the county is difficult to estimate (El Dorado County 2003).

Drainage

As discussed above, the west slope of El Dorado County drains into three major rivers: the Middle Fork American River, the South Fork American River, and the Cosumnes River. These watersheds are further divided into smaller drainage basins that feed the tributaries of these rivers. Developed drainage infrastructure also exists throughout the county (El Dorado County 2003).

Flooding

El Dorado County's flood potential is primarily determined by the physical topography of the county and the runoff characteristics of the watersheds. The county ranges from approximately 200 to 10,900 feet above mean sea level (amsl). Because of the high elevation of much of the county, precipitation in these higher elevations is often in the form of snowfall, which melts over a long duration. Most of the watersheds within the county are dammed in the lower elevations. Because of a lack of extensive low-lying areas and a great deal of upland areas, the majority of El Dorado County is not subject to flooding (El Dorado County 2003).

Water Quality

Surface water quality on the west slope of El Dorado County is generally very good; however, both the Cosumnes River and South Fork American River are included on the state's list of "impaired water bodies" under Section 303(d) of the federal Clean Water Act (CWA). The lower Cosumnes River below Michigan Bar is listed as water quality impaired for *Escherichia coli* (E. coli), invasive species, and sediment toxicity and the upper Cosumnes River above Michigan Bar is listed as water quality impaired for invasive species. The South Fork American River is included on the 303(d) list as water quality impaired for mercury (SWRCB 2017). Activities within the county that have been identified to contribute to water quality degradation include grading and other construction activities, agricultural uses, confined animals, urban runoff, sewage and other wastewater from treatment plants, industrial sources, and recreation (El Dorado County 2003).

Local Hydrology

Hydrology

No wetlands or Waters of the U.S. have been observed on the project site. Because the project site is sloped, water does not collect within the project site. There are also no aquatic features mapped within the project site on the National Wetlands Inventory or U.S. Geological Survey maps for the Clarksville quadrangle (Sycamore 2013: 2). Groundwater conditions have not been observed onsite; however, water is often perched on less weathered rock and/or present in the fractures or seams of weathered rock found in the project area (Youngdahl 2017: 2).

Runoff and Drainage

Terrain on the project site would be best described as rolling hills. Surface water runoff on the project site currently contributes to three main watershed areas (see Preliminary Drainage Study for Montano De El Dorado Phase III in Appendix D): watershed area A-X1 includes approximately 27 percent of the overall project site, and slopes in an easterly direction, toward an existing concrete drainage ditch along the east property line. Shed A-X2 envelopes over half of the project site (approximately 56 percent) and slopes in a southwesterly direction toward Latrobe Road. It is tributary to an existing 24-inch storm drain that passes beneath Latrobe Road, approximately 1,150 feet south of the intersection of Latrobe Road and White Rock Road. Shed AX3 is about 13 percent of the project site and is located at the southern tip of the site. The shed slopes in a westerly direction toward another 24-inch storm drain that passes beneath Latrobe Road. Two smaller sheds (approximately 4 percent) to the north flow into the existing site storm drain system. The highest part of the dividing ridge is located at the southeast corner of the adjacent to Pottery World property (APN 118-010-14), at an elevation of about 638 feet. The terrain slopes radially away from this area. The east facing slope is relatively steep, with slopes up to about 3:1. There is a concrete drainage ditch located near the east property line, which traverses along the back of the existing residential lots, intercepts the runoff and conveys it northerly to a drainage inlet near the far northeast corner of the property. The terrain slopes back up to the residential homes east of the concrete ditch. The west and southwest facing slopes toward Latrobe Road are also relatively steep with slopes up to about 5:1. There are rock lined drainage ditches along the east side of Latrobe Road which intercept runoff from the subject property and convey flows to two separate 24-inch culvert crossings of Latrobe Road. The majority of the east side of Latrobe Road has asphalt concrete (AC) dikes, which convey the road run-off by overside drains into these respective ditches. One culvert crossing is on the west side of an existing driveway apron turnout about 790 feet north of the south property corner. The other is east of the driveway apron about 235 feet north of the south property corner. Flows from these culverts discharge on the west side of Latrobe Road and flow west into an existing channel that is tributary to Carson Creek. Cason Creek is tributary to Deer Creek, which is tributary to the Cosumnes River.

Flooding

The 100-year flood refers to the flood resulting from a storm event which has a probability of occurring once every 100 years, or a 1 percent chance of occurring in any given year. Areas mapped in the 100-year floodplain area are subject to inundation during a 100-year storm event. The project site lies outside of the designated 100-year floodplain. In addition, according to the FEMA flood insurance rate map (FIRM), the project site is not located within or adjacent to the 100-year or 500-year floodplain (RFE Engineering 2016).

Water Quality

The nearest waterbody to the project listed under Section 303(d) as water quality impaired is a segment of Carson Creek located approximately 0.5 mile southeast of the project site and listed as water quality impaired for aluminum and manganese. The segment of Carson Creek that is listed as water quality impaired is approximately 12 miles in length and extends from the Wastewater Treatment Plant to Deer Creek (EPA 2012).

3.9.2 Regulatory Setting

FEDERAL

Clean Water Act

The CWA is the primary federal statute governing the protection of water quality and was established to provide a comprehensive program to protect the nation's surface waters. The U.S. Environmental Protection Agency (EPA) is the federal agency with primary authority for implementing regulations adopted pursuant to the CWA. The basis of the CWA consists of the federal Water Pollution Prevention and Control Act (Water Pollution Act) passed in 1948. The Water Pollution Act was substantially reorganized and expanded in subsequent amendments passed in 1972 and in 1977, when "Clean Water Act" became its common name. The Water Pollution Act required the EPA to establish nationwide effluent standards on an industry-by-industry basis. The 1972 amendment established the National Pollutant Discharge Elimination System (NPDES) program. As a result of the reauthorization of the CWA in 1987, Sections 402(p) through 405 were added. One of the results of the new sections was the creation of a framework for regulating discharges under the NPDES permit program, which is discussed later in this section.

Under federal law, EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question, and (2) criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. EPA has designated the State Water Resources Control Board (SWRCB) and its nine RWQCBs with the authority to identify beneficial uses and adopt applicable water quality objectives. EPA has delegated to the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act), described below.

Federal Emergency Management Agency

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer funded disaster relief for flood victims and the increasing amount of damage caused by floods. The Federal Emergency Management Agency (FEMA) administers the NFIP to provide subsidized flood insurance to communities that comply with FEMA regulations to limit development in floodplains. FEMA also issues FIRMs that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. FEMA has established a minimum level of flood protection for new development as the 1-in-100 Annual Exceedance Probability (i.e., 100-year flood event). Participants in the NFIP must satisfy certain mandated floodplain management criteria. The project site is not within a 100-year floodplain.

STATE

State Water Resources Control Board

In California, SWRCB has broad authority over water quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Other state agencies with jurisdiction over water quality regulation in California include the California Department of Health Services, the California Department of Pesticide Regulation, the California Department of Fish and Wildlife, and the Office of Environmental Health and Hazard Assessment. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The Central Valley RWQCB is responsible for water resources in the project vicinity.

On January 20, 2005, the SWRCB adopted the Low Impact Development (LID) Policy, which promotes "sustainability" as a key parameter to be considered during the design and planning process for future development. The sustainability practice promotes LID to benefit water supply and contribute to water quality protection. LID has been a proven approach in other parts of the country and is seen in California as an alternative to conventional stormwater management. It is necessary to incorporate LID into the design of proposed projects to meet the Maximum Extent Practicable standard of the Phase II General Permits (see discussion of NPDES permits, below). LID practices include measures such as reducing impervious surface area, using natural drainage systems, and designing development to correspond to existing terrain.

Porter-Cologne Water Quality Control Act of 1969

The Porter-Cologne Act 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 state's waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update basin plans. Basin plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California.

The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, and other approvals. The RWQCBs also have the authority to issue waivers to reports of waste discharge/waste discharge requirements for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

National Pollutant Discharge Elimination System Permit System and Waste Discharge Requirements for Construction

The federal NPDES permit program in California has been delegated to the SWRCB and RWQCBs. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of best management practices (BMPs). Compliance with the NPDES General Construction Permit requires that any construction activity affecting 1 acre or more obtain the General Construction Activity Storm Water Permit. Permit applicants are required to submit a notice of intent to the SWRCB and to prepare a stormwater pollution prevention plan (SWPPP), which identifies BMPs that will be implemented to reduce construction effects on receiving water quality. The BMPs include sediment and erosion control measures and other measures to control potential chemical contaminants. Examples of construction BMPs identified in SWPPPs include using temporary mulching, seeding, or other stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and using barriers, such as straw wattles or silt fencing, to minimize the amount of uncontrolled runoff that could enter drains or surface water.

Construction activities subject to the general construction activity permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. The permit also requires dischargers to consider the use of postconstruction permanent BMPs that will remain in service to protect water quality throughout the life of the project. All NPDES permits also have inspection, monitoring, and reporting requirements.

The General Permits also require permittees to develop a Construction Site Storm Water Runoff Control Program and a Post Construction Storm Water Management Program pursuant to municipality standards or state standards if the municipality does not have standards.

The SWRCB regulates stormwater discharges from municipal separate storm sewer systems (MS4s) through its Municipal Storm Water Permitting Program. Permits are issued under two phases depending on the size of the urbanized area/municipality. Phase I MS4 permits are issued for medium (population between 100,000 and 250,000 people) and large (population of 250,000 or more people) municipalities and are often issued to a group of co-permittees within a metropolitan area. Phase I permits have been issued since 1990. Beginning in 2003, SWRCB began issuing Phase II MS4 permits for smaller municipalities (population less than 100,000). El Dorado County is covered under two SWRCB MS4 NPDES permits. The West Slope Phase II Municipal Separate Storm Sewer Systems (MS4) NPDES Permit is administered by the Central Valley Regional Water Quality Control Board (RWQCB) (Region Five). The Lake Tahoe Phase I MS4 NPDES Permit is administered by the Lahontan RWQCB (Region Six).

The SWRCB recently adopted and the Office of Administrative Law and EPA recently approved the Amendments to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan). Together they are collectively termed as the "Trash Amendments". The Trash Amendments will require the implementation of a consistent statewide approach for reducing environmental issues associated with trash in state waters through the installation of trash capture devices and institutional programs and will be incorporated into all NPDES permitting programs. Implementation of the Trash Amendments is currently anticipated to begin in 2020 or 2021 and final compliance shall be achieved within 10 to 15 years. One of the priority areas included in the Trash Amendments includes commercial land use areas; therefore, the requirements of the Trash Amendments will apply to this project (i.e., full trash capture devices installed in the storm drain inlets).

LOCAL

El Dorado County General Plan

Policies included in the El Dorado County General Plan (El Dorado County 2004a) that are relevant to the proposed project including the following:

- **Policy 5.4.1.1:** Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in potential for flood hazard or damage on either adjacent, upstream or downstream properties, minimize impacts to existing facilities, meet the NPDES requirements, and preserve natural resources such as wetlands and riparian areas.
- **Policy 7.3.1.2:** Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.
- **Policy 7.3.2.2:** Projects requiring a grading permit shall have an erosion control program approved, where necessary.

Design and Improvement Standards Manual

The purpose of the Design and Improvement Standards Manual is to standardize development practices used in the hillside environment that is prevalent in El Dorado County and to minimize the environmental effects of construction. Volume II of the manual includes drainage and design criteria for stormwater and Volume III of the manual provides guidance on how to implement the erosion and sediment control standards in Chapter 110.14 of the El Dorado County Code.

Drainage Manual

The El Dorado County Drainage Manual (Drainage Manual) establishes guidelines for the design of stormwater drainage facilities and the performance of hydraulic and hydrologic analyses. This manual is designed to supplement El Dorado County ordinances and the provisions defined in the Design and Improvement Standards Manual. For example, the Drainage Manual requires that potential downstream impacts to water quality and flow regimes be taken into account when designing stormwater drainage systems and that mitigation measures be included as part of drainage analyses. Drainage facilities for areas larger than 100 acres are required to accommodate runoff from a 100-year storm.

Western El Dorado County Storm Water Management Plan

The unincorporated areas of El Dorado County's west slope are covered by a Phase III NPDES that went into effect on July 1, 2013. A new Phase II MS4 Permit (2013-0001-DWQ) was adopted by the SWRCB on February 5, 2013. The permit focuses on the enhancement of surface water quality within high priority urbanized areas. The West Slope of the County implemented new Development and Redevelopment Standards and Post Construction Storm Water Plan Requirements pursuant to the requirements listed in the current MS4 Permit on July 1, 2015 and these new requirements supersede Section 4.5 of the SWMP, which contains a Construction Site Runoff Control Program. Depending on the type of project, there are varying requirements for implementation of site design measures. For example, for projects other than single family homes that create or replace 5,000 square feet or more of impervious surface, requirements include but are not limited to:

- Remaining runoff from the 85th percentile 24-hour storm event (~1.13 inches of water) shall be directed to one or more storm water treatment and baseline hydromodification measures using volumetric and/or flow-based sizing criteria.
- Identify potential sources of pollutants and implement corresponding source control measures.
- Provide ongoing maintenance of water retention and treatment facilities.

El Dorado County Stormwater Quality Ordinance

The El Dorado County Stormwater Quality Ordinance is contained in El Dorado County Code of Ordinances Chapter 8.79. The Stormwater Quality Ordinance intends to ensure the County is compliant with state and federal laws, fulfilling its requirements to:

- protect the health, safety, and general welfare of the citizens of the County;
- enhance and protect the quality of Waters of the State in the County by reducing pollutants in storm water discharges to the maximum extent practicable and controlling non-storm water discharges to a storm water facility; and
- cause the use of Best Management Practices by the County and its citizens that will reduce the adverse effects of polluted runoff discharges of Waters of the State.

El Dorado County Code

The purpose of the Grading, Erosion and Sediment Control Ordinance (Chapter 110.14) is to regulate grading within the unincorporated areas of El Dorado County, to prevent the pollution of surface water, and to ensure that the intended use of the site is consistent with all applicable local and state plans and standards, including the El Dorado County General Plan, SWMP, and County Code. This ordinance also establishes the procedures for the issuance of permits, approval of plans, and inspection of construction sites. The Grading, Erosion and Sediment Control Ordinance requires that waterways and adjacent properties be protected from erosion, flooding, or sediment deposits that could result from grading activities. It also states that the discharge of sediments to any waterway, drainage system, or adjacent property remain at or below levels before grading activities.

El Dorado County has provided the following standard conditions of approval related to stormwater drainage and infrastructure that apply to the proposed project.

Grading Permit/Plan

A grading permit is required for the proposed project. The plan shall be in conformance with the El Dorado County Design and Improvement Standards Manual; the Grading, Erosion and Sediment Control Ordinance; and the Drainage Manual.

Grading and improvement plans shall be submitted to the El Dorado County Resource Conservation District (RCD) and the Transportation Division. The RCD shall review and make appropriate recommendations to the County. Upon receipt of the review report by the RCD, the Transportation Division shall consider imposition of appropriate conditions for reducing or mitigating erosion and sedimentation from the project. Grading plans shall incorporate appropriate erosion control measures as provided in the Grading, Erosion and Sediment Control Ordinance and El Dorado County SWMP. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation, and the potential discharge of pollutants into drainages.

Resource Conservation District Coordination

The timing of construction and method of revegetation shall be coordinated with the El Dorado County RCD. If grading activities are not completed by September, the applicant shall implement a temporary grading and erosion control plan. Such temporary plans shall be submitted to the RCD for review and recommendation to the Transportation Division. The Transportation Division shall approve or conditionally approve such plans and cause the applicant to implement said plan on or before October 15.

Drainage Study/SWMP Compliance

The applicant shall provide a drainage report at time of improvement plans or grading permit application, consistent with the Drainage Manual, the County's West Slope Development and Redevelopment Standards and Post Construction Water Plan Requirements, and the SWMP, which addresses stormwater runoff increase, impacts to downstream facilities and properties, and identification of appropriate stormwater quality management practices to the satisfaction of the Transportation Division. The drainage study must demonstrate the subject property has adequate existing and proposed storm drainage facilities. At a minimum, the drainage study, plans, and calculations shall provide evidence of the following:

- The site can be adequately drained.
- The development of the site will not cause problems to nearby properties, particularly downstream sites.
- The onsite drainage will be controlled in such a manner as to not increase the downstream peak flow more than the pre-development 10-year storm event or cause a hazard or public nuisance. Detention shall be required if said condition is not met or the applicant shall demonstrate that there are no downstream impacts.
- The improvements to the drainage outfall shall be completed to the approval of the Transportation Division, before the filing of the final map or the applicant shall obtain an approved improvement agreement with security.

National Pollutant Discharge Elimination System Permit

At the time that an application is submitted for improvement plans or a grading permit, and if the proposed project disturbs more than 1 acre of land area, the applicant shall file a notice of intent to comply with the Statewide General NPDES Permit for stormwater discharges associated with construction activity with the SWRCB. This condition is mandated by the CWA and the California Water Code. A filing form, a filing fee, a location map, and a SWPPP are required for this filing. A copy of the application shall be submitted to the County, before building permit issuance, and by state law must be done before commencing construction.

Storm Water Drainage Best Management Practices

Storm drainage from on- and offsite impervious surfaces (including roads) shall be collected and routed through specially designed water quality treatment facilities (i.e., BMPs) pursuant to the County's West Slope Development and Redevelopment Standards and Post Construction Water Plan Requirements for removal of pollutants of concern (e.g., sediment, oil/grease), as approved by the Transportation Division. The applicant shall verify that the proposed BMPs are appropriate to treat the pollutants of concern from the project.

El Dorado County Multi-Jurisdiction Hazard Mitigation Plan

The El Dorado County Multi-Jurisdictional Hazard Mitigation Plan (Hazard Mitigation Plan) recommends specific actions to combat the forces of nature and protect its residents from hazard losses. The purpose of this Hazard Mitigation Plan is:

- to protect life, safety and property by reducing the potential for future damages and economic losses that result from natural hazards;
- to qualify for additional grant funding, in both the pre-disaster and post-disaster environment;
- to speed recovery and redevelopment following future disaster events;
- to demonstrate a firm local commitment to hazard mitigation principles; and
- to comply with both state and federal legislative requirements for local hazard mitigation plans.

The plan includes goals to help ensure effective emergency response to significant hazards including minimizing the threat to lives and property posed by the possibility of flooding (El Dorado County 2004b).

Carson Creek Regional Drainage Study

The Carson Creek Regional Drainage Study was completed in 1996 and updated in 2005 for the 15-square-mile Carson Creek watershed, most of which is located in the southwestern portion of El Dorado County. The purpose of this drainage study was to provide a unified plan for stormwater management in the El Dorado County portion of the watershed. The study recognizes the drainage needs of individual projects, assesses the impacts of the proposed drainage improvements on the entire catchment area, and satisfies the requirements of the Drainage Manual.

The Carson Creek Regional Drainage Study uses results from previous drainage studies within the watershed, as well as land use information and drainage improvements included in the previous studies, to develop a regional drainage model. The 2005 update to the study incorporated revised parameters into the regional drainage model to reflect additional development in the lower watershed. The study concluded that runoff for the 100-year storm would result in minor downstream impacts in Sacramento County and that the increase in existing flood inundation areas would be negligible. The 2005 update to the study concluded that 100-year flows at key points along Carson Creek were substantially unchanged by the development in the lower watershed. The study recommended that future drainage improvements be designed and analyzed in context of the regional drainage model. Specific drainage improvements, such as culvert upgrades, channel improvements, and construction of a regional detention storage facility were also recommended (CTA Engineering & Surveying 2005).

3.9.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and the Preliminary Drainage Study for Montano De El Dorado Phase III (included as Appendix D in this Draft EIR). Information obtained from these sources were reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality is considered significant if implementation of the project would do any of the following. These thresholds of significance are identified in Appendix G of the State CEQA Guidelines and were used because they adequately cover the range of water resource impact that the project could trigger.

- violate any water quality standards or WDRs or otherwise substantially degrade surface water or groundwater quality;
- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:
  - result in substantial erosion or siltation on- or off-site,
  - substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site,
  - create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or
- result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

The project would not use groundwater for its water supply needs. The applicant has proposed that potable water be supplied to the project site by El Dorado Irrigation District (EID). EID's existing water supplies include surface water and recycled water; EID does not use groundwater. Although project construction would result in new impervious surfaces, LID and water quality treatment BMPs used in the project design to treat stormwater runoff would include rooftop and impervious area disconnection, bioretention facilities and Filterra stormwater quality units. The project is not anticipated to significantly affect groundwater quality because this proposed stormwater infrastructure would sufficiently detain and infiltrate stormwater runoff and prevent long-term water quality degradation. Therefore, project construction and operation would have no impact on groundwater resources and these issues are not discussed further in this Draft EIR.

The project site is not located in a flood hazard area or area subject to dam failure (El Dorado County 2003). In addition, according to the FEMA FIRM for the project vicinity, the project site is not located within the 100-year or 500-year floodplain. Therefore, project implementation would not place buildings and structures in a 100-year flood hazard area that would redirect flood flows. Furthermore, the project would not 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. Thus, the project would have no impact to exposure to flood hazards and these issues are not discussed further in this Draft EIR.

Because of the distance from the nearest open waterbody, the Pacific Ocean (more than 80 miles to the west), and the elevation of the site (approximately 575-640 feet amsl), the proposed project would not be affected by inundation as a result of seiche or tsunami. Therefore, seiche and tsunami are not discussed further in this Draft EIR.

Mud flows require In addition, the project site would be graded as part of the project, and there would be no steep areas on the project site that would have the potential to generate mudflows during operation. There are no features nearby at risk of mudflow that could affect the project site. Therefore, the project would have no impact related to mudflow. Mudflow is not addressed further in this Draft EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: Short-Term Construction-Related Water Quality Degradation

Project construction activities would involve extensive grading, movement of soil, and blasting, which could result in erosion and sedimentation, and discharge of other nonpoint source pollutants in onsite stormwater that could then drain to offsite areas and degrade local water quality. To avoid or minimize the potential for adverse construction-related effects on water quality, the project would be required to comply with Central Valley RWQCB and County regulations that protect water quality and minimize erosion. The applicant would also be required to prepare and implement a SWPPP for compliance with the NPDES General Construction Permit. With adherence to existing requirements, impacts related to water quality degradation as a result of soil erosion would be **less than significant**.

Project construction would involve extensive ground-disturbing activities over approximately 16.8 acres, including grading, trenching, blasting, and facility construction activities. Construction is proposed to occur in several phases between 2018 and 2020. Depending on scheduling, construction could potentially occur during multiple rainy seasons (October 1 through April 30). Because of the increase in exposed surfaces and the earth-moving activities, the potential for erosion and sedimentation is higher during the rainy season.

Construction activities would create the potential for soil erosion and sedimentation of stormwater drainage systems, both within and downstream of the project site. The construction process may also result in accidental release of other pollutants to surface waters, including oil and gas, chemical substances used during construction, waste concrete, and wash water. Many construction-related wastes have the potential to degrade existing water quality by altering the dissolved-oxygen content, temperature, pH, suspended-sediment and turbidity levels, or nutrient content, or by causing toxic effects in the aquatic environment. Proposed construction activities, if not properly implemented, could violate water quality standards or cause direct harm to aquatic organisms.

Because the project site has some steep slopes and the soils onsite are susceptible to erosion, project implementation could cause localized erosion hazards (see Section 3.6, "Geology and Soils"). Intense rainfall and associated stormwater runoff could result in short periods of sheet erosion within areas of exposed or stockpiled soils. If uncontrolled, these soil materials could contribute to sedimentation and blockage of offsite waterways. Further, the compaction of soils by heavy equipment may reduce the infiltration capacity of soils and increase the potential for runoff and erosion. Stormwater runoff could also wash construction materials into receiving waterbodies and negatively impact water quality. Non-stormwater discharges could result from activities such as discharge or accidental spills of hazardous substances such as fuels, oils, concrete, paints, solvents, cleaners, or other construction materials.

Construction activities would be required to comply with State and County regulations pertaining to the control of onsite stormwater, including requirements of the Central Valley RWQCB. Additionally, compliance with the NPDES General Construction Permit would be required because grading would be conducted across the 16.8-acre site. Applicants for coverage under the General Construction Permit must submit a notice of intent to the SWRCB and to prepare a SWPPP, which identifies BMPs that will be implemented to reduce construction effects on receiving water quality by protecting water quality from polluted stormwater runoff. These BMPs may include:

- Erosion control blankets/mats, geotextiles, plastic covers: These erosion control methods would be used on flat or sloped surfaces to keep soil in place and can be used to cover disturbed soil to prevent runoff.
- Hydraulic, straw, and wood mulch: The use of these various mulches temporarily stabilizes soil on surfaces with little or no slope.
- Scheduling and planning: Appropriate scheduling and planning provide ways to minimize disturbed areas, which reduces the amount of activity in the area that requires protection and minimizes the duration of exposure of disturbed soils to erosion.
- Stabilized construction entrance/exit: A graveled area or pad located at points where vehicles enter and leave a construction site can be built. This BMP provides a buffer area where vehicles can drop their mud and sediment to avoid transporting it onto public roads, to control erosion from surface runoff and to help control dust.

- Storm drain inlet protection: Protection consists of devices and procedures that detain or filter sediment from runoff, thereby preventing them from reaching drainage systems that would be used post-construction, as well as surface waters.

In addition to preparing a SWPPP, the project applicant would comply with the SWMP, Construction General Permit, Grading, Erosion and Sediment Control and Stormwater Quality Ordinances, Design and Improvement Standards Manual, and Drainage Manual.

Implementation of the SWPPP would reduce construction-related water quality impacts by requiring the project applicant to incorporate appropriate BMPs into the design of the development to prevent water quality degradation. The plan would be designed to prevent increased discharge of sediment at all stages of construction, from initial ground disturbance to project completion. Adequate surface drainage control would be designed by the project civil engineer in accordance with the latest applicable edition of the California Building Code. All slopes would have appropriate drainage and vegetation measures to minimize erosion of soils. In addition, the project would fully comply with El Dorado County's SWMP, Grading, Erosion and Sediment Control and Stormwater Quality Ordinances, Design and Improvement Standards Manual, and Drainage Manual. Contract provisions would also require compliance with County requirements. With adherence to existing requirements, impacts related to water quality degradation as a result of soil erosion would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.9-2: Increase in Surface Water Runoff Potentially Exceeding the Capacity of Existing Stormwater Drainage Systems

The proposed development would add additional impervious surfaces at the project site, which would increase surface runoff on an ongoing basis. This increase could result in an increase in both the total volume and the peak discharge rate of stormwater runoff, and could result in exceeding the capacity of onsite stormwater systems and greater potential for on- and offsite flooding. However, project proposed drainage improvements would attenuate peak drainage flows to predevelopment conditions. Therefore, this impact would be **less than significant**.

The Phase II portion of the project site is currently undeveloped grassland, and construction of Phase II would cover approximately 15 acres of the 16.8 acres project site. Therefore, the project would substantially increase the amount of impervious surfaces on-site. To accommodate the increase, the project would include storm drain improvements with on-site drainage facilities, manholes and drain lines designed to collect and convey stormwater to one of the two 24-inch storm drains passing beneath Latrobe Road. On-site storm drainage would implement a series of LID techniques in conjunction with detention basins and underground stormwater detention piping to detain runoff and mitigate to pre-development flows prior to leaving the site (see Figures 2-13a and 2-13b). These facilities are based on the analysis provided in the Preliminary Drainage Study for Montano De El Dorado Phase III (see Appendix D).

The Preliminary Drainage Study for Montano De El Dorado Phase III identifies that with implementation of these drainage improvements the project would attenuate peak drainage flows to predevelopment conditions and would result in on- or off-site flooding (see Appendix D: page 12). Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.9-3: Long-Term Water Quality Degradation

The conversion of undeveloped land to urban uses would alter the types, quantities, and timing of contaminant discharges in stormwater runoff. Overall, the project could cause or contribute to long-term discharges of urban contaminants (e.g., oil and grease, trace metals and organics, trash) into the stormwater drainage system compared with existing conditions. The project's drainage improvements include water quality control features consistent with County standards to address stormwater quality. This impact would be **less than significant**.

The proposed development would alter land uses at the project site, which could increase the level of urban contaminants discharged into the stormwater drainage system if the system is not properly designed. Anticipated pollutants associated with the project include trash, debris, heavy metals, and hydrocarbons from roads and parking lots. Potential pollutants could also include pesticides from potential pest control activities, nutrients, fertilizers, and oxygen-demanding substances from landscaped areas.

Project on-site storm drainage improvements would include LID features, underground stormwater detention piping, and aboveground basins to detain runoff such that pre-development flow volumes are maintained consistent with County water quality requirements identified in Section 3.9.2, "Regulatory Setting." (see Figures 2-13a and 2-13b). These water quality controls have been identified effective in protecting water quality in the California Storm Water Quality Association Industrial and Commercial and New and Redevelopment BMP Handbook. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

3.10 NOISE AND VIBRATION

This section includes a summary of regulations and standards related to noise and vibration, a description of ambient noise conditions, and an analysis of potential construction- and operation-related noise impacts of the Montano de El Dorado Shopping Center Project. Mitigation measures are recommended as necessary to reduce significant noise impacts. The analysis provided in this section is based on the Environmental Noise Assessment conducted by Bollard Acoustical Consultants, Inc. in December 2018 and revised in October 2019. The Environmental Noise Assessment and additional data is provided in Appendix E, "Environmental Noise Assessment and Noise Modeling Calculations."

3.10.1 Environmental Setting

ACOUSTIC FUNDAMENTALS

Before discussing the noise setting for the project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. Table 3.10-1 describes typical A-weighted noise levels for various noise sources. All noise levels presented in this section are A-weighted decibels unless otherwise noted.

Table 3.10-1 Typical A-Weighted Noise Levels

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

Source: Caltrans 2013a: Table 2-5

Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013a:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness

(Caltrans 2013a:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2018:110; Caltrans 2013b:6).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2018:110, 111; Caltrans 2013b:7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground 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 (FTA 2018:120; Caltrans 2013b:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2018:112, 113).

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 3.10-2 describes the general human response to different ground vibration–velocity levels.

Table 3.10-2 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 µ inch/second and based on the root mean square (RMS) velocity amplitude.

Source: FTA 2018:120

Blasting

When a blast is detonated to break up or disrupt rock, only a portion of the energy is consumed in breaking up and moving the rock. The remaining energy is dissipated in the form of seismic waves expanding rapidly outward from the blast, either through the ground (as vibration) or through the air (as air overpressure or airblast). While an explosives specialist can quite easily design a blast to not exceed any vibration or air overpressure levels that could cause damage, it is virtually impossible to design blasts that are not perceptible by people in the vicinity.

Noise from blasting or "blast noise" is primarily composed of sound pressures at frequencies below the threshold-of-hearing for humans (16–20 Hz). Therefore, blast noise is not typically measured with an A-weighted scale, but rather a linear scale expressed simply as dB. A-weighted scales will usually record substantially lower levels of noise than linear scaled noise levels. However, to evaluate human response to blast noise, reference noise levels expressed in A-weighted decibels can be used. Further, blast overpressure at higher frequencies can be startling in a quiet surrounding, but it will not normally cause damage unless it exceeds approximately 150 dB (linear, unweighted). Low frequency overpressures, although they might be below the range of human hearing, can affect structures, such as resulting in windows rattling. On hearing window rattling or similar overpressure generated noise, the average resident will not be able to distinguish between air overpressure or ground vibration as the source but will generally incorrectly attribute the effect to the latter (Caltrans 2013b:80). For these reasons, ground vibration impact criteria (discussed above) is appropriate for evaluating disturbance to people occupying nearby structures and A-weighted decibels are used to evaluate the human response to blasting noise.

Common Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013a:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by California Department of Transportation (Caltrans) and Federal Transit Administration (FTA) (Caltrans 2013a:2-47; FTA 2006:2-19).

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013a:2-48; FTA 2006:2-16).

Day-Night Level (L_{dn}): L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013a:2-48; FTA 2006:2-22).

Community Noise Equivalent Level (CNEL): CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013a:2-48).

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013a:2-41; FTA 2006:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2006:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2006:2-11).

EXISTING NOISE CONDITIONS

Existing Noise- and Vibration-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places 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, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance.

Existing noise- and vibration- sensitive land uses in the vicinity of the project site include the existing single-family homes located directly east of project site along Monte Verde Drive.

Existing Noise Sources and Ambient Noise Levels

The ambient noise environment in the immediate project vicinity is defined primarily by traffic noise from White Rock Road and Latrobe Road, as well as some noise generated from commercial activities in the existing Montano De El Dorado Phase I development. Because the project site is located approximately 12 miles east of Mather Airport, aircraft operations associated with that airport, while intermittently audible, do not appreciably affect the ambient noise environment at the project site.

Transportation Noise

The existing noise environment in the project area is primarily influenced by vehicle traffic along White Rock Road and Latrobe Road. Other noise sources consist of those typical in a suburban environment, such as people recreating outside, honking, doors opening and closing.

Table 3.10-3 summarizes the modeled existing traffic noise levels at 100 feet from the centerline of each roadway segment analyzed. Traffic volumes in the form of AM and PM peak hour turning movements were obtained from the project traffic study conducted by Kimley Horn and summarized in Section 3.12, "Transportation/Traffic." To estimate daily segment volumes, the AM and PM peak hour volumes were added and then multiplied by a factor of 5. Other FHWA model inputs, including heavy truck percentages, day/night distribution of traffic, and vehicle speeds were estimated from file data and posted speed limits.

Table 3.10-3 Summary of Existing Traffic Noise Levels

Roadway Segment/Segment Description			L_{dn} at 100 feet from Roadway Centerline (dB)
Street	To	From	
El Dorado Hills Boulevard	North of Saratoga Way		68.3
	Saratoga Way	US-50 WB Ramps	68.0
Latrobe Road	US-50 EB Ramps	Town Center Boulevard	69.6
	Town Center Boulevard	White Rock Road	68.0
	White Rock Road	Project Driveway	69.2
	Project Driveway	Golden Foothill Parkway North	69.2
	Golden Foothill Parkway	Suncast Lane	68.3
	Suncast Lane	Golden Foothill Parkway South	67.8
	South of Golden Foothill Parkway South		64.8
White Rock Road	West of Stonebriar Drive		63.5
	Stonebriar Drive	Town Center Boulevard	64.4
	Town Center Boulevard	Latrobe Road	64.4
	Latrobe Road	Post Street	64.5
	Post Street	Valley View Parkway	64.3
	East of Valley View Parkway		63.1
Valley View Parkway	South of White Rock Road		59.9

Notes: L_{dn} = day-night level; WB = westbound; EB = eastbound
For additional details, refer to Appendix E for detailed traffic data, and traffic-noise modeling input data and output results.
Source: Data compiled by Bollard Acoustical Consultants, Inc. in 2019

Single-family homes located along Monte Verde Drive back up to Latrobe Road near its intersection with Golden Foothill Parkway North. In addition, single-family homes within the Blackstone neighborhood along Rosecrest Circle back up to Latrobe Road between Suncast Lane and Golden Foothill Parkway S. These homes along with proposed homes within the Blackstone neighborhood, east of Latrobe Road, and the Heritage neighborhood, west of Latrobe Road, are the closest noise-sensitive land uses to roadways within the project vicinity and are located within 100 feet of the roadway centerline and experience noise levels between 65 and 70 dB L_{dn}.

EXISTING NOISE SURVEY

Long-term noise measurements were conducted along the eastern boundary of the project site, directly adjacent to the existing 6-foot-tall wood fence bordering the single-family residences located along Monte Verde Drive. Continuous (48-hour) ambient noise surveys were conducted on Tuesday, March 1, 2016 and Wednesday, March 2, 2016 to quantify existing ambient noise levels at the existing residential community located adjacent to the eastern project site boundary. Noise measurement locations are shown in Figure 3.10-1. Table 3.10-4 shows the results of the long-term noise measurements and indicates that existing L_{eq} is between 56 dBA and 67 dBA during daytime hours and between 50 dBA and 58 dBA during nighttime hours.

Table 3.10-4 Noise Measurement Summary

Long-Term		CNEL/L_{dn}	Average Measured Noise Levels, dBA			
			Daytime (7 a.m.–10 p.m.)		Nighttime (10 p.m.–7 a.m.)	
			L_{eq}	L_{max}	L_{eq}	L_{max}
Location A	March 1, 2016	63	59	62-99	51	61–79
	March 2, 2016	60	56	62-84	50	61–71
Location B	March 1, 2016	69	67	74-89	58	71–88
	March 2, 2016	69	67	74-95	58	71–83

Refer to Figure 3.10-1 for ambient noise level measurement locations.

See Appendix E for detailed noise measurement data.

Source: Data compiled by Bollard Acoustical Consultants, Inc. in 2019

Source: Bollard Acoustical Consultants, Inc. 2019

Figure 3.10-1 Noise Measurement Locations

3.10.2 Regulatory Setting

FEDERAL

U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to State and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

Federal Transit Administration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.10-5.

Table 3.10-5 Ground-Borne Vibration Impact Criteria for General Assessment

Land Use Category	GVB Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 [4]	65 [4]	65 [4]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 µ inch/second and based on the root mean square (RMS) velocity amplitude.

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define the acceptable vibration levels.

Source: FTA 2018

STATE

California Department of Transportation

In 2013, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2013a). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 3.10-6 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.10-6 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4–0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006–0.019	Vibration unlikely to cause damage of any type

Notes: PPV= Peak Particle Velocity; in/sec = inches per second

Source: Caltrans 2013a

LOCAL

El Dorado County General Plan

The County's Public Health, Safety, and Noise Element identifies public health and safety issues and provides guidance for protecting the health, safety, and welfare of El Dorado County residents. The County's noise standards are provided within the Public Health, Safety, and Noise Element and vary between community regions, rural centers, and rural regions. The County defines community regions as areas that are appropriate for the highest intensity of self-sustaining compact urban development or suburban development (County of El Dorado 2018:11). The County defines rural centers as areas of higher intensity development located throughout the rural areas of the County based on the availability of infrastructure, public services, existing uses, parcel size, and impacts on natural resources. The County classifies all lands not contained within the boundaries of a community region or a rural center as rural regions (County of El Dorado 2018:13). El Dorado Hills is identified as a community, per Policy 2.1.1.1 of the County General Plan (County of El Dorado 2018:11).

The following noise-related goals and policies identified in the El Dorado County General Plan Public Health, Safety, and Noise Element are applicable to the project.

- **Policy 6.5.1.2:** Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 6-2 (presented as Table 3.10-8 in this EIR) at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
- **Policy 6.5.1.3:** Where noise mitigation measures are required to achieve the standards of Tables 6-1 and 6-2 (presented as Tables 3.10-7 and 3.10-8 in this EIR), the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project and the noise barriers are not incompatible with the surroundings.
- **Policy 6.5.1.7:** Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6-2 (presented as Table 3.10-8 in this EIR) for noise-sensitive uses.
- **Policy 6.5.1.9:** Noise created by new transportation noise sources, excluding airport expansion but including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 6-1 (presented as Table 3.10-7 in this EIR) at existing noise-sensitive land uses.
- **Policy 6.5.1.11:** The standards outlined in Tables 6-3, 6-4, and 6-5 (presented as Table 3.10-9, Table 3.10-10, and Table 3.10-11 in this EIR) shall not apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally recognized holidays. Further, the standards outlined in Tables 6-3, 6-4, and 6-5 (presented as Table 3.10-9, Table 3.10-10, and Table 3.10-11 in this EIR) shall not apply to public projects to alleviate traffic congestion and safety hazards.
- **Policy 6.5.1.12:** When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration:
    A. Where existing or projected future traffic noise levels are less than 60 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5 dBA L_{dn} caused by a new transportation noise source will be considered significant;
    B. Where existing or projected future traffic noise levels range between 60 and 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 3 dBA L_{dn} caused by a new transportation noise source will be considered significant; and
    C. Where existing or projected future traffic noise levels are greater than 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn} caused by a new transportation noise will be considered significant.

- **Policy 6.5.1.13:** When determining the significance of impacts and appropriate mitigation to reduce those impacts for new development projects, including ministerial development, the following criteria shall be taken into consideration:
  - A. In areas in which ambient noise levels are in accordance with the standards in Table 6-2 (presented as Table 3.10-8 in this EIR), increases in ambient noise levels caused by new non-transportation noise sources that exceed 5 dBA shall be considered significant; and
  - B. In areas in which ambient noise levels are not in accordance with the standards in Table 6-2 (presented as Table 3.10-8 in this EIR), increases in ambient noise levels caused by new non-transportation noise sources that exceed 3 dBA shall be considered significant.
- **Policy 6.5.1.14:** The County will adopt a noise ordinance to resolve neighborhood conflicts and to control unnecessary noise in the County. Examples of the types of noise sources that can be controlled through the use of a quantitative noise ordinance include noisy mechanical equipment (e.g., swimming poll pumps, HVAC units), and amplified music in commercial establishments.

Table 3.10-7 Noise Level Standards for Noise-Sensitive Land Uses Affected by Transportation Noise Sources

Sensitive Receptor	Outdoor Activity Areas[1]	Interior Spaces	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq}, dB[2]
Residential	60	45	—
Transient Lodging	60	45	—
Hospitals, Nursing Homes	60	45	—
Theaters, Auditoriums, Music Halls	—	—	35
Churches, Meeting Halls, Schools	60[3]	—	40
Office Buildings	—	—	45
Libraries, Museums	—	—	45
Playgrounds, Neighborhood Parks	70	—	—

Notes: L_{dn} = day-night level; CNEL = community noise equivalent level; dB = decibels

1. In Communities and Rural Centers, where the location of outdoor activity areas is not clearly defined, the exterior noise level standard shall be applied to the property line of the receiving land use. For residential uses with front yards facing the identified noise source, an exterior noise level criterion of 65 dB L_{dn} shall be applied at the building facade, in addition to a 60 dB L_{dn} criterion at the outdoor activity area. In Rural Regions, an exterior noise level criterion of 60 dB L_{dn} shall be applied at a 100-foot radius from the residence unless it is within Platted Lands where the underlying land use designation is consistent with Community Region densities in which case the 65 dB L_{dn} may apply. The 100-foot radius applies to properties which are five acres and larger; the balance will fall under the property line requirement.

2. As determined for a typical worst-case hour during periods of use.

3. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: County of El Dorado 2015:120

Table 3.10-8 Noise Level Performance Standards for Noise-Sensitive Land Uses Affected by Non-Transportation Sources in Community Centers

Noise Level Descriptor	Daytime 7 a.m. – 7 p.m.	Evening 7 p.m. – 10 p.m.	Night 10 p.m. – 7 a.m.
Hourly L_{eq}, dB	55	50	45
Maximum level, dB	70	60	55

Notes: L_{eq} = equivalent continuous sound level; dB = decibels

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive tones.

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site. In Community areas the exterior noise level standard shall be applied to the property line of the receiving property. The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

Source: County of El Dorado 2015:121

Table 3.10-9 Maximum Allowable Noise Exposure for Non-transportation Noise Sources in Community Regions and Adopted Plan Areas – Construction Noise

Land Use Designation[1]	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
Higher Density Residential (MFR, HDR, MDR)	7 a.m. – 7 p.m.	55	75
	7 p.m. – 10 p.m.	50	65
	10 p.m. – 7 a.m.	45	60
Commercial and Public Facilities (C, R&D, PF)	7 a.m. – 7 p.m.	70	90
	7 p.m. – 7 a.m.	65	75
Industrial (I)	Anytime	80	90

Notes: dB = decibels; L_{eq} = equivalent continuous sound level; L_{max} = maximum sound level;

MFR = multi-family residential; HDR = high-density residential; MDR = medium-density residential; C = commercial; R&D = research and development; PF = public facilities; I = industrial

1. Adopted Plan areas should refer to those land use designations that most closely correspond to the similar General Plan land use designations for similar development.

Source: County of El Dorado 2015:122

Table 3.10-10 Maximum Allowable Noise Exposure for Non-transportation Noise Sources in Rural Centers–Construction Noise

Land Use Designation	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
All Residential (MFR, HDR, MDR)	7 a.m. – 7 p.m.	55	75
	7 p.m. – 10 p.m.	50	65
	10 p.m. – 7 a.m.	40	55
Commercial, Recreation, and Public Facilities (C, TR, PF)	7 a.m. – 7 p.m.	65	75
	7 p.m. – 7 a.m.	60	70
Industrial (I)	Anytime	70	80
Open Space (OS)	7 a.m. – 7 p.m.	55	75
	7 p.m. – 7 a.m.	50	65

Notes: dB = decibels; L_{eq} = equivalent continuous sound level; L_{max} = maximum sound level

MFR = multi-family residential; HDR = high-density residential; MDR = medium-density residential; C = commercial; TR = tourist recreational; PF = public facilities; I = industrial; OS = open space

Source: County of El Dorado 2015:122

Table 3.10-11 Maximum Allowable Noise Exposure for Non-transportation Noise Sources in Rural Regions – Construction Noise

Land Use Designation	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
All Residential (LDR)	7 a.m. – 7 p.m.	50	60
	7 p.m. – 10 p.m.	45	55
	10 p.m. – 7 a.m.	40	50
Commercial, Recreation, and Public Facilities (C, TR, PF)	7 a.m. – 7 p.m.	65	75
	7 p.m. – 7 a.m.	60	70
Rural Land, Natural Resources, Open Space, and Agricultural Lands (RR, NR, OS, AL)	7 a.m. – 7 p.m.	65	75
	7 p.m. – 7 a.m.	60	70

Notes: dB = decibels; L_{eq} = equivalent continuous sound level; L_{max} = maximum sound level

LDR = low-density residential; C = commercial; TR = tourist recreational; PF = public facilities; RR = rural residential; NR = natural resource; OS = open space; AL = agricultural lands

Source County of El Dorado 2015:122

El Dorado County Code

Chapter 130.37 Noise Standards establishes standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses.

Section 130.37.020 provides an exemption for noise sources associated with construction during daylight hours provided that all construction equipment shall be fitted with factory installed muffling devices and maintained in good working order. This section also states that the use of any mechanical device, apparatus, or equipment related to or connected with emergency activities or emergency work to protect life or property shall be exempt from County noise standards.

An acoustic analysis prepared by an acoustic specialist is required before discretionary authorization or permit approval for new noise-generating land uses proposed in areas adjacent to sensitive receptors and for new noise-sensitive land uses proposed in areas exposed to existing or projected exterior noise levels as specified in Section 130.37.050. In addition, Section 130.37.070 requires outdoor concerts and events utilizing amplified sound systems to obtain a discretionary permit and perform self-monitoring to ensure that sound system levels are in compliance with those specified in the conditions of approval.

Noise-sensitive land uses affected by non-transportation noise sources shall not exceed standards set forth in Table 130.37.060.1 of the County Code (presented as Table 3.10-8 in this EIR). Transportation noise shall not exceed thresholds set forth in Table 130.37.060.2 of the County Code (presented as Table 3.10-7 in this EIR).

3.10.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This analysis focuses primarily on whether project construction or operation would generate noise levels that exceed applicable noise standards established in the County General Plan. Methods used to evaluate construction- and operation-related noise are discussed in greater detail below.

Construction-Generated Noise and Vibration

To assess potential short-term noise and vibration impacts from construction activity, sensitive receptors and their relative exposure were identified. Construction-generated noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's Transit Noise and Vibration Impact Assessment Manual (FTA 2018) and FHWA's Roadway Construction Noise Model User's Guide (FHWA 2006). Reference noise and vibration levels for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics.

Operational Noise and Vibration

With respect to non-transportation noise sources (e.g., stationary) associated with project implementation, the assessment of long-term operational impacts was based on reconnaissance data, reference noise levels, and measured noise levels for activities and equipment associated with project operation (e.g., emergency generators, heating, ventilation and air conditioning [HVAC] units, delivery docks, events with amplified music at the amphitheater), and standard attenuation rates and modeling techniques.

Traffic noise level increases associated with vehicle trips generated by the project were estimated using calculations consistent with the Federal Highway Administration's Traffic Noise Model Version 2.5 (FHWA 2004) and project-specific transportation data (see Appendix E). The analysis is based on the reference noise levels for automobiles, medium trucks, and heavy trucks, with consideration given to traffic volume, travel speed, roadway configuration, distance to the receiver, and ground attenuation factors. Travel speeds on area roadways were estimated based on posted speed limits. The fleet mix of traffic volumes (i.e., the percentage that is heavy trucks) was based on the project-specific traffic report. Note that the modeling conducted does not account for any natural or human-made shielding (e.g., the presence of intervening walls, buildings, or topography) or reflection off building surfaces.

The potential for events with amplified speech and music at the amphitheater to expose offsite residences to noise levels that exceed applicable standards relies on a modeling and field work conducted by Bollard Acoustical Consultants, Inc. and presented in the Environmental Noise Assessment report, which was last revised in October 2019. This report is provided in Appendix E, "Environmental Noise Assessment and Noise Modeling Calculations." This analysis applied reference noise levels for outdoor vents using amplified sound systems and accounts for attenuation due to the directionality of the speakers, atmospheric absorption, ground cover, topography, and partial shielding from buildings that would be constructed the project site.

To evaluate relative significance, noise and vibration impacts were determined based on comparisons to applicable noise standards and guidance provided by federal, state, and/or local agencies.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, implementation of the project would result in a significant noise impact if it would result in any of the following:

- a substantial temporary or periodic increase in construction-generated noise levels in the vicinity of the project or construction-generated noise levels that exceed applicable County's noise standards;
- vibration levels exceeding Caltrans's recommended standards with respect to the prevention of structural building damage (0.2 in/sec PPV for normal buildings) or FTA's maximum-acceptable-vibration standard with respect to human response (80 VdB for residential uses) at nearby existing vibration-sensitive land uses;
- long-term noise levels generated by stationary or area sources that exceed the County's standards, or result in a noticeable increase in ambient-noise levels at nearby existing noise- sensitive land uses;
- expose people to or generate transportation noise levels in excess of applicable allowable levels as required by Policy 6.5.1.12 of the County General Plan:
  - where existing or projected future traffic noise levels are less than 60 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5 dBA L_{dn} caused by a new transportation noise source will be considered significant;
  - where existing or projected future traffic noise levels range between 60 and 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 3 dBA L_{dn} caused by a new transportation noise source will be considered significant; and
  - where existing or projected future traffic noise levels are greater than 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn} caused by a new transportation noise will be considered significant.

ISSUES NOT DISCUSSED FURTHER

Cameron Airpark, a small private airport, is located approximately 5 miles to the northeast of the project site. Mather Airfield, McClellan Airfield, and Placerville Airport are all more than 10 miles from the project site. There are no private airstrips or public airports within close proximity to the project area. The project would include new commercial development and would be located 5 miles from the nearest airstrip or airport. Further, the project site is not within the any airport noise contours or safety zones and, therefore, the project would not result in people residing in close proximity to the airports and there would be no impact. This issue is not discussed further.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Construction-Generated Noise Levels

Project construction would occur over the course of two years and would include the use of heavy-duty equipment and blasting. The project is in close proximity of noise-sensitive receptors, specifically residences located directly east of the site. Construction activities would result in a substantial temporary increase in noise levels. Construction could potentially occur during the evening or nighttime hours, resulting in sleep disturbance at nearby residences. This impact would be **significant**.

Typical Construction Equipment

Noise levels generated by project-related construction activity would fluctuate depending on the type, number, and duration of usage of vehicles and equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day; the reference noise levels generated by those activities; distances to noise-sensitive receptors; any noise-attenuating features such as topography, vegetation, and existing structures; and the existing ambient noise environment. Construction generally occurs in several discrete stages, each stage requiring a specific set of equipment with varying equipment type, quantity, and intensity. These variations in the equipment change the effects they have on the noise environment at the project site and surrounding area. Operational characteristics of heavy construction equipment are typified by short periods of full-power operation followed by extended periods of operation at lower power, idling, or powered-off conditions.

Construction of the project is anticipated last approximately two years, depending on retail market conditions. Construction would include grading, infrastructure improvements, and building construction.

Construction equipment would vary day-to-day depending on the project phase and the activities occurring but would involve operation of all-terrain heavy-duty diesel equipment. Typical noise levels generated by construction equipment anticipated to be used are identified in Table 3.10-12.

Table 3.10-12 Noise Levels Generated by Construction Equipment

Equipment Type	Typical Noise Level (dBA) at 50 feet
Backhoe	80
Compactor	80
Compressor	80
Concrete pump	82
Concrete saw	90
Crane	85
Dozer	85
Drill Rig Truck	84
Excavator	85
Generator	82
Grader	85
Roller	85
Scraper	85
Tractor	84

Source: FHWA 2006:3

The construction-noise evaluation conservatively assumed that three of the highest noise-generating pieces of equipment could operate simultaneously in close proximity to each other near the boundaries of the project site. Based on the reference noise levels in Table 3.10-12 and accounting for typical usage factors of individual pieces of equipment and activity types, construction activity could result in noise levels up to 88.1 dBA L_{eq} and 92.1 dBA L_{max} at 50 feet from construction activity. Detailed inputs and parameters for the estimated construction noise exposure levels are provided in Appendix E. Noise-sensitive receptors, specifically the residences located directly east of the site and within 50 feet of where construction activity would occur, would be exposed to noise level up to 88.1 dBA L_{eq} and 92.1 dBA L_{max}. Based on this analysis, construction activity would exceed the County noise standard for construction noise in community regions of 50 L_{eq} and 65 L_{max} during evening hours (7 p.m. to 10 p.m.); and 45 L_{eq} and 60 L_{max} during nighttime hours (10 p.m. to 7 a.m.).

Blasting

Construction activities associated with site preparation and grading may require blasting to remove rock outcroppings, generating noise levels as high as 94 dBA L_{max} at 50 feet from each blast location. Blasting activity is typically limited to discrete locations and relatively few blast events to remove the identified obstruction, and, because of safety concerns, is not typically conducted during the night. Given the short-term and intermittent nature of blasting, the L_{max} standards are applied to blasting noise.

Blasting activities associated with site preparation would attenuate to less than the County's daytime noise standards at 400 feet from the blast site. Specific locations and need for blasting would be determined based on final on-the-ground assessments. Although it is not known exactly where blasting would occur, the majority of the site is located within 400 feet of the nearest sensitive receptors and blasting would therefore likely result in noise levels above County noise standards at nearby residences. If blasting were to be performed near the eastern edge of the project site it could expose the backyard areas of the single-family homes located along Monte Verde Drive to noise levels as loud as 94 dBA L_{max}. Blasting activities would exceed County noise standards of 50 L_{eq} and 65 L_{max} during evening hours (7 p.m. to 10 p.m.); and 45 L_{eq} and 60 L_{max} during nighttime hours (10 p.m. to 7 a.m.).

Summary

As stated in the County General Plan Policy 6.5.1.11 and Chapter 130.37 of the County Code, the standards outlined in Table 3.10-9 above do not apply to noise levels generated by construction activity that occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally recognized holidays. However, noise-generating construction activity for the project could potentially occur outside of these daytime hours. Therefore, construction-generated noise could exceed the County's noise standards for residential areas of 50 dBA L_{eq} and 65 L_{max} for evening hours (7 p.m. – 10 p.m.) and 45 dBA L_{eq} and 60 dBA L_{max} during nighttime construction noise (10 p.m. – 7 a.m.). Construction noise would substantially increase existing ambient noise conditions from 56 to 67 dBA L_{eq} (see Table 3.10-4) to up to 88.1 dBA $L_{eq.}$ This increase would be perceived as a more than doubling of loudness by residents east of the site that could disturb backyard activities as well as activities inside homes. Therefore, this impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.10-1: Implement Measures to Reduce Exposure to Construction-Generated Noise

To minimize noise levels during construction activities, the applicant shall require its construction contractors to comply with the following measures during construction:

- All noise-generating construction activity shall occur between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally recognized holidays.
- All construction equipment and material staging areas shall be located as far as possible from the residential land uses located along Monte Verde Drive east of the project site, and/or located such that existing topography blocks line-of-site from these land uses to the staging areas.
- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturer recommendations. Equipment engine shrouds shall be closed during equipment operation.
- Where feasible and consistent with building codes and other applicable laws and regulations, individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete offsite instead of onsite).
- All construction equipment with back-up alarms shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. The self-adjusting backup alarms shall automatically adjust to 5 dBA over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels. In addition to the use of backup alarms, the

construction contractor shall consider other techniques such as observers and the scheduling of construction activities to minimize alarm noise.

- The applicant or construction contractors shall post visible signs along the perimeter of the construction site that disclose construction times and duration. In addition, residents of homes located directly east of the site shall be provided written notification 48 hours before blasting activities. A contact number for an El Dorado County enforcement officer shall be included where noise complaints can be filed and recorded. The applicant will be informed of any noise complaints and will be responsible for investigating complaints and implementing feasible and appropriate measures to reduce noise at receiving land uses. These may include:
  - Implementing noise-reducing enclosures and techniques around stationary noise-generating equipment (e.g., concrete mixers, generators, compressors).
  - For construction activity that occurs near existing sensitive land uses, installation of temporary noise curtains that meet the following parameters:
    - temporary noise curtains shall be installed as close as possible to the boundary of the construction site within the direct line of sight to the nearby sensitive receptor(s).
    - temporary noise curtains shall consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side. The noise barrier layer shall consist of rugged, impervious material with a surface weight of at least one pound per square foot.

Significance after Mitigation

Implementation of the Mitigation Measure 3.10-1 would reduce construction noise for the entire construction area and would restrict project construction activity to occur within the hours between 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally-recognized holidays. Therefore, project construction activities would be exempt from County noise standards, as described in the County's General Plan and County Code. These construction noise standards were addressed in the Targeted General Plan Amendment and Zoning Ordinance Update EIR (State Clearinghouse Number 2012052074).

Noise reduction measures identified in Mitigation Measure 3.10-1 would be implemented to decrease the levels of noise exposure at nearby residences and Mitigation Measure 3.10-1 would require advanced notification of nearby residents of noise-generating construction activities including blasting. However, there are no feasible mitigation measures available to ensure that construction noise levels would match ambient noise conditions of 56 to 67 dBA $L_{eq.}$ during the entire 2-year construction period. Thus, this impact would be **significant and unavoidable**.

Impact 3.10-2: Short-term Construction Vibration Impacts

Site preparation and grading may include blasting to remove rock outcroppings. Vibration levels generated from blasting activities would exceed FTA's criteria for human disturbance for "infrequent events" at sensitive receptors located within 230 feet and would exceed Caltrans' criteria for structural damage to normal buildings at locations within 80 feet of the blasting site. Because the exact locations where blasting would be conducted are not known at the time of writing this EIR, it is possible that project-related blasting activity could expose people and buildings to levels of ground vibration that exceed these standards. Therefore, this impact would be **significant**.

Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and, at high-levels, can cause annoyance and sleep disturbance.

Project construction would include various types of equipment including excavators, cranes, loaders, trucks, and drills. In addition, blasting may be performed to remove rock outcroppings during site preparation. The reference vibration levels shown in Table 3.10-13 indicate blasting would result in the highest levels of ground vibration and is therefore of greatest concern when evaluating construction-related vibration.

Vibration levels can result in interference or annoyance impacts on residences or other land uses where people sleep, such as, hotels and hospitals. According to the FTA, blasting generates a reference vibration level of 109 VdB at 25 feet (FTA 2006). FTA vibration annoyance potential criteria depend on the frequency of the vibration events. Specific blasting parameters are not typically known at the time of writing this EIR and not until an evaluation of site-specific geology and soil parameters is conducted. Nonetheless, to evaluate vibration levels from blasting activities this analysis assumes that blast events could occur less than 30 times in one day. Given the nature of the project, with relatively small disturbance footprints for individual rock outcroppings, large numbers of blasts would not be needed to achieve desired effects. Based on FTA vibration impact criteria, when vibration events occur less than 30 times per day, they are considered "infrequent events." Infrequent events in excess of 80 VdB are considered to result in a significant vibration impact on residences and places where people sleep. Based on FTA's recommended method for estimating the propagation of ground vibration from the source, vibration levels from blasting could exceed the threshold of significance for human disturbance from "infrequent events" within 230 feet of the location where blasting takes place (refer to Appendix E for modeling details).

Table 3.10-13 Representative Ground Vibration Levels of Construction Equipment

Equipment/Activity	Peak Particle Velocity at 25 feet (inches/second)	Approximate L_v (VdB) at 25 feet
Blasting	1.13	109
Large Dozer	0.089	87
Loaded Trucks	0.076	86
Rock Breaker	0.059	83
Jackhammer	0.035	79
Small Dozer	0.003	58

L_V = the root mean square velocity expressed in vibration decibels, assuming a crest factor of 4

Source: FTA 2018

Ground vibration can also result in structural damage. In particular, historical buildings such as ruins and ancient monuments are at risk. Structural damage to normal buildings with modern construction only occurs if high-level vibrations occur. The project is not located near historical buildings; however, normal modern-construction buildings are located nearby, including the residences directly to the east and commercial buildings directly north, within the Phase I portion of the Montano De El Dorado, which is already in operation. As shown in Table 3.10-13, blasting generates a vibration level of 1.13 in/sec PPV 25 feet from the blast location. Based on FTA's recommended method for estimating the propagation of ground vibration, the vibration blasting could exceed Caltrans recommended level of 0.2 in/sec PPV with respect to the structural damage in normal dwellings within 80 feet of blasting activities. Detailed propagation calculations are provided in Appendix E.

Blasting could be conducted to remove large rock outcroppings if discovered during site preparation. Blasting activities would not occur during nighttime hours when people are sleeping and more likely to be disturbed. However, the project site is located adjacent to existing residences and therefore it is possible that blasting activities could occur within distances that could expose people or structures to levels that exceed FTA- and Caltrans-recommended standards. This impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.10-2a: Reduce Blasting-Related Vibration

For any blasting that would be conducted within 230 feet from any existing occupied structure, alternatives to traditional blasting (silent demolition), such as non-explosive chemical agents, expansive grout, or other non-explosive technology, shall be used to preclude vibration and noise impacts.

Mitigation Measure 3.10-2b: Implement Measures to Reduce Exposure of Buildings and Other Structures to Levels of Ground Vibration That Could Result in Structural Damage and to Limit the Level of Human Annoyance

The project applicant shall hire a qualified California-registered geotechnical engineer to perform site-specific evaluation of the geotechnical conditions at the project site. The evaluation shall determine the propagation rate of ground vibration in the area, taking into account local soil conditions, the age of the nearby buildings, and other factors. The evaluation shall determine whether nearby structures and buildings could experience structural damage from blasting activity at the site. The evaluation shall also determine whether nearby residential dwellings and/or commercial land uses would experience levels of ground vibration that exceed FTA's vibration standard of 80 VdB for human response or Caltrans' vibration standard of 0.2 for structural damage to normal dwellings.

The evaluation shall also include a geotechnical inspection of all buildings and structures located within 80 feet of locations where impact blasting would occur. The inspection shall document pre-existing conditions, including any pre-existing structural damage. The pre-inspection survey of the buildings shall be completed with the use of photographs, video, or visual inventory, and shall include inside and outside locations. All existing cracks in walls, floors, driveways shall be documented with sufficient detail for comparison during and upon completion of blasting activities to determine whether new actual vibration damage has occurred. The results of both surveys shall be provided to the project applicant for review and acceptance of conclusions. Should damage occur during construction, construction operations shall be halted until the problem activity can be identified. Once identified, the problem activity shall be modified to eliminate the problem and protect the adjacent buildings. Any damage to nearby buildings shall be repaired back to the pre-existing condition at the expense of the project applicant.

The evaluation shall also identify site-specific measures to lessen the potential for structural damage and to reduce the potential for human response from ground vibration associated with construction of the site and the project applicant shall require construction contractor(s) to implement the measures identified in the evaluation. Such measures shall include, but are not limited to, the following:

- Blasting, earth moving, and ground-disturbance activities shall be phased so as not to occur simultaneously in areas close to off-site sensitive receptors. The total vibration level produced could be substantially less when each vibration source is operated separately;
- Designate a disturbance coordinator and post that person's telephone number conspicuously around the construction site and provide to nearby residents. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. The contact information of the disturbance coordinator shall also be provided to the owners of all properties for which a pre-inspection survey is performed; and
- Provide advanced notice to owners of all residential land uses, tourist accommodations, and commercial land uses located within 300 feet of where blasting would take place. This noticing shall inform the recipients of when and where blasting would occur, and the types of measures being implemented to lessen the impact at potentially affected receptors. This noticing shall also provide the contact information for the designated disturbance coordinator.

Significance after Mitigation

Implementation of Mitigation Measure 3.10-2a would require the use of alternative methods to traditional blasting when feasible, should the removal of any large outcropping be required within 230 feet of an existing residence (the distance for which blasting could cause disturbance to sensitive receptors). With implementation of Mitigation Measure 3.10-2b, the potential for groundborne vibration generated by blasting to result in structural damage to nearby buildings and structures and to adversely affect occupants of nearby residential dwellings would be reduced. However, because alternative methods may not be feasible, and blasting may occur in close proximity to existing structures and buildings, it is uncertain whether the measures required by Mitigation Measure 3.10-2b would reduce ground vibration levels at nearby structures to less than Caltrans recommended level of 0.2 in/sec PPV with respect to the structural damage. Moreover, because blasting would occur in close proximity to existing residential dwellings it is not certain that the measures required by Mitigation Measure 3.10-2b would reduce ground vibration at these

receptors to levels less than FTA's vibration standard for human response criterion of 80 VdB for infrequent events. Therefore, this impact would be **significant and unavoidable**.

Impact 3.10-3: Long-Term Traffic-Generated Noise

The project would generate approximately 4,400 additional vehicle trips on the local roadway network resulting in increases in traffic noise. However, traffic noise increases would not exceed the incremental increase criteria established in Policy 6.5.1.12 of the County General Plan. This impact would be **less than significant**.

Development of Phase II of the project site will result in increased traffic on the local roadway network. According to the project traffic analysis prepared by Kimley Horn Transportation Consultants, the project is estimated to generate approximately 4,400 new daily trips while the existing shopping center generates approximately 3,800 daily trips.

To calculate the traffic noise generation of the additional traffic which would be generated by the project, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model was used. Traffic volumes in the form of AM and PM peak hour turning movements were obtained from the project traffic study. To estimate daily segment volumes, the AM and PM peak hour volumes were added and then multiplied by a factor of 5. Other FHWA Model inputs, including heavy truck percentages, day/night distribution of traffic, and vehicle speeds were estimated from BAC file data and posted speed limits. Appendix E contains the traffic noise modeling assumptions. The modeled cumulative (2035) traffic noise levels, with and without the development of the project site, are provided in Table 3.10-14.

Table 3.10-14 Summary of Existing Traffic Noise Levels

Roadway Segment			L_{dn} at 100 feet from Roadway Centerline (dB)					
Street	To	From	Existing No-Project	Existing + Project	Increase	2035 No-Project	2035 + Project	Increase
El Dorado Hills Boulevard	North of Saratoga Way		68.3	68.3	0.0	68.8	68.8	0.0
	Saratoga Way	US-50 WB Ramps	68.0	68.1	0.1	68.3	68.4	0.1
Latrobe Road	US-50 EB Ramps	Town Center Boulevard	69.6	69.7	0.1	70.4	70.5	0.1
	Town Center Boulevard	White Rock Road	68.0	68.2	0.2	68.8	69.0	0.1
	White Rock Road	Project Driveway	69.2	69.4	0.2	69.7	69.8	0.2
	Project Driveway	Golden Foothill Parkway North	69.2	69.4	0.2	69.7	69.8	0.1
	Golden Foothill Parkway	Suncast Lane	68.3	68.4	0.1	68.5	68.6	0.1
	Suncast Lane	Golden Foothill Parkway South	67.8	67.8	0.0	67.6	67.7	0.1
	South of Golden Foothill Parkway South		64.8	64.8	0.0	65.4	65.4	0.0
White Rock Road	West of Stonebriar Drive		63.5	63.3	-0.3	66.4	66.5	0.0
	Stonebriar Drive	Town Center Boulevard	64.4	64.5	0.1	66.7	66.7	0.0
	Town Center Boulevard	Latrobe Road	64.4	64.5	0.1	66.7	66.7	0.0
	Latrobe Road	Post Street	64.5	64.8	0.3	66.7	66.9	0.2
	Post Street	Valley View Parkway	64.3	64.4	0.1	66.3	66.4	0.1
	East of Valley View Parkway		63.1	63.2	0.1	66.9	67.0	0.1
Valley View Parkway	South of White Rock Road		59.9	60.0	0.1	61.8	61.8	0.0

Notes: CNEL = Community Noise Equivalent Level; dB = decibel; EB = eastbound; WB = westbound

Table 3.10-14 Summary of Existing Traffic Noise Levels

Roadway Segment			L_{dn} at 100 feet from Roadway Centerline (dB)					
Street	To	From	Existing No-Project	Existing + Project	Increase	2035 No-Project	2035 + Project	Increase

All modeling assumes average pavement, level roadways (less than 1.5 percent grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. For additional details, refer to Appendix E for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data compiled by Bollard Acoustical Consultants, Inc. in 2019

As shown in Table 3.10-13, project-related traffic noise level increases would be less than 0.5 dB on all of the local roadways. Therefore, none of the traffic noise increases would exceed any of the incremental increase criteria established in Policy 6.5.1.12 of the County General Plan and this impact would be **less than significant.**

Mitigation Measures

No mitigation is required.

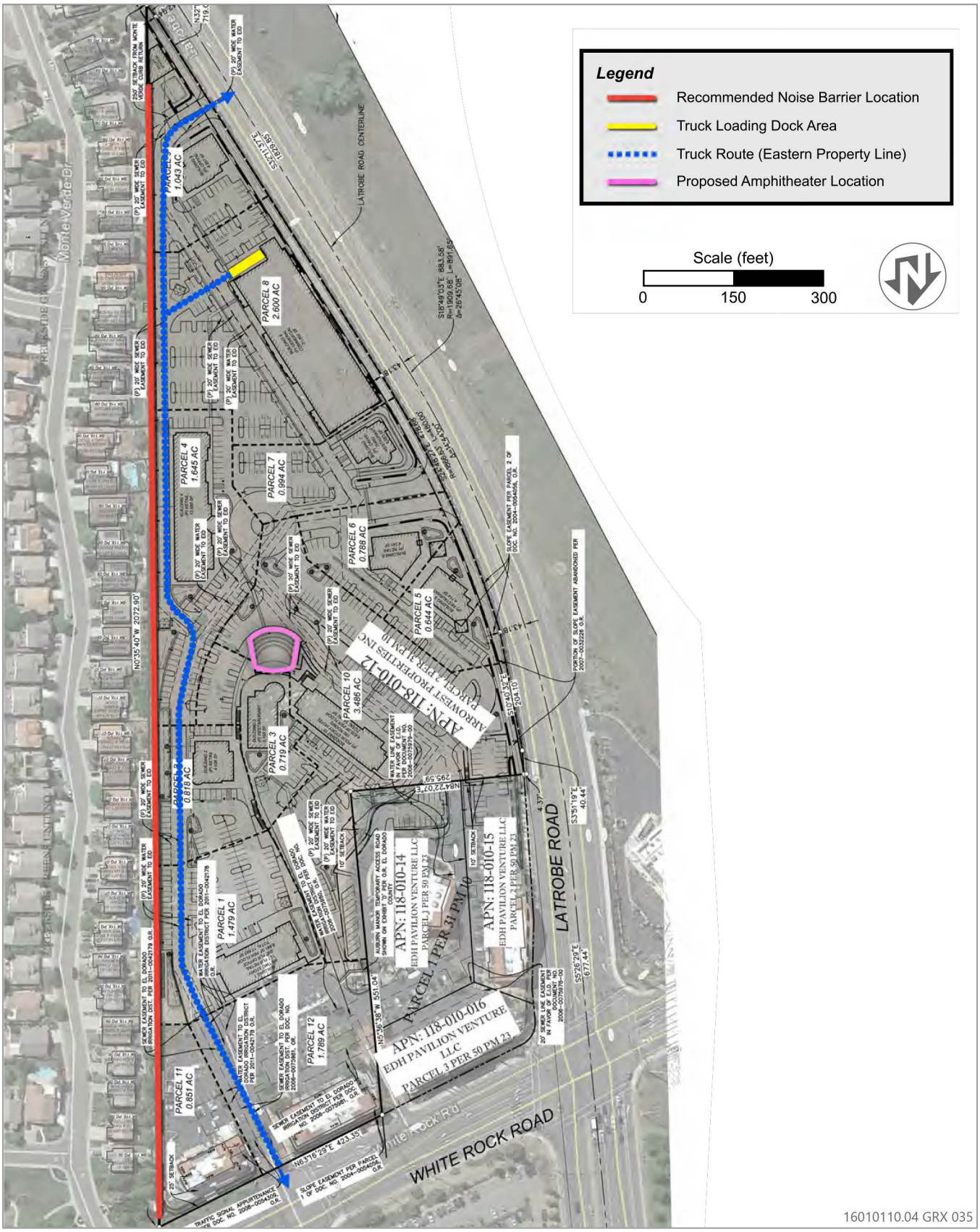
Impact 3.10-4: Long-Term Operational Noise from On-Site Activities

Operation of the project would include on-site truck circulation for shipments and deliveries, as well as waste collection. The proposed truck route would be located on the eastern edge of the site approximately 50 feet from existing single-family homes and would expose these noise-sensitive receptors to noise levels up to 75 dB L_{max}, exceeding the County's daytime, evening and nighttime noise standards of 70 dB, 60 dB and 55 dB L_{max}. This would be a **significant** impact.

Project operation would include on-site truck circulation for shipment and deliveries to the proposed commercial buildings. Building 8, the anchor commercial building, would include a dedicated loading dock on its southeast side. Deliveries to the other, smaller commercial buildings would likely occur at the front of the buildings. These deliveries would be performed by medium duty trucks and vans, and large heavy-duty trucks would haul supplies to restaurants. As shown in Figure 3.10-2, the proposed on-site truck route runs along the eastern boundary of the site, along which slow-moving trucks would travel in close proximity to the existing residences to the east. A waste storage facility would be located along this same truck route. Waste collection activities would generate noise levels comparable to slow-moving heavy truck traffic with a brief period of increased noise levels when they lift garbage containers.

Based on data for similarly sized commercial centers, the project-specific noise assessment assumed the maximum sound level generated by slow-moving medium-duty trucks and heavy-duty trucks would be 70 dB L_{max} and 75 dB L_{max}, respectively, at a reference distance of 50 feet. The backyards of the single-family residences located to the east are approximately 50 feet from the proposed on-site circulation route. At this distance, medium and heavy-duty trucks would be approximately 70 and 75 dB L_{max} respectively.

Because the medium-duty and heavy-duty truck pass-bys would be of short duration, the County noise standard most applicable to these sources would be the L_{max} standard established for community centers, shown in Table 3.10-6. The predicted medium-duty and heavy-duty truck pass-by levels of 70 dB L_{max} and 75 dB L_{max}, respectively, at the nearby single-family residences to the east would exceed the County daytime, evening and nighttime noise level standards of 70 dB, 60 dB and 55 dB L_{max}, respectively. Therefore, this would be a **significant** impact.



Source: Bollard Acoustical Consultants, Inc. 2019

Figure 3.10-2 Recommended Noise Barrier Location

Mitigation Measures

Mitigation Measure 3.10-4a: Noise Barrier

The project applicant shall design a solid noise barrier (e.g., CMU wall) measuring at least 8 feet in height relative to the truck pass-by route elevation should be constructed along the eastern boundary of the site. The 8 feet in height can be achieved by either a sound wall, a retaining wall, or a combination of the sound wall and retaining wall, provided the barrier blocks line of sight to the residential backyards. The barrier would need to be long enough to ensure that sound would not flank around the ends of the barrier into the neighboring backyards and would need to be constructed at the same base elevation as the final grading of the truck route.

Mitigation Measure 3.10-4b: Restrict Hours of On-Site Truck Deliveries to Daytime Hours

The County shall condition to the project to restrict onsite truck circulation, including waste collection services, between the daytime hours of 7 a.m. and 7 p.m. Evening and nighttime deliveries at the proposed anchor commercial building loading dock or any location onsite shall be prohibited. This restriction shall be included in the required conditional use permit and shall be implemented during project operations.

Significance after Mitigation

Placement of an 8-foot-high sound barrier along the eastern boundary of the project site, as required by Mitigation Measure 3.10-4a, would achieve a 5 dB reduction in noise levels generated by on-site truck activity. Residences located on the southern end of the site are elevated as much as 25 feet relative to the site. At the elevated southern residences, the combination of shielding provided by the site grading/retaining wall and intervening topography itself would act as a barrier, providing the 5 dB of noise reduction necessary to achieve the County's daytime noise exposure standards. This reduction would be sufficient to meet County daytime noise standards; however, the County's evening and nighttime noise standards would not be achieved.

Additional attenuation from a noise barrier to achieve noise levels required by the County evening and nighttime noise standards would not be feasible. Restricting truck deliveries to the hours between 7 a.m. and 7 p.m., as required by Mitigation Measure 3.10-4b, would prevent off-site noise-sensitive receptors from being exposed to noise levels that exceed the County's evening and nighttime noise standards. Because these mitigation measures would ensure noise levels generated by on-site truck circulation would not exceed County standards, this impact would be reduced to a **less-than-significant** level.

Impact 3.10-5: Long-Term Operational Noise Impacts from Stationary or Area Sources

Project operation would require the use of emergency generators, heating, ventilation, and air conditioning (HVAC) units, food storage cooling systems, and loading/delivery activity. HVAC units and food storage cooling systems would not expose nearby sensitive receptors to noise levels that exceed applicable County noise standards. However, noise generated from emergency generators and loading/delivery activities could expose nearby noise-sensitive receptors to noise levels that exceed County noise standards. This would be a **significant** impact.

Operation of the project would include noise-generating equipment and activities, including emergency generators, HVAC systems, food storage cooling systems, and truck loading and delivery activities. The noise levels generated by these are discussed in further detail below.

Emergency Generators

Emergency generators may be installed at commercial buildings throughout the site. Although noise generated from the use of the emergency generator during power shut-down events would be exempt from the County noise standards, as stated in Section 130.37.020 of the County's municipal code, the testing of any on-site generator during daytime hours would be subject to the County's noise standard of 55 dBA L_{eq} and 70 dBA L_{max} for communities. Testing of generators typically occurs monthly and involves operating the generator for 1–2 hours. The reference noise level for generators is 78 dBA L_{eq} and 82 dBA L_{max} at a distance of 50 feet (FHWA 2006:3). As such, emergency generator testing would generate noise levels that exceed the County's hourly L_{eq} and L_{max} standards within 708 feet

and 199 feet of the source, respectively (refer to Appendix E for modeling details). Specific locations of the proposed generators were not known at the time of this analysis. However, the majority of the project site is located within 708 feet of existing sensitive receptors, specifically homes located along the Monte Verde Drive. Therefore, testing of emergency generators on the project site would result in noise levels that exceed the County daytime noise standard at nearby noise-sensitive receptors.

Heating, Ventilation, and Air Conditioning Systems

HVAC units, which typically stand about 4–5 feet tall, would likely be located on building rooftops and would be shielded from view of nearby sensitive uses by the building parapets. Such rooftop HVAC units typically generate a noise level of approximately 45 dB L_{eq} at a reference distance of 100 feet from the building façade, including shielding by the building parapet (BAC 2019:13). The predicted HVAC noise levels would satisfy the El Dorado County daytime, evening and nighttime noise level standards.

Food Storage Cooling Systems

Restaurant and supermarket uses on the project site would likely include cold food storage which would involve the use noise-generating mechanical equipment. Based on data collect for grocery stores, noise levels generated from cold food storage systems mechanical equipment can generate noise levels up to 66 dB L_{eq} at a distance of 50 feet (Bollard Acoustical Consultants, Inc. 2006:14; City of Ceres 2010:4.10-19). Based on this reference noise level, supermarket noise levels would exceed the County noise standard of 55 dBA L_{eq} within 175 feet of the source. Cold food storage mechanical equipment for proposed restaurant and supermarket uses would not be located within 175 feet of sensitive receptors, and therefore, the County noise standard would not be exceeded.

Truck Loading/Delivery Activities

A loading/delivery dock would be constructed on the south end of Building 8, approximately 200 feet west of the closest sensitive receptors. In addition, some loading/delivery activities would take place at other commercial/retail buildings throughout the site, where vendors utilize front and rear entrances to deliver goods via hand carts. Noise sources associated with loading dock and delivery activities would include trucks backing up with backup alarms, trucks idling, trucks revving engines, the coupling and decoupling trailers, and operation of trailer-mounted refrigerator units. Much of the noise generated during unloading activities, such as pallets dropping and the operation of forklifts, would be contained within the building and truck trailer. Because loading and delivery activities would be of short duration, the noise standard most applicable to these activities is the L_{max} standard. Based on conservative reference noise levels and accounting for typical usage factors of individual pieces of equipment, such activities could generate noise levels of approximately 86 dBA L_{max} at a distance of 50 feet (FTA 2006). Based on this reference noise level, loading dock activities would exceed the County 70 dBA L_{max} noise standard within 300 feet of the source (refer to Appendix E for modeling details). Sensitive receptors are located within 200 feet of the proposed loading dock, and therefore, would be exposed to maximum noise levels that exceed the County noise standard.

Summary

HVAC and cold food storage mechanical equipment would not expose residences to noise levels above the County noise standards. Emergency generators and loading dock activities associated with long-term operation of the project would generate noise levels that exceed the County daytime noise standard of 55 dBA L_{eq} and 70 dBA L_{max} for community noise-sensitive land uses (i.e. residences along Monte Verde Drive). This would be a **significant** impact.

Mitigation Measures

Mitigation Measure 3.10-5a: Implement Mitigation Measure 3.10-4a

Mitigation Measure 3.10-5b: Implement Mitigation Measure 3.10-4b

Mitigation Measure 3.10-5c: Emergency Generators

The project applicant shall include design measures to reduce noise levels from emergency generators. Design measures may include locating generators on the west side of the buildings, as far as possible from nearby noise-

sensitive land uses; enclosures designed with noise reduction materials such as weighted barriers, sound absorbers, and multi-layer composites; and quieter generator models. Before construction, the project applicant shall verify that noise reduction design measures sufficiently prevent noise generated by generators from exceeding the County daytime standard of 55 dBA L_{eq} and 70 dBA L_{max} for communities.

Significance after Mitigation

Mitigation Measure 3.10-5a would require the construction of a noise barrier which would reduce the level of noise exposure at the residents along Monte Verde Drive by 5 dB. Mitigation Measure 3.10-4b would limit on-site truck deliveries to the hours of 7 a.m. through 7 p.m. Therefore, loading/delivery activities would be restricted to daytime hours. Mitigation Measure 3.10-5c would reduce noise levels generated from the use and testing of emergency generators by implementing design measures such as generator location, enclosures, and quieter models. Implementation of these measures would ensure noise levels at nearby noise-sensitive receptors would not exceed the County noise standards. This impact would be reduced to a **less-than-significant** level.

Impact 3.10-6: Long-Term Operational Noise Impacts from On-Site Events

Operation of the project would include on-site outdoor events in Phase I and Phase II portions of the site such as movie showings and music concerts at the amphitheater, as well as sales and promotion events throughout the site. Noise generated by amplified speech and music would expose nearby sensitive receptors to noise levels that exceed the County daytime and evening noise standard. This would be a **significant** impact.

Events and Sales Promotions

The project would include outdoor events and sales promotions located throughout the site, including farmer's markets, holiday events, and stage events. These events would generate noise from crowds gathering at event locations.

To quantify event-related crowd noise, the technical noise study (see Appendix E) utilized reference file data for persons speaking in normal, raised, and loud voices (i.e., a "normal voice" generates a noise level of 57 dB per person at 3 feet, a "raised voice" generates 64 dB at 3 feet, and a "loud voice" generates 73 dB). Applying these reference noise levels and the level of attenuation provided by a noise barrier along the eastern side of the property, the analysis concluded that worst-case crowd noise exposure would range from approximately 33 to 47 dB L_{eq} and 38 to 52 dB L_{max} at the nearby residences. These levels would not exceed the county's noise standards for daytime and evening hours of 55 dB L_{eq} and 70 dB L_{max} and 50 dB L_{eq} and 60 dB L_{max}, respectively.

Amphitheater Event Noise

The project includes an amphitheater to allow for on-site movie showings and music concerts. Events would be held during the daytime and evening hours and would not occur after 10 p.m. The primary noise sources associated with events at the amphitheater would be amplified speech and music and crowd noise. The amphitheater would be approximately 200 feet west of the nearest existing residences with its speakers directed to the south. Noise generated by these events would be subject to the

County's daytime and evening noise level performance standards for noise-sensitive land uses in community centers affected by non-transportation sources, as presented in Table 3.10-8. As discussed in Section 3.10-2, "Regulatory Setting," the noise level standards specified in Table 3.10-8 shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Thus, the applicable county noise standard for proposed amphitheater events would be 50 dB L_{eq} and 65 dB L_{max} during daytime hours (7 a.m. – 7 p.m.)_and 45 dB L_{eq} and 55 dB L_{max} during evening hours (7 p.m. – 10 p.m.). In addition, Section 130.37.070 of the El Dorado County Code requires outdoor concerts and events utilizing amplified sound systems to obtain a discretionary permit and perform self-monitoring to ensure that sound system levels comply with noise levels specified in the permit's conditions of approval.

Based on sound level measurements conducted at five different comparably sized venues, Bollard Acoustical Consultants determined that the reference noise level for amplified events at the amphitheater would be 80 dB L_{eg}

(Bollard Acoustical Consultants 2019:15). Accounting for attenuation due to the directionality of the speakers, atmospheric absorption, ground cover, topography, and partial shielding from the proposed Building 4 on the project site, it was determined that the levels of noise exposure at the nearest residents along Monte Verde Drive would range from 42–49 dB during an amplified music event that generates a reference noise level of 80 dB at 50 feet (Bollard Acoustical Consultants 2019:16–19). These levels would not exceed the County's daytime noise standard for amplified music of 50 dB L_{eq} (7 a.m. – 7 p.m.) but could exceed the County's evening noise standard for amplified music of 45 dB L_{eq} (7 p.m. – 10 p.m.). Moreover, the actual levels of noise exposure at these residences would depend largely on the sound system output, which would likely be variable, and could be louder than 80 dB L_{eq} at 50 feet. For this reason, noise generated by events at the amphitheater could also exceed the County's evening daytime noise exposure standard of 50 dB L_{eq} at some of the nearest residences if the sound system were to generate noise levels louder than 80 dB L_{eq}.

Summary

Events using amplified sound or music at the amphitheater could generate noise levels that exceed the County's daytime and evening noise standards of 50 dB L_{eq} and 45 dB L_{eq} at residences located along Monte Verde Drive. This would be a **significant** impact.

Mitigation Measures

Mitigation Measure 3.10-6a: Implement Mitigation Measure 3.10-4a

Mitigation Measure 3.10-6b: Implement Measures to Ensure Compliance with El Dorado County Noise Standards at Nearby Residential Land Uses

The following measures shall be implemented to ensure that off-site residences are not exposed to noise levels generated by amphitheater events that exceed the County's noise level performance standards for noise-sensitive land uses affected by non-transportation sources in community centers, as presented in Table 3.10-8.

- Prohibit events with amplified music or sound during the nighttime hours of 10 p.m. – 7 a.m.
- During the sound testing of the amplified sound system prior to each event multiple sound level measurements shall be conducted along the property line of the most affected residential land uses. The sound level meter used for the sound level measurements should meet a minimum Type 2 compliance and be fitted with the manufacturer's windscreen and calibrated before use. Volume settings shall be adjusted to ensure that the applicable county noise standards will not be exceeded at the residences during the event.
- Only hold events with amplified music or sound during daytime hours of 7 a.m. – 7 p.m. until it can be demonstrated with sound level measurements conducted during the first two daytime events that the noise generated by amplified events would not expose off-site residences to noise levels that exceed the County's evening noise level performance standards of 45 dB L_{eq} and 55 dB L_{max}. If sound level measurements conducted during the first two daytime events indicate that offsite residences would not be exposed to noise levels that exceed these standards, then events with amplified music or sound can be held on the project site during the evening hours of 7 p.m. – 10 p.m.). This evaluation shall be conducted by a qualified noise analyst selected by County staff; however, all funding shall be provided by the applicant. The results of all sound measurements shall be provided to the County.
- Prohibit the use of subwoofers during amplified music events.

Significance after Mitigation

A noise barrier constructed along the eastern side of the project site, as required by Mitigation Measure 3.10-6a, would reduce the level of noise exposure from noise-generating events on the project site by 5 dB at nearby residences. Implementation of Mitigation Measure 3.10-6b would require noise level testing to ensure that applicable noise exposure standards would not be exceeded at off-site residences. Mitigation Measure 3.10-6b would require that no events with amplified sound take place during the nighttime hours of 10 p.m. – 7 a.m. Mitigation Measure

3.10-6b would also require that no events with amplified sound take place during the evening hours of 7 p.m. – 10 p.m. unless testing during at least two daytime events confirms that offsite residences would not be exposed to noise levels that exceed the County's evening noise level performance standards of 45 dB L_{eq} and 55 dB L_{max}. In addition, Mitigation Measure 3.10-6b prohibits the use of subwoofers at outdoor events on the project site because the low frequency–sound generated by subwoofers dissipates less rapidly with distance and is frequently reported as common source of annoyance at residential uses located in relatively close proximity to outdoor venues where amplified music occurs (Bollard Acoustical Consultants 2019:21). Mitigation Measure 3.10-6b is aligned with Section 130.37.070 of the El Dorado County Code, which requires outdoor concerts and events utilizing amplified sound systems to obtain a discretionary permit and perform self-monitoring to ensure that sound system levels comply with noise levels specified in the permit's conditions of approval. Implementation of Mitigation Measures 3.10-6a and 3.10-6b would reduce noise effects of on-site events to a **less-than-significant** level.

3.11 PUBLIC SERVICES

This section describes current conditions relative to public services that serve the project site. It also includes a discussion of relevant regulations applicable to the project, analysis of environmental impacts, and recommendations for mitigation measures for any significant or potentially significant impacts. Consideration of impacts to libraries, public schools, parks and recreation are addressed in Chapter 1, "Introduction."

Comment letters regarding public services were received during public review of the NOPs and are addressed within this section. Comments were generally related to concerns about security with new development in close proximity to existing homes.

3.11.1 Environmental Setting

FIRE PROTECTION

The project site is within the El Dorado Hills Fire Department (EDHFD) service area. EDHFD provides fire suppression, emergency medical services, and fire prevention within the El Dorado Hills community. Pre-hospital emergency medical and dispatch services are provided by EDHFD in cooperation with County Service Area No. 7 and El Dorado County Regional Pre-Hospital Emergency Services Operations Authority.

EDHFD has five stations and Station 87 (4680 Golden Foothill Parkway) is closest to the project site, located approximately 1 mile south of the project site. Station 87 houses a Type 1 engine, a Type 3 engine, and a medic unit.

EDHFD participates in joint dispatching with other fire agencies in El Dorado County, in which the closest uncommitted unit responds to emergency calls, regardless of jurisdiction. In addition, the EDHFD participates in the Master Mutual Aid System for the State of California, which provides staff and mechanical assistance throughout the state.

LAW ENFORCEMENT

The El Dorado County Sheriff's Office (EDCSO) provides law enforcement services in unincorporated El Dorado County. EDCSO is located at 300 Fair Lane in Placerville. The closest station to the project site, the El Dorado Hills Substation (EDH Substation), is located at 4354 Town Center Drive and is approximately one-third mile north of the project site.

The Patrol Division consists of the West Slope and Lake Tahoe areas. The West Slope patrol is responsible for the unincorporated area of El Dorado County from Strawberry to the El Dorado/Sacramento County line and from the North Fork of the American River to the Highway 88/Consumes River border and includes the project site. In 2018, Patrol Division staff consisted of three lieutenants, 14 sergeants, and 97 deputies that responded to 78,501 calls (El Dorado County Sheriff's Office 2018).

3.11.2 Regulatory Setting

FEDERAL

Fire Protection

<u>National Fire Protection Association</u>

The National Fire Protection Association publishes a number of standards that are useful to the El Dorado County Fire Department, including:

- **NFPA 1710:** Provides standards for response time; including a call processing time of 60 seconds; a personnel turnout time of 60 seconds for medical, and one minute twenty seconds for fires; and a travel time of 4 minutes (240 seconds). This equates to a 6 minute 20 second response time standard for fire calls.

Law Enforcement

There are no federal law enforcement regulations or policies applicable to the project.

STATE

Fire Protection

Uniform Fire Code

The Uniform Fire Code with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire---safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

Law Enforcement

There are no state law enforcement regulations or policies applicable to the project.

LOCAL

El Dorado County General Plan

The El Dorado County General Plan contains the following policies that are relevant to public services.

- **Policy 5.1.2.1**: Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1 [of the general plan] (shown below as Table 3.11-1), demand is determined to exceed capacity, the approval of the development shall be conditioned to require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a Capital Improvement Program project is funded and authorized which will increase service capacity.
- **Policy 5.1.2.2**: Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1 [shown below as Table 3.11-1]. The following Levels of Service shall apply to the review of discretionary projects:

Table 3.11-1 El Dorado County General Plan- Minimum Levels of Service

	Community Region	Rural Center and Rural Region
Public water source	As determined by purveyor	As determined by purveyor, when applicable
Private wells	Environmental Management	Environmental Management
Public water treatment capacity	As determined by purveyor	As determined by purveyor
Public sewer treatment capacity	As determined by purveyor	As determined by purveyor
Onsite sewage disposal	Environmental Management	Environmental Management
Storm drainage	Department of Transportation	Department of Transportation
Solid waste	Environmental Management	Environmental Management
Country and State road circulation system	LOS E	LOS D
Schools	As determined appropriate by the school districts	As determined appropriate by the school districts
Parks	Specific plan for new communities or Quimby Fee/dedication program for tentative maps	Quimby Fee/dedication program for tentative maps
Fire district response	8-minute response to 80% of the population	15 to 45-minute response
Sheriff	8-minute response to 80% of the population	No standard
Ambulance	10-minute response to 80% of the population	20-minute response in Rural Regions and "as quickly as possible" in wilderness areas*

*In accordance with State standards

Source: El Dorado County 2015

- Policy 5.1.3.1: Growth and development and public facility expenditures shall be primarily directed to Community Regions and Rural Centers.
- Policy 5.6.1.2: Reserve adequate rights-of-way to facilitate expansion of services in a timely manner.
- Policy 5.7.1.1: Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.
- Policy 5.7.3.1: Prior to approval of new development, the Sheriff's Department shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.
- Policy 5.7.4.1: Prior to approval of new development, the applicant shall be required to demonstrate that adequate medical emergency services are available and that adequate emergency vehicle access will be provided concurrent with development.
- Policy 5.7.4.2: Prior to approval of new development, the Emergency Medical Services Agency shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

El Dorado County Code

Chapter 8.09 (Vegetation Management and Defensible Space) of Title 8 of the County Code requires the removal or abatement of all hazardous vegetation and combustible material, which constitutes a fire hazard which may endanger or damage neighboring property. Section 8.09.070(F) establishes defensible space requirements for parcels in, upon, or adjoining land that is covered with flammable material.

El Dorado Hills Fire Department Standards

The El Dorado Hills Fire Department has adopted the following standards for fire protection:

- Emergency Apparatus Access (Standard #B-003)
- Fire Systems and Commercial Sprinklers (Standard #C-001)
- Water Supply (Standard #D-001)
- Access During Construction (Standard #G-001)

The El Dorado Hills Fire Department collects development fees to mitigate the impact of new development on fire services and associated facility and equipment needs. This fee is currently $1.55 per square foot of commercial building area (Standard #A-001).

3.11.3 Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential impacts to public services are based on a review of studies pertaining to the project site and/or public services, including annual reports and current data from fire and sheriff's departments and the El Dorado County General Plan. In determining the level of significance, this analysis assumes that the proposed project would comply with relevant state and local ordinances and regulations, as well as the general plan policies presented above. The focus of the analysis below is whether implementation of the project would require alteration of public services that would necessitate the development of new or altered facilities that could result in physical effects on the environment.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the proposed project would result in a significant impact on the environment if it would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
  - fire protection, and
  - law enforcement.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: Adverse Effects to Fire Protection Services

Implementation of the project would result in the conversion of the Phase II portion from grassland to a commercial center within the El Dorado Hills Community Region that is currently served by the El Dorado Hills Fire Department. The project would be required to comply with County and El Dorado Hills Fire Department fire protection requirements as well as pay development fees. The project would not trigger the need for new fire facilities. This impact would be **less than significant**.

The project site is served by the El Dorado Hills Fire Department and is within 1 mile of Station 87. Station 87 would be close enough to respond to calls for service within the time frame identified in Table 3.11-1 (General Plan Table 5-1) and would not create a unique demand for fire protection services that would require alteration of existing fire station facilities that could create environmental impacts. The project is required to be designed according to fire requirements, which include site plan review by the El Dorado Hills Fire Department, payment of development of development fees to mitigate fire facility and equipment impacts from new development, smoke detectors, sprinklers, building and emergency access, and hydrant sizing, pressure and siting. Phase II site development would eliminate existing grasslands that are a potential fuel source for wildland fires. Commercial development would include buildings, paved conditions, maintained landscaping, and the extension of water and fire hydrant infrastructure that would substantially reduce the potential for wildland fire hazards.

Because fire protection services are funded through revenue from development fees and property taxes, it is expected that the revenue generated by the project would contribute to the funding for fire protection services. Buildout of Phase II would be unlikely to increase response times to the project site and other locations because the project would not block any existing paths of travel. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.11-2: Adverse Effects to Law Enforcement Services

Implementation of the project would result in the expansion of commercial uses in the project area that may result in an increase in law enforcement service calls. However, the project is located within the developed area of the El Dorado Hills Community Region 1/3 mile from the Sheriff El Dorado Hills Substation located at 4354 Town Center Drive and would not trigger the need for new law enforcement facilities. This impact would be **less than significant**.

The County is served by the EDCSO, which provides law enforcement services to unincorporated El Dorado County. As discussed in Chapter 2, "Project Description," the project would include an amphitheater and anticipates special events to be held within the Phase I and Phase II areas. Should any of the special events require private security, the event sponsor would be responsible for securing such services to the satisfaction of the EDCSO.

The project would provide new hotel and retail and office space in El Dorado Hills within 1/3 mile of the Sheriff El Dorado Hills Substation. The project would not introduce new residences nor increase the population within the County. Because the need for additional police services or facilities is based on the number of residents, the project would not necessitate the expansion of existing, or construction of new law enforcement facilities that could create environmental impacts. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

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3.12 TRANSPORTATION/TRAFFIC

This section describes the applicable federal, state, and local regulations and policies related to transportation and circulation; discusses the existing roadway network and transportation facilities in the County; and analyzes the potential impacts from implementation of the project on transportation and circulation. This section summarizes information presented in the Montano de El Dorado Transportation Impact Study prepared by Kimley Horn in February 2019 (Appendix F).

Several comment letters were received in response to the notice of preparation and identified that the traffic issues summarized below should be addressed:

- traffic operational impacts to Latrobe Road, White Rock Road, and US 50;
- traffic impacts of the project when combined with other planned development;
- traffic safety;
- parking impacts to adjoining residential areas during special events on the project site; and
- potential for cut-through traffic in the neighborhoods east of the project site.

California Code of Regulations (CCR) Section 15064.3, "Determining the Significance of Transportation Impacts," which was certified on December 28, 2018, states that "a project's effect on automobile delay shall not constitute a significant impact." Therefore, the delay-based traffic operations analysis in the Montano de El Dorado Transportation Impact Study consistent with County General Plan transportation policy requirements is presented in Section 3.12.4, "Non-CEQA Traffic Operations Analysis," below. The improvements identified in this section are assumed to be conditions of approval for the project.

3.12.1 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The environmental setting for transportation includes baseline descriptions for roadway, bicycle, pedestrian, and transit facilities.

PROJECT STUDY AREA

An extensive study area was developed based on collaboration between the EIR consultants and County of El Dorado staff. The following factors were considered when developing the study area: the project's expected travel characteristics (including number of vehicle trips and directionality of those trips), primary travel routes to/from project vicinity, anticipated parking locations, mode split, and other considerations. The study area also includes bicycle, pedestrian, and transit facilities in the project vicinity.

Roadway Network

Descriptions of key roadways within the project study area that would serve project-generated trips are provided below.

US 50 is and east-west freeway located north of the project site and generally connects between El Dorado County's major population centers, Sacramento County to the west, and the State of Nevada to the east. Access to the project site from US 50 is provided via the interchange at El Dorado Hills Blvd/Latrobe Rd.

El Dorado Hills Boulevard/Latrobe Road is a north-south arterial roadway that connects between El Dorado Hills to the north and State Route 16 to the south. El Dorado Hills Blvd extends north of US 50 with three lanes in each direction. South of its interchange with US 50, this road becomes Latrobe Rd and has three travel lanes in each direction.

White Rock Road is an east-west arterial roadway that parallels US 50 to the south, connecting Rancho Cordova on the west with Latrobe Road in El Dorado County to the east. White Rock Road becomes Silva Valley Parkway at its interchange with US 50 and extends north from US 50 to El Dorado Hills.

3.12.2 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to transportation and circulation are applicable to the project.

STATE

Senate Bill 743

Senate Bill (SB) 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address transportation metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

The updated CEQA Guidelines were adopted on December 28, 2018; and according to the new CEQA Guidelines (Section 15064.3), VMT will replace congestion as the metric for determining transportation impacts. The guidelines state that "lead agencies may elect to be governed by these provisions of this section immediately. Beginning July 1, 2020, the provisions of this section shall apply statewide."

OPR published its proposal for the comprehensive updates to the CEQA Guidelines in November 2017 which included proposed updates related to analyzing transportation impacts pursuant to Senate Bill 743. These updates indicated that vehicle miles traveled (VMT) be the primary metric used to identify transportation impacts. In December of 2018, OPR published the most recent version of the Technical Advisory on Evaluating Transportation Impacts (December 2018) which provides guidance for VMT analysis.

The guidance provided thus far relative to VMT significance criteria is focused on residential, office, and retail uses. However, as noted in the updated guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT.

LOCAL

El Dorado County General Plan

The El Dorado County General Plan policies and strategic actions that are relevant to the transportation and circulation impacts analyzed in this EIR are listed below. The General Plan was last amended on September 25, 2018.

- Policy TC-3c: The County shall encourage new development within Community Regions and Rural Centers to provide appropriate on-site facilities that encourage employees to use alternative transportation modes. The type of facilities may include bicycle parking, shower and locker facilities, and convenient access to transit, depending on the development size and location.
- Policy TC-4e: The County shall require that rights-of-way or easements be provided for bikeways or trails designated in adopted master plans, as a condition of land development when necessary to mitigate project impacts.
- Policy TC-4i: Within Community Regions and Rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.

- **Policy TC-5b:** In commercial and research and development subdivisions, curbs and sidewalks shall be required on all roads. Sidewalks in industrial subdivisions may be required as appropriate.

El Dorado County Regional Transportation Plan

The El Dorado County Transportation Commission is the Regional Transportation Planning Agency (RTPA) for El Dorado County (excluding the Tahoe Basin) and is responsible for the preparation of the El Dorado County Regional Transportation Plan (RTP). The current El Dorado County Regional Transportation Plan 2015 – 2035 was developed to guide the systematic development of a balanced, comprehensive, multi-modal transportation system. The RTP was developed to provide a clear vision of the regional transportation goals, objectives, and policies, complemented by short-term and long-term strategies for implementation. The El Dorado County RTP also serves as the El Dorado County portion of the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan (MTP).

El Dorado County Bicycle Transportation Plan

The County's Bicycle Transportation Plan outlines the existing conditions and proposed development of a bicycle transportation system on the western slopes of El Dorado County. The Bicycle Transportation Plan serves as an update to the previously adopted El Dorado County Bicycle Master Plan, which was adopted in 2005. The updated plan demonstrates compliance with California Streets and Highway Code, enabling the County to be eligible for State Bicycle Transportation Account Funds. The ETCTC, along with the City of Placerville and County of El Dorado, are in the process of developing Active Transportation plans that will serve as the update to the Bicycle Transportation Plan.

El Dorado County Traffic Impact Mitigation Fee Program

The County utilizes its Capital Improvement Program (CIP) to identify and prioritize future transportation investments to meet the County's existing and future transportation needs. CIP projects can include roadways, intersections, sidewalks, bicycle lanes, traffic calming treatments, transit service improvement projects, and ongoing administrative costs for transportation monitoring programs, including traffic model update costs, traffic study guideline updates, and updates to the Circulation Element to the County's General Plan. Funding form most CIP projects is provided from a variety of sources including state and/or federal grants, and the County's Traffic Impact Mitigation (TIM) Fee Program. This program is required by General Plan Policy TC-Xb. The TIM Fee Program is used to fund needed improvements including roadway widening, new roadways, roadway intersection improvements, and transit to deal with future growth during a defined period of time.

Major updates to the CIP and TIM Fee Program are made by the County every five years as required by State law and General Plan policies. The most recent update to the Western Slope Roadway CIP and TIM Fee Program was completed and certified by the County Board of Supervisors in 2016, with amendments adopted as recently as June 2018. The current TIM Fee Program is based on 20 years of growth and TIM Fee Program-funded improvements are part of the CIP.

Western El Dorado County Short Range and Long Range Transit Plan Study

The Western El Dorado County Short Range and Long Range Transit Plan outlines long-term planning steps necessary for public transit service in the County to respond to continued growth. The study considers the portion of El Dorado County to the west of the Sierra Crest. The plan recommends a focus on commuters traveling to Sacramento County, as well as key markets such as elderly/disabled services and activity center shuttles.

3.12.3 Environmental Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, and results used to identify potential significant impacts of the proposed project on the transportation system. Transportation/traffic impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

METHODOLOGY

State CEQA Guidelines Section 15064.3, added to address the requirements SB 743, is intended to change the focus from congestion to, among other things, reduction in greenhouse gas emissions, encouraging mixed use development, and other factors.

State CEQA Guidelines Section 15064.3(b) identifies four criteria for analyzing the transportation impacts of a project. To determine how the project should be considered, each of the criteria is discussed below:

- Section 15064.3(b)(1) addresses land use projects. The proposed project would include retail space, an office building, hotel, and a small amphitheater. Section 15064.3(b)(1) describes that projects with specified proximity to "major" or "high quality" transit should be presumed to cause a less than significant transportation impact. El Dorado County does not have transit service that meets these criteria and therefore this presumption would not apply to the project. This section also describes that projects which would decrease VMT in the project area as compared to existing conditions should also be presumed to have a less than significant effect.
- Section 15064.3(b)(2) addresses Transportation Projects. The proposed project does not fall within this category of "transportation projects." This section does not apply.
- Section 15064.3(b)(3), Qualitative Analysis, explains that there may be conditions under which a qualitative rather than quantitative analysis of VMT is appropriate. This section states that if existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may qualitatively analyze VMT generated by a project. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate.
- Section 15064.3(b)(4), Methodology, explains that the County has discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

In support of CEQA Guidelines Section 15064.3, OPR has issued a Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). The Technical Advisory notes by way of background (page 2) that there are three primary ways of reducing GHG emissions for the transportation sector: increasing vehicle efficiency, reducing fuel carbon content, and reducing the amount of vehicle travel. Local jurisdictions are not able to influence or control the first two, but through careful land use planning local governments can ensure reductions in vehicle travel. The Technical Advisory highlights the relationship between reduction of VMT and reduction of GHG emissions, which is a key component of SB 743.

The Technical Advisory notes that some local agencies have developed screening thresholds to indicate when detailed analysis is needed and includes recommendations related to VMT screening thresholds for small projects. The Technical Advisory states that absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with an SCS or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact (OPR 2018). As detailed in the Montano de El Dorado Transportation Impact Study (Appendix F), the project is estimated to generate approximately 4,400 new daily trips. Therefore, this assumption would not apply to the project

The Technical Advisory outlines recommended procedures and methods for evaluating transportation impacts for residential, office, and retail projects. For mixed-use projects, the Technical Advisory states that lead agencies can evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included (e.g., residential and retail). Alternatively, the Technical Advisory also notes that a lead agency may consider only the project's dominant use and that combining different land uses and applying one threshold to those land uses may result in an inaccurate impact assessment.

Additionally, the Technical Advisory provides recommended numeric thresholds for residential, office, and retail projects. For office projects the Technical Advisory recommends a CEQA significance threshold of 15 percent below existing regional VMT per employee. The recommended CEQA significance threshold for retail projects as detailed in the Technical Advisor is a net increase in total VMT.

As described above, the project would expand the existing Montano de El Dorado retail center to include additional retail space, an office building, hotel, and a small amphitheater. The proposed project would be mixed-use and consists of individual land uses for which OPR recommends different significance thresholds (i.e., office and retail). However, as described in Chapter 2, "Project Description," the project would consist of approximately 84,141 square feet (sf) of retail space, 55,136 sf of hotel space, and 4,607 sf of office space. For the purposes of establishing a project-specific and conservative VMT threshold of significance, the hotel land use is considered a retail land use.[1] Therefore, because the office space makes up such a small portion of the total project, the retail component of the project (hotel space included as retail) is considered the project's dominant land use. Thus, based on the Technical Advisory which states that the combining different land uses and applying one threshold to those land uses could result in an inaccurate impact assessment, the Technical Advisory recommended significance threshold for retail (i.e., dominant land of use) is most appropriate for this project.

El Dorado County is in the process of establishing VMT analysis guidance and thresholds of significance; however, at this time, the County has not adopted or released any such VMT analysis guidelines, recommended methodology, or approved thresholds of significance. Thus, taking into consideration the four criteria detailed in Section 15064.3(b) for analyzing the transportation impacts and their applicability to the project, state policy, and the recommendations of the Technical Advisory, the following threshold was determined as appropriate for the purpose of analyzing the change in VMT associated with the project:

- an increase in VMT in the project area as compared to existing conditions shall be presumed to result in a significant effect.

VMT Quantification Methodology

Modeling and analysis of the project herein examine the net effect of the project in terms of total daily VMT (i.e., VMT associated with full buildout of the project). As described above, the Technical Advisory presents various metrics for analyzing VMT, including total VMT, VMT per capita, and VMT per employee. As detailed above, Section 15064.3(b)(4), Methodology, gives lead agencies the discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses). Additionally, this section of the CEQA Guidelines states that a lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence.

As describe above, the County is in the process of establishing guidance on VMT analysis methodology, including but not limited to identifying preferred modeling tools for estimating VMT consistent with SB 743 and CEQA requirements. However, the County's current travel demand model was last updated in 2014, prior to the adoption of the updated CEQA Guidelines which implement SB 743. Therefore, consistent with the air quality and greenhouse gas modeling conducted for the project, the California Emissions Estimator Model (CalEEMod) model was used as the primary tool to model and forecast the net changes in VMT associated with the implementation of the project.

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate the project impacts on transportation and circulation under CEQA are based on the State CEQA Guidelines, the OPR Technical Advisory, and professional judgement. This section describes the significance criteria used to identify project-specific impacts on the transportation system.

Appendix G of the State CEQA Guidelines identifies the following issues for consideration in the evaluation of transportation impacts:

- result in a net increase in VMT as compared to existing conditions;
- substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

[1] It is acknowledged that hotel are generally destination uses and do not capture existing transportation trips in a manner similar to traditional retail uses.

- result in inadequate emergency access; or
- conflict with a program, plan, ordinance or policy addressing transit, bicycle, and pedestrian facilities.

ISSUES NOT DISCUSSED FURTHER

All roadway improvements associated with development of the project would be constructed in accordance with applicable County design and safety guidelines. Thus, the project would not increase hazards because of a design feature or incompatible uses. Therefore, **no impact** to roadway design safety would occur and this issue is not discussed further in this EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.12-1: Result In a Net Increase in VMT for the Proposed Project

The project would result in an increase of approximately 15,280 VMT as compared to existing conditions. This would be a **significant** impact.

Mobile-source emissions were modeled in CalEEMod Version 2016.3.2 using the number of project-generated vehicle trips estimated by the Transportation Impact Study and trip length values based on the project's location, size, and land use type. The Transportation Impact Study used data included in Trip Generation, 9th Edition, published by the Institute of Transportation Engineers (ITE) to derive the number of trips anticipated to be generated by the proposed project. Additionally, the Transportation Impact Study applied a 5 percent internal trip reduction rate to the project generated trips based on the mix of project land uses. Detailed modeling assumptions and inputs for these calculations can be found in Appendix C. The annual average project generated VMT estimated using CalEEMod is 5,576,967 VMT, which equates to an average daily project generated VMT of approximately 15,280 VMT. Therefore, the project would result in an increase in VMT as compared to existing conditions. This would be a **significant** impact.

Mitigation Measures

Implement Mitigation Measure 3.7-1b: Reduce Project-Related Operational Greenhouse Gas Emissions

As detailed in Section 3.7, "Greenhouse Gas Emission and Climate Change," Mitigation Measure 3.7-1b includes measures designed to reduce GHG emissions associated with on-road transportation. The following specific measures would also reduce VMT.

- Dedicate preferential parking spaces to vehicles with more than one occupant and Zero Emission Vehicles (including battery electric vehicles and hydrogen fuel cell vehicles). The number of dedicated spaces should be no less than two spaces or five percent of the total parking spaces on the project site, whichever is greater. These dedicated spaces shall be in preferential locations such as near the main entrances to the buildings served by the parking lot and/or under the shade of a structure or trees. These spaces shall be clearly marked with signs and pavement markings. This measure shall not be implemented in a way that prevents compliance with requirements in the California Vehicle Code regarding parking spaces for disabled persons or disabled veterans.
- Provide adequate, safe, convenient, and secure on-site bicycle parking racks at retail and commercial buildings. Bicycle parking racks shall be permanently anchored, be located in a convenient location within 200 feet of the primary visitor's entrance, and be easily visible. The number of bike parking spaces shall be a minimum of 15 percent of new visitor motorized vehicle parking spaces (rounded up to the nearest whole number). At minimum, there should be one two-bike capacity rack.

  All bicycle parking racks shall:

  - support bicycles at two points of contact in order to prevent bicycles from falling;
  - allow locking of bicycle frames and wheels with U-locks;

  - be constructed of square tubes to resist illegal rack cutting;
  - be constructed of low-maintenance, weather-resistant materials (galvanized finish resists corrosion);
  - not require lifting of a bicycle;
  - be mounted securely to the floor or ground;
  - be visible to approaching cyclists and pedestrians; and
  - be under a shelter and protected from rain.
- Businesses shall include amenities for employees who commute by bicycle including a shower and changing room, as well as a secure bicycle parking area. The bicycle parking area shall be under a roof and in a locked area that is only accessible by employees. Bicycle parking facilities should be designed in a manner which provides adequate space for all bicycle types, including e-bikes, tandems, recumbent bikes, and cargo bikes, as well as bike trailers.

Significance after Mitigation

The mitigated levels of VMT from Mitigation Measure 3.7-1b were estimated using CalEEMod by accounting for increased transit accessibility within 0.25 mile of the project site, improving the pedestrian network within the project site, and providing pedestrian connections between the project site and surrounding off-site land uses. The provision of preferential parking spaces for vehicles with more than one occupant and bike accessibility was not available through CalEEMod's mitigation module; and thus, was not quantified. Although preferential carpool parking and increased bike amenities and accessibility would likely further reduce VMT, it is currently speculative to quantify the reductions due to the variability associated with travel behavior and the nature of the project area. Based on the CalEEMod modeling, the mitigated annual average is 4,487,717 VMT, which equates to an average daily of approximately 12,295 VMT.

However, due to the location of the project, the nature of the circulation network surrounding the project site, and the lack of transit options in the area it would not be feasible to further reduce VMT generated by the project beyond encouraging workers to carpool and/or use public transportation, enhancing the pedestrian network within the project site, and providing bicycle and pedestrian amenities and infrastructure (see Mitigation Measure 3.7-1b in Section 3.7, "Greenhouse Gas Emission and Climate Change"). Therefore, there is no additional feasible mitigation available to reduce project generated VMT.

As detailed in Section 3.7, "Greenhouse Gas Emission and Climate Change," with the implementation of a variety of mitigation measures impacts to greenhouse gas emissions would be reduced to such that the net zero significance threshold would be achieved; thus, resulting in in a less than significant impact to greenhouse gas emissions. However, as detailed above, with the implementation of all feasible VMT mitigation measures the project would still generate an average daily VMT of approximately 12,295 VMT. Therefore, the project would result in a net increase in VMT. The impact would be **significant and unavoidable**.

Impact 3.12-2: Impacts to Emergency Access

The project site is located in an existing suburban area close to emergency services. Emergency vehicle access to the project site would be designed to County and El Dorado Hills Fire Departments standards to accommodate turning requirements for fire apparatus and emergency vehicles. Thus, this impact would be **less than significant**.

The project site is located within an existing suburban area close to emergency services. Phase II of project site is vacant and does not currently have an internal roadway system. The project involves construction of Phase II that would expand the commercial center and provide additional access points along Latrobe Road that would be consistent with General Plan Policy 6.2.3.2 and El Dorado Hills Fire Department Standard #B003. The reader is referred to Section 3.8, "Hazards and Hazardous Materials," and Section 3.11, "Public Services," for a further discussion of emergency access impacts. Thus, the project would provide adequate emergency access to and from the project site and would be located in an area that is adequately served by existing emergency services. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.12-3: Conflicts with Bicycle, Pedestrian, and Transit

Existing transit, bicycle, and pedestrian facilities in the project vicinity, along with facilities proposed as part of the Phase II development would be adequate to accommodate the project. The project would not adversely affect existing or planned facilities and would not result in unsafe conditions for bicyclists and pedestrians. Thus, this impact would be **less than significant**.

El Dorado Transit provides bus service to the project area. The El Dorado Transit Sacramento Commuter and Cameron Park/El Dorado Hills routes provide service adjacent to the project site along Latrobe Road north of White Rock Road, and along White Rock Road between Latrobe Road and Valley View Parkway. Both routes are served by bus stops at the El Dorado Transit Park & Ride located on the northeast corner of the Latrobe Road and White Rock Road intersection. The project would be located less than a quarter mile from this stop and would provide access to the existing transit stop via existing and new pedestrian facilities (sidewalks) along Latrobe Road, White Rock Road, and internally.

Class II bicycle lanes exist along White Rock Road and Latrobe Road in the vicinity of the project site. Phase II site development would include frontage improvements along Latrobe Road that would improve road conditions for bicycles and new sidewalks that would interconnect to Monte Verde Drive and sidewalk facilities in Phase I consistent General Plan policies TC-3c, TC-4i, and TC-5b. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

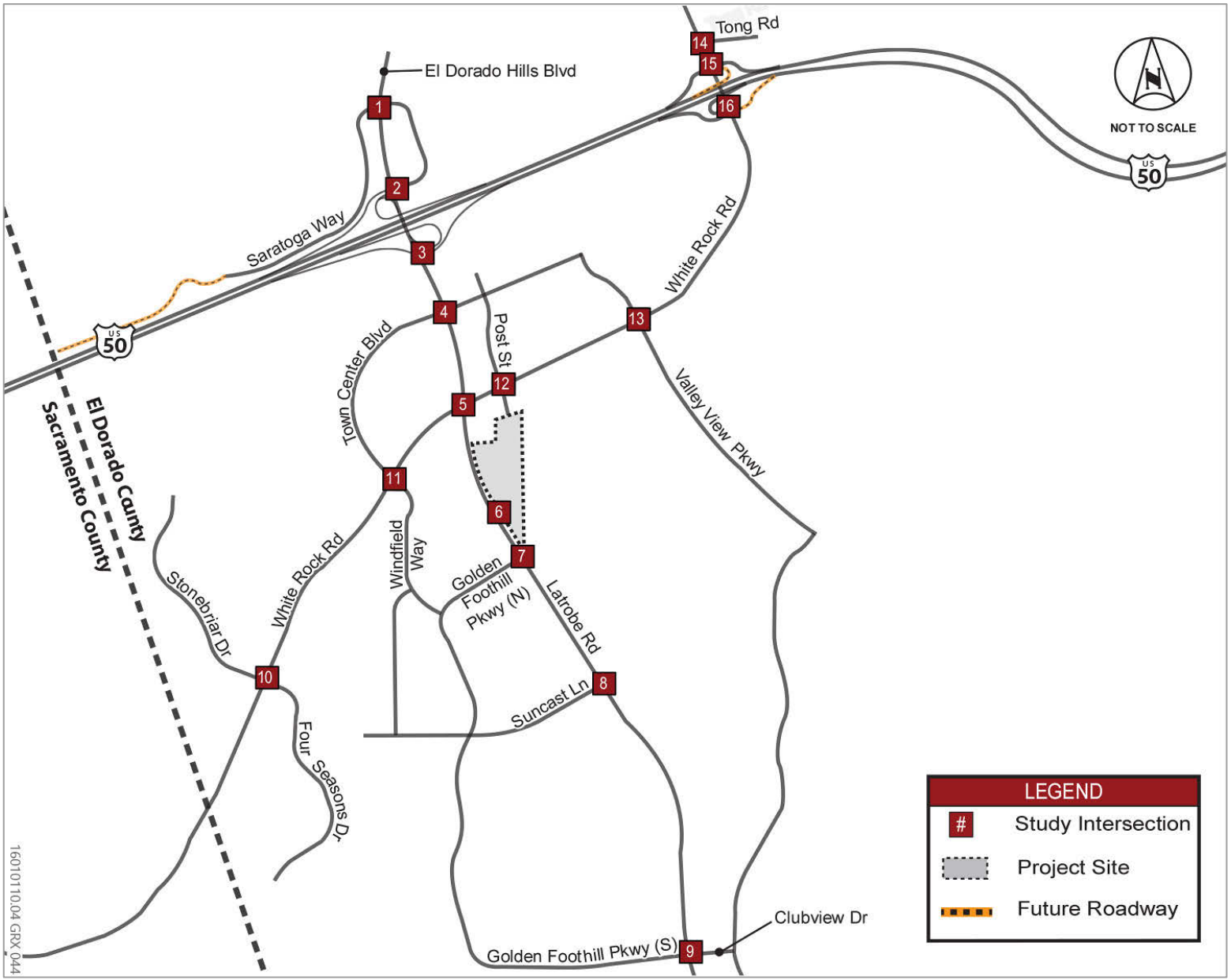
3.12.4 Non-CEQA Traffic Operations Analysis

This section evaluates the potential automobile delay-based (i.e., LOS) traffic operations effects of the project on the roadway system. Effects are evaluated under near-term (year 2025) conditions with and without the project, and cumulative (year 2035) conditions with project. This section summarizes information presented in the Montano de El Dorado Transportation Impact Study prepared by Kimley Horn in February 2019 (Appendix F). The traffic analysis focuses on a specific project study area for transportation and circulation, which is defined below.

PROJECT STUDY AREA

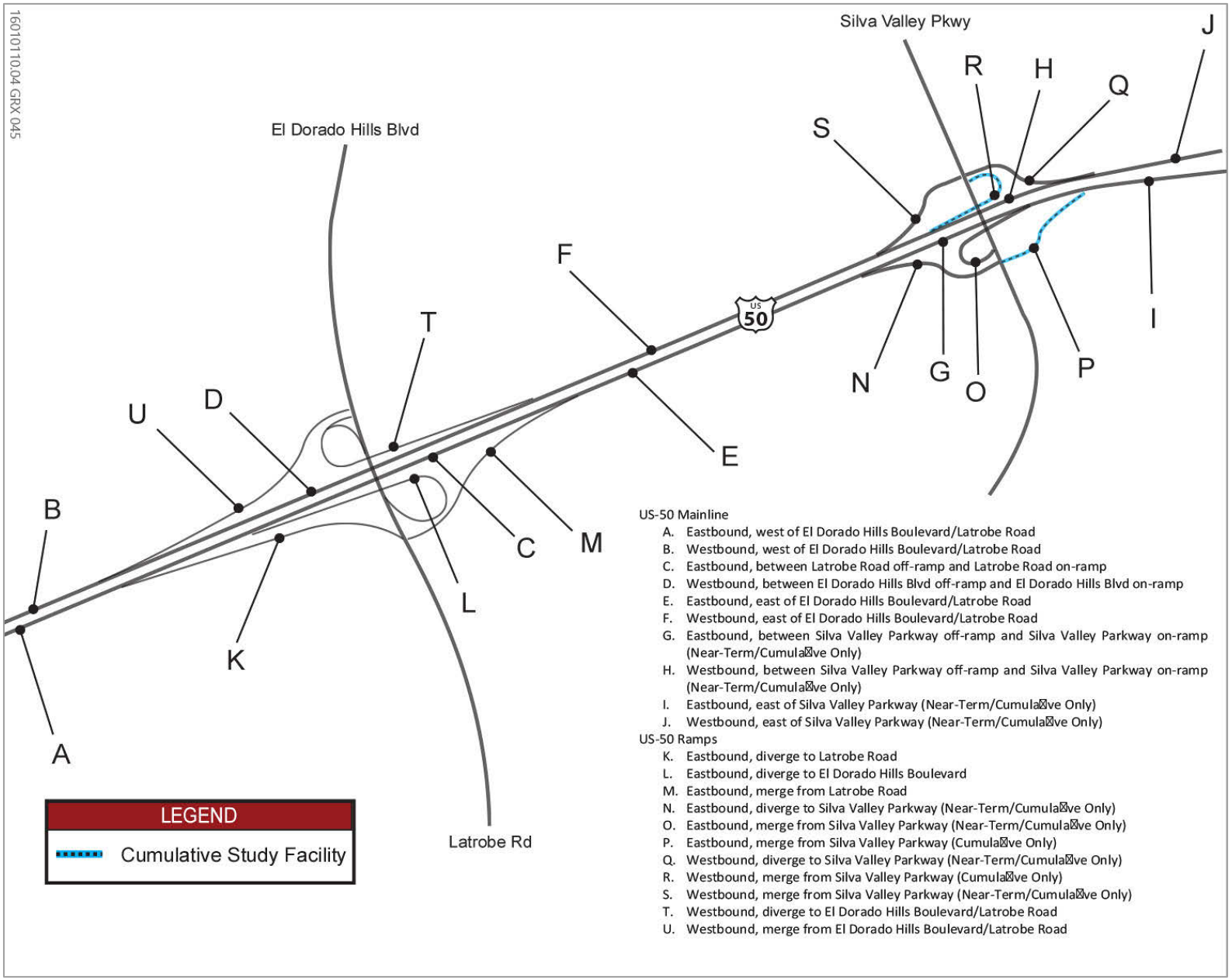
This section describes the existing project study area, which is the baseline scenario upon which project-specific effects are evaluated. Existing conditions reflects a.m. and p.m. peak-period intersection turning movement and roadway segment counts. Intersection turning movement counts were conducted in November 2015, December 2016, and March 2017. Roadway segment volumes for the freeway mainline volumes were obtained from California Department of Transportation (Caltrans) Performance Measurement System (PeMS) data from March 2015 and October 2015.

An extensive study area was developed based on collaboration between the EIR consultants and County of El Dorado staff. The following factors were considered when developing the study area: the project's expected travel characteristics (including number of vehicle trips and directionality of those trips), primary travel routes to/from project vicinity, anticipated parking locations, mode split, and other considerations. Figure 3.12-1 shows the study area, project site, and 16 study intersections selected for analysis. The study includes the analysis of three roadway segments, 10 freeway segments, and 11 freeway on- and off-ramps. All study freeway segments and on-/off-ramps are along US 50 and shown on Figure 3.12-2. Figure 3.12-3 shows existing intersection geometries.



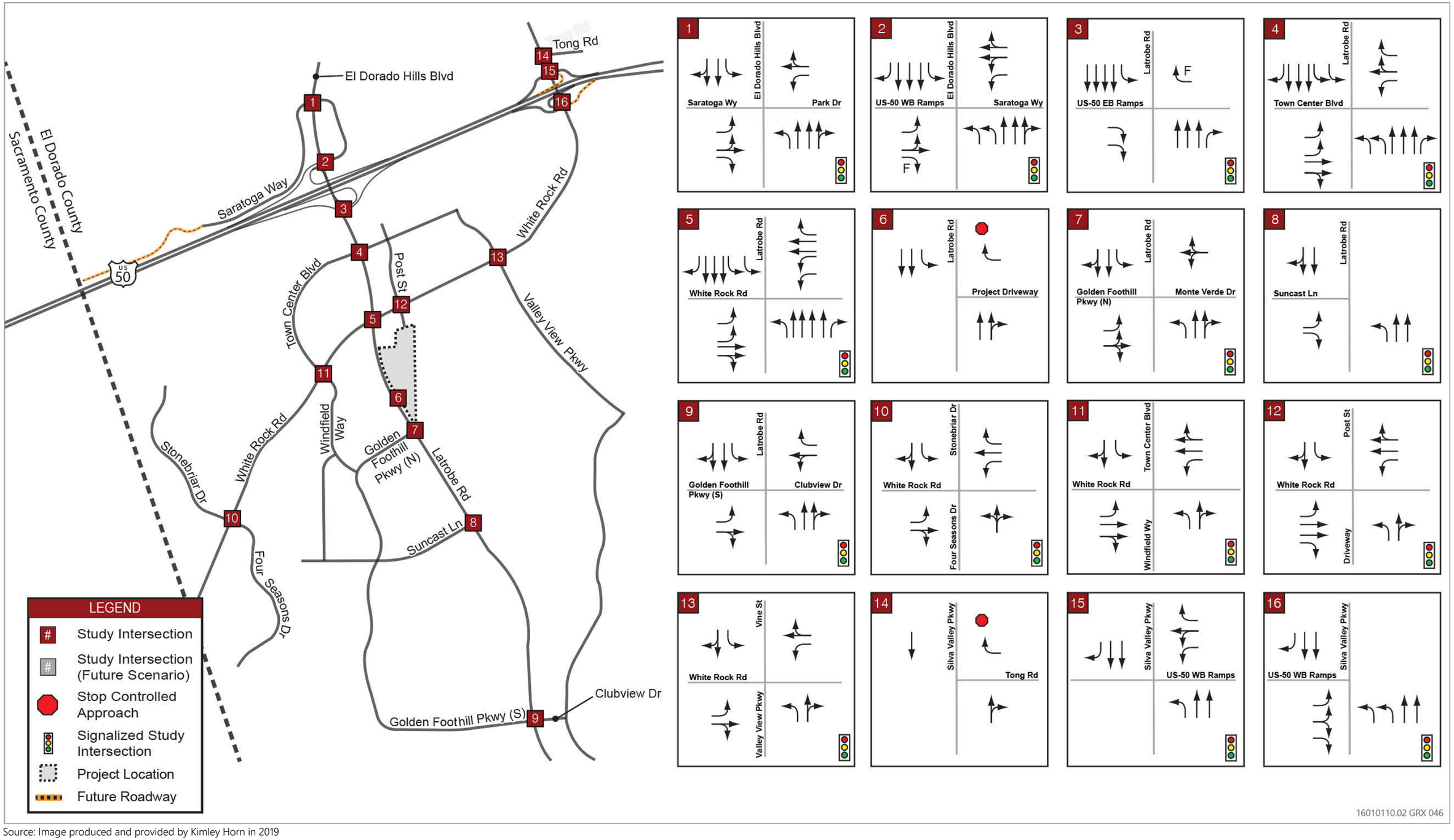
Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-1 Roadway Facilities in Study Area



Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-2 Freeway Study Locations



Source: Image produced and provided by Kimley Horn in 2019

Figure 3.12-3 Existing Intersection Geometries

Intersections

1. El Dorado Hills Blvd and Saratoga Way
2. El Dorado Hills Blvd and US 50 westbound (WB) Ramps
3. Latrobe Road (Rd) and US 50 westbound (WB) Ramps
4. Latrobe Rd and Town Center Blvd
5. Latrobe Rd and White Rock Rd
6. Latrobe Rd and Site Access Driveway
7. Latrobe Rd and Golden Foothill Parkway (Pkwy) (North)
8. Latrobe Rd and Suncast Lane (Ln)
9. Latrobe Rd and Golden Foothill Pkwy (South)/Clubview Drive (Dr)
10. White Rock Rd and Four Season Dr/Stonebriar Dr
11. White Rock Rd and Windfield Way/Town Center Blvd
12. White Rock Rd and Post St
13. White Rock Rd and Valley View Pkwy
14. Silva Valley Pkwy and Tong Rd
15. Silva Valley Pkwy and US 50 WB Ramps
16. Silva Valley Pkwy and US 50 EB Ramps

Roadway Segments

- Latrobe Rd, between White Rock Rd and Golden Foothill Pkwy (North)
- White Rock Rd, between Latrobe Rd and Post St
- White Rock Rd, between Post St and Valley View Pkwy

Freeway Segments

The project analysis included 10 freeway segments along US 50. Six segments were analyzed during all conditions, including:

- US 50 (Eastbound and Westbound), west of El Dorado Hills Blvd/Latrobe Rd
- US 50 (Eastbound), between Latrobe Rd off-ramp and Latrobe Rd on-ramp
- US 50 (Westbound), between El Dorado Hills Blvd off-ramp and El Dorado Hills Blvd on-ramp
- US 50 (Eastbound and Westbound), east of El Dorado Hills Blvd/Latrobe Rd

An additional four segments were analyzed only under Near-Term with and without project traffic. These four segments include:

- US 50 (Eastbound and Westbound), between Silva Valley Pkwy off-ramp and Silva Valley Pkwy on-ramp
- US 50 (Eastbound and Westbound), east of Silva Valley Pkwy

Freeway On- and Off-Ramps

The project analysis included 11 freeway on- and off-ramps along US 50. Five on- and off-ramps were analyzed during all conditions, including:

- US 50 Eastbound off-ramp to Latrobe Rd
- US 50 Eastbound off-ramp to El Dorado Hills Blvd
- US 50 Eastbound on-ramp from Latrobe Rd
- US 50 Westbound off-ramp to El Dorado Hills Blvd/Latrobe Rd
- US 50 Westbound on-ramp from El Dorado Hills Blvd/Latrobe Rd

The following four on- and off-ramps were analyzed during only the near-term conditions:

- US 50 Eastbound off-ramp to Silva Valley Pkwy,
- US 50 Eastbound on-ramp from Silva Valley Pkwy,
- US 50 Westbound off-ramp to Silva Valley Pkwy, and
- US 50 Westbound on-ramp from Silva Valley Pkwy.

Two on-ramps were analyzed during only cumulative conditions These on-ramps do not currently exist but are proposed realignments for two existing on-ramps along Silva Valley Pkwy, including:

- US 50 Eastbound on-ramp from Silva Valley Pkwy, and
- US 50 Westbound on-ramp from Silva Valley Pkwy.

Roadway Network

Figure 3.12-3 illustrates the study roadway facilities including the number and direction of travel lanes, as well as existing traffic controls present at all study intersections. Descriptions of key roadways within the project study are that would serve project-generated trips are provided in Section 3.12.1, "Environmental Setting," above.

TRAFFIC DATA COLLECTION

Weekday a.m. and p.m. peak period intersection turning movement counts were conducted in November 2015 (intersections 7 through 11, 13, and 14), December 2016 (intersections 15 and 16), and March 2017 (intersections 1 through 5, and 12). Freeway segment volumes were obtained from Caltrans' PeMS using data from March 2015 and October 2015. Volumes at freeway on- and off-ramps intersections, weaving segments, and merge/diverge sections were interpolated from PeMS data.

Level of Service Definitions

Analysis of transportation facilities is based on the concept of LOS. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions. LOS was used in the traffic study to determine operations for study intersections, roadway segments, and freeway facilities based on methodology defined in the Highway Capacity Manual (HCM) 2010 (Kimley Horn 2019:7).

Intersection Level of Service

Table 3.12-1 displays the delay range associated with each LOS category for signalized and unsignalized intersections.

Table 3.12-1 Intersection Level of Service Definitions

Level of Service	Description (for Signalized Intersections)	Average Delay (Seconds/Vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0

Level of Service	Description (for Signalized Intersections)	Average Delay (Seconds/Vehicle)	
		Signalized Intersections	Unsignalized Intersections
E	Operations with high delay values indicating poor progression, and long cycle lengths. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Notes: LOS = level of service; V/C ratio= volume-to-capacity ratio

LOS at signalized intersections and roundabouts based on average delay for all vehicles. LOS at unsignalized intersections is reported for entire intersection and for minor street movement with greatest delay.

Source: Kimley Horn 2019

For signalized intersections, LOS is based on the average delay experienced by all vehicles passing through the intersection. For side-street stop-controlled intersections, the delay and LOS for the overall intersection is reported along with the delay for the worst-case movement.

Roadway Segment Level of Service

Table 3.12-2 displays the delay range associated with each LOS category for multi-lane and two-lane roadway segments. LOS for multi-lane segments is determined based on the density of the traffic stream. LOS for two-lane segments is dependent on the class of the roadway. For the purposes of this analysis, only the two-lane segment LOS for Class III facilities is provided.

Table 3.12-2 Roadway Segment Level of Service Definitions

Level of Service	Multi-Lane Roadway		Two-Lane Roadway (Class III)
	Free Flow Speed (mph)	Density [1]	PFFS
A	All	>0 - 11	>91.7
B	All	>11 - 18	>88.3 – 91.7
C	All	>18 - 26	>75.0 – 88.3
D	All	>26 - 35	>66.7 – 75.0
E	60 55 50 45	>35 - 40 >35 - 41 >35 - 43 >35 - 45	≤66.7
F [2]	60 55 50 45	>40 >41 >43 >45	No Standard

Notes: LOS = Level of Service; PFFS = Percent Free-Flow Speed

1. Density is measured in terms of passenger cars (pc) per miles per lane (pc/mi/ln)

2. LOS F would occur when demand exceeds capacity for multi-lane roadways (i.e. volume-to-capacity ratio greater than 1.0). There is no definition for LOS F for Class III, two-lane roadway segments.

Source: Kimley Horn 2019

Freeway Facility Level of Service

Level of service for freeway facilities is determined based on Caltrans traffic study guidelines based on vehicle density. LOS criteria for basic freeway segments and freeway merge/diverge segments (i.e. on-/off-ramps) are summarized in Table 3.12-3.

Table 3.12-3 Freeway Facility Level of Service Definitions

Level of Service	Basic Segment Density [1]	Merge/Diverge Segments Density [1]
A	≤ 11	≤ 10
B	>11 – 18	>10 – 20
C	>18 – 26	>20 – 28
D	>26 – 35	>28 – 35
E	>35 – 45	>35
F [2]	>45	See Note 2

Notes: LOS = Level of Service

1. Density is measured in terms of passenger cars (pc) per miles per lane (pc/mi/ln)

2. LOS F would occur when demand exceeds capacity (i.e. volume-to-capacity ratio greater than 1.0)

Source: Kimley Horn 2019

EXISTING CONDITIONS OPERATIONS

Existing Traffic Volumes

As discussed previously, existing traffic volumes at study intersections and freeway segments were determined based on traffic turning movement counts and Caltrans data. Refer to Appendix F for detailed descriptions of existing intersection lane configurations, intersection turning movement volumes, and segment volumes. Roadway segment volumes were determined through turning movement counts at each intersection bounding the respective segment.

Existing Intersection Operations

Table 3.12-4 and Figure 3.12-4 displays the existing peak-hour intersection operations at the study intersections (refer to Appendix F for technical calculations). The intersection of Latrobe Road and Project Driveway (study intersection 6) does not currently exist and would be developed as part of the project; therefore, no delay or LOS is reported for this intersection under existing conditions.

The County thresholds for determining acceptable operations of an intersection is discussed in Section 3.12.2, "Regulatory Setting". Under existing conditions, only one study intersection currently operates at an unacceptable LOS. The intersection of Latrobe Road and Golden Foothill Parkway (South) currently operations at an unacceptable LOS F during the p.m. peak hour.

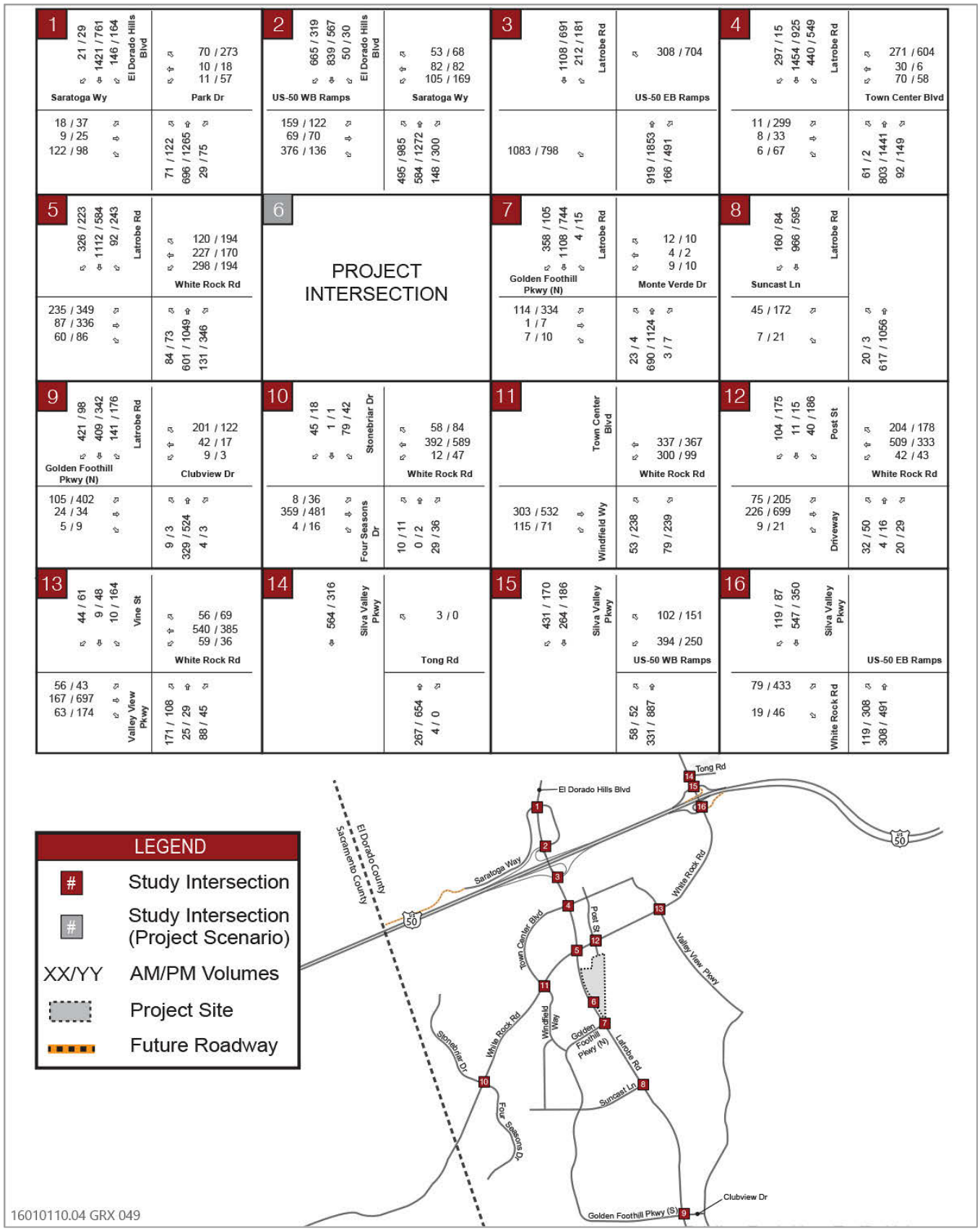
Table 3.12-4 Intersection Operations – Existing Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions	
			Delay[1]	LOS
1. El Dorado Hills Blvd and Saratoga Way/Park Dr	Signal	AM PM	12.9 22.6	B C
2. El Dorado Hills Blvd and US 50 WB Ramps	Signal	AM PM	30.9 44.2	C D
3. Latrobe Rd and US 50 EB Ramps	Signal	AM PM	14.5 13.7	B B
4. Latrobe Rd and Town Center Blvd	Signal	AM PM	16.3 48.3	B D
5. Latrobe Rd and White Rock Rd	Signal	AM PM	33.2 33.4	C C
6. Latrobe Rd and Project Driveway	SSSC	AM PM	— —	— —
7. Latrobe Rd and Golden Foothill Pkwy (North)	Signal	AM PM	13.0 16.5	B B
8. Latrobe Rd and Suncast Ln	Signal	AM PM	6.5 8.1	A A
9. Latrobe Rd and Golden Foothill Pkwy (South)	Signal	AM PM	59.5 **104.3**	E **F**
10. White Rock Rd and Stonebriar Dr/Four Seasons Dr	Signal	AM PM	22.8 12.0	C B
11. White Rock Rd and Windfield Way	Signal	AM PM	13.3 15.1	B B
12. White Rock Rd and Post St	Signal	AM PM	23.5 43.7	C D
13. White Rock Rd and Valley View Pkwy	Signal	AM PM	22.5 21.2	C C
14. Silva Valley Pkwy and Tong Rd	SSSC	AM PM	0.0(9.4 WB) 0.0(0.0 WB)	A A
15. Silva Valley Pkwy and US 50 WB Ramps	Signal	AM PM	47.4 52.5	D D
16. Silva Valley Pkwy and US 50 EB Ramps	Signal	AM PM	47.9 51.4	D D

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled; **Bold** represents unacceptable LOS and delay

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Kimley Horn 2019). All intersections were analyzed in SimTraffic.

Source: Kimley Horn 2019



Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-4 Existing Peak Hour Traffic Volumes

Existing Roadway Segment Operations

Roadway segment volumes were used to analyze the existing operations of three roadway segments in the project vicinity during both peak hours. The Latrobe Road segment between White Rock Road and Golden Foothill Parkway (North) and White Rock Road segment between Latrobe Road and Post Street were analyzed as multi-lane roadway segments. The White Rock Road segment between Post Street and Valley View Parkway was analyzed as a two-lane, Class III roadway segment. Table 3.12-5 displays the existing peak-hour roadway segment operations.

As compared to the standards discussed in Section 3.12.2 "Regulatory Setting," all study roadway segments currently operate at an acceptable LOS during both peak-hours and in all directions.

Table 3.12-5 Roadway Segment Operations – Existing Conditions

Segment	Peak Hour	Analysis Direction	Existing Conditions			
			LOS	Density	PFFS	V/C
Latrobe Rd between White Rock Rd and Golden Foothill Pkwy (North)	AM	NB SB	A B	10.0 16.1	— —	— —
	PM	NB SB	C A	19.2 7.8	— —	— —
White Rock Rd between Latrobe Rd and Post St	AM	EB WB	A A	7.8 4.8	— —	— —
	PM	EB WB	A A	10.9 7.0	— —	— —
White Rock Rd between Post St and Valley View Pkwy	AM	EB WB	C D	— —	76.7 73.2	0.19 0.44
	PM	EB WB	D D	— —	71.7 74.0	0.43 0.32

Notes: LOS = Level of Service; PFFS = Percent Free-Flow Speed; V/C = volume to capacity ratio; **Bold** represents unacceptable LOS and delay

Source: Kimley Horn 2019

Existing Freeway Facility Operations

Freeway level of service is determined based on the segment type and vehicle density. Table 3.12-6 displays the existing peak-hour freeway facility operations.

Table 3.12-6 Freeway Facility Operations – Existing Conditions

Freeway and Direction	Segment	Classification[1]	Peak Hour	Density [2]	LOS
US 50 Eastbound	West of Latrobe Rd SB Off-Ramp	Basic	AM PM	13.3 23.2	B C
	Latrobe Rd SB Off-Ramp	Diverge	AM PM	20.1 25.7	C C
	El Dorado Hills Blvd NB Off-Ramp	Diverge	AM PM	14.5 27.1	B C
	El Dorado Hills Blvd NB Off-Ramp to Latrobe Rd On-Ramp	Basic	AM PM	6.6 14.4	A B
	Latrobe Rd On-Ramp	Merge	AM PM	14.4 24.9	B C
	East of Latrobe Rd On-Ramp	Weave	AM PM	8.4 —	A B
	Silva Valley Pkwy SB Off-Ramp	Diverge	AM PM	14.4 26.4	B C

Freeway and Direction	Segment	Classification[1]	Peak Hour	Density [2]	LOS
	Silva Valley Pkwy SB Off-Ramp to Silva Valley Pkwy NB On-Ramp	Basic	AM PM	7.9 15.4	A B
	Silva Valley Pkwy NB On-Ramp	Merge	AM PM	12.0 21.2	B C
	East of Sylva Valley Pkwy NB On-Ramp	Basic	AM PM	9.1 17.5	A B
US 50 Westbound	Silva Valley Pkwy NB Off-Ramp	Diverge	AM PM	24.1 18.1	C B
	Silva Valley Pkwy NB Off-Ramp to Silva Valley Pkwy SB On-Ramp	Basic	AM PM	20.4 13.0	C B
	Silva Valley Pkwy SB On-Ramp	Merge	AM PM	27.6 17.5	C B
	Silva Valley Pkwy SB On-Ramp to El Dorado Hills Blvd Off-Ramp	Weave	AM PM	15.7 9.9	B A
	El Dorado Hills Blvd Off-Ramp	Diverge	AM PM	24.0 16.5	C B
	El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp	Basic	AM PM	19.4 12.2	C B
	El Dorado Hills Blvd On-Ramp	Merge	AM PM	32.8 26.1	D C
	West of El Dorado Hills Blvd On-Ramp	Basic	AM PM	34.4 24.2	D C

Notes: LOS = Level of Service; EB = Eastbound; WB = Westbound

1. LOS for Basic, Diverge, and Merge freeway segment classifications is calculated based on Caltrans methodology. LOS for Weave freeway segment classifications is calculated using the Leisch Method.

2. Density is measured in passenger cars per lane per mile (pc/ln/mi)

Source: Kimley Horn 2019

NEAR-TERM (2025) CONDITION OPERATIONS

The Near-Term (2025) Conditions were determined based on model data provided by the County and traffic volumes from anticipated growth from Existing Conditions that included the operation of the approved John Adams Academy Project located on the northwest corner of the Latrobe Road/White Rock Road intersection and the El Dorado Hills Apartments at Town Center. A detailed description of the method for estimating intersection and roadway segment volumes is provided in Appendix F.

Near-Term (2025) Intersection Operations

LOS at study intersections was evaluated under Near-Term (2025) Conditions and summarized in Table 3.12-7. Figure 3.12-5 shows Near-Term Condition intersection geometries and Figure 3.12-6 identifies turning movement volumes. Planned intersection improvements to the White Rock Road/Stonebriar Drive/Four Seasons Drive, White Rock Road/Valley View Parkway, and Silva Valley Parkway/Tong Road intersections are included in Near-Term (2025) Condition no project operational analysis.

Table 3.12-7 Intersection Operations – Near-Term (2025) Conditions

Intersection	Traffic Control	Peak Hour	Near-Term Conditions	
			Delay[1]	LOS
1. El Dorado Hills Blvd and Saratoga Way/Park Dr	Signal	AM PM	41.9 62.3	D E
2. El Dorado Hills Blvd and US 50 WB Ramps	Signal	AM PM	31.5 44.0	C D
3. Latrobe Rd and US 50 EB Ramps	Signal	AM PM	15.7 19.7	B B
4. Latrobe Rd and Town Center Blvd	Signal	AM PM	21.3 **101.3**	C **F**
5. Latrobe Rd and White Rock Rd	Signal	AM PM	45.7 **82.9**	D **F**
6. Latrobe Rd and Project Driveway	SSSC	AM PM	— —	— —
7. Latrobe Rd and Golden Foothill Pkwy (North)	Signal	AM PM	22.3 39.3	C D
8. Latrobe Rd and Suncast Ln	Signal	AM PM	10.1 10.5	B B
9. Latrobe Rd and Golden Foothill Pkwy (South)	Signal	AM PM	36.4 44.4	D D
10. White Rock Rd and Stonebriar Dr/Four Seasons Dr	Signal	AM PM	16.5 11.7	B B
11. White Rock Rd and Windfield Way	Signal	AM PM	72.7 27.9	E C
12. White Rock Rd and Post St	Signal	AM PM	35.8 40.9	D D
13. White Rock Rd and Valley View Pkwy	Signal	AM PM	79.6 26.1	E C
14. Silva Valley Pkwy and Tong Rd	SSSC	AM PM	0.1(9.9 WB) 0.1(11.7 WB)	A B
15. Silva Valley Pkwy and US 50 WB Ramps	Signal	AM PM	47.3 19.5	D B
16. Silva Valley Pkwy and US 50 EB Ramps	Signal	AM PM	18.8 20.9	B C

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled; **Bold** represents unacceptable LOS and delay

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Kimley Horn 2019). All intersections were analyzed in SimTraffic.

Source: Kimley Horn 2019

Under Near-Term (2025) Conditions, all study intersections would operate at an acceptable LOS except for the following intersections:

- Latrobe Road and Town Center Boulevard (p.m. peak hour)
- Latrobe Road and White Rock Road (p.m. peak hour)

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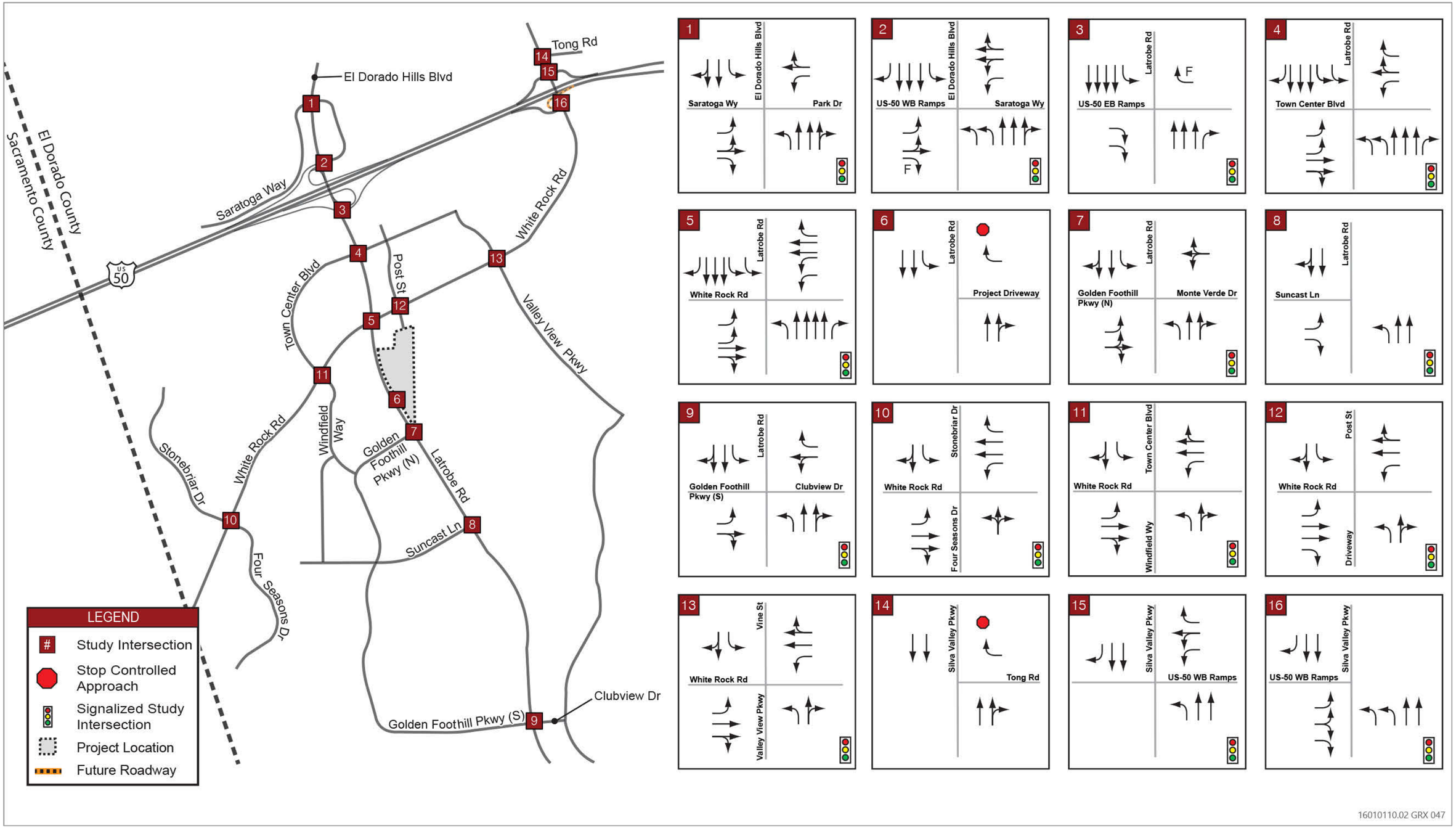
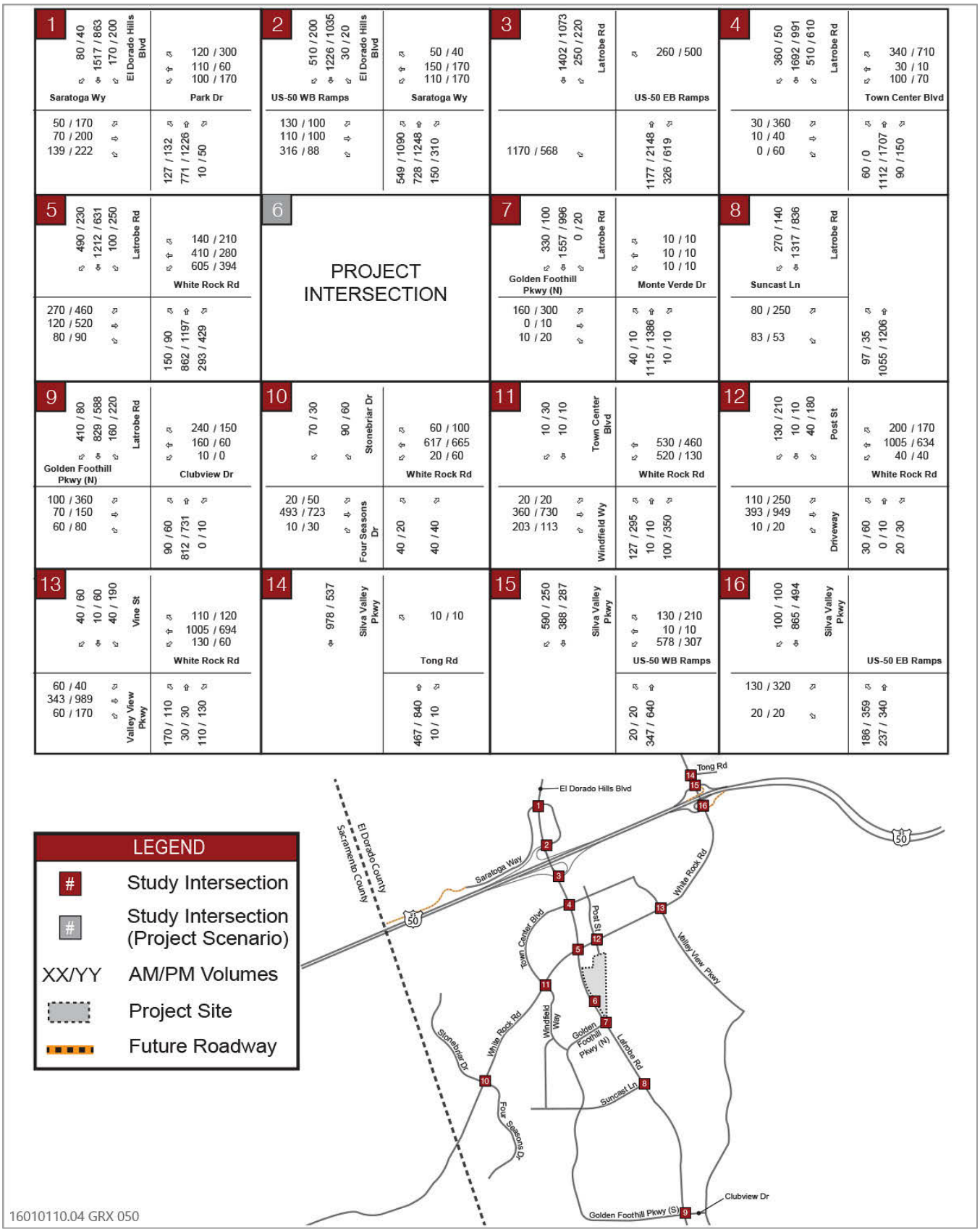


Source: Image produced and provided by Kimley Horn in 2019

Figure 3.12-5 Near-Term Intersection Geometries



Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-6 Near-Term Peak Hour Traffic Volumes

Near-Term (2025) Roadway Segment Operations

Roadway segment volumes under near-term conditions were estimated based on the methods described previously, and provided in detail in Appendix F. The Near-Term (2025) roadway segment operations are shown in Table 3.12-8. All study roadway segments would continue operating at an acceptable LOS under Near-Term (2025) Conditions during both peak hours and in all directions.

Table 3.12-8 Roadway Segment Operations – Near-Term (2025) Conditions

Segment	Peak Hour	Analysis Direction	Near-Term Conditions			
			LOS	Density	PFFS	V/C
Latrobe Rd between White Rock Rd and Golden Foothill Pkwy (North)	AM	NB SB	B C	13.2 23.3	— —	— —
	PM	NB SB	B B	17.4 13.7	— —	— —
White Rock Rd between Latrobe Rd and Post St	AM	EB WB	A B	6.6 14.7	— —	— —
	PM	EB WB	B B	15.6 11.3	— —	— —
White Rock Rd between Post St and Valley View Pkwy	AM	EB WB	E E	— —	64.5 61.1	0.30 0.80
	PM	EB WB	E E	— —	57.0 57.7	0.77 0.54

Notes: LOS = Level of Service; PFFS = Percent Free-Flow Speed; V/C = volume to capacity ratio; **Bold** represents unacceptable LOS and delay

Source: Kimley Horn 2019

Near-Term (2025) Freeway Facility Operations

Freeway level of service is determined based on the segment type and vehicle density. Table 3.12-9 displays the Near-Term (2025) peak-hour freeway facility operations. All freeway facilities would continue operating at an acceptable LOS under Near-Term (2025) Conditions.

Table 3.12-9 Freeway Facility Operations – Near-Term (2025) Conditions

Freeway and Direction	Segment	Classification[1]	Peak Hour	Density [2]	LOS
US 50 Eastbound	West of Latrobe Rd SB Off-Ramp	Basic	AM PM	14.2 20.7	B C
	Latrobe Rd SB Off-Ramp	Diverge	AM PM	21.2 22.9	C C
	El Dorado Hills Blvd NB Off-Ramp	Diverge	AM PM	15.2 25.9	B C
	El Dorado Hills Blvd NB Off-Ramp to Latrobe Rd On-Ramp	Basic	AM PM	7.4 14.8	A B
	Latrobe Rd On-Ramp	Merge	AM PM	16.7 26.6	B C
	East of Latrobe Rd On-Ramp	Weave	AM PM	10.1 —	A B
	Silva Valley Pkwy SB Off-Ramp	Diverge	AM PM	16.8 27.3	B C
	Silva Valley Pkwy SB Off-Ramp to Silva Valley Pkwy NB On-Ramp	Basic	AM PM	9.4 17.4	A B

Freeway and Direction	Segment	Classification[1]	Peak Hour	Density [2]	LOS
	Silva Valley Pkwy NB On-Ramp	Merge	AM PM	14.0 23.6	B C
	East of Sylva Valley Pkwy NB On-Ramp	Basic	AM PM	10.7 20.1	A C
	East of Sylva Valley Pkwy NB Off-Ramp		AM PM	33.4 21.3	D C
US 50 Westbound	Silva Valley Pkwy NB Off-Ramp	Diverge	AM PM	27.6 21.9	C C
	Silva Valley Pkwy NB Off-Ramp to Silva Valley Pkwy SB On-Ramp	Basic	AM PM	24.1 16.7	C B
	Silva Valley Pkwy SB On-Ramp	Merge	AM PM	31.7 22.1	D C
	Silva Valley Pkwy SB On-Ramp to El Dorado Hills Blvd Off-Ramp	Weave	AM PM	— 12.4	B B
	El Dorado Hills Blvd Off-Ramp	Diverge	AM PM	26.4 19.6	C B
	El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp	Basic	AM PM	24.8 16.6	C B
	El Dorado Hills Blvd On-Ramp	Merge	AM PM	37.0 31.5	E D
	West of El Dorado Hills Blvd On-Ramp	Basic	AM PM	44.2 32.3	E D

Notes: LOS = Level of Service; EB = Eastbound; WB = Westbound

1. LOS for Basic, Diverge, and Merge freeway segment classifications is calculated based on Caltrans methodology. LOS for Weave freeway segment classifications is calculated using the Leisch Method.

2. Density is measured in passenger cars per lane per mile (pc/ln/mi)

Source: Kimley Horn 2019

CUMULATIVE (2035) CONDITION OPERATIONS

The Cumulative (2035) Conditions were determined based on model data provided by the County, traffic volumes from approved but not yet constructed and pending projects in the project vicinity, and capital improvement projects anticipated to occur prior to year 2035. A detailed description of the methodology used to estimate Cumulative (2035) intersection and roadway segment volumes is provided in the project traffic study (Appendix F).

The following capital improvement projects were included in Cumulative (2035) Conditions. Detailed descriptions of each capital improvement project as well as project funding and schedule can be found in the County's Adopted 2018 Capital Improvement Program (El Dorado County 2018).

- Saratoga Way Extension – Phase 2
- El Dorado Hills Boulevard at Saratoga Way Intersection Improvements
- US 50 and Silva Valley Parkway Intersection (Phase 2)
- US 50 and Empire Ranch Road Interchange
- Wilson Extension

Cumulative (2035) Intersection Operations

Intersection geometries for 2035 are shown in Figure 3.12-7. LOS at study intersections was evaluated under Cumulative (2035) Conditions and summarized in Table 3.12-10 and shown in Figure 3.12-8. Intersection improvements associated with the development of approved but not yet constructed and proposed projects, as well as capital improvement projects anticipated to be completed before year 2035 were included in Cumulative (2035) Condition operational analysis. Intersection peak hour volumes and lane configurations under Cumulative (2035) Conditions is provided in Appendix F.

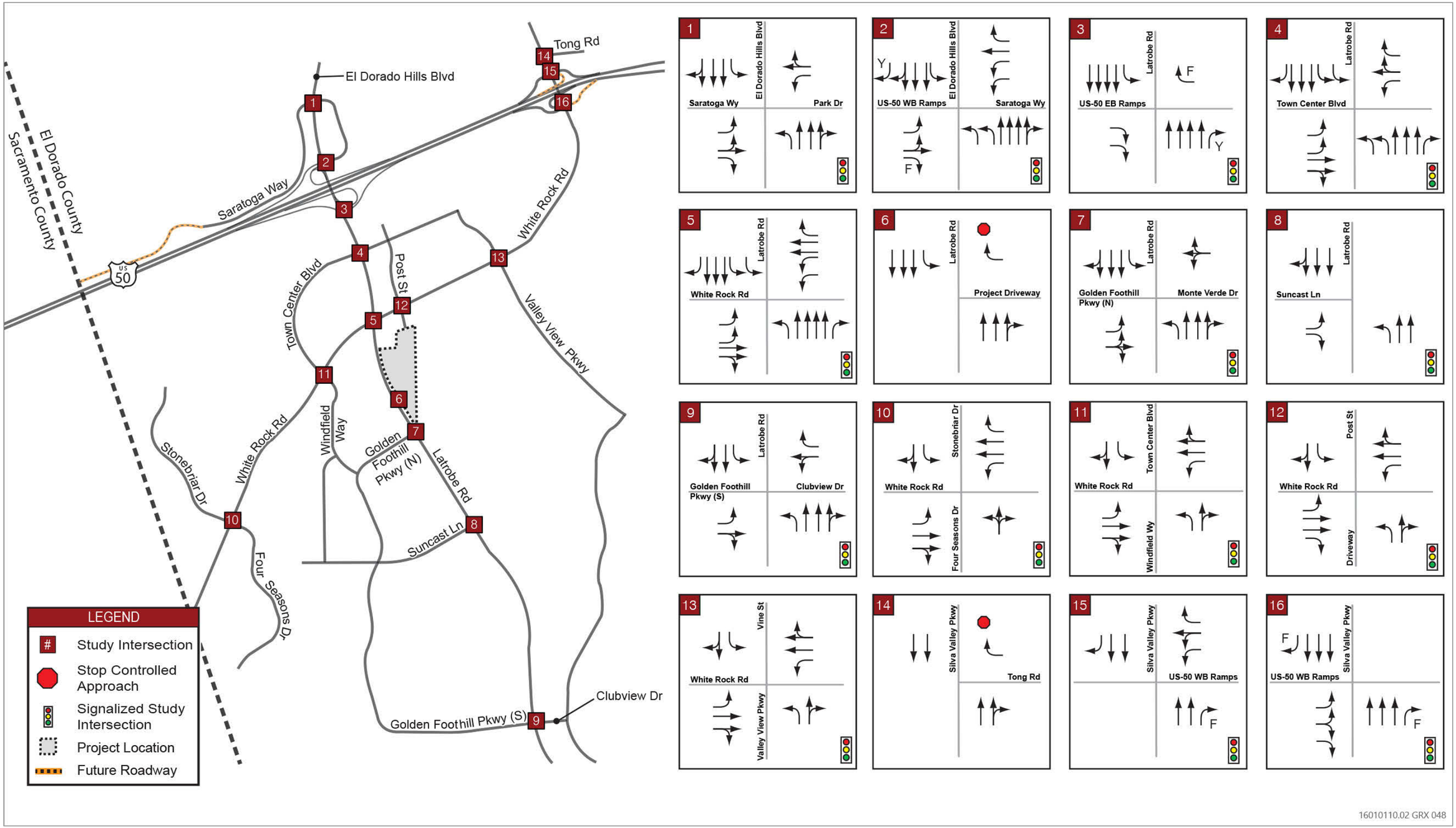
Table 3.12-10 Intersection Operations – Cumulative (2035) Conditions

Intersection	Traffic Control	Peak Hour	Cumulative Conditions	
			Delay[1]	LOS
17. El Dorado Hills Blvd and Saratoga Way/Park Dr	Signal	AM PM	28.5 63.1	C E
18. El Dorado Hills Blvd and US 50 WB Ramps	Signal	AM PM	32.8 65.3	C E
19. Latrobe Rd and US 50 EB Ramps	Signal	AM PM	27.1 36.1	C D
20. Latrobe Rd and Town Center Blvd	Signal	AM PM	58.2 **123.0**	E **F**
21. Latrobe Rd and White Rock Rd	Signal	AM PM	**84.6** **124.5**	**F** **F**
22. Latrobe Rd and Project Driveway	SSSC	AM PM	— —	— —
23. Latrobe Rd and Golden Foothill Pkwy (North)	Signal	AM PM	12.4 49.1	B D
24. Latrobe Rd and Suncast Ln	Signal	AM PM	10.0 10.3	A B
25. Latrobe Rd and Golden Foothill Pkwy (South)	Signal	AM PM	74.1 52.1	E D
26. White Rock Rd and Stonebriar Dr/Four Seasons Dr	Signal	AM PM	12.9 12.1	B B
27. White Rock Rd and Windfield Way	Signal	AM PM	49.3 40.9	D D
28. White Rock Rd and Post St	Signal	AM PM	44.4 70.7	D E
29. White Rock Rd and Valley View Pkwy	Signal	AM PM	66.2 45.2	E D
30. Silva Valley Pkwy and Tong Rd	SSSC	AM PM	0.0(11.9 WB) 0.1(18.5 WB)	B C
31. Silva Valley Pkwy and US 50 WB Ramps	Signal	AM PM	79.3 12.7	E B
32. Silva Valley Pkwy and US 50 EB Ramps	Signal	AM PM	8.0 10.7	A B

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled; **Bold** represents unacceptable LOS and delay

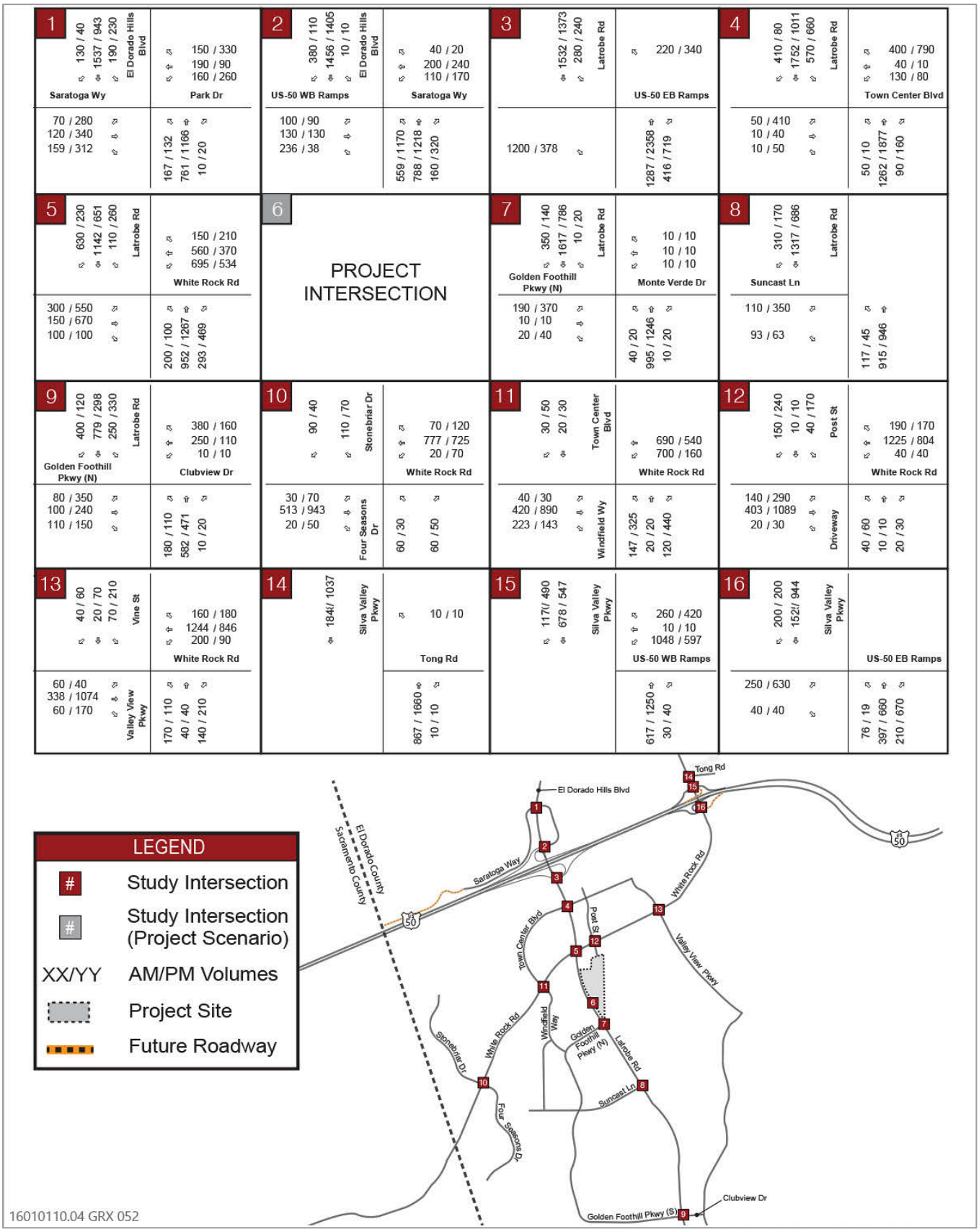
[1] For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB 2010). All intersections were analyzed in SimTraffic.

Source: Kimley Horn 2019



Source: Image produced and provided by Kimley Horn in 2019

Figure 3.12-7 Cumulative (2035) Intersection Geometries



Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-8 Cumulative (2035) Peak Hour Traffic Volumes

Under Cumulative (2035) Conditions, all study intersections would operate at an acceptable LOS except for the following intersections:

- Latrobe Road and Town Center Boulevard (p.m. peak hour)
- Latrobe Road and White Rock Road (a.m. and p.m. peak hours)

Cumulative (2035) Roadway Segment Operations

Roadway segment volumes under near-term conditions were estimated based on the methods described previously, and provided in detail in Appendix F. The Cumulative (2035) roadway segment operations are shown in Table 3.12-11. The White Rock Road segment between Post Street and Valley View Parkway would be widened under Cumulative (2035) Conditions, and is analyzed as a multi-lane roadway segment. All study roadway segments would continue operating at an acceptable LOS under Cumulative (2035) Conditions during both peak hours and in all directions.

Table 3.12-11 Roadway Segment Operations – Cumulative (2035) Conditions

Segment	Peak Hour	Analysis Direction	Cumulative Conditions	
			LOS	Density
Latrobe Rd between White Rock Rd and Golden Foothill Pkwy (North)	AM	NB SB	A B	9.7 16.3
	PM	NB SB	B A	12.4 7.8
White Rock Rd between Latrobe Rd and Post St	AM	EB WB	A B	4.8 12.0
	PM	EB WB	B A	12.1 9.5
White Rock Rd between Post St and Valley View Pkwy	AM	EB WB	A B	3.9 12.4
	PM	EB WB	A A	11.0 8.6

Notes: LOS = Level of Service; **Bold** represents unacceptable LOS and delay

Source: Kimley Horn 2019

Cumulative (2035) Freeway Facility Operations

Freeway level of service is determined based on the segment type and vehicle density. Table 3.12-12 displays the Cumulative (2035) peak-hour freeway facility operations. All freeway facilities would continue operating at an acceptable LOS under Cumulative (2035) Conditions.

Table 3.12-12 Freeway Facility Operations – Cumulative (2035) Conditions

Freeway and Direction	Segment	Classification[1]	Peak Hour	Density [2]	LOS
	West of Latrobe Rd SB Off-Ramp	Basic	AM PM	15.1 18.9	B C
	Latrobe Rd SB Off-Ramp	Diverge	AM PM	22.1 20.6	C C
	El Dorado Hills Blvd NB Off-Ramp	Diverge	AM PM	16.1 25.0	B C
	El Dorado Hills Blvd NB Off-Ramp to Latrobe Rd On-Ramp	Basic	AM PM	8.3 15.0	A B
	Latrobe Rd On-Ramp	Merge	AM PM	18.7 27.8	C A

Freeway and Direction	Segment	Classification[1]	Peak Hour	Density [2]	LOS
US 50 Eastbound	East of Latrobe Rd On-Ramp	Weave	AM PM	— —	A C
	Silva Valley Pkwy SB Off-Ramp	Diverge	AM PM	19.0 28.8	B D
	Silva Valley Pkwy SB Off-Ramp to Silva Valley Pkwy NB On-Ramp	Basic	AM PM	10.2 16.5	A B
	Silva Valley Pkwy SB On-Ramp	Merge	AM PM	16.7 23.1	B C
	Silva Valley Pkwy NB On-Ramp	Merge	AM PM	15.3 25.5	B C
	East of Silva Valley Pkwy NB On-Ramp	Basic	AM PM	12.1 21.6	B C
US 50 Westbound	East of Silva Valley Pkwy NB Off-Ramp	Weave	AM PM	— 30.6	D D
	Silva Valley Pkwy NB Off-Ramp	Diverge	AM PM	31.5 27.4	D C
	Silva Valley Pkwy NB Off-Ramp to Silva Valley Pkwy SB On-Ramp	Basic	AM PM	14.5 12.6	B B
	Silva Valley Pkwy NB On-Ramp	Merge	AM PM	19.8 17.9	B B
	Silva Valley Pkwy SB On-Ramp	Merge	AM PM	25.4 17.9	C B
	Silva Valley Pkwy SB On-Ramp to El Dorado Hills Blvd Off-Ramp	Weave	AM PM	— 15.2	C B
	El Dorado Hills Blvd Off-Ramp	Diverge	AM PM	28.8 22.8	D C
	El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp	Basic	AM PM	18.5 13.9	C B
	El Dorado Hills Blvd On-Ramp	Merge	AM PM	28.8 27.4	D C
	West of El Dorado Hills Blvd On-Ramp	Basic	AM PM	— —	D C

Notes: LOS = Level of Service; EB = Eastbound; WB = Westbound

1. LOS for Basic, Diverge, and Merge freeway segment classifications is calculated based on Caltrans methodology. LOS for Weave freeway segment classifications is calculated using the Leisch Method.

2. Density is measured in passenger cars per lane per mile (pc/ln/mi)

Source: Kimley Horn 2019

TRAFFIC OPERATIONS REGULATIONS AND POLICIES

STATE

US 50 Transportation Concept Report and Corridor System Management Plan

In 2014, Caltrans released the United States Route 50 Transportation Concept Report and Corridor System Management Plan for portions of US 50 within the study area. Table 13 of this report shows existing operations on US 50 as being at LOS F. The report also indicates a Concept LOS E for this corridor.

The above-referenced Caltrans LOS results are based on daily volume-to-capacity comparisons and do not necessarily consider specific operational characteristics (e.g., length of weave sections, peak hour factors, etc.) within the I-5 and US 50 corridors. Nevertheless, these data are valuable in understanding Caltrans' expectations of their current and projected operating performance.

LOCAL

El Dorado County General Plan

The El Dorado County General Plan policies and strategic actions that are relevant to transportation and circulation in the County. The County has identified LOS standards and impact thresholds within the General Plan, that are noted in Section 3.12.3 of this section. General Plan Policy TC-Xd identifies that the County shall maintain roadway segment LOS E or better on segments sin the Community Regions, and LOS D or better in Rural Centers and Rural Regions. Exceptions to this are provided in General Plan Table TC-2 which includes select roadway segments for which a max volume-to-capacity ratio is the set standard. These policies are listed below. The General Plan was last amended on September 25, 2018.

- **Policy TC-Xc:** Developer paid traffic impact fees combined with any other available funds shall fully pay for building all necessary road capacity improvements to fully offset and mitigate all direct and cumulative traffic impacts from new development during peak hours upon any highways, arterial roads and their intersections during weekday, peak-hour periods in unincorporated areas of the county.
- **Policy TC-Xd:** Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.
- **Policy TC-Xe:** For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:

  A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or

  B. The addition of 100 or more daily trips, or

  C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.
- **Policy TC-Xf:** At the time of approval of a tentative map for a single family residential subdivision of five or more parcels that worsens (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element based on existing traffic plus traffic generated from the development plus forecasted traffic growth at 10-years from project submittal; or (2) ensure the commencement of construction of the necessary road improvements are included in the County's 10-year CIP.

  For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element; or (2) ensure the construction of the necessary road improvements are included in the County's 20-year CIP.

- **Policy TC-Xg:** Each development project shall dedicate right-of-way, design and construct or fund any improvements necessary to mitigate the effects of traffic from the project. The County shall require an analysis of impacts of traffic from the development project, including impacts from truck traffic, and require dedication of needed right-of-way and construction of road facilities as a condition of the development. This policy shall remain in effect indefinitely unless amended by voters.

El Dorado County Traffic Impact Mitigation Fee Program

The County utilizes its Capital Improvement Program (CIP) to identify and prioritize future transportation investments to meet the County's existing and future transportation needs. CIP projects can include roadways, intersections, sidewalks, bicycle lanes, traffic calming treatments, transit service improvement projects, and ongoing administrative costs for transportation monitoring programs, including traffic model update costs, traffic study guideline updates, and updates to the Circulation Element to the County's General Plan. Funding form most CIP projects is provided from a variety of sources including state and/or federal grants, and the County's Traffic Impact Mitigation (TIM) Fee Program. This program is required by General Plan Policy TC-Xb. The TIM Fee Program is used to fund needed improvements including roadway widening, new roadways, roadway intersection improvements, and transit to deal with future growth during a defined period of time.

Major updates to the CIP and TIM Fee Program are made by the County every five years as required by State law and General Plan policies. The most recent update to the Western Slope Roadway CIP and TIM Fee Program was completed and certified by the County Board of Supervisors in 2016, with amendments adopted as recently as June 2018. The current TIM Fee Program is based on 20 years of growth and TIM Fee Program-funded improvements are part of the CIP.

TRAFFIC OPERATIONS EFFECTS AND REQUIRED IMPROVEMENTS

This section describes the analysis techniques, assumptions, and results used to identify potential effect of the proposed project on the traffic operation within the project study area. The project-generated effects to traffic operations are described and assessed, and improvements are recommended for the identified effects.

Methodology

The traffic analysis below is based on the Montano de El Dorado Transportation Impact Study prepared by Kimley Horn in February 2019 (Appendix F) for the following analysis scenarios:

- Existing-Plus-Project Conditions – reflects changes in existing travel conditions associated with implementation of the project.
- Near-Term Plus Project Conditions – reflects changes in Near-Term Conditions associated with implementation of the project.
- Cumulative Plus Project Conditions– reflects changes in cumulative conditions (i.e., year 2035) with implementation of the project.

The transportation analysis methodology uses the anticipated travel characteristics of the project, trip generation assumptions, and trip distribution based on the project description.

Traffic Forecasts

Traffic volume forecasts for the project analysis scenarios under Near-Term Condition was developed based on the modeling estimates provided by the County's Travel Demand Model. Near-Term Plus Project Condition was developed by adding project generated traffic to the no project conditions using the trip distribution for the plus project scenario.

The Cumulative (2035) Conditions were determined based on model data provided by the County, traffic volumes from approved but not yet constructed and pending projects in the project vicinity, and capital improvement projects

anticipated to occur prior to year 2035. A detailed description of the methodology used to estimate Cumulative (2035) intersection and roadway segment volumes is provided in the project traffic study (Appendix F).

Trip Generation

The number of trip generated by the existing commercial uses and the project were estimated based on trip generation rates included in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 9th Edition. The project is estimated to generate 4,365 new daily trips with 128 new trips occurring during the a.m. peak-hour and 382 new trips occurring during the p.m. peak-hour. A summary of estimated project trips is shown in Table 3.12-13. A detailed description of the methodology used to estimate the project's daily and peak-hour trips is included in Appendix F.

Table 3.12-13 Trip Generation

Land Use	Size		Trip Generation						
			Daily	a.m. peak-hour			p.m. peak-hour		
				Total	In	Out	Total	In	Out
Shopping Center[1]	123.8	ksf	7,802	178	110	68	691	332	359
Hotel	100	Rooms	818	53	31	22	60	31	29
Existing Shopping Center Trips	*41.3*	*ksf*	*-3,824*	*-91*	*-56*	*-35*	*-331*	*-159*	*-172*
Internal Trip Reduction (5%)			*-431*	*-12*	*-7*	*-4*	*-38*	*-18*	*-19*
Net New External Trips			4,365	128	78	50	382	186	197

Notes: ksf = 1,000 square feet of finished floor area

1. Proposed shopping center represents the total project building including existing plus proposed commercial areas.

Source: Kimley Horn 2019

Trip Distribution and Assignment

Project generated traffic was added to intersection and roadway segment volumes to develop plus project conditions. Existing access to the site will be provided at the existing intersection of White Rock Road and Post Street. Three additional driveways will serve the site upon project development including one existing right-in/right-out driveway along White Rock Road, one new right-in/right-out driveway along Latrobe Road at the south end of the project site, and one new driveway along Latrobe Road. A detailed description of the project trip distribution percentages along roadways in the project vicinity is provided in Appendix F (see Appendix F Figure 6 and 7).

GENERAL PLAN CIRCULATION ELEMENT POLICY CONSISTENCY ANALYSIS

The analysis criteria used to evaluate the effects of the project on traffic operations are based on LOS thresholds adopted by the County of El Dorado in the County's General Plan, and Caltrans LOS thresholds. This section describes the criteria used to identify project-specific effects on traffic operations in the project study area.

Project-generated Effects to Intersection and Roadway Segment Levels of Service

The County's Traffic Impact Study Guidelines provides the project LOS thresholds identified within the County's General Plan. These thresholds are based on level of service for intersections, roadway segments, and freeway facilities, and include:

- As noted above General Plan Circulation Policy TC-Xd provides Level of Service standards for County roads as follows:

  Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the County shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions expect as specified in Table TC-2 [of the County's General Plan]. The volume to capacity ratio of the

roadway segments listed in Table TC-2 [of the County's General Plan] as applicable shall not exceed the ratio specified in that table.

If a project causes the peak hour LOS or volume to capacity ratio on a county road or state highway that would otherwise meet the County standards (without the project) to exceed the values listed in the [Table TC-2 of the County's General Plan], then the impact shall be considered significant.

If any county road or state highway fails to meet the listed county standards for peak hour LOS or volume to capacity ratio without the proposed project, and the project will worsen conditions on the road or highway, then the impact shall be considered significant. The term, "worsen" is defined for the purpose of this paragraph according to General Plan Policy TC-Xe as follows:

- A two (2) percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily; or
- The addition of 100 or more daily trips; or
- The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.

- When a project identifies an impact on the County's roadway network for a scenario with or without the project, a separate analysis must be done to identify what improvements are needed for mitigation and when the improvements must be in place. The time of the proposed mitigation must be in compliance with General Plan Policy TC-Xf:

  For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain LOS standards as detailed in the Transportation and Circulation Element; or (2) ensure the construction of the necessary road improvements are included in the County's 20-year CIP.

Impacts on Freeway Facilities

The County guidelines provide that project's with impacts to Caltrans facilities shall use Caltrans LOS standards and significance thresholds. For the purposes of this project, the Caltrans District 3 standard of significance would be applicable for intersections at the US 50 interchange with El Dorado Hills Boulevard/Latrobe Road. This interchange is not considered to be located in a "high speed area."

- Caltrans has established a standard of LOS E or better for the peak 15 minutes for signalized intersections outside of "high speed areas."

EFFECTS NOT DISCUSSED FURTHER

Project construction would be conducted over three phases from 2020 to 2022. Project construction activities would generate traffic associated with construction staging, construction worker commute trips, soil exportation, and construction material delivery trips. Construction traffic volumes are not expected to exceed peak hour traffic conditions from operation of the project at build out and would not create any operational effects beyond those identified under Existing Plus Project conditions identified in Intersection Operating Conditions Effects, below. Thus, effect to traffic operations from construction operations would occur and this issue is not discussed further.

PROJECT EFFECT AND RECOMMENDED IMPROVEMENTS

Project-generated Effects to Intersection Operating Conditions

Existing and Near-Term Conditions

Traffic operations were evaluated at the study intersections for Existing Plus Project and Near-Term (2025) Plus Project conditions by adding to the no project volumes traffic generated by the project. Project trips were added based on the

methodology described previously. A detailed analysis of each intersection under all plus project conditions is provided in Appendix F. A summary of the LOS calculations under all conditions is shown in Table 3.12-14.

Table 3.12-14 Intersection Operations – Project Effects under Existing and Near-Term Conditions

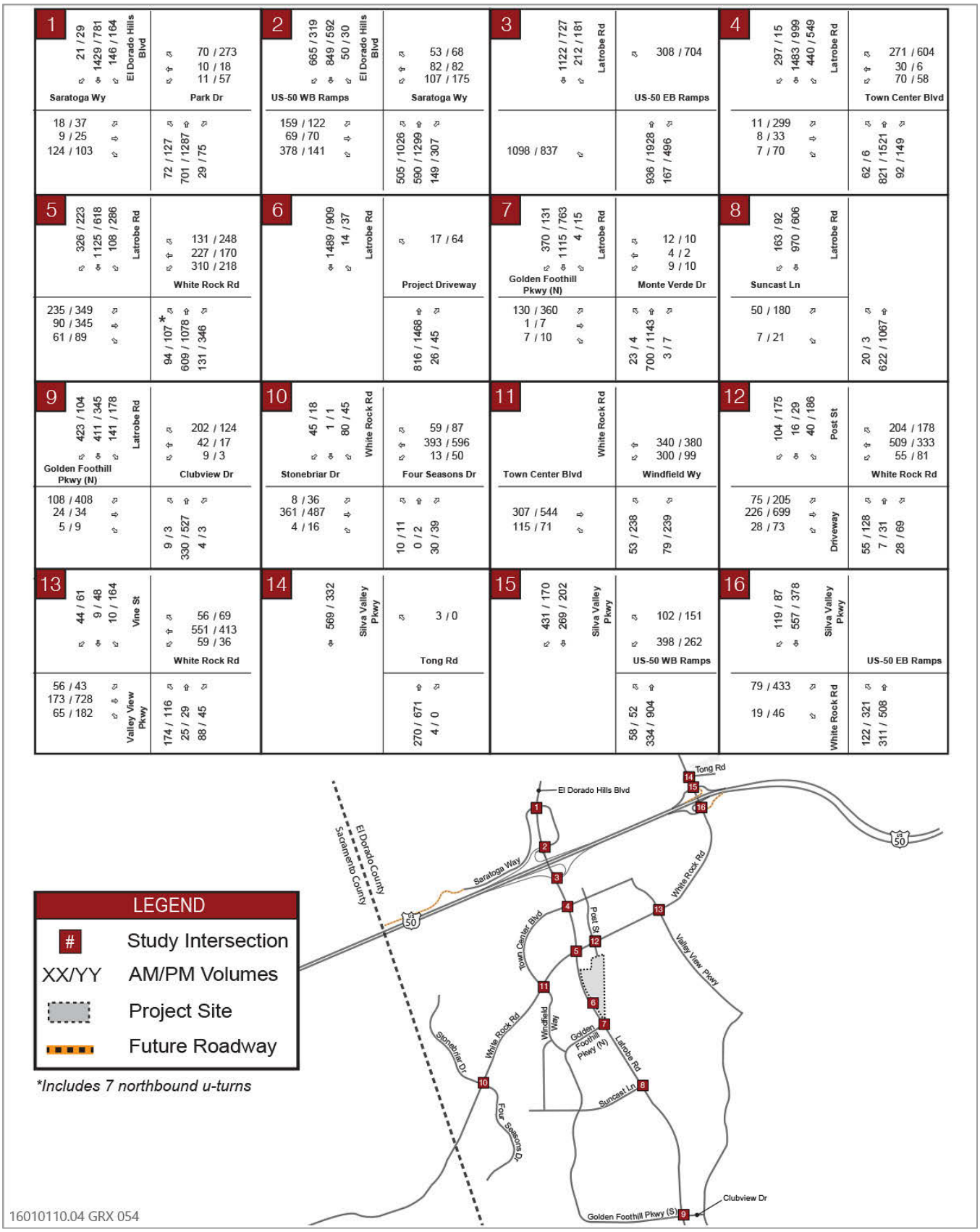
Intersection	Traffic Control	Peak Hour	Existing Conditions		Existing Plus Project		Near-Term Conditions		Near-Term Plus Project	
			Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
33. El Dorado Hills Blvd and Saratoga Way/Park Dr	Signal	AM	12.9	B	13.9	B	41.9	D	42.8	D
		PM	22.6	C	23.4	C	62.3	E	74.8	E
34. El Dorado Hills Blvd and US 50 WB Ramps	Signal	AM	30.9	C	45.0	C	31.5	C	31.0	C
		PM	44.2	D	32.5	D	44.0	D	44.2	D
35. Latrobe Rd and US 50 EB Ramps	Signal	AM	14.5	B	20.1	C	15.7	B	15.8	B
		PM	13.7	B	14.8	B	19.7	B	18.2	B
36. Latrobe Rd and Town Center Blvd	Signal	AM	16.3	B	25.9	C	21.3	C	20.9	C
		PM	48.3	D	52.7	D	**101.3**	**F**	**100.5**	**F**
37. Latrobe Rd and White Rock Rd	Signal	AM	33.2	C	34.7	C	45.7	D	44.7	D
		PM	33.4	C	49.6	D	**82.9**	**F**	**98.3**	**F**
38. Latrobe Rd and Project Driveway	SSSC	AM	—	—	0.1(11.8 WB)	B	—	—	0.2(15.1WB)	C
		PM	—	—	0.7(19.5WB)	C	—	—	0.9(24.8WB)	C
39. Latrobe Rd and Golden Foothill Pkwy (North)	Signal	AM	13.0	B	14.5	B	22.3	C	20.7	C
		PM	16.5	B	34.8	C	39.3	D	55.3	E
40. Latrobe Rd and Suncast Ln	Signal	AM	6.5	A	6.7	A	10.1	B	10.3	B
		PM	8.1	A	8.4	A	10.5	B	10.8	B
41. Latrobe Rd and Golden Foothill Pkwy (South)	Signal	AM	59.5	E	24.2	E	36.4	D	36.6	D
		PM	**104.3**	**F**	**108.2**	**F**	44.4	D	46.3	D
42. White Rock Rd and Stonebriar Dr/Four Seasons Dr	Signal	AM	22.8	C	24.0	C	16.5	B	16.2	B
		PM	12.0	B	12.3	B	11.7	B	12.1	B
43. White Rock Rd and Windfield Way	Signal	AM	13.3	B	13.3	B	72.7	E	72.7	E
		PM	15.1	B	15.2	B	27.9	C	28.1	C
44. White Rock Rd and Post St	Signal	AM	23.5	C	32.1	C	35.8	D	35.3	D
		PM	43.7	D	69.9	E	40.9	D	60.2	E
45. White Rock Rd and Valley View Pkwy	Signal	AM	22.5	C	28.5	C	79.6	E	78.6	E
		PM	21.2	C	24.5	C	26.1	C	27.6	C
46. Silva Valley Pkwy and Tong Rd	SSSC	AM	0.0(9.4 WB)	A	0.0(9.4WB)	A	0.1(9.9 WB)	A	0(10 WB)	A
		PM	0.0(0.0 WB)	A	0(0.0 WB)	A	0.1(11.7 WB)	B	0(11.8WB)	A
47. Silva Valley Pkwy and US 50 WB Ramps	Signal	AM	47.4	D	47.3	D	47.3	D	47.4	D
		PM	52.5	D	52.5	D	19.5	B	19.5	B
48. Silva Valley Pkwy and US 50 EB Ramps	Signal	AM	47.9	D	47.7	D	18.8	B	18.8	B
		PM	51.4	D	50.8	D	20.9	C	21.2	C

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled; **Bold** represents unacceptable LOS and delay. Shaded means a project generated effect.

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Effects to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB 2010). All intersections were analyzed in SimTraffic.

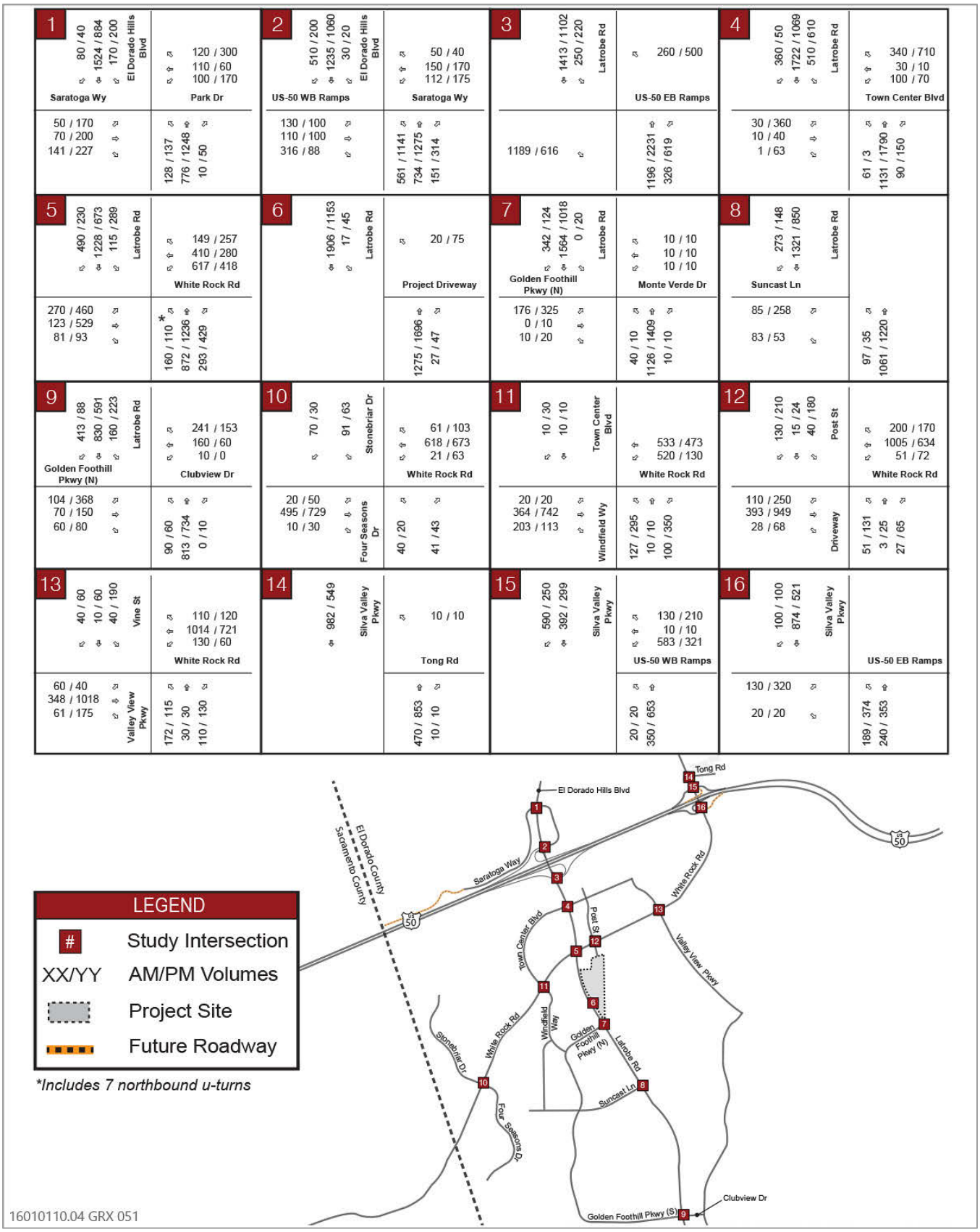
Source: Kimley Horn 2019

Figure 3.12-9 and 3.12-10 show peak hour traffic volumes for Existing and Near-Term plus project conditions.



Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-9 Existing Plus Project Peak Hour Traffic Volumes



Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-10 Existing Plus Near-Term Peak Hour Traffic Volumes

Under Existing Plus Project conditions, the addition of project generated trips would generate an effect at one study intersection. The intersection of Latrobe Road and Golden Foothill Parkway (South) operates at an unacceptable LOS F under Existing Conditions during the p.m. peak hour. Under Existing Plus Project Conditions, the project would add greater than 10 trips to this intersection during the p.m. peak hour.

Under Near-Term (2025) Plus Project Conditions, the project would result in effects to two intersections. The intersection of Latrobe Road and Town Center Boulevard operates at an unacceptable LOS F during the p.m. peak hour under Near-Term (2025) Conditions. The intersection of Latrobe Road and White Rock Road operates at an unacceptable LOS F during the p.m. peak hour under Near-Term (2025) Conditions. Under Near-Term (2025) Plus Project Conditions, the project would add greater than 10 trips to both intersections during the p.m. peak hour. The traffic analysis also identifies that queuing in the northbound Latrobe Road left-turn pocket would exceed its current capacity by 50 feet under a.m. peak hour conditions in Near-Term (2025) Plus Project Conditions (Appendix F: Table 27).

The project would result in effects to intersections during Existing Plus Project and Near-Term (2025) Plus Project conditions. Recommended improvements are identified below.

Recommended Improvements

Improvement 1: Latrobe Road and Golden Foothill Parkway (South)

The project would generate an effect at this intersection during the p.m. peak hour under Existing Plus Project Conditions. This effect to traffic operations would be improved by reconfiguring the existing lane configurations, including:

- Reconfiguring the eastbound approach to include one left-turn lane, and one shared left/through/right lane
- Reconfiguring the westbound approach to include one right-turn lane, and one shared left/through/right lane

This recommended improvement would include changes to the roadway striping for each approach and the addition of signal mast arm lane designation signs. The previously approved John Adams Academy – El Dorado Hills Campus project (State Clearinghouse Number 2018032074) identified this mitigation measure to reduce impacts at the Latrobe Road and Golden Foothill Parkway (South) intersection. The John Adams Academy – El Dorado Hills Campus project is responsible for the implementation of this mitigation measure. If constructed by others or added to the 20-year CIP before the development of the project, payment of traffic impact mitigation fees would satisfy the project's fair-share obligation towards the mitigation of this identified effect. If not constructed by others, the project will be responsible for implementing Improvement 1 consistent with the County's General Plan Goal TC-X and supporting Policy TC-Xf, ensuring that transportation improvements are implemented concurrent with approved development. If constructed concurrently with the project, the applicant may be eligible for reimbursement through the County's traffic impact mitigation fee program.

With the implementation of Improvement 1, the intersection of Latrobe Road and Golden Foothill Parkway (South) would operate at an acceptable LOS D during the p.m. peak hour under Existing Plus Project Conditions. Thus, the project would not result in this intersection exceeding applicable LOS thresholds and traffic operations criteria.

These improvements are either within the existing roadway or would occur within existing disturbed and/or developed areas. Therefore, these improvements would not result in impacts to natural habitat. Additionally, any potential temporary construction impacts associated with these improvements (e.g., construction impacts to air quality, noise, water quality, etc.) are addressed in the appropriate resource sections within this EIR and would be mitigated to a less-than-significant level.

Improvement 2: Latrobe Road and Town Center Boulevard

The project would generate an effect at this intersection during the p.m. peak hour under Near-Term (2025) Plus Project Conditions. This effect would be mitigated by the optimization of the Latrobe Road coordinated signal system, as well as the following intersection improvements:

- Reconfigure the westbound approach to include one shared-left/through lane, and two right-turn lanes

- Change the intersection signal timing to allow for a permitted/overlap phase for the westbound right-turn lanes.

These improvements may require further restriping or improvements to the western portion of Town Center Boulevard as well as potential improvements to the privately owned roadway to the west. The previously approved El Dorado Hills Apartments at Town Center project (State Clearinghouse Number 2017042017) identified this mitigation measure to reduce impacts at the Latrobe Road and Town Center Boulevard intersection. The El Dorado Hills Apartments at Town Center project is responsible for the implementation of the westbound lane reconfiguration and signal timing identified in this improvement. If constructed by others or added to the 20-year CIP prior to the development of the project, payment of traffic impact mitigation fees would satisfy the project's fair-share obligation towards the mitigation of this identified effect. If not constructed by others, the project will be responsible for implementing Improvement 2 consistent with the County's General Plan Goal TC-X and supporting Policy TC-Xf, ensuring that transportation improvements are implemented concurrent with approved development. If constructed concurrently with the project, the applicant may be eligible for reimbursement through the County's traffic impact mitigation fee program.

The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections including construction of new traffic signals; construction of new turn pockets; and upgrading existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process, which is used to inform the annual update of the CIP. The County Department of Transportation identifies payment of traffic impact mitigation fees to satisfy a project's fair-share obligation towards an improvement as appropriate mitigation.

With the implementation of Improvement 2, the intersection of Latrobe Road and Town Center Boulevard would operate at an acceptable LOS E during the p.m. peak hour under Near-Term (2025) Plus Project Conditions. Thus, the project would not result in this intersection exceeding applicable LOS thresholds and traffic operations criteria.

These improvements are either within the existing roadway or would occur within existing disturbed and/or developed areas. Therefore, these improvements would not result in impacts to natural habitat. Additionally, any potential temporary construction impacts associated with these improvements (e.g., construction impacts to air quality, noise, water quality, etc.) are addressed in the appropriate resource sections within this EIR and mitigated to a less-than-significant level.

Improvement 3: Latrobe Road and White Rock Road

The project would generate an effect at this intersection during the p.m. peak hour under Near-Term (2025) Plus Project Conditions. This effect would be improved through the following intersection improvements:

- Adjust the intersection signal timing to allow for permitted/overlap right-turn phases for the northbound, westbound, and southbound approaches
- Extend the Latrobe Road northbound left-turn pocket to 330 feet
- Optimize the Latrobe Road coordinated signal system
- Coordinate the intersection signal timing with a new signal at the intersection of Latrobe Road and Project Driveway
- Installation of "Keep Clear" striping along the main access driveway to address potential queuing from the on-site drive-through facility

The timing of the intersection improvements identified would be a function of the rate of population and employment growth. The County's Traffic Impact Mitigation (TIM) fee program provides a mechanism for collecting fair-share contributions for improvements in the 2018 CIP. Before the Building Permit Issuance, the project shall provide to the County its proportionate share towards the costs of the identified improvements at this intersection.

The project applicant is responsible for signal installation, installation of fiber optic cable and conduit along Latrobe Road between Town Center Boulevard and Golden Foothill Parkway, and any other improvements identified by the County. The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections including construction of new traffic signals; construction of new turn pockets; and upgrading existing traffic signal systems. The County annually monitors intersections with potential need for

improvement through the Intersection Needs Prioritization Process, which is used to inform the annual update of the CIP. The County Department of Transportation identifies payment of traffic impact mitigation fees to satisfy a project's fair-share obligation towards an improvement as appropriate mitigation. The project may be eligible for reimbursement for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others.

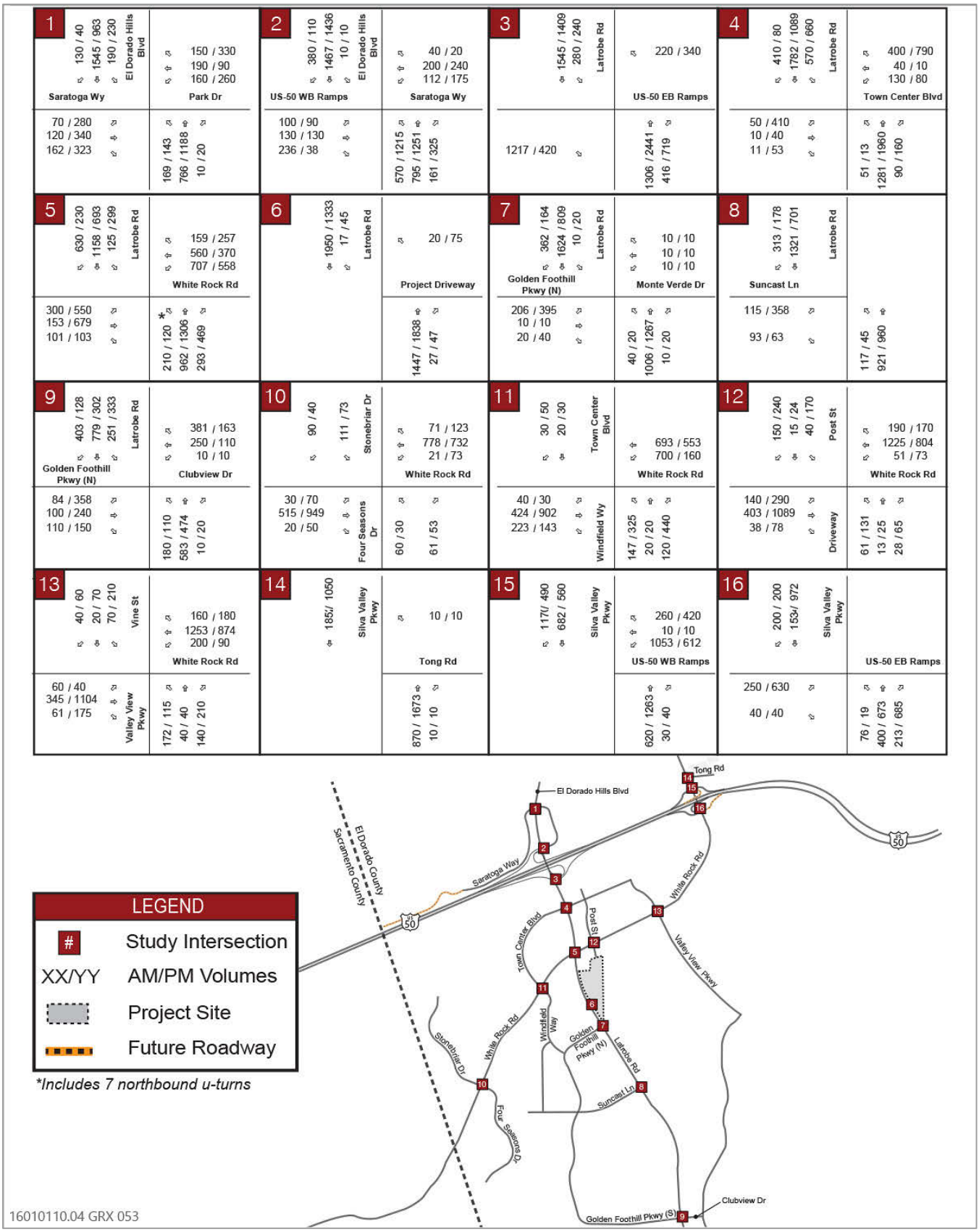
The addition of this new signal at the Latrobe Road and Project Driveway intersection will provide left-turn egress ability for the project, which, as identified in Appendix F, would be effective in removing vehicles from the congested segment of White Rock Road between Latrobe Road and Post Street. The new signal's integration into and expansion of the Latrobe Road signal corridor south of White Rock Road is anticipated to improve traffic progression by allowing for more structure vehicle platooning along this high-speed, high-volume corridor. With the implementation of Improvement 3, the intersection of Latrobe Road and White Rock Road would operate at an acceptable LOS D during the p.m. peak hour under Near-Term (2025) Plus Project Conditions as well as address queuing impacts. Thus, the project would not result in this intersection exceeding applicable LOS thresholds and traffic operations criteria.

These improvements are either within the existing roadway or would occur within existing disturbed and/or developed areas. Therefore, these improvements would not result in impacts to natural habitat. Additionally, any potential temporary construction impacts associated with these improvements (e.g., construction impacts to air quality, noise, water quality, etc.) are addressed in the appropriate resource sections within this EIR and mitigated to a less-than-significant level.

Cumulative Conditions

Traffic operations were evaluated at the study intersections for Cumulative (2035) Conditions by adding to the no project volumes traffic generated by the project. Project trips were added based on the methodology described previously. A detailed analysis of each intersection under all plus project conditions is provided in Appendix F. A summary of the LOS calculations under all conditions is shown in Table 3.12-15 and volumes are shown in Figure 3.12-11.

Under Cumulative (2035) Plus Project Conditions, the project would result in effects at two intersections. The intersection of Latrobe Road and Town Center Boulevard operates at an unacceptable LOS F during the p.m. peak hour under Cumulative (2035) Conditions. The intersection of Latrobe Road and White Rock Road operates at an unacceptable LOS F during both the a.m. and p.m. peak hours under Cumulative (2035) Conditions. Under Cumulative (2035) Plus Project Conditions, the project would add greater than 10 trips to the Latrobe Road and Town Center Boulevard intersection during the p.m. peak hour, and to the Latrobe Road and White Rock Road intersection during both peak hours. In addition, the project would result in exceedances of queuing criteria at the northbound left-turn pocket at the Latrobe Road and White Rock Road intersection by 57 feet under a.m. peak hour conditions as well as at the westbound left-turn pocket at White Rock Road and Post Street intersection by 40 feet under p.m. peak hour conditions that warrant improvement (see Appendix F: Table 27).



Source: Image prepared and provided by Kimley Horn in 2019

Figure 3.12-11 Cumulative (2035) Plus Project Peak Hour Traffic Volumes

Table 3.12-15 Intersection Operations – Cumulative (2035) Plus Project Conditions

Intersection	Traffic Control	Peak Hour	Cumulative Conditions		Cumulative Plus Project Conditions	
			Delay[1]	LOS	Delay[1]	LOS
1. El Dorado Hills Blvd and Saratoga Way/Park Dr	Signal	AM PM	28.5 63.1	C E	31.5 58.7	C E
2. El Dorado Hills Blvd and US 50 WB Ramps	Signal	AM PM	32.8 65.3	C E	34.2 73.5	C E
3. Latrobe Rd and US 50 EB Ramps	Signal	AM PM	27.1 36.1	C D	31.9 28.8	C C
4. Latrobe Rd and Town Center Blvd	Signal	AM PM	58.2 **123.0**	E **F**	69.4 **140.8**	E **F**
5. Latrobe Rd and White Rock Rd	Signal	AM PM	**84.6** **124.5**	**F** **F**	**93.8** **121.6**	**F** **F**
6. Latrobe Rd and Project Driveway	SSSC	AM PM	— —	— —	0.2 (18.9 WB) 1.5 (34.9 WB)	C D
7. Latrobe Rd and Golden Foothill Pkwy (North)	Signal	AM PM	12.4 49.1	B D	17.8 20.4	B C
8. Latrobe Rd and Suncast Ln	Signal	AM PM	10.0 10.3	A B	10.1 10.6	B B
9. Latrobe Rd and Golden Foothill Pkwy (South)	Signal	AM PM	74.1 52.1	E D	74.3 53.4	E D
10. White Rock Rd and Stonebriar Dr/Four Seasons Dr	Signal	AM PM	12.9 12.1	B B	12.9 12.4	B B
11. White Rock Rd and Windfield Way	Signal	AM PM	49.3 40.9	D D	49.4 70.7	D E
12. White Rock Rd and Post St	Signal	AM PM	44.4 70.1	D E	52.6 78.5	D E
13. White Rock Rd and Valley View Pkwy	Signal	AM PM	66.2 45.2	E D	67.9 30.2	E C
14. Silva Valley Pkwy and Tong Rd	SSSC	AM PM	0.0(11.9 WB) 0.1(18.5 WB)	B C	0.0 (11.9 WB) 0.0 (18.6 WB)	B C
15. Silva Valley Pkwy and US 50 WB Ramps	Signal	AM PM	79.3 12.7	E B	79.6 12.8	E B
16. Silva Valley Pkwy and US 50 EB Ramps	Signal	AM PM	8.0 10.7	A B	8.0 10.6	A B

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled; **Bold** represents unacceptable LOS and delay; Shaded is a significant impact.

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB 2010). All intersections were analyzed in SimTraffic.

Source: Kimley Horn 2019

Recommended Improvements

Improvement 4: Latrobe Road and Town Center Boulevard

The project would result in an exceedance of LOS thresholds and traffic operations criteria at this intersection during the p.m. peak hour under Cumulative (2035) Plus Project conditions. This effect would be improved by the optimization of the Latrobe Road coordinated signal system, as well as the following intersection improvements:

- Reconfigure the westbound approach to include one shared-left/through lane, and two right-turn lanes
- Change the intersection signal timing to allow for a permitted/overlap phase for the westbound right-turn lanes.

These improvements may require further restriping or improvements to the western portion of Town Center Boulevard as well as potent improvements to the privately owned roadway to the west. The previously approved El Dorado Hills Apartments at Town Center project (State Clearinghouse Number 2017042017) identified this mitigation measure to reduce impacts at the Latrobe Road and Town Center Boulevard intersection. The El Dorado Hills Apartments at Town Center project is responsible for the implementation of the westbound lane reconfiguration and signal timing identified in this recommended improvement. If constructed by others or added to the 20-year CIP prior to the development of the project, payment of traffic impact mitigation fees would satisfy the project's fair-share obligation towards the improvement of this identified effect. If not constructed by others, the project will be responsible for implementing Improvement 4 consistent with the County's General Plan Goal TC-X and supporting Policy TC-Xf, ensuring that transportation improvements are implemented concurrent with approved development. If constructed concurrently with the project, the applicant may be eligible for reimbursement through the County's traffic impact mitigation fee program.

The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections including construction of new traffic signals; construction of new turn pockets; and upgrading existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process, which is used to inform the annual update of the CIP. The County Department of Transportation (DOT) identifies payment of traffic impact mitigation fees to satisfy a project's fair-share obligation towards an improvement as appropriate mitigation.

With implementation of this improvement, the intersection of Latrobe Road and Town Center Boulevard would operate at an acceptable LOS E during the p.m. peak hour. Thus, the project would not result in this intersection exceeding applicable LOS thresholds and traffic operations criteria.

These improvements are either within the existing roadway or would occur within existing disturbed and/or developed areas. Therefore, these improvements would not result in impacts to natural habitat. Additionally, any potential temporary construction impacts associated with these improvements (e.g., construction impacts to air quality, noise, water quality, etc.) are addressed in the appropriate resource sections within this EIR and mitigated to a less-than-significant level.

Improvement 5: Latrobe Road and White Rock Road

The project would generate an effect at this intersection during the a.m. and p.m. peak hours under Cumulative (2035) Plus Project Conditions. This effect would be improved through the following intersection improvements:

- Adjust the intersection signal timing to allow for permitted/overlap right-turn phases for the northbound, westbound, and southbound approaches
- Extend the Latrobe Road northbound left-turn pocket to 330 feet
- Optimize the Latrobe Road coordinated signal system
- Coordinate the intersection signal timing with a new signal at the intersection of Latrobe Road and Project Driveway
- Installation of "Keep Clear" striping along the main access driveway to address potential queuing from the on-site drive-through facility

The timing of the intersection improvements identified would be a function of the rate of population and employment growth. The County's Traffic Impact Mitigation (TIM) fee program provides a mechanism for collecting fair-share contributions for improvements in the 2018 CIP. Prior to the Building Permit Issuance, the project shall provide to the County its proportionate share towards the costs of the identified improvements at this intersection.

The project applicant is responsible for signal installation, installation of fiber optic cable and conduit along Latrobe Road between Town Center Boulevard and Golden Foothill Parkway, and any other improvements identified by the County. The CIP includes a line item for unprogrammed traffic signal installation and operational and safety

improvements at intersections including construction of new traffic signals; construction of new turn pockets; and upgrading existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process, which is used to inform the annual update of the CIP. The County Department of Transportation (DOT) identifies payment of traffic impact mitigation fees to satisfy a project's fair-share obligation towards an improvement as appropriate mitigation. The project may be eligible for reimbursement for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others.

With the implementation of this recommended improvement, the intersection of Latrobe Road and White Rock Road would operate at an acceptable LOS E during the a.m. and p.m. peak hours under Cumulative (2035) Plus Project conditions. Thus, the project would not result in this intersection exceeding applicable LOS thresholds and traffic operations criteria.

These improvements are either within the existing roadway or would occur within existing disturbed and/or developed areas. Therefore, these improvements would not result in impacts to natural habitat. Additionally, any potential temporary construction impacts associated with these improvements (e.g., construction impacts to air quality, noise, water quality, etc.) are addressed in the appropriate resource sections within this EIR and mitigated to a less-than-significant level.

Improvement 6: White Rock Road and Post Street

The project applicant will be responsible for retiming of the signal if post-development monitoring of the project by the County confirms this queuing condition. Thus, the project would not result in this intersection exceeding applicable LOS thresholds and traffic operations criteria under Cumulative (2035) Plus Project conditions.

Project-generated Effects to Roadway Segment Operations

Existing and Near-Term Conditions

Table 3.12-16 and 3.12-17 summarizes the project study roadway segment LOS analysis. LOS for the roadway segments of Latrobe Road between White Rock Road and Golden Foothills Parkway (North), and White Rock Road between Latrobe Road and Post Street is analyzed based on segment vehicle density under all conditions. LOS for the roadway of White Rock Road between Post Street and Valley View Parkway is analyzed based on percent free-flow speed (PFFS) and volume-to-capacity (V/C) ratio under Existing and Near-Term (2025) conditions with and without project added traffic.

Table 3.12-16 Roadway Segment Operations – Project Effects under Existing Conditions

Segment	Peak Hour	Analysis Direction	Existing Conditions				Existing Plus Project Conditions			
			LOS	Density	PFFS	V/C	LOS	Density	PFFS	V/C
Latrobe Rd between White Rock Rd and Golden Foothill Pkwy (North)	AM	NB	A	10.0	—	—	A	9.2		
		SB	B	16.1	—	—	C	20		
	PM	NB	C	19.2	—	—	B	15.5		
		SB	A	7.8	—	—	B	11.4		
White Rock Rd between Latrobe Rd and Post St	AM	EB	A	7.8	—	—	A	5		
		WB	A	4.8	—	—	A	8.4		
	PM	EB	A	10.9	—	—	B	11.3		
		WB	A	7.0	—	—	A	7.9		
White Rock Rd between Post St and Valley View Pkwy	AM	EB	C	—	76.7	0.19	D		73.6	0.24
		WB	D	—	73.2	0.44	D		71.7	0.49
	PM	EB	D	—	71.7	0.43	E		64.7	0.63
		WB	D	—	74.0	0.32	D		67.9	0.37

Notes: LOS = Level of Service; PFFS = Percent Free-Flow Speed; V/C = volume to capacity ratio; **Bold** represents unacceptable LOS and delay

Source: Kimley Horn 2019

Table 3.12-17 Roadway Segment Operations – Project Effects under Near-Term Conditions

Segment	Peak Hour	Analysis Direction	Near-Term Conditions				Near-Term Plus Project Conditions			
			LOS	Density	PFFS	V/C	LOS	Density	PFFS	V/C
Latrobe Rd between White Rock Rd and Golden Foothill Pkwy (North)	AM	NB	B	13.2	—	—	B	13.4		
		SB	C	23.3	—	—	C	23.6		
	PM	NB	B	17.4	—	—	B	18		
		SB	B	13.7	—	—	B	14.4		
White Rock Rd between Latrobe Rd and Post St	AM	EB	A	6.6	—	—	A	6.8		
		WB	B	14.7	—	—	B	15		
	PM	EB	B	15.6	—	—	B	16.2		
		WB	B	11.3	—	—	B	12.2		
White Rock Rd between Post St and Valley View Pkwy	AM	EB	E	—	64.5	0.30	E		64.2	0.30
		WB	E	—	61.1	0.80	E		60.7	0.80
	PM	EB	E	—	57.0	0.77	E		55.8	0.79
		WB	E	—	57.7	0.54	E		56.5	0.56

Notes: LOS = Level of Service; PFFS = Percent Free-Flow Speed; V/C = volume to capacity ratio; **Bold** represents unacceptable LOS and delay

Source: Kimley Horn 2019

As shown in Table 3.12-16 and 3.12-17, project-generated traffic volumes would not cause any study roadway segment to operate at an unacceptable LOS. Thus, project-generated effects to roadway segment operations under Existing and Near-term conditions would not require any improvements.

Cumulative Conditions

Table 3.12-18 summarizes the project study roadway segment LOS analysis under Cumulative Plus Project conditions. LOS for all roadway segments under Cumulative (2035) Plus Project conditions is analyzed based on segment vehicle density. A detailed description of the methodologies used to analyze roadway segments is provided in Appendix F.

Table 3.12-18 Roadway Segment Operations – Cumulative (2035) Plus Project Conditions

Segment	Peak Hour	Analysis Direction	Cumulative Conditions		Cumulative Plus Project Conditions	
			LOS	Density	LOS	Density
Latrobe Rd between White Rock Rd and Golden Foothill Pkwy (North)	AM	NB	A	9.7	A	9.9
		SB	B	16.3	B	16.5
	PM	NB	B	12.4	B	12.8
		SB	A	7.8	A	7.7
White Rock Rd between Latrobe Rd and Post St	AM	EB	A	4.8	A	5
		WB	B	12.0	B	12.1
	PM	EB	B	12.1	B	12.5
		WB	A	9.5	A	10.1
White Rock Rd between Post St and Valley View Pkwy	AM	EB	A	3.9	A	4
		WB	B	12.4	B	12.5
	PM	EB	A	11.0	B	11.3
		WB	A	8.6	A	8.9

Notes: LOS = Level of Service; **Bold** represents unacceptable LOS and delay

Source: Kimley Horn 2019

As shown in Table 3.12-18, project-generated traffic volumes would not cause any study roadway segment to operate at an unacceptable LOS under Cumulative Plus Project conditions. Thus, project-generated effects to roadway segment operations under Cumulative conditions would not require any improvements.

Project-generated Effects to Freeway Facility Operations

Existing and Near-Term Conditions

Table 3.12-19 and 3.12-20 summarizes the project study freeway facilities LOS analysis under Existing and Near-Term Conditions. As shown in these tables and described in Appendix F, project generated traffic volumes would not cause any study freeway facilities to operate at an unacceptable LOS. Thus, project-generated effects to freeway facilities under Existing and Near-term conditions would not require any improvements.

Table 3.12-19 Freeway Facility Operations – Project Effects under Existing Conditions

Freeway and Direction	Segment	Classification[1]	Existing Conditions			Existing Plus Project Conditions		
			Peak Hour	Density[2]	LOS	Peak Hour	Density[2]	LOS
US 50 Eastbound	West of Latrobe Rd SB Off-Ramp	Basic	AM PM	13.3 23.2	B C	AM PM	13.3 23.5	B C
	Latrobe Rd SB Off-Ramp	Diverge	AM PM	20.1 25.7	C C	AM PM	20.2 26.1	C C
	El Dorado Hills Blvd NB Off-Ramp	Diverge	AM PM	14.5 27.1	B C	AM PM	14.5 27.1	B C
	El Dorado Hills Blvd NB Off-Ramp to Latrobe Rd On-Ramp	Basic	AM PM	6.6 14.4	A B	AM PM	6.6 14.4	A B
	Latrobe Rd On-Ramp	Merge	AM PM	14.4 24.9	B C	AM PM	14.4 25.0	B C
	East of Latrobe Rd On-Ramp	Weave	AM PM	8.4 —	A B	AM PM	8.4 —	A B
	Silva Valley Pkwy SB Off-Ramp	Diverge	AM PM	14.4 26.4	B C	AM PM	14.5 26.4	B C
	Silva Valley Pkwy SB Off-Ramp to Silva Valley Pkwy NB On-Ramp	Basic	AM PM	7.9 15.4	A B	AM PM	7.9 15.4	A B
	Silva Valley Pkwy NB On-Ramp	Merge	AM PM	12.0 21.2	B C	AM PM	12.1 21.3	B C
	East of Sylva Valley Pkwy NB On-Ramp	Basic	AM PM	9.1 17.5	A B	AM PM	9.1 17.6	A B
US 50 Westbound	Silva Valley Pkwy NB Off-Ramp	Diverge	AM PM	24.1 18.1	C B	AM PM	24.2 18.3	C B
	Silva Valley Pkwy NB Off-Ramp to Silva Valley Pkwy SB On-Ramp	Basic	AM PM	20.4 13.0	C B	AM PM	20.5 13.0	C B
	Silva Valley Pkwy SB On-Ramp	Merge	AM PM	27.6 17.5	C B	AM PM	27.6 17.5	C B
	Silva Valley Pkwy SB On-Ramp to El Dorado Hills Blvd Off-Ramp	Weave	AM PM	15.7 9.9	B A	AM PM	15.7 9.9	B A
	El Dorado Hills Blvd Off-Ramp	Diverge	AM PM	24.0 16.5	C B	AM PM	24.0 16.6	C B
	El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp	Basic	AM PM	19.4 12.2	C B	AM PM	19.4 12.2	C B

Freeway and Direction	Segment	Classification[1]	Existing Conditions			Existing Plus Project Conditions		
			Peak Hour	Density[2]	LOS	Peak Hour	Density[2]	LOS
	El Dorado Hills Blvd On-Ramp	Merge	AM PM	32.8 26.1	D C	AM PM	32.9 26.5	D C
	West of El Dorado Hills Blvd On-Ramp	Basic	AM PM	34.4 24.2	D C	AM PM	34.6 24.7	D C

Notes: LOS = Level of Service; EB = Eastbound; WB = Westbound

1. LOS for Basic, Diverge, and Merge freeway segment classifications is calculated based on Caltrans methodology. LOS for Weave freeway segment classifications is calculated using the Leisch Method.

2. Density is measured in passenger cars per lane per mile (pc/ln/mi)

Source: Kimley Horn 2019

Table 3.12-20 Freeway Facility Operations – Project Effects under Near-Term (2025) Conditions

Freeway and Direction	Segment	Classification[1]	Near-Term Conditions			Near-Term Plus Project Conditions	
			Peak Hour	Density [2]	LOS	Density [2]	LOS
US 50 Eastbound	West of Latrobe Rd SB Off-Ramp	Basic	AM PM	14.2 20.7	B C	14.3 21.0	B C
	Latrobe Rd SB Off-Ramp	Diverge	AM PM	21.2 22.9	C C	21.4 23.3	C C
	El Dorado Hills Blvd NB Off-Ramp	Diverge	AM PM	15.2 25.9	B C	15.2 25.9	B C
	El Dorado Hills Blvd NB Off-Ramp to Latrobe Rd On-Ramp	Basic	AM PM	7.4 14.8	A B	7.4 14.8	A B
	Latrobe Rd On-Ramp	Merge	AM PM	16.7 26.6	B C	16.7 26.6	B C
	East of Latrobe Rd On-Ramp	Weave	AM PM	10.1 -	A B	10.1 -	A B
	Silva Valley Pkwy SB Off-Ramp	Diverge	AM PM	16.8 27.3	B C	16.8 27.3	B C
	Silva Valley Pkwy SB Off-Ramp to Silva Valley Pkwy NB On-Ramp	Basic	AM PM	9.4 17.4	A B	9.4 17.4	A B
	Silva Valley Pkwy NB On-Ramp	Merge	AM PM	14.0 23.6	B C	14.0 23.7	B C
	East of Sylva Valley Pkwy NB On-Ramp	Basic	AM PM	10.7 20.1	A C	10.7 20.2	A C
US 50 Westbound	East of Sylva Valley Pkwy NB Off-Ramp	Basic	AM PM	33.4 21.3	D C	33.5 21.4	D C
	Silva Valley Pkwy NB Off-Ramp	Diverge	AM PM	27.6 21.9	C C	27.7 22.0	C C
	Silva Valley Pkwy NB Off-Ramp to Silva Valley Pkwy SB On-Ramp	Basic	AM PM	24.1 16.7	C B	24.1 16.7	C B
	Silva Valley Pkwy SB On-Ramp	Merge	AM PM	31.7 22.1	D C	31.7 22.1	D C
	Silva Valley Pkwy SB On-Ramp to El Dorado Hills Blvd Off-Ramp	Weave	AM PM	- 12.4	B B	- 12.4	B B

Freeway and Direction	Segment	Classification[1]	Near-Term Conditions			Near-Term Plus Project Conditions	
			Peak Hour	Density [2]	LOS	Density [2]	LOS
	El Dorado Hills Blvd Off-Ramp	Diverge	AM PM	26.4 19.6	C B	26.4 19.6	C B
	El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp	Basic	AM PM	24.8 16.6	C B	24.8 16.6	C B
	El Dorado Hills Blvd On-Ramp	Merge	AM PM	37.0 31.5	E D	37.1 32.0	E D
	West of El Dorado Hills Blvd On-Ramp	Basic	AM PM	44.2 32.3	E D	44.5 33.1	E D

Notes: LOS = Level of Service; EB = Eastbound; WB = Westbound

1. LOS for Basic, Diverge, and Merge freeway segment classifications is calculated based on Caltrans methodology. LOS for Weave freeway segment classifications is calculated using the Leisch Method.

2. Density is measured in passenger cars per lane per mile (pc/ln/mi)

Source: Kimley Horn 2019

Cumulative Conditions

LOS for all roadway segments under Cumulative (2035) Plus Project conditions is analyzed based on segment vehicle density. A detailed description of the methodologies used to analyze roadway segments is provided in Appendix F.

As shown in Table 3.12-21, project generated traffic volumes would not cause any study freeway facilities to operate at an unacceptable LOS under Cumulative (2035) Plus Project conditions. Thus, the project's contribution to cumulative freeway facility operations would not require any improvements.

Table 3.12-21 Freeway Facility Operations – Cumulative (2035) Plus Project Conditions

Freeway and Direction	Segment	Classification[1]	Peak Hour	Cumulative Conditions		Cumulative Plus Project Conditions	
				Density [2]	LOS	Density [2]	LOS
US 50 Eastbound	West of Latrobe Rd SB Off-Ramp	Basic	AM PM	15.1 18.9	B C	51.2 19.2	B C
	Latrobe Rd SB Off-Ramp	Diverge	AM PM	22.1 20.6	C C	22.3 21.0	C C
	El Dorado Hills Blvd NB Off-Ramp	Diverge	AM PM	16.1 25.0	B C	16.1 25.0	B C
	El Dorado Hills Blvd NB Off-Ramp to Latrobe Rd On-Ramp	Basic	AM PM	8.3 15.0	A B	8.3 15.0	A B
	Latrobe Rd On-Ramp	Merge	AM PM	18.7 27.8	C A	18.7 27.8	B C
	East of Latrobe Rd On-Ramp	Weave	AM PM	— —	A C	— —	A C
	Silva Valley Pkwy SB Off-Ramp	Diverge	AM PM	19.0 28.8	B D	19.0 28.8	B D
	Silva Valley Pkwy SB Off-Ramp to Silva Valley Pkwy NB On-Ramp	Basic	AM PM	10.2 16.5	A B	10.2 16.5	A B
	Silva Valley Pkwy SB On-Ramp	Merge	AM PM	16.7 23.1	B C	16.7 23.1	B C
	Silva Valley Pkwy NB On-Ramp	Merge	AM PM	15.3 25.5	B C	15.3 25.6	B C
	East of Silva Valley Pkwy NB On-Ramp	Basic	AM PM	12.1 21.6	B C	12.2 21.7	B C

Freeway and Direction	Segment	Classification[1]	Peak Hour	Cumulative Conditions		Cumulative Plus Project Conditions	
				Density [2]	LOS	Density [2]	LOS
US 50 Westbound	East of Silva Valley Pkwy NB Off-Ramp	Weave	AM	—	D	—	D
			PM	30.6	D	30.8	D
	Silva Valley Pkwy NB Off-Ramp	Diverge	AM	31.5	D	31.6	D
			PM	27.4	C	27.5	C
	Silva Valley Pkwy NB Off-Ramp to Silva Valley Pkwy SB On-Ramp	Basic	AM	14.5	B	14.5	B
			PM	12.6	B	12.6	B
	Silva Valley Pkwy NB On-Ramp	Merge	AM	19.8	B	19.8	B
			PM	17.9	B	17.9	B
	Silva Valley Pkwy SB On-Ramp	Merge	AM	25.4	C	25.4	C
			PM	17.9	B	17.9	B
	Silva Valley Pkwy SB On-Ramp to El Dorado Hills Blvd Off-Ramp	Weave	AM	—	C	—	C
			PM	15.2	B	15.2	B
	El Dorado Hills Blvd Off-Ramp	Diverge	AM	28.8	D	28.8	D
			PM	22.8	C	22.8	C
	El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp	Basic	AM	18.5	C	18.5	C
			PM	13.9	B	13.9	B
	El Dorado Hills Blvd On-Ramp	Merge	AM	28.8	D	28.9	D
			PM	27.4	C	27.8	C
	West of El Dorado Hills Blvd On-Ramp	Basic	AM	—	D	—	D
			PM	—	C	—	C

Notes: LOS = Level of Service; EB = Eastbound; WB = Westbound

1. LOS for Basic, Diverge, and Merge freeway segment classifications is calculated based on Caltrans methodology. LOS for Weave freeway segment classifications is calculated using the Leisch Method.

2. Density is measured in passenger cars per lane per mile (pc/ln/mi)

Source: Kimley Horn 2019

3.13 UTILITIES AND SERVICE SYSTEMS

This section describes current conditions relative to water supply, wastewater infrastructure, solid waste service, and energy and telecommunications infrastructure. It includes a discussion of relevant regulations applicable to the project, analysis of environmental impacts, and recommendations for mitigation measures for any significant or potentially significant impacts. For discussion of stormwater, refer to Section 3.9, "Hydrology and Water Quality." Energy consumption and efficiency are addressed in Section 3.5, "Energy."

Staff of the El Dorado County Environmental Management Department submitted a NOP comment noting that diversion of construction and demolition debris is required by state law. The County's Construction and Demolition Debris Recycling Program is summarized below.

3.13.1 Environmental Setting

WATER

The project site is within El Dorado Irrigation District's (EID's) service area. EID's water supplies are derived from surface water sources. EID also produces recycled water.

EID's potable water system has three principle points of diversion that deliver raw water to the system: 1) District-owned-and-operated Sly Park Dam and Jenkinson Lake; 2) District-owned-and-operated El Dorado Hydroelectric Federal Energy Regulatory Commission Project 184 at Forebay Reservoir; and 3) Folsom Reservoir via two U.S. Bureau of Reclamation water service contracts. Raw water diverted at these locations is treated at the Reservoir A Water Treatment Plant (WTP), Reservoir 1 WTP, and El Dorado Hills WTP, respectively. The project site is located in an area served by water from Folsom Reservoir that is treated at the El Dorado Hills WTP.

Water Supply Plans

EID has developed and maintains several water resource plans, including: an Urban Water Management Plan (UWMP), an Integrated Water Resources Master Plan (IWRMP), and Water Resources and Service Reliability Reports (WRSRR). These documents are briefly described below.

EID's 2015 UWMP was prepared in accordance with the Urban Water Management Act (California Water Code, Division 6, Part 2.6, and Section 10610 – 10657). The 2015 UWMP provides the following information: service area physical description; potable water system description; local climate; regional population, employment, and housing. In addition, this plan includes water supply reliability and water shortage contingency planning (EID 2016). EID estimates future demand based on El Dorado County's General Plan and County growth projections. This includes a demand forecast for new, non-residential customers that increases from 273 acre feet per year (afy) in 2020 to 1,158 afy in 2030 and 2,016 afy in 2045. Total District-wide demand is anticipated to be 43,477 afy in 2020 and 58,815 afy in 2045 (EID 2016).

Based on existing supplies, the average water supply under normal conditions is 67,190 afy. An additional 37,500 afy of planned supplies and 3,500 afy of recycled water are expected to be available after 2040. Combined, EID anticipates the total average future water supplies to equal 108,190 afy. By the third year of a multiple-year drought, water availability associated with existing supplies would be reduced to 52,468 afy, while an estimated total of 62,843 afy would be available after 2040 when planned supplies are accounted for.

These planned water sources include the following:

- CVP Fazio Water: 7,500 afy (normal year – available in 2020)
- El Dorado-SMUD Agreement: 30,000 afy (normal year – agreement anticipated by 2025)
- Recycled Water: 3,500 afy (incremental increase in current recycled water supply of 2,400 to 3,500 afy) (EID 2016a).

Tables 3.13-1, 3.13-2, and 3.13-3 summarize EID water supply and demand estimates.

Table 3.13-1 EID Water Supply and Demand Comparison – Average Year

Acre-Feet per Year	2020	2025	2030	2035	2040	2045
Supplies	77,490	107,690	107,790	107,990	108,190	108,190
Demands	43,477	46,833	50,696	53,128	56,068	58,815
Difference	34,013	60,857	57,094	54,862	52,122	49,375

Source: EID 2016

Table 3.13-2 EID Water Supply and Demand Comparison – Single Driest Year

Acre-Feet per Year	2020	2025	2030	2035	2040	2045
Supplies	66,325	71,525	71,625	71,825	72,025	72,025
Demands	45,651	49,175	53,231	55,784	58,871	61,756
Difference	20,674	22,350	18,394	16,041	13,154	10,269

Source: EID 2016

Table 3.13-3 EID Water Supply and Demand Comparison – Multiple Dry Years

Year 1	Acre-Feet per Year	2020	2025	2030	2035	2040	2045
	Supplies	66,325	71,525	71,625	71,825	72,025	72,025
	Demands	45,651	49,175	53,231	55,784	58,871	61,756
	Difference	20,674	22,350	18,394	16,041	13,154	10,269
Year 2	Acre-Feet per Year	2020	2025	2030	2035	2040	2045
	Supplies	62,405	67,605	67,705	67,905	68,105	68,105
	Demands	43,369	46,716	50,569	52,995	55,928	58,668
	Difference	19,036	20,889	17,136	14,910	12,177	9,437
Year 3	Acre-Feet per Year	2020	2025	2030	2035	2040	2045
	Supplies	57,143	62,343	62,443	62,643	62,843	62,843
	Demands	41,086	44,258	47,908	50,206	52,984	55,580
	Difference	16,056	18,085	14,535	12,437	9,858	7,262

Source: EID 2016

The 2013 IWRMP provides a plan that optimizes the use of EID's water resources and provides a roadmap for cost-effective development of future infrastructure and maintenance of existing facilities. The 2013 IWRMP provides water use factors for land uses included in El Dorado County General Plan, based on historic water demand within EID's service zones (eastern, western, and El Dorado Hills) (EID 2013).

Facility Plan Report for Montano De El Dorado Phase II (RFE 2019), which was approved by EID on April 23, 2019, identified that in 2017 there were 15,591 equivalent dwelling units of water supply available in the El Dorado Hills Water Supply Region where the project is located.

Water Distribution System and Facilities

As shown in Figure 2-12a and 2-12b, there are two 10-inch water pipelines that currently serve the Phase I portion of the project site from the White Rock Road right of way (at the northern boundary of the proposed development) and one 12-inch pipeline is stubbed out from Latrobe Road. Recycle water facilities near the project site include a 4-inch pipeline in White Rock Road and a 6-inch pipeline south of the project site in Monte Verde Drive (RFE 2019).

Water Treatment Facilities

The El Dorado Hills WTP treats raw water from Folsom Reservoir to supply potable water to the El Dorado Hills service zone. The El Dorado Hills WTP has a capacity of 26 million gallons per day (gpd). Water treated at the El Dorado Hills WTP is pumped and distributed via transmission mains. Two key transmission lines follow El Dorado Boulevard and Silva Valley Parkway from the El Dorado Hills WTP near Folsom Lake in the northwestern portion of the service area to the southeastern portion of the service area. South of Highway 50, the El Dorado Hills Boulevard and Silva Valley Parkway pipelines meet at White Rock Road. Pipelines along White Rock Road and Latrobe Road convey water to the commercial development along Latrobe Road (EID 2013).

WASTEWATER

EID provides wastewater collection and treatment services to the project area. EID has the following four permitted wastewater collection systems: El Dorado Hills, Deer Creek, Camino Heights, and Gold Ridge Forest. The project would be served by the El Dorado Hills Collection System, which consists of a series of lift stations, force mains, and gravity mains that convey wastewater to the El Dorado Hills Wastewater Treatment Plant (EDHWWTP). The Phase I portion of the project site is currently served by an 8-inch sanitary sewer line that extends from White Rock Road.

The EDHWWTP is located approximately 1.25 miles south of US 50 on Latrobe Road. Liquid treatment processes located within the EDHWWTP consist of headworks, screening and grit removal, primary clarifiers, biological nutrient removal basins, activated sludge basins with nitrification, secondary clarifiers, tertiary filters, and ultra violet light disinfection. Solids handling processes consist of waste activated sludge, dissolved air flotation thickeners, anaerobic digesters, and belt filter presses. Dewatered biosolids are hauled offsite for use in biosolids land application.

The EDHWWTP has a rated average dry weather flow capacity of 4 mgd. Treated effluent is either recycled or discharged into Carson Creek, a tributary to the Cosumnes River, during the wet season. The EDHWWTP typically discharges to Carson Creek between November and April, and recycles all of the treated effluent for beneficial reuse between May and October. At times, there is intermittent discharge to Carson Creek during periods when the EHDWWTP is recycling the treated effluent for beneficial reuse. The estimated average dry weather flow at EDHWWTP is 2.65 mgd (EID 2013).

SOLID WASTE

The project site is located within the El Dorado Hills Community Services District (EDHCSD) boundary. EDHCSD contracts with El Dorado Disposal Service, a Wastes Connections Company, for franchised solid waste collection, disposal, and recycling services. El Dorado Disposal Service transports waste to the Western El Dorado Recovery Systems (WERS) Transfer Station and Material Recovery Facility, located at 4100 Throwita Way in Placerville. The WERS Transfer Station and Material Recovery Facility handles mixed municipal waste and has a maximum permitted throughput of 400 tons per day (CalRecycle 2019a).

After undergoing processing, non-recyclable waste from the WERS Transfer Station and Material Recovery Facility are delivered to the Potrero Hills Landfill, located at 3675 Potrero Hills Lane in Suisun City. The landfill handles several different types of waste including agricultural, ash, construction and demolition, industrial, mixed municipal, sludge, and tires. The Potrero Hills Landfill has a maximum permitted capacity of 83.1 million cubic yards and, as of the year 2006, a remaining capacity of approximately 13.9 million cubic yards, or 16.7 percent of the landfill's total capacity. The landfill receives a maximum disposal of 4,330 tons per day (CalRecycle 2019b).

3.13.2 Regulatory Setting

FEDERAL

There are no federal plans or programs that address utilities and service systems and that would apply to the project.

STATE

California Green Building Standards Code

The Green Building Standards Code, which was first adopted in 2010 and revised in 2013, applies to all newly-constructed structures. Indoor water standards established in the code are satisfied through incorporation of appliances and fixtures such as high-efficiency toilets, faucet aerators, and on-demand water heaters, as well as Energy Star and appliances approved by the California Energy Commission.

California Waste Management Act

The California Waste Management Act of 1989 requires State, County, and local governments to substantially decrease the volume of waste disposed at landfills by the year 2000 and beyond. The act requires each County to submit an Integrated Waste Management Plan to the California Integrated Waste Management Board that includes an adopted Source Reduction and Recycling Element from each of its cities as well as a County-prepared Source Reeducation and Recycling Element for the unincorporated area. The element identifies existing and future quantities and types of solid waste, an inventory of existing disposal sites, a determination of the plan's economic feasibility, enforcement programs, and implementation schedule.

SB 1383 and AB 1826 have established additional waste reductions for organic waste. SB 1383 was placed in code and requires 50-percent reduction in organic waste levels from 2014 levels by 2020 and 75-percent reduction by 2025. AB 1826 requires business recycling of organic waste.

LOCAL

El Dorado Irrigation District

Plan Review

EID issues Facility Improvement Letters (FIL) for water, wastewater, and/or recycled water services to applicants requesting service to existing parcels, lands being subdivided, and lands being rezoned or involving petition for amendment to the County or City general plans. The FIL is valid for 3 years from the date of issuance. It states the current availability of service and the ability of the EID's existing system to provide the requested service. EID may require the submittal of a Facility Plan Report for approval if deemed necessary because of project size or complexity. An extension of up to one year for the FIL may be granted upon request and submittal of the appropriate application and fee. Design drawings must be in conformance with EID's Water, Sewer and Recycled Water Design and Construction Standards.

EID approved the Facility Plan Report for Montano De El Dorado Phase II on April 23, 2019 that includes a FIL for the project.

Water Management Plans

The reader is referred to Section 3.13.1, "Environmental Setting," for a description of EID's UWMP and IWRMP.

El Dorado County General Plan

Policies included in the El Dorado County General Plan relevant to the project including the following.

- **Policy 5.1.2.3:** New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. Lack of available public or

private services or adequate infrastructure to serve the project which cannot be satisfactorily mitigated shall be grounds for denial of any project or cause for the reduction of size, density, and/or intensity otherwise indicated on the general plan land use map to the extent allowed by State law.

- Policy 5.1.2.3: New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. Lack of available public or private services or adequate infrastructure to serve the project which cannot be satisfactorily mitigated shall be grounds for denial of any project or cause for the reduction of size, density, and/or intensity otherwise indicated on the general plan land use map to the extent allowed by State law.
- Policy 5.2.1.2: An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.
- Policy 5.2.1.3: All medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects shall be required to connect to public water systems when located within Community Regions and to either a public water system or to an approved private water systems in Rural Centers.
- Policy 5.2.1.6: Priority shall be given to discretionary developments that are infill or where there is an efficient expansion of the water supply delivery system.
- Policy 5.2.1.11: The County shall direct new development to areas where public water service already exists. In Community Regions, all new development shall connect to a public water system. In Rural Centers, all new development shall connect either to a public water system or to an approved private water system.
- Policy 5.2.1.7: In times of declared water shortages, the Board of Supervisors shall give priority within the affected water district to approving affordable housing and non-residential development projects.
- Policy 5.2.1.9: In an area served by a public water purveyor or an approved private water system, the applicant for a tentative map or for a building permit on a parcel that has not previously complied with this requirement must provide a WSA that contains the information that would be required if a water supply assessment were prepared pursuant to Water Code section 10910. In order to approve the tentative map or building permit for which the assessment was prepared the County must (a) find that by the time the first grading or building permit is issued in connection with the approval, the water supply from existing water supply facilities will be adequate to meet the highest projected demand associated with the approval on the lands in question; and (b) require that before the first grading permit or building permit is issued in connection with the approval, the applicant will have received a sufficient water meters or a comparable supply guarantee to provide adequate water supply to meet the projected demand associated with the entire approval. A water supply is adequate if the total entitled water supplies available during normal, single, dry, and multiple dry years within a 20-year projection will meet the highest projected demand associated with the approval, in addition to existing and 20-year projected future uses within the area served by the water supplier, including but not limited to, fire protection, agricultural, and industrial uses, 95 percent of the time, with cutbacks calculated not to exceed 20 percent in the remaining 5 percent of the time.
- Policy 5.3.1.1: High-density and multifamily residential, commercial, and industrial projects shall be required to connect to public wastewater collection facilities as a condition of approval except in Rural Centers and areas designated as Platted Lands (-PL). In the Community Region of Camino/Pollock Pines, the long term development of public sewer service shall be encouraged; however, development projects will not be required to connect to wastewater collection facilities where such connection is infeasible, based on the scale of the project.
- Policy 5.3.1.7: In Community Regions, all new development shall connect to public wastewater treatment facilities. In Community Regions where public wastewater collection facilities do not exist project applicants must demonstrate that the proposed wastewater disposal system can accommodate the highest possible demand of the project.

- Policy 5.5.2.1: Concurrent with the approval of new development, evidence will be required that capacity exists within the solid waste system for the processing, recycling, transformation, and disposal of solid waste.
- Policy 5.5.2.3: The County shall adopt a Construction and Demolition Debris Diversion Ordinance requiring that a minimum of 50 percent of the debris from construction and demolition projects be reused or recycled. The County shall encourage a higher rate of diversion.

El Dorado County Construction and Demolition Debris Recycling Ordinance

The El Dorado County Construction and Demolition Debris Recycling Ordinance establishes a program for the recycling and salvage of construction and demolition debris. The ordinance requires at least 50 percent of the debris from construction and demolition project with structure footprints exceeding 5,000 square feet to be diverted from landfills through recycling practices. Before the issuance of a permit, the project applicant must file a Debris Recycling Acknowledgment (DRA) with the County's Environmental Management Division. A Debris Recycling Report (demonstrating compliance with the 50 percent diversion goal) must be filed within 60 days after final and/or occupancy approval. If the in two years of the date the DRA was filed, the project applicant would be required to submit a Performance Securities with subsequent DRAs.

3.13.3 Impacts and Mitigation Measures

METHODOLOGY

Water use, wastewater generation, and the facilities necessary to serve the project are based on site-specific studies. In particular, the discussion of water and wastewater is informed by the Facility Plan Report for Montano De El Dorado Phase II (RFE 2019), which was approved by EID in April of 2019. The 2015 EID UWMP and 2013 IWRMP were also used in the analysis. Solid waste generation is calculated by land use type, based on rates published by the California Department of Resources Recycling and Recovery. These are the same rates incorporated into the California Emissions Estimator Model and used to approximate operational greenhouse gas emissions in Section 3.7, "Greenhouse Gas Emissions and Climate Change." In addition, this analysis assumes that the project would be implemented in a manner consistent with applicable laws and regulations.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines and other considerations, a utilities and service systems impact would be significant if implementation of the project would:

- require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects;
- have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- 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,
- generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.

ISSUES NOT DISCUSSED FURTHER

The project would generate solid waste that would be similar in character to that associated with domestic use (e.g., food waste, cardboard) and construction-related waste from grading, clearing, and erecting buildings. Construction and operation of the project would follow all relevant federal, state, and local statues and regulations associated with collection and disposal of waste generated at the site. Thus, there would be no impact related to violation of solid waste laws and regulations and this topic is not discussed further in this Draft EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.13-1: Adverse Effects Due to Infrastructure Extension

Infrastructure facilities necessary to serve Phase II of the project site are located close to the site. Extension of these infrastructure facilities would not result in significant environmental effects. This impact would be **less than significant**.

As described above and shown in Figures 2-12a, through 2-12c, 2-13a and 2-13b, water, wastewater, drainage, electrical, and telecommunication facilities are adjacent to the project site would not require substantial ground disturbance to extend the facilities to Phase II of the project site that would trigger adverse effects to natural habitat or trees beyond the project site. Off-site wastewater improvements would be placed within Golden Foothill Parkway right-of-way that is already developed. Water supply would be provided by EID. The reader is referred to Section 3.2, "Air Quality," 3.3, "Biological Resources," and 3.10, "Noise," regarding project site ground disturbance and construction-related impacts. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.13-2: Increased Demands for Water Supply

As identified in the EID approved Facility Plan Report for Montano De El Dorado Phase II and the EID 2015 UWMP, sufficient water supply exists to serve buildout of the project under average, dry, and multiple dry years. This impact would be **less than significant**.

Water supply would be provided by EID. EID approved the Facility Plan Report for Montano De El Dorado Phase II on April 23, 2019 that includes a FIL for the project. The FIL identifies that there in 2017 there were approximately 15,591 equivalent dwelling units of available water supply in the El Dorado Hills Water Supply Region that could accommodate Phase II water demand of 90 equivalent dwelling units (approximately 63 acre feet). The FIL does not represent a commitment to serve, but does address the location and approximate capacity of existing facilities that may be available to serve the project. The project is consistent with the designated land uses and included in the growth projections of the General Plan that were used by EID in the 2015 UWMP. As identified in Tables 3.13-1 through 3.13-3, EID expects to have adequate water supply to serve the project and projected growth in the County through 2045 (EID 2016). Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.13-3: Increased Wastewater Service Demands

As identified in the EID approved Facility Plan Report for Montano De El Dorado Phase II, sufficient wastewater capacity conveyance to serve development of Phase II of the project site. The EDHWWTP has adequate capacity to accommodate the project. This impact would be **less than significant**.

The project would be served by the EID's El Dorado Hills Collection System, which consists of a series of lift stations, force mains, and gravity mains that convey wastewater to the EDHWWTP. As described below, the proposed gravity sanitary sewer would connect to an existing 10-inch sanitary sewer that crosses Golden Foothill Parkway to the southwest of the project (see Figures 2-12a through 2-12c in Chapter 2, "Project Description").

The Facilities Plan Report for the development in Phase II requests a total of 87 sewer EDUs to serve the project. The estimated average dry weather sewer flow is 20,880 gallons per day (gpd). The peak wet weather sewer flow could be 83,520 gpd. These sanitary sewer flows were based on the estimated EDUs of water demand without irrigation flows (RFE 2019).

There are two existing sewer lines that have adequate capacity to serve the project: an 8-inch line that was stubbed out in the Phase I area at the northern end of the site and a 10-inch line in Golden Foothill Parkway. Because connection to the 8-inch line would require a private full sewage lift station to serve the project and the parcel map is not configured to facilitate this infrastructure, EID recommended connection to the line in Golden Foothill Parkway (EID 2019). The currently-proposed connection would require roughly 960 feet of new sewer piping, manholes, and associated trenching in Latrobe Road and Golden Foothill Parkway (RFE 2019). This work would all occur within the developed rights of way for existing roadways and is not anticipated to generate the potential for substantial effects on environmental resources. All connections would be made in accordance with the County's and EID's ordinances and requirements. No effects on the sanitary sewer systems serving adjacent properties are anticipated (RFE 2019). The project's wastewater generation of 0.02 mgd would increase the estimated average dry weather flow at EDHWWTP from 2.65 mgd to 2.67 mgd that is within its treatment capacity of 4 mgd. Thus, because adequate sewer capacity is available, and because connections would be made in accordance with County and EID requirements, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.13-4: Impacts to Solid waste Disposal Capacity

Development of Phase II of the project site would generate approximately 438 tons of waste annually. This would not exceed the permitted capacity of existing landfill facilities and would not result in the need to expand or construct new landfill facilities. This impact would be **less than significant**.

As discussed above, the project site is located within the EDHCSD boundary where the El Dorado Disposal Service provides solid waste collection, disposal, and recycling services. Collected waste is transported to the WERS Transfer Station and Materials Recovery Facility, which is permitted to accept up to 400 tons per day. Upon processing, non-recyclable wastes from the WERS Transfer Station and Material Recovery Facility are delivered to the Potrero Hills Landfill, which has a remaining estimated capacity of approximately 13.9 million cubic yards (in 2006) and is estimated to remain in operation until February of 2048.

The anticipated volume of solid waste that would be generated by operation of Phase II was calculated using solid waste generation rates from the California Department of Resources Recycling and Recovery for the types of land uses proposed. Based on these calculations, the project would generate 438 tons of waste annually or 1.2 tons of waste each day. This represents approximately 0.3 percent of the permitted capacity at WERS Transfer Station and Materials Recovery Facility and 0.03 percent of the permitted daily waste at the Potrero Hills Landfill facility. This relatively small increase in solid waste would not consume a substantial proportion of the permitted capacity at either facility and would not result in the need to expand or construct new landfill facilities. In addition, this project would adhere to all state and County waste management ordinances and requirements, such as diversion of construction and demolition debris and hazardous waste handing requirements. Thus, impacts on solid waste would be **less than significant**.

Mitigation Measures

No mitigation is required.

4 OTHER CEQA-MANDATED SECTIONS

4.1 CUMULATIVE IMPACTS

CEQA requires that an EIR include an assessment of the cumulative impacts that could be associated with project implementation. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, and the anticipated effects of future projects. An EIR must discuss the cumulative impacts of a project when its incremental effect will be cumulatively considerable. Although project-related impacts may be individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed (CEQA Guidelines, Section 15130(a)). Section 15130(b) indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, that it should reflect the severity of the impacts and their likelihood of occurrence, and that it should be focused, practical, and reasonable.

4.1.1 Cumulative Impact Approach

CEQA Guidelines Section 15130 identifies two basic methods for establishing the cumulative environment in which a project is considered: the use of a list of past, present, and probable future projects or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. This cumulative analysis uses a combination of the "list" approach and the "projections" approach to identify the cumulative setting.

The effects of past and present projects on the environment are reflected by the existing conditions in the project area. The project site consists of the existing commercial uses at Phase I of Montano De El Dorado and the undeveloped conditions of Phase II of the project site.

On July 19, 2004, the El Dorado County Board of Supervisors adopted a countywide update to the General Plan and certified the associated EIR (State Clearinghouse Number 2001082030). In December 2015, the Board of Supervisors adopted the Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) and certified the associated EIR (State Clearinghouse Number 2012052074). The TGPA-ZOU was adopted to reduce constraints to the development of moderately-priced housing, support jobs creation, capture sales tax revenues, and protect agriculture and natural resources. The project includes the adoption of guidelines for mixed use development, an allowed use in some commercial zone districts. The TGPA-ZOU also included targeted amendments to the General Plan and a comprehensive revision of the Zoning Ordinance. The project is consistent with the General Plan and its development was programmatically considered in the impact analysis of both EIRs.

Probable future projects are those in the project vicinity that have the possibility of interacting with the project to generate a cumulative impact in the project vicinity and either:

- are partially occupied or under construction,
- have received final discretionary approvals,
- have applications accepted as complete by local agencies and are currently undergoing environmental review, or
- are projects that have been discussed publicly by an applicant or that otherwise become known to a local agency and have provided sufficient information about the project to allow at least a general analysis of environmental impacts.

4.1.2 Cumulative Setting

GEOGRAPHIC SCOPE

The geographic area that could be affected by the project varies depending on the type of environmental resource being considered. When the effects of the project are considered in combination with those other past, present, and probable future projects to identify cumulative impacts, the other projects that are considered may also vary depending on the type of environmental effects being assessed. Table 4-1 presents the general geographic areas associated with the different resources addressed in this analysis.

Table 4-1 Geographic Scope of the Cumulative Impacts

Aesthetics	Project site and surrounding public viewpoints
Air Quality	Region (pollutant emissions that affect both the Sacramento Valley Air Basin and the Mountain Counties Air Basin), immediate project vicinity (pollutant emissions that are highly localized)
Biological Resources	Project site and region
Cultural and Tribal Cultural Resources	Project site and region
Energy	State
Geology and Soils	Project site and region
Greenhouse Gas Emissions	Global/statewide
Hazards and Hazardous Materials	Project site and immediate project vicinity
Hydrology and Water Quality	Carson Creek watershed
Noise and Vibration	Project site and immediate project vicinity
Public Services and Utilities	Local service areas (e.g., EID and El Dorado Hills Fire Department)
Transportation/Traffic	Project site and surrounding areas

Source: Data compiled by Ascent Environmental in 2019

PROJECT LIST

Table 4-2 identifies probable future large-scale projects that were considered in the development and analysis of potential cumulative impacts. Past and present projects in the area contribute to the existing setting, and are, therefore, also a component of the cumulative effects analysis.

Table 4-2 Cumulative Projects List

Project Name	Location	Description	Project Status
Bass Lake Hills Specific Plan	3 miles east of the Sacramento/El Dorado County line, adjacent to the west end of Cameron Park, and north of Highway 50	Development framework for 1,196 acres. Provides for development of residences in a range of densities, from one dwelling unit per 5 acres to four dwelling units per acre (approximately 1,458 dwelling units.	Approved by the El Dorado County Planning Commission April 9, 1992. Under construction.
Carson Creek Specific Plan	East of the Sacramento/El Dorado County line, south of White Rock Road	Framework for mixed-use development on 710 acres. Except for a maximum of 18 units, all residential units would be age-restricted senior housing.	Specific Plan adopted.
Promontory Specific Plan	East of the Sacramento/El Dorado County line and north of US 50.	Framework for mixed-use development on 1,000 acres. Includes eight residential villages, a village center, a community park, and open space.	Specific Plan adopted. Under development.

Table 4-2 Cumulative Projects List

Project Name	Location	Description	Project Status
Valley View Specific Plan	South of US 50 and east of Latrobe Road	Framework for mixed-use development on 2,037 acres.	Specific Plan adopted. Under construction.
Central El Dorado Hills Specific Plan	East and west sides of El Dorado Hills Boulevard at Serrano Parkway, north of US 50	Framework for mixed-use development on 256 acres. Includes residential, open space, park, and commercial land uses. Would allow up to 1,028 dwelling units.	Under review.
The Village of Marble Valley Specific Plan	East of Marble Valley Road, south of US 50	Framework for mixed-use development on 2,341 acres. Includes a variety of residential housing types, commercial uses and public facilities, and parks and natural open spaces. Would allow up to 3,236 dwelling units.	Under review.
Lime Rock Valley Specific Plan	West of Shingle Lime Mine Road, south of Cameron Estates, and east of the Marble Valley Specific Plan area	Framework for mixed-use development on 740 acres. Would allow up to 800 dwelling units.	Under review.
El Dorado Hills 52 Retail Shopping Center	North of the Silva Valley Parkway/US 50 Interchange	Commercial development project on approximately 34 acres consisting of approximately 283,000 square feet of retail uses.	Under review.
Saratoga Estates	Within the El Dorado Hills Community north of US 50 adjacent to the western County boundary with the City of Folsom.	Residential development project on 121 acres consisting of the development of 317 dwelling units.	Approved and under construction.
El Dorado Hills Apartments Project	El Dorado Hills Town Center	Four-story apartment complex consisting of 214 dwelling units.	Approved.
John Adams Academy	Southwest of Latrobe Road/Investment Blvd intersection	Charter school	Approved.
Ridgeview Village	East of El Dorado Hills Boulevard	444 acres with 527 large and small lot residential, three parks, and open space.	Approved and under construction.
Vineyards at El Dorado Hills	Within El Dorado Hills Community east of Salmon Falls Road.	Residential project on 114 acres consisting of 42 dwelling units.	Under review.
Tilden Park Commercial-Residential Project	Within the Shingle Springs Community north of US 50 and Wild Chaparral Drive	Mixed-use project on 12 acres consisting of commercial uses and three residential lots.	Under review.
Folsom South of 50	South of Highway 50, east of Prairie City Road, north of White Rock Road, and west of the El Dorado County line	3,510 ac planned for residential, office industrial, and retail.	Approved and under construction.

Notes: The Serrano Specific Plan development is not included on this list because it is largely constructed and is, therefore, generally incorporated into the existing condition. Those elements of Serrano that currently have tentative maps in process are also considered in the cumulative scenario.

Source: Compiled by Ascent Environmental 2019.

4.1.3 Analysis of Cumulative Effects

For purposes of this EIR, the project would result in a significant cumulative effect if:

- the cumulative effects of related projects (past, current, and probable future projects) are not significant and the incremental impact of implementing the project is substantial enough, when added to the cumulative effects of related projects, to result in a new cumulatively significant impact; or

- the cumulative effects of related projects (past, current, and probable future projects) are already significant and implementation of the project makes a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that either the impact must be substantial or must exceed an established threshold of significance.

This cumulative analysis assumes that all mitigation measures identified in Chapter 3 of this Draft EIR to mitigate project impacts are adopted. The analysis herein analyzes whether, after adoption of project-specific mitigation, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the project) cumulatively significant effects. Where the project would so contribute, additional mitigation is recommended where feasible.

AESTHETICS

The geographic context of aesthetics is confined to those areas that would be visible in the landscape in the vicinity of the project. Therefore, cumulative impacts as related to visual resources would be confined to the visual character within the vicinity of the project (existing suburban developed conditions), and to those areas where the project would be within the same viewshed. These would include the El Dorado Hills Apartment Project, Saratoga Estates, Johns Adams Academy, and the Central El Dorado Hills Specific Plan (see Table 4-2).

Visual resource impacts related to visual character and quality impacts and light and glare identified for the project are discussed below. As discussed in Section 3.1, "Aesthetics," the project would not result in impacts to scenic vistas or scenic resources (scenic roadways and highways) and would therefore not combine to create considerable changes and cumulative effects on visual resources. Therefore, impacts related to scenic vistas or scenic resources are not further discussed.

Impact 4-1: Substantial Adverse Cumulative Effect Related to Visual Character and Shadow Impacts

The project site is in a suburbanized area of the County that contains residential, commercial, retail, office, and light industrial uses (see Figures 3.1-1 through 3.1-6). As described in Section 3.1, "Aesthetics," Impact 3.1-1, the change in character of Phase II of the project site, once developed, would be visually compatible with surrounding suburban visual character of the project area. Thus, the project's contribution to substantial changes to visual character impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 4-2: Substantial Adverse Cumulative Effect on Light and Glare

The cumulative setting for light and glare impacts is confined to the area surrounding the project site. The project site is bound by existing development, including residential, commercial, retail, office, and light industrial uses and existing roadways. Development and streets surrounding the project site produce a moderate amount of nighttime lighting from street lighting, residential interiors, and exterior building lighting. Because light sources from the project would be consistent with the type and intensity of existing lighting sources, the existing, ambient condition would not substantially change. Implementation of the project would create new nighttime lighting compared to existing conditions, however, new lighting and/or glare would be comparable and consistent with surrounding uses and the project would be required to comply with Mitigation Measure 3.1-2a and 3.1-2b. Implementation of Mitigation Measure 3.1-2a would offset project impacts by ensuring compliance with County lighting standards that would ensure offsite areas are not exposed to spillover lighting, This would likely be accomplished through shielding of the lighting fixture. Mitigation Measure 3.1-2b would offset project glare impacts by requiring the use of nonreflective building materials and glass to avoid glare. Therefore, the project's contribution to substantial effects of light and glare **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

AIR QUALITY

The cumulative setting for air quality is in the Sacramento Valley Air Basin and the Mountain Counties Air Basin. El Dorado County and the Mountain Counties Air Basin (MCAB) and within the jurisdiction of El Dorado County Air Quality Management District (EDCAQMD). El Dorado County is currently designated as nonattainment with respect to the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) for ozone and with respect to the NAAQS for PM_{10} and $PM_{2.5}$. Emissions of criteria air pollutants and precursors from industrial sources, area sources, and mobile sources in the basin have contributed to exceedances of the NAAQS for ozone and fine particulate matter and the CAAQS for ozone, respirable particulate matter, and fine particulate matter. The General Plan EIR and TGPA-ZOU EIR both identified significant and unavoidable construction and operational criteria air pollutant emissions from growth and development under the General Plan (El Dorado County 2004 and 2015).

Impact 4-3: Cumulative Effect on Air Quality

Construction and operation of the project would result in emissions of criteria air pollutants (e.g., PM_{10} and $PM_{2.5}$) and precursors, including ROG, NO_X, PM_{10} and $PM_{2.5}$. El Dorado County is currently designated as nonattainment with respect to the NAAQS and CAAQS for ozone, and with respect to the NAAQS for PM_{10} and $PM_{2.5}$.

Ozone impacts are the result of cumulative emissions from numerous sources in the region and transport from outside the region. Ozone is formed in chemical reactions involving NO_X, ROG, and sunlight. Only the largest individual sources emit NO_X and ROG in amounts that could have a measurable effect on ambient ozone concentrations by themselves. However, when all sources throughout the region are combined, they can result in severe ozone problems. Because the region is designated as nonattainment with respect to the NAAQS and/or CAAQS for ozone, PM_{10}, and $PM_{2.5}$, emissions from cumulative development are inherently cumulative.

Air districts in California with jurisdiction over areas designated as nonattainment with respect to the NAAQS and/or CAAAQS for ozone, including EDCAQMD, develop air quality attainment plans designed to reduce emissions of ozone precursors sufficiently to attain the applicable NAAQS and CAAQS by the earliest practicable date. Air quality attainment plans include a multitude of air pollution control strategies. When developing air quality attainment plans, air districts account for the emissions from all present and future development in the region by relying, in part, on city and county general plans. Because the project would be consistent with the land use designation in the El Dorado County General Plan, emissions associated with the development of the project are accounted for in EDCAQMD's air quality attainment plan. Moreover, as analyzed under Impacts 3.2-1 and 3.2-2, project-related construction and operational emissions would not exceed the applicable mass emission thresholds for any of the criteria air pollutants or precursors established by EDCAQMD that would interfere with the region's health-based standards. Therefore, the contribution of criteria air pollutants and precursors from the project, combined with other cumulative emission sources in the region, **would not be cumulatively considerable** and would not contribute to adverse health impacts.

Under cumulative-plus-project conditions, the intersection of White Rock Road and Post Street would result in the deterioration of the intersection from level of service (LOS) D to LOS E, which exceeds the SMAQMD's recommended first-tier of screening criteria. However, under cumulative-plus-project conditions, the project would not meet SMAQMD's second-tier of screening criteria at this intersection because it would experience a traffic volume of less than 31,600 vehicles per hour. Further, CO emission factors in future years are expected to be lower than current levels due to more stringent vehicle emissions standards and improvement in vehicle emissions technology. Ambient localized concentrations of CO under future cumulative conditions would be lower than under existing conditions. Therefore, 1- and 8-hour CO concentrations for the future cumulative conditions would not exceed the NAAQS and CAAQS of 20.0 and 9.0 ppm, respectively. Consequently, the project's contribution **would not be cumulatively considerable** to CO emissions.

As discussed in Impact 3.2-3, levels of toxic air contaminants (TACs) from project-related construction would result in a substantial increase in health risk exposure at off-site sensitive receptors, increases in cancer risk greater than EDCAQMD's

recommended threshold of 10 in 1 million. Consequently, TACs emitted during project construction would result in a cumulatively considerable contribution to health risk. However, implementation of Mitigation Measure 3.2-3 would reduce this temporary contribution to a level that would not be cumulatively considerable. Also discussed under Impact 3.2-3, operation of the project would not result in an increase in cancer risk that exceeds EDCAQMD's recommended threshold of 10 in 1 million or an increase in acute and chronic health risk at offsite receptors that exceed a hazard index of 1.0. Thus, the project's contribution to cumulative TAC exposure **would not be cumulatively considerable.**

The potential creation of objectionable odors affecting a substantial number of people, is also an impact of localized concern. Construction and operation of land uses under the project would not result in the development of new odor sources atypical of developed urban areas and odor-generating construction activity would be temporary. Any new odor sources would be subject to future environmental review, and to EDCAQMD Rule 205, Nuisance. Implementing the project's potential in contributing to cumulative odor impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

BIOLOGICAL RESOURCES

The effects of the project and potential cumulative impacts of related projects are limited to the greater project area vicinity, including adjacent migration and movement corridors in the El Dorado Hills Community area. The project site is surrounded completely by suburban development. Past development in the region, ranging from conversion of natural land to suburban uses, has resulted in a substantial loss of native habitat. The overall effect of this land conversion on native plants, animals, and habitat has been decidedly negative. Therefore, the cumulative condition for special-status species and sensitive habitats in the vicinity of the project is already adverse.

Impact 4-4: Cumulative Effects to Biological Resources

As described in Section 3.3, "Biological Resources," project implementation would potentially contribute to cumulative impacts to one special-status plant (big-scale balsamroot), burrowing owl, and native nesting birds protected under Section 3503 of the California Fish and Game Code. The mitigation measures for these resources (Mitigation Measures 3.3-1, 3.3-2, and 3.3-3) would offset the project's contribution to cumulative biological resource impacts by avoiding impacts to these species. Therefore, the project's potential contribution to impacts on special-status species, nesting raptors, and other birds **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

CULTURAL AND TRIBAL CULTURAL RESOURCES

The cumulative context for cultural and tribal cultural resources is the region. More than 1,000 prehistoric and historic cultural resources had been documented within the County as of 2002 (El Dorado County 2003). These resources include individual buildings, sites, and Historic Districts, with several listed on the National Register of Historic Places (NRHP) and California Register of Historic Places (CRHR). The General Plan EIR and TGPA-ZOU EIR both identified significant and unavoidable cultural resource impacts from growth and development under the General Plan (El Dorado County 2004 and 2015).

Impact 4-5: Cumulative Cultural and Tribal Cultural Resource Impacts

Phase II of the project site is surrounded by suburban development and is not considered a sensitive site for undiscovered cultural resources. As identified in Impact 3.4-1 and 3.4-3, no cultural or tribal cultural resources have been identified on the site. Implementation of Mitigation Measures 3.4-1, 3.4-3a, and 3.4-3b would ensure that any discovered resources are protected and would offset the project's contribution to cumulative cultural resource impacts. Therefore, the project's potential contribution to impacts related to cultural and tribal cultural resources **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

ENERGY

The cumulative context for energy is existing and projected energy use for California. Homes built between 2000 and 2015 used 14 percent less energy per square foot than homes built in the 1980s, and 40 percent less energy per square foot than homes built before 1950. However, the increase size of newer homes has offset these efficiency improvements. Primary energy consumption in the residential sector totaled 21 quadrillion Btu in 2009 (the latest year the EIA's Residential Energy Consumption Survey was completed), equal to 54 percent of consumption in the buildings sector and 22 percent of the U.S.'s total primary energy consumption. Energy consumption increased 24 percent from 1990 to 2009. However, because of projected improvements in building and appliance efficiency, the EIA 2012 Annual Energy Outlook forecast a 13 percent increase in energy consumption from 2009 to 2035 (EIA 2016a). Though California's population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.8 billion gallons in 2017 to less than 12.7 billion gallons in 2030. This decline comes in response to both increasing vehicle electrification and higher fuel economy for new vehicles (CEC 2017).

Impact 4-6: Cumulative Effects Related to Energy Use

Implementation of the project would result in an increase in demand for energy; however, the project would include energy efficient design features consistent with green building requirements including Title 24 2019 Building Energy Efficiency Standards. In addition, the project would be required to implement Mitigation Measure 3.7-1, which requires the installation of building energy and transportation design features to reduce overall project energy use and non-renewable energy use. Construction energy use associated with the project would also not be considered inefficient, wasteful, or unnecessary, because the energy needs for project renovations would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Furthermore, construction equipment use and associated energy consumption would be typical of those associated with projects in a suburban setting. Therefore, the project's potential contribution to impacts related to energy use **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Greenhouse gas impacts are cumulative in nature. The reader is referred to Section 3.7, "Greenhouse Gas Emissions and Climate Change," for a detailed discussion of project impacts.

HAZARDS AND HAZARDOUS MATERIALS

Significant cumulative hazards and hazardous materials impacts have historically occurred in the region from development and industrial uses that include manufacturing, improper storage of hazardous materials (e.g., fuel), and research and development activities. The extent of these impacts tend to be limited to individual sites or sub-areas where contamination of groundwater has occurred.

Impact 4-7: Cumulative Hazard Impacts

Hazardous Material Exposure

As described in Section 3.8, "Hazards and Hazardous Materials," the project's Phase I Environmental Site Assessment (Youngdahl 2017) did not identify the presence or likely presence of hazardous substances or petroleum products on the Phase II portion of project site due to a past release or conditions that pose a material threat of a future release to the environment. The Phase I included query of: the State Water Resources Control Board's database, which identified

two permitted underground storage tanks within 0.5 mile of the project site that are not considered to pose a risk; the California Department of Toxic Substances Control Board's Envirostor database, which did not return any records within 1 mile of the project site; and the Environmental Management Department for El Dorado County, which concluded that there are no records (list of hazardous materials sites pursuant to Government Code Section 65962.5) associated with the project site (Youngdahl 2017). Project adherence to existing regulations and compliance with the safety procedures mandated by applicable federal, state, and local laws and regulations would minimize the risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with construction and operations would offset project impacts to cumulative hazards. Thus, the project's potential contribution to cumulative hazards from exposure to hazardous materials **would not be cumulatively considerable**.

Airport Hazards

The Cameron Airpark Airport is located approximately 5 miles northeast of the project site. The project site is not within the Airport Influence Area of the Cameron Park Airport established in the Land Use Compatibility Plan and would not result in a safety hazard or contribute to a cumulative hazard. Thus, the project's contribution to cumulative airport hazards **would not be cumulatively considerable.**

Interference with Emergency Access or Evacuation

The project involves construction of Phase II that would expand the commercial center and provide additional access points along Latrobe Road that would be consistent with General Plan Policy 6.2.3.2 and El Dorado Hills Fire Department Standard #B003. Project implementation would not impair implementation of, or interfere with, the County Multi-Jurisdictional Hazard Mitigation Plan. Thus, the project's contribution to cumulative emergency access and evacuation **would not be cumulatively considerable.**

Mitigation Measures

No mitigation is required.

HYDROLOGY AND WATER QUALITY

The cumulative setting for hydrology consists of the Carson Creek watershed, which is tributary to the Cosumnes River watershed. Existing development along the Latrobe Road and White Rock Road corridors and operation of the El Dorado Hills Wastewater Treatment Plant in the El Dorado Hills Community are located within this watershed. Proposed and approved development within Carson Creek watershed include Saratoga Estates, Central El Dorado Hills Specific Plan, El Dorado Hills 52 Retail Shopping Center, El Dorado Hills Apartments Project, John Adams Academy, and Valley View Specific Plan. These existing and future land use conditions contribute to cumulative flooding and water quality concerns in the watershed.

Impact 4-8: Cumulative Water Quality Impacts

Construction and operation of Phase II of the project site would alter existing land conditions, which could increase the level of sediment and urban contaminants discharged into the stormwater drainage system. Anticipated pollutants associated with the project include trash, debris, heavy metals, and hydrocarbons from roads and parking lots. Potential pollutants could also include pesticides from potential pest control activities, nutrients, fertilizers, and oxygen-demanding substances from landscaped areas.

Project on-site storm drainage improvements would include LID features, underground stormwater detention piping, and aboveground basins to detain runoff such that pre-development flow volumes are maintained consistent with County water quality requirements identified in Section 3.9.2, "Regulatory Setting." (see Figures 2-13a and 2-13b). These water quality controls have been identified effective in protecting water quality in the California Storm Water Quality Association Industrial and Commercial BMP Handbook and would offset project contributions to cumulative water quality impacts. Preparation of a SWPPP would offset project construction water quality cumulative impacts through BMPs to prevent increased discharge of sediment at all stages of construction consistent with County standards. Thus, the project's water quality impacts **would not be cumulatively considerable.**

Mitigation Measures

No mitigation is required.

Impact 4-9: Cumulative Flooding Impacts

The project would substantially increase the amount of impervious surfaces on-site that would contribute to increases in flows into the Carson Creek Watershed. To accommodate the increase, the project would include storm drain improvements with on-site drainage facilities, manholes and drain lines designed to collect and convey stormwater to one of the two 24-inch storm drains passing beneath Latrobe Road. On-site storm drainage would implement a series of LID techniques in conjunction with detention basins and underground stormwater detention piping to detain runoff and mitigate to pre-development flows prior to leaving the site (see Figures 2-13a and 2-13b). These facilities are based on the analysis provided in the Preliminary Drainage Study for Montano De El Dorado Phase III (see Appendix D). Thus, the project's contribution to increases in drainage flows in the Carson Creek Watershed **would not be cumulatively considerable.**

Mitigation Measures

No mitigation is required.

NOISE AND VIBRATION

Cumulative short-term construction noise impacts could result when construction noise from other nearby development projects combines with noise levels from the project. Contributions from other development projects in close proximity to the project could include the El Dorado Hills Apartments Project. Likewise, increases in long-term development would also introduce new stationary sources and increase traffic-related noise on roadways in the project area. Stationary noise sources, similar to construction noise, are of local concern and typically only result in cumulative impacts when in close proximity to project-generated stationary noise. Long-term increases in traffic noise would occur in the County as development continues.

The General Plan EIR and TGPA-ZOU EIR both identified significant and unavoidable construction noise, transportation noise, and stationary noise sources from growth and development under the General Plan (El Dorado County 2004 and 2015).

Impact 4-10: Cumulative Construction Noise and Vibration Impacts

As discussed in Impact 3.10-1, project construction activities would involve the use of heavy-duty construction equipment and blasting with construction noise impacts occurring over the construction period for off-site sensitive receptors. These noise-generating construction activities could at the same time as construction of the El Dorado Hills Apartments Project and potentially occur outside of these daytime hours. Project construction-generated noise could exceed the County noise standard for residential areas of 50 dBA L_{eq} and 65 L_{max} for evening construction noise (7 p.m. – 10 p.m.) and 45 dBA L_{eq} and 60 dBA L_{max} during nighttime construction noise (10 p.m. – 7 a.m.).

Implementation of the Mitigation Measure 3.10-1 would reduce the project's contribution to cumulative by reducing construction noise for the entire construction area and would restrict project construction activity to occur within the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally-recognized holidays consistent with County General Plan Policy 6.5.1.11 and Chapter 130.37 of the County Code. The El Dorado Hills Apartments Project Draft EIR identified compliance with these County noise standards and is not in close proximity (0.35 miles with intervening buildings that would obstruct noise propagation) that it could contribute to this noise impact (El Dorado County 2017:4.6-20). Given the Therefore, the project's contribution to construction noise impacts **would not be cumulatively considerable**.

As identified in Impact 3.10-2, project construction is anticipated to use blasting adjacent to existing residences. It is possible that blasting activities could occur within distances that could expose people or structures to vibration levels that exceed FTA- and Caltrans-recommended standards. While this impact is significant under project conditions, the use of blasting would be limited to the project site and there are no other projects in close proximity that could

contribute to this vibration impact (0.35 miles between the project site and the El Dorado Hills Apartments Project site). Thus, the project's contribution to cumulative vibration impacts **would not be cumulatively considerable.**

Mitigation Measures

No mitigation is required.

Impact 4-11: Cumulative Traffic Noise Impacts

As shown in Table 3.10-13 in Impact 3.10-3, project-related traffic noise level increases under cumulative traffic conditions would be less than 0.5 dB on all of the local roadways. These traffic noise increases would not exceed any of the incremental increase criteria established in General Plan Policy 6.5.1.12. Thus, the project's contribution to cumulative traffic noise impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 4-12: Cumulative Stationary Noise Impacts

Project noise generated by medium-duty and heavy-duty truck pass-bys would be at levels of 70 dB L_{max} and 75 dB L_{max}, respectively, at the nearby single-family residences to the east. This would exceed the County daytime, evening and nighttime noise level standards of 70 dB, 60 dB and 55 dB L_{max}, respectively. Project emergency generators and loading dock activities associated with long-term operation of the project could generate noise levels that exceed the County daytime noise standard of 55 dBA L_{eq} and 70 dBA L_{max} for nearby single-family residences to the east. Amplified speech and music at amphitheater events could expose nearby residences to noise levels that exceed County noise standards.

While these project noise impacts were identified as significant, there are no other significant operational noise sources near the project site that would result in a new cumulatively considerable stationary noise impact to single-family residences to the east (including the El Dorado Hills Town Center). Thus, the project's contribution to cumulative stationary noise impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

PUBLIC SERVICES

The cumulative setting for fire protection and law enforcement services consist of the current development and future development of the El Dorado Hills Fire Department service area as well as the El Dorado County Sheriff's Office (EDCSO) Patrol Division, West Slope patrol. The West Slope is responsible for the unincorporated area of El Dorado County from Strawberry to the El Dorado/Sacramento County line and from the North Fork of the American River to the Highway 88/Consumes River border.

The General Plan EIR identified less than significant impacts associated with the expansion of fire protection and law enforcement facilities from growth and development under the General Plan (El Dorado County 2004).

Impact 4-13: Cumulative Increased Demand for Fire Protection and Law Enforcement Services

As described in Impact 3.11-1, the project would result in significant project impacts to El Dorado Hills Fire Department services. The project is required to be designed according to fire requirements, which include site plan review by the El Dorado Hills Fire Department, payment of development of development fees to mitigate fire facility and equipment impacts from new development, smoke detectors, sprinklers, building and emergency access, and hydrant sizing, pressure and siting. Phase II site development would eliminate existing grasslands that are a potential fuel source for wildland fires. Commercial development would include buildings, paved conditions, maintained landscaping, and the extension of water and fire hydrant infrastructure that would substantially reduce the potential for wildland fire hazards in the project area. Compliance with El Dorado Hills Fire Department standards and payment of development fees

would offset the project's contribution to cumulative fire protection services and facilities. Due to the increase in number and types of buildings and proposed scheduled monthly events, fire department services involving Community Risk Reduction and inspections would increase; however, the increase in these services would not require construction of additional facilities or expansion of existing facilities that could create environmental impacts . Therefore, the project's contribution to cumulative fire protection services impacts **would not be cumulatively considerable.**

The project would contribute to new commercial development that would incrementally increase the demand for law enforcement protection services provide new hotel and retail and office space in El Dorado Hills. The project would not introduce new residences nor increase the population within the County. Because the need for additional police services or facilities is based on the number of residents, the project would not necessitate the expansion of existing, or construction of new law enforcement facilities under cumulative conditions beyond what is anticipated in the General Plan and considered in the General Plan EIR. Thus, the project's contribution to cumulative law enforcement service impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

TRANSPORTATION/TRAFFIC

The cumulative traffic impact analysis incorporates specific pending and reasonably foreseeable development proposals in the vicinity of the project for the year 2035. The same study area roadway facilities evaluated in Section 3.12, "Transportation/Traffic," are evaluated below (see Figure 3.12-1). The project would not contribute to cumulative impacts associated with emergency access because it provide additional access points along Latrobe Road that would be consistent with General Plan Policy 6.2.3.2 and El Dorado Hills Fire Department Standard #B003. The project would also not result in cumulative contributions to cumulative pedestrian, bicycle, or transit facility impacts because it would provide access to an existing transit stop via existing and new pedestrian facilities (sidewalks) along Latrobe Road and White Rock Road as well as provide frontage improvements along Latrobe Road that would provide improved bicycle facilities and new sidewalks.

The TGPA-ZOU EIR identified significant and unavoidable traffic operation impacts in 2035 conditions from growth and development under the General Plan (El Dorado County 2015).

Impact 4-14: Cumulative Increases in VMT

As described in Impact 3.12-1, The project would result in an increase of approximately 15,280 VMT to the local roadway network. This would contribute the cumulative VMT conditions in the County in 2035. Implementation of Mitigation Measure 3.7-1b would result in a mitigated annual average of 4,487,717 VMT, which equates to an average daily of approximately 12,295 VMT. However, this would not offset the project's contribution to cumulative VMT conditions in the County. There are no other feasible mitigation measures to offset the project's impact. Thus, the project's contribution would be **cumulative considerable and significant and unavoidable**.

Mitigation Measures

None available.

UTILITIES AND SERVICE SYSTEMS

The cumulative setting for water and wastewater services consist of the El Dorado Irrigation District (EID) service areas and countywide for solid waste services.

Impact 4-15: Cumulative Water Supply Impacts

As identified in Impact 3.13-2, EID approved the Facility Plan Report for Montano De El Dorado Phase II on April 23, 2019 that includes a FIL for the project. The FIL identifies that there in 2017 there were approximately 15,591 equivalent dwelling units of available water supply in the El Dorado Hills Water Supply Region that could

accommodate Phase II water demand of 90 equivalent dwelling units (approximately 63 acre feet). The project is consistent with the designated land uses and included in the growth projections of the General Plan that were used by EID in the 2015 Urban Water Management Plan (UWMP).

The El Dorado County General Plan EIR evaluated water supply capacity and concluded that buildout of the General Plan would result in a significant and unavoidable impact due to projected water supply shortage. As noted above, the project is consistent with the land use type designated for the site in the General Plan, and is therefore consistent with the overall water demand projections included in the General Plan EIR. Thus, the project's contribution to cumulative water demands were already considered in the General Plan EIR and **would not be cumulatively considerable**.

Water Supply Studies Since Adoption of the 2004 General Plan

CEQA Section 15183(a) mandates that projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects which are peculiar to the project or its site. The proposed project does not include any features that would require unusually high water demand; therefore, regarding water supply, there would be no project-specific effects peculiar to the project or its site. Consistent with CEQA Section 15183(1), the project's impacts related to water supply were already evaluated as part of the General Plan EIR, and no additional CEQA analysis is required.

Since certification of the 2003 General Plan EIR, EID and El Dorado County Water Agency (EDCWA) have both published updated water supply documents. Because concerns regarding water supply, a summary of the information provided in these more recent documents is included below to demonstrate that, although the numbers are different, the General Plan EIR's conclusion remains valid.

EDCWA was created in 1959 to ensure that El Dorado County has adequate water to serve its multiple needs now and in the future. There are five public water purveyors in El Dorado County and private water companies. EID owns and operates Jenkinson Lake Reservoir in Pollock Pines and El Dorado Hydroelectric FERC Project 184 (Project 184), which includes Echo, Aloha, Caples, Silver lakes and contracts for water from Folsom Lake. Georgetown Divide Public Utility District owns and operates Stumpy Meadows Reservoir east of Georgetown. Grizzly Flats Community Services District owns and operates its reservoir. South Lake Tahoe Public Utility District serves its customers from wells. Tahoe City Public Utility District serves its customers from ten ground water and two spring wells.

The EID's potable water system is composed of a main contiguous system which serves over 95 percent of its customers, and two satellite systems. The three principle diversion points for delivering into the main system are: EID-owned and operated Sly Park Dam and Jenkinson Lake; the EID-owned and operated Project 184 at Forebay Reservoir; and Folsom Reservoir via a United States Bureau of Reclamation (USBR) Water Service Contract, a Warren Act Contract for re-diverted EID ditch and Weber Reservoir water supplies, and State water right Permit 21112. The two satellite diversions include potable water deliveries to Outingdale by diverting water from the Middle Fork of the Cosumnes River and Strawberry by diverting water from the upper South Fork American River. The EID also diverts water into the Crawford Ditch from the North Fork of the Cosumnes River as a raw water source. Aside from the USBR Contract, the EID does not currently purchase water from any wholesale supplier. In the future, EID expects to purchase water wholesale from EDCWA, which is pursuing a USBR Contract under Public Law 101-514.

EID's 2015 UWMP estimates future demand based on El Dorado County's General Plan and County growth projections. This includes a demand forecast for new, non-residential customers that increases from 273 acre feet per year (afy) in 2020 to 1,158 afy in 2030 and 2,016 afy in 2045. Total District-wide demand is anticipated to be 43,477 afy in 2020 and 58,815 afy in 2045 (EID 2016).

Based on existing supplies, the average water supply under normal conditions is 67,190 afy. An additional 37,500 afy of planned supplies and 3,500 afy of recycled water are expected to be available after 2040. Combined, EID anticipates the total average future water supplies to equal 108,190 afy. By the third year of a multiple-year drought, water availability associated with existing supplies would be reduced to 52,468 afy, while an estimated total of 62,843

afy would be available after 2040 when planned supplies are accounted for. These planned water sources include the following:

- CVP Fazio Water: 7,500 afy (normal year – available in 2020)
- El Dorado-SMUD Agreement: 30,000 afy (normal year – agreement anticipated by 2025)
- Recycled Water: 3,500 afy (incremental increase in current recycled water supply of 2,400 to 3,500 afy) (EID 2016).

Tables 3.13-1, 3.13-2, and 3.13-3 summarize EID water supply and demand estimates for average year.

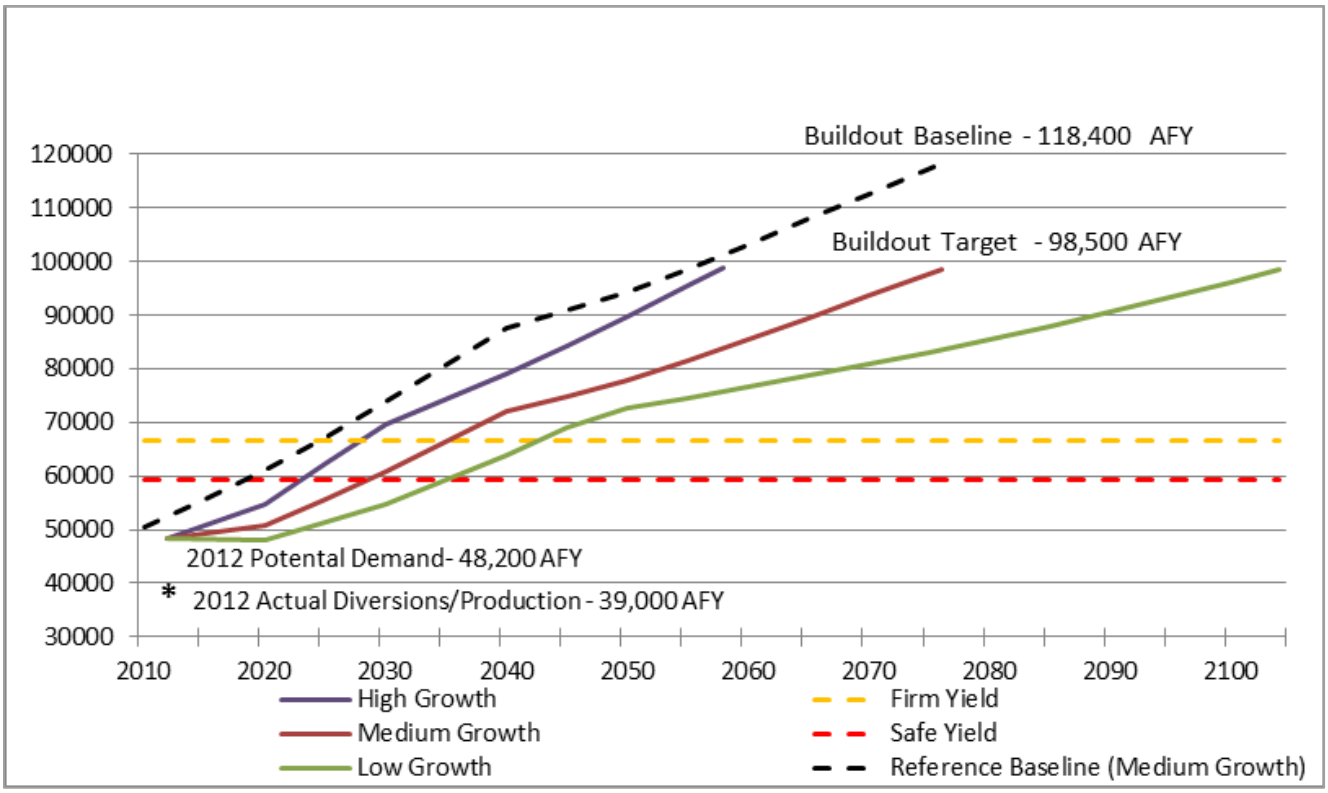
In addition to the UWMP prepared by EID, the EDCWA prepares Water Resources Development and Management Plans (WRDMPs). WRDMPs are developed to ensure that adequate water supplies are available for existing and future uses in El Dorado County. The most recent version of the WRDMP is the 2014 West Slope Update, which includes projected future water demands for West Slope water surveyors, for the year 2030 and build-out conditions, which were estimated for low-, medium-, and high-growth rate scenarios. The 2030 timeframe is used to be consistent with other contemporary studies and reports, such as UWMPs. The 2014 West Slope Update addresses the following water purveyors: EID, Georgetown Divide Public Utility District (GDPUD), and Grizzly Flat Community Services District. Data contained in the 2014 West Slope Update includes different types of information than presented in the 2010 UWMP. For instance, growth rate projections are based on high-, medium-, and low-growth rate scenarios, and agricultural land use, crop water use, and changes in the types of land use developments are considered (EDCWA 2014).

The 2014 West Slope Update indicates that El Dorado County's western slope is expected to experience a shortfall of approximately 69,000 acre-feet of water per year at full build-out (2075, under the medium-growth scenario). While this quantity reflects county-wide estimates, each of the water supply areas were evaluated. For the purposes of this discussion, the following information contains water supply and demand for the EID water supply area. In addition to a normal year scenario, two scenarios were considered that address projected demand: existing/additional supply with 50 percent Central Valley Project (CVP) Cutback; and an assumed 10 percent supply decrease and 5 percent increase in irrigation demand due to climate change (EDCWA 2014).

For the purposes of water use planning, the 2014 West Slope Update considers yield, rather than multiple dry years discussed in the 2010 UWMP. Yield is considered as both firm yield and safe yield. Firm yield quantities are based on the assumption that approximately 95 percent of the time sufficient water supply is available to meet normal water demands; but, 5 percent of the time water shortages may occur. If insufficient water supply is projected, voluntary or mandatory conservation measures may be implemented. Safe yield is defined by the critical period of that system, meaning the most severe drought experienced during a period of record. If a more severe drought occurs, the critical period changes and the safe yield is reduced.

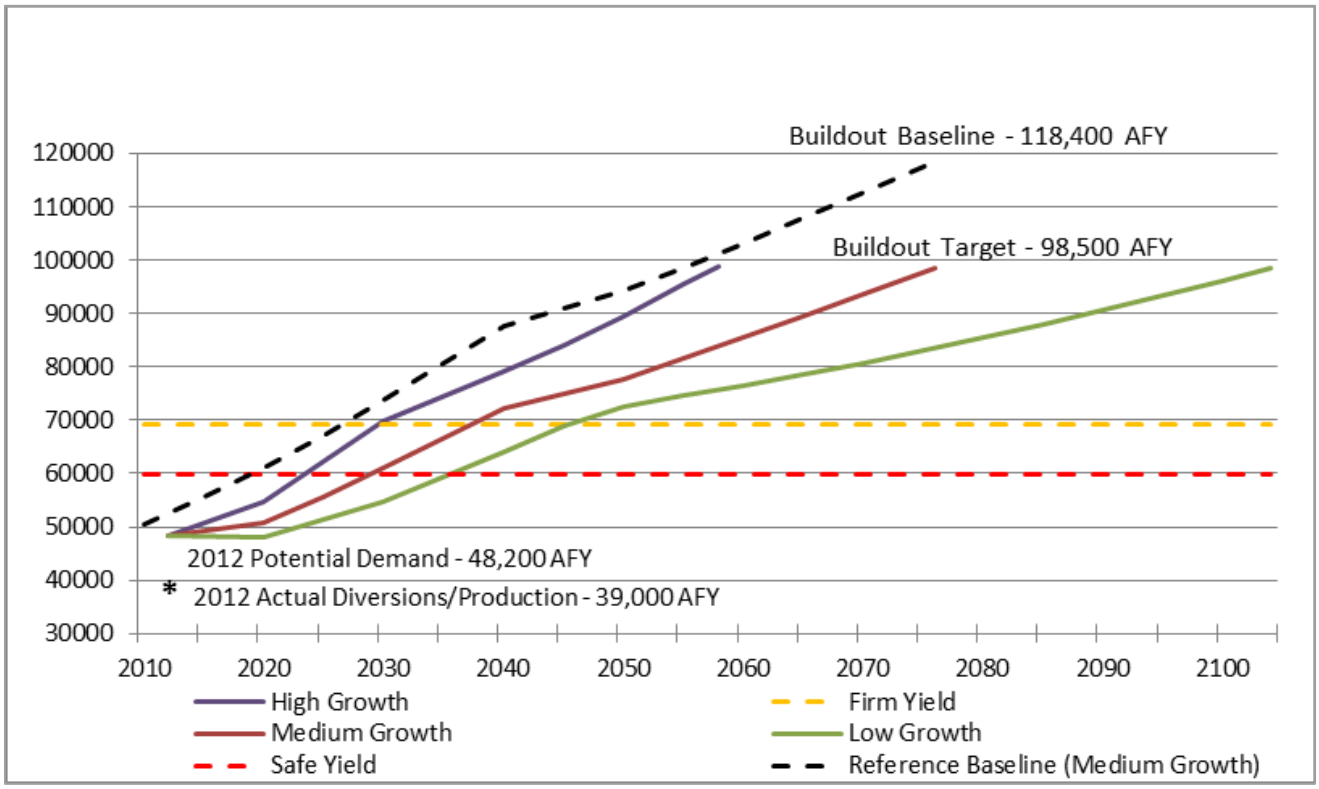
Figures 4-1, 4-2, and 4-3 provide a graphical comparison of each water supply scenario (existing, 50 percent CVP cutbacks, and climate change) under a range of growth projections (low, medium, and high).

For the Existing Water Supply scenario shown in Figure 4-1 when considering firm yield, new supply is needed as early as 2028 for the high growth scenario and as late as 2045 for the low growth scenario. For the medium growth scenario new supply is needed by 2035. When considering safe yield, new supply is needed as early as 2024 for the high growth scenario and as late as 2036 for the low growth scenario. For the medium growth scenario, new supply is needed by 2029 (EDCWA 2014).



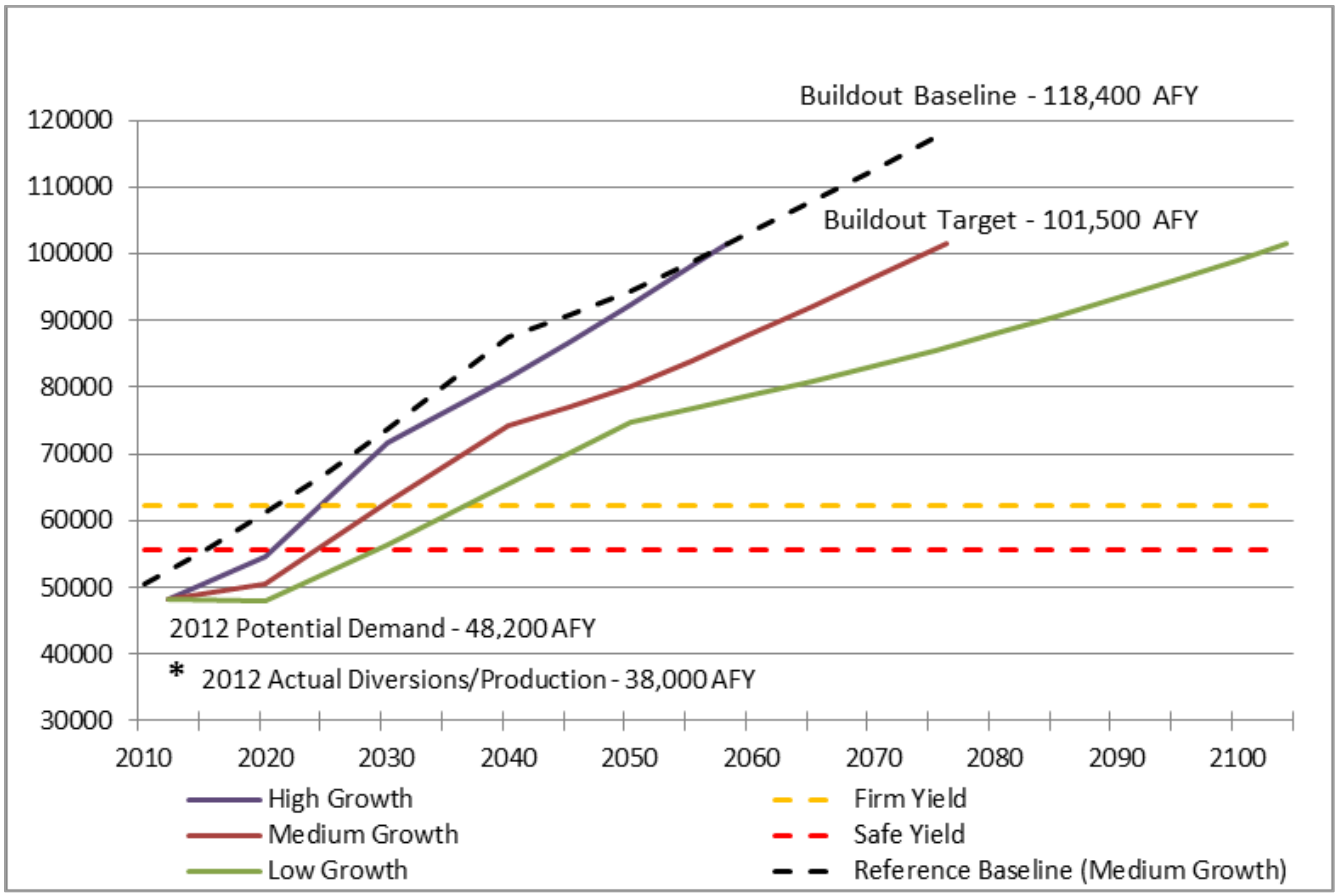
Source: EDCWA 2014

Figure 4-1 El Dorado Irrigation District Existing Supply versus Projected Demand (acre-feet)



Source: EDCWA 2014

Figure 4-2 El Dorado Irrigation District Existing and Additional Recycled Water Supply w/ 50 percent CVP Cutbacks versus Projected Demand (acre-feet)



Source: EDCWA 2014

Figure 4-3 El Dorado Irrigation District Existing and Additional Recycled Water Supply versus Projected Demand w/Climate Change (acre-feet)

For the "Existing and Additional Supply with 50 percent CVP Cutback" scenario shown in Figure 4-2, when considering firm yield, new supply is needed as early as 2030 for the high growth scenario and as late as 2046 for the low growth scenario. For the medium growth scenario new supply is need by 2038. When considering safe yield, new supply is needed as early as 2024 for the high growth scenario and as late as 2036 for the low growth scenario. For the medium growth scenario new supply is needed by 2030 (EDCWA 2014).

For the "Existing and Additional Supply w/Climate Change" scenario shown in Figure 4-3, when considering firm yield, new supply is needed as early as 2025 for the high growth scenario and as late as 2037 for the low growth scenario. For the medium growth scenario new supply is needed by 2030. When considering safe yield, new supply is needed as early as 2022 for the high growth scenario and as late as 2030 for the low growth scenario. For the medium growth scenario new supply is needed by 2025 (EDCWA 2014).

To satisfy these new water supply needs various projects were identified in the 2014 West Slope Update. These potential supplies include the following (EDCWA 2014).

- Main Ditch Piping- Piping the Main Ditch between Forebay Reservoir and the Reservoir 1 Water Treatment Plant. This project would reduce seepage and evapotranspiration losses by an estimated 1,300 acre-feet per year. This project is part of EID's plan to achieve its mandated SB X-7 water conservation goal and would not reduce the water supply need identified in the WRDMP.
- Folsom Lake Water Supplies. A new Water Service Sub-contract with EDCWA for USBR Central Valley Project water authorized by legislation, Public Law 101-514 (Fazio Water). Under this law, EDCWA was allocated 15,000 acre-feet from Folsom Lake to serve the future municipal and industrial needs of the county (West Slope). This water supply is contingent on execution of a new water service contract between EDCWA and USBR. For

planning purposes, it has been assumed that this supply would be shared between EID and GDPUD. Potential allocation scenarios range from 15,000 acre-feet being taken by EID to 11,000 acre-feet being taken by GDPUD and 4,000 acre-feet taken by EID.

It should be noted this supply source is subject to cutbacks up to 50 percent in dry years under USBR's current and proposed shortage policy, as was the case in 2014. Further cutbacks to health and safety levels are also possible under USBR's shortage policy. It is expected that USBR Water Service Contracts will be cut back more frequently in the future under the National Marine Fisheries Service (NMFS) 2009 biological opinion on the long-term operations of the CVP and State Water Project. Reclamation's recently completed informal consultation for this project with NMFS further calls into question the certainty and timing of this supply. According to the NMFS concurrence letter dated June 2,2014:

> "EDCWA will adhere to restrictions on diversions set forth by Reclamation and/or applicable biological opinions to ensure that the proposed project will not result in any decrease to the available cold water pool in Folsom Reservoir."

The 2009 biological opinion referenced in the concurrence letter requires improvements to Reclamation's:

> "…ability to manage the cold water pool to provide suitable temperatures for steelhead through physical and structural improvements at the dams. More specifically, improvements to the temperature control device at the EID intake structure or the construction of the most effective device for conserving cold water in Folsom Reservoir…"

- El Dorado Water Reliability Project (i.e., Supplemental Water Rights Project). This project would entail 40,000 acre-feet of new water to be stored in, and diverted from, SMUD's Upper American River Project in accordance with the El Dorado - SMUD Cooperation Agreement. The water would be supplied via a diversion at SMUD's Whiterock Penstock, located approximately 3 miles northeast of Placerville, and transmitted to a new treatment plant. Under the water rights application, water can also be taken at Folsom Lake through existing facilities to potentially backfill CVP shortages in dry years. This water supply option is based on acquiring the water rights and paying for power foregone to the El Dorado Water and Power Authority.

  This supply source is subject to cutbacks at the Whiterock Penstock in the most critically dry years under the SMUD Cooperation Agreement. Presently, there are no restrictions if taken at Folsom Reservoir.

- Alder Dam and Reservoir. The reservoir would have a capacity of 31,700 acre-feet and a safe yield of 11,250 acre-feet. The water would be taken at Jenkinson Lake via the Hazel Creek Tunnel, Forebay Reservoir, downstream at Folsom Reservoir, or at a new point of diversion such as the White Rock Penstock (EDCWA 2014). Construction and use of this project would result in a rock-filled dam, approximately 143 feet high with a crest length of 800 feet and width of 30 feet at elevation 5,333 feet. The Alder Reservoir would have a capacity of 31,700 acre-feet, capturing runoff from approximately 18.5 square miles.

Impact 4-16: Cumulative Wastewater Service Impacts

As identified in Impact 3.13-3, the project would be served by the EID's El Dorado Hills Collection System, which consists of a series of lift stations, force mains, and gravity mains that convey wastewater to the El Dorado Hills Wastewater Treatment Plant (EDHWWTP). The project's wastewater generation of 0.02 million gallons per day (mgd) would increase the estimated average dry weather flow (ADWF) at EDHWWTP from 2.65 mgd to 2.67 mgd that is within its current treatment capacity of 4 mgd.

Buildout of the General Plan land uses would result in an additional 2.80 mgd ADWF to the EDHWWTP. A subsequent expansion phase would be implemented to provide the ultimate buildout capacity of 5.45 mgd (EID 2013). According to long-range planning efforts, wastewater treatment plant expansion should be online and operational by the time the influent flow reaches approximately 80 to 90 percent of the plant capacity to provide flexibility to accommodate unforeseen conditions. There is potential that expansion of the EDHWWTP could result in environmental impacts, such as issues associated with biological resources, air quality, and water quality depending on the scope and extent of an expansion. The project's contribution to the demand for wastewater facilities would not be the sole reason for

WWTP expansion. Thus, the project's contribution to cumulative wastewater service impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 4-17: Cumulative Solid Waste Impacts

As addressed in Impact 3.13-4, the project would generate 438 tons of waste annually or 1.2 tons of waste each day. This represents approximately 0.3 percent of the permitted capacity at WERS Transfer Station and Materials Recovery Facility and 0.03 percent of the permitted daily waste at the Potrero Hills Landfill facility and would not necessitate the need to expand these facilities. The Potrero Hills Landfill is estimated to remain in operation until February of 2048. Thus, the project's contribution to cumulative solid waste service impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required.

4.2 GROWTH INDUCING IMPACTS

California Environmental Quality Act (CEQA) Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

4.2.1 Growth Inducement Potential

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects.

4.2.2 Growth-Inducing Impacts of the Project

The project would foster short-term and long-term economic growth associated with construction and operational employment. Construction would begin as early as 2020 and last for approximately 2 years.

While the number of permanent employees that would be employed during project operation is not currently known, it can be estimated using median rates for each use. As shown in Table 4-3, the project would be expected to add 173 new jobs.

Table 4-3 Estimated Employment of Phase II

Project Use	Square Feet	Rate[1] (square feet per employee)	Estimated Employees
Restaurant[2]			50
Retail	31,776	920	35
Office	13,448	600	23
Drive-Thru Restaurant	3,665	567	7
General Commercial	29,968	1,200	25
Hotel	51,646	2,541	33[3]
Total	-	-	173

1. Median square feet per worker (EIA 2016b)

2. Information supplied by applicant

3. Total includes 12 employees for hotel bar not included in hotel square footage.

Data compiled by Ascent Environmental in 2019

According to the U.S. Census Bureau, El Dorado County had a population of 181,058 in 2010 and an estimated population of 190,678 as of July 2018 (U.S. Census Bureau 2019). The population of El Dorado County is expected to grow to a population of 199,521 in 2025 and 208,547 in 2030 (DOF 2019). In 2010, El Dorado County had 88,159 housing units. In 2018, it was estimated that the number of housing units had increased to 91,105 (U.S. Census Bureau 2019). Over the last 20 years, unemployment rates in El Dorado County have varied from a high of 12.2 percent in 2010 to a low of 3.6 percent in 2018 (EDD 2019).

For El Dorado County exclusive of the Tahoe Basin, the jobs-to-housing ratio is approximately 0.7 (SACOG 2015:14-2). The ratio expresses a balance between the number of jobs in an area and the number of housing units. A ratio of 1 means that there is 1 job for each housing unit, and a ratio less than 1 means that the area has fewer jobs than housing units. Historically, El Dorado County has maintained a lower ratio than Sacramento, Placer, and Yolo Counties (SACOG 2015:14-3).

As shown in Table 4-3, the project would add approximately 173 permanent new jobs to unincorporated El Dorado County. This increase in employment could lead to some population growth in the area if employees relocated from outside of the area. Given that most jobs generated by the project would require skill levels that could be provided by existing residents of the region (i.e., El Dorado County), induced employment is not anticipated to have a substantial effect on population growth.

As shown in Chapter 2, "Project Description," and shown in Figures 2-12a through 2-12c, the project would connect to existing available infrastructure near the site to serve Phase II and would not involve the expansion of new infrastructure facilities that could induce growth.

4.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS WHICH CANNOT BE AVOIDED

PRC Section 21100(b)(2)(A) provides that an EIR shall include a detailed statement setting forth "in a separate section: any significant effect on the environment that cannot be avoided if the project is implemented." Accordingly, this section provides a summary of significant environmental impacts of the project that cannot be mitigated to a less-than-significant level.

Section 3.1 through 3.13 of this EIR describe the potential environmental impacts of the project and recommend various mitigation measures to reduce impacts, to the extent feasible. Section 4.1, "Cumulative Impacts," determines whether the incremental effects of this project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects. After implementation of the recommended mitigation measures, most of the impacts associated with development of the project would be reduced to a less-than-significant level. The following impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project's impacts to a less-than-significant level.

NOISE AND VIBRATION

Project construction activities would generate noise levels substantially higher than ambient conditions. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.10-1).

Site preparation and grading may include blasting to remove rock outcroppings. Vibration levels generated from blasting activities would exceed FTA's criteria for human disturbance for "infrequent events" at sensitive receptors located within 230 feet and would exceed Caltrans' criteria for structural damage to normal buildings at locations within 80 feet of the blasting site. Because the exact locations where blasting would be conducted are not know at the time of writing this EIR it is possible that project-related blasting activity could expose people and buildings to levels of ground vibration that exceed these standards. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.10-2).

TRANSPORTATION/TRAFFIC

The project would increase vehicle miles traveled under project and cumulative conditions. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.12-1 and 4-14).

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5 PROJECT ALTERNATIVES

5.1 INTRODUCTION

State CEQA Guidelines Section 15126.6(a) requires EIRs to describe:

> a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (State CEQA Guidelines Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (State CEQA Guidelines Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "shall also identify an environmentally superior alternative among the other alternatives" (State CEQA Guidelines Section 15126[e][2]).

In defining "feasibility" (e.g., "feasibly attain most of the basic objectives of the project"), State CEQA Guidelines Section 15126.6(f)(1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body. (See PRC Sections 21081.5, 21081[a][3].)

5.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

5.2.1 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the project (State CEQA Guidelines Section 15126.6[a]). Chapter 2, "Project Description," articulated the following project objectives:

- capitalize on the site's proximity to a major transportation corridor within El Dorado Hills;
- expand the adjacent Montano de El Dorado retail center (Phase I) with retail, hospitality, and office uses (Phase II);
- provide for the safe and efficient movement of pedestrians and vehicles;
- provide product choice to residents while reducing sales outflow to other counties; and
- provide high quality investment within El Dorado Hills to create jobs and sales tax revenue to the County.

5.2.2 Summary of Project Impacts

Sections 3.1 through 3.13 and Chapter 4 of this Draft EIR identify the environmental impacts of the project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant adverse effects of the project. The following list is composed of significant or potentially significant impacts associated with the project.

AESTHETICS

- Development of Phase II would include the light fixtures that create new sources of light that could impact adjacent residential uses to the east. In addition, windows and architectural features of buildings could reflect sunlight and create glare conditions. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.1-2).

AIR QUALITY

- Operational emissions of TACs would not expose off-site receptors to an incremental increase in cancer risk greater than 10 in one million or a hazard index of 1.0 or greater. However, the construction-generated emissions of TACs could expose existing off-site receptors to an incremental increase in cancer risk greater than 10 in one million. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.2-4).

BIOLOGICAL RESOURCES

- Project implementation would include ground disturbance and conversion of grassland habitat, which could result in disturbance to or loss of big-scale balsamroot, if present within the project site. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.3-1).
- Project implementation would include ground disturbance and conversion of grassland habitat, which could result in disturbance to or loss of burrowing owls or their burrows, if present within the project site. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.3-2).
- Project implementation would include ground disturbance, vegetation removal, and conversion of grassland habitat, which could result in disturbance to or loss of native grassland- or shrub-nesting birds, if present within the project site. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.3-3).

CULTURAL AND TRIBAL CULTURAL RESOURCES

- Based on documentary research, no evidence suggests that any archaeological resources are present within the project site. However, ground-disturbing construction activities could uncover previously undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.4-1).
- Consultation with the UAIC has resulted in no resources identified as tribal cultural resources. However, UAIC has identified that there is potential for undiscovered resources and recommended mitigation to protect tribal cultural resources, if present within the project site. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.4-2).

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

- Project construction would generate approximately a total of 2,876 $MTCO_2e$ and operations of the project would generate approximately 2,957 $MTCO_2e$/year. This increase in GHG emissions could have the potential to conflict with the 2017 Scoping Plan; inhibit the state's ability to achieve the statewide GHG targets for 2020, 2030, and 2050; and, therefore, be a cumulatively considerable contribution to climate change. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.7-1).

HYDROLOGY AND WATER QUALITY

- Project construction activities would involve extensive grading, movement of soil, and blasting, which could result in erosion and sedimentation, and discharge of other nonpoint source pollutants in onsite stormwater that could then drain to offsite areas and degrade local water quality. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.9-1).

NOISE AND VIBRATION

- Project construction activities would generate noise levels substantially higher than ambient conditions. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.10-1).
- Site preparation and grading may include blasting to remove rock outcroppings. Vibration levels generated from blasting activities would exceed FTA's criteria for human disturbance for "infrequent events" at sensitive receptors located within 230 feet and would exceed Caltrans' criteria for structural damage to normal buildings at locations within 80 feet of the blasting site. Because the exact locations where blasting would be conducted are not know at the time of writing this EIR it is possible that project-related blasting activity could expose people and buildings to levels of ground vibration that exceed these standards. Mitigation has been recommended to reduce this impact. However, this mitigation measure would not completely offset this impact. Therefore, the impact would be **significant and unavoidable** (Impact 3.10-2).
- Operation of the project would include on-site truck circulation for shipments and deliveries, as well as waste collection. The proposed truck route would be located on the eastern edge of the site approximately 50 feet from existing single-family homes and would expose these noise-sensitive receptors to noise levels up to 75 dB L_{max}, exceeding the County's daytime, evening and nighttime noise standards of 70 dB, 60 dB and 55 dB L_{max}. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.10-4).
- Project operation would require the use of emergency generators, heating, ventilation, and air conditioning (HVAC) units, food storage cooling systems, and loading/delivery activity. HVAC units and food storage cooling systems would not expose nearby sensitive receptors to noise levels that exceed applicable County noise standards. However, noise generated from emergency generators and loading/delivery activities could expose

nearby noise-sensitive receptors to noise levels that exceed County noise standards. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.10-5).

- Operation of the project would include on-site outdoor events in Phase I and Phase II portions of the site such as movie showings and music concerts at the amphitheater, as well as sales and promotion events throughout the site. Noise generated by amplified speech and music would expose nearby sensitive receptors to noise levels that exceed the County daytime and evening noise standard. Mitigation has been recommended to reduce this impact to **less than significant** (Impact 3.10-6).

TRANSPORTATION/TRAFFIC

- The project would increase vehicle miles traveled under project and cumulative conditions. Mitigation has been recommended to reduce this impact. However, the mitigation measures would not completely offset this impact. Therefore, the impact is **significant and unavoidable** (see Impact 3.12-1 and 4-14).

5.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the 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. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR.

The EIR should also identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternative was considered but not evaluated further in this Draft EIR.

5.3.1 Off-Site Alternative

Under this alternative, the proposed expansion of the Montano De El Dorado commercial and office uses (Phase II) would be relocated to another commercially zoned parcel along a major roadway in the El Dorado Hills Community. There are currently undeveloped commercially zoned sites of adequate size in the El Dorado Hills Community along Saratoga Way and at the northwestern corner of Town Center Drive and White Rock Road. Neither of these sites would meet the project objective of expanding the existing Montano De El Dorado retail center. Both of these sites would also not avoid significant and unavoidable construction vibration and noise impacts of the proposed project as existing residential uses are located on their site boundaries.

This alternative is not considered to be feasible. It would not avoid significant noise and vibration impacts of the project and would not be consistent with the project objective of expanding the existing Montano De El Dorado retail center.

5.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives were selected for analysis based on the environmental analysis and ability to attain the basic objectives of the project. These alternatives are described in further detail and analyzed below.

- **Alternative 1: No Project – No Development Alternative** assumes no development of Phase II of the project site. The site would remain in its current condition.
- **Alternative 2: Modification of Special Events Alternative** assumes project develops as proposed except that the special events would be prohibited from using amplified music or sound systems.
- **Alternative 3: Reduced Development Alternative** would modify the site design by eliminating Building 8 and its associated loading dock from the Phase II site plan. This would reduce the size of Phase II to approximately 113,900 square feet of commercial and office uses.

Further details on these alternatives, and an evaluation of environmental effects relative to the project, are provided below.

5.4.1 Alternative 1: No Project – No Development Alternative

CEQA requires consideration of the No Project Alternative, which addresses the impacts associated with not moving forward with the project. The purpose of analyzing the No Project Alternative is to allow decision-makers to compare the impacts of the project versus no project. CEQA indicates that in certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained. The proposed project would expand the existing Montano De El Dorado retail center (Phase I) to include additional retail space, an office building, hotel, and a small amphitheater. Phase II would consist of a total of 10 buildings for a total floor area of approximately 75,400 square feet and 143,900 square feet of commercial and office uses on 16.8 acres. The project would also include the provision of outdoor special events within existing Phase I and within the proposed amphitheater and parking lots within Phase II. The No Project Alternative would retain the Phase II portion of the project site its current undeveloped condition and would not provide a Conditional Use Permit for special events in either Phase I or Phase II.

This alternative would not meet any of the project objectives.

EVALUATION OF ENVIRONMENTAL EFFECTS

Alternative 1 would not result in any site development or new special events on the project site. It would avoid the significant impacts of the project identified in Section 5.2.2, "Summary of Project Impacts," associated with aesthetics, toxic air contaminants, biological resources, cultural and tribal cultural resources, greenhouse gas emissions, construction water quality, noise and vibration, and intersection operation impacts. Thus, the magnitude of environmental impacts would be **less** under Alternative 1 than the project.

5.4.2 Alternative 2: Modification of Special Events Alternative

Alternative 2 would consist of the same extent of site development as the proposed project except that the special events would be prohibited from using amplified music or sound systems. Figure 2-14 identifies the proposed locations for special events. This alternative is intended to address significant noise impacts of the project associated with special events. All other aspects of the proposed project would be retained in this alternative.

EVALUATION OF ENVIRONMENTAL EFFECTS

Because Alternative 2 would retain the same extent of development of the Phase II portion of the project site, it would result in **similar** construction and operational impacts of the project identified in Section 5.2.2, "Summary of Project Impacts," with the exception of special event noise impacts (Impact 3.10-6).

Impact 3.10-6 identifies that the use of amplified sound systems at the proposed amphitheater would expose residences east of the project site to noise levels of 58 dB L_{eq} and 63 dB L_{max}. These noise levels would exceed the County daytime hourly L_{eq} standard as far as 450 feet from the amphitheater and would exceed the County evening hourly L_{eq} standard as far as 800 feet. Mitigation measures were identified to reduce noise levels (Mitigation Measure 3.10-6a and 3.10-6b) to a less-than-significant level. The magnitude of this impact would be **less** under Alternative 2 because this alternative would not allow the use of amplified sound systems at special events and would avoid this impact.

5.4.3 Alternative 3: Reduced Development Alternative

Alternative 3 would modify the site design by eliminating Building 8 (see Figure 2-3 for Building 8 location) and its associated loading dock from the Phase II site plan. This would reduce the size of Phase II to approximately 113,900 square feet of commercial and office uses as well as reduce the extent of heavy-duty trucks deliveries to the site. All other aspects of the proposed project would be retained in this alternative.

EVALUATION OF ENVIRONMENTAL EFFECTS

Aesthetics

Like the project, Alternative 3 would include the light fixtures that create new sources of light that could impact adjacent residential uses to the east. In addition, windows and architectural features of buildings could reflect sunlight and create glare condition. Mitigation has been identified (Mitigation Measures 3.1-2a and 3.1-2b) to reduce this impact to less than significant. The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall extent of lighting fixtures and buildings that would be the source of this impact.

Air Quality

Construction activities under Alternative 3 would result in significant toxic air contaminant impacts, comparable to those that would occur under the project because the extent of site development would be similar to that under the project. Mitigation has been identified (Mitigation Measure 3.2-4) to reduce this impact to less than significant. Thus, the magnitude of this impacts would be **similar** under Alternative 3 to the project.

Biological Resources

Like the project, site construction could result in significant impacts to special-status plant and bird species. Mitigation has been identified to reduce these impacts to less than significant (Mitigation Measures 3.3-1, 3.3-2, and 3.3-3). The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall extent of site development.

Cultural and Tribal Cultural Resources

Alternative 3 and the project would have the potential to result in significant impacts on undiscovered archaeological and tribal cultural resources from site development. Mitigation has been identified to reduce impacts to less than significant (Mitigation Measures 3.4-1, 3.4-3a, 3.4-3b). The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall extent of site development.

Energy

The project and Alternative 3 would result in less-than-significant impacts on energy use through compliance with the 2019 Title 24 Building Energy Efficiency Standards, which is designed to reduce the wasteful use of energy by increasing the project's energy efficiently. The magnitude of this impact would be **less** under Alternative 3 than under the project because Alternative 3 would reduce the energy use by eliminating Building 8.

Geology and Soils

The project and Alternative 3 would have less-than-significant impacts on geology and soils through compliance with County Code and improvement standards for grading and erosion control that are designed to ensure slope and soil stability. The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall extent of site development.

Greenhouse Gas Emissions and Climate Change

The project and Alternative 3 would result in new commercial and office uses and would have a significant impacts on GHG emissions. Mitigation has been identified to reduce these impacts to less than significant (Mitigation Measures 3.7-1a through 3.7-1c). Alternative 3 would further reduce construction-related and operation GHG emissions from the elimination of Building 8. The magnitude of this impact would be **less** under Alternative 3 than under the project because Alternative 3 would reduce the extent of GHG emissions related to construction and operational activities.

Hazards and Hazardous Materials

Alternative 3 and the project would result would have less-than-significant impacts on hazards as no hazardous materials exist on the site and are not anticipated to be used at the site. Both the project and Alternative 3 would comply with County and El Dorado Hills Fire Department standards regarding access for emergency vehicles. The

magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall site design.

Hydrology and Water Quality

Alternative 3 and the project would have the potential to result in significant impacts on water quality from construction activities. Mitigation has been identified to reduce this impact to less than significant (Mitigation Measure 3.9-1). The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall extent of site development.

Like the project, Alternative 3 would have the less-than-significant impacts on drainage and operational water quality. The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same drainage and water quality control features.

Noise and Vibration

Alternative 3 would result in construction activities that would result in significant noise and vibration impacts that are similar to those that would occur under the project because it would include the same extent of site development. Mitigation has been identified to reduce these impacts (Mitigation Measures 3.10-1, 3.10-2a, and 3.10-2b). Construction noise and vibration impacts would remain significant and unavoidable. The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall extent of site development.

Like the project, Alternative 3 would not result in significant traffic noise impacts. The magnitude of this impact would be **less** under Alternative 3 than under the project because Alternative 3 would reduce the project traffic and associated noise generation through the elimination of Building 8.

The project and Alternative 3 would generate significant on-site noise impacts due to truck (medium-duty and heavy-duty) deliveries, emergency generator use, and special events. Mitigation has been identified to reduce these impacts (Mitigation Measures 3.10-4a, 3.10-4b, 3.10-5a through 3.10-5c, 3.10-6a, and 3.10-6b). The magnitude of this impact would be **less** under Alternative 3 to the project because Alternative 3 would eliminate Building 8 and the associated noise from heavy-duty trucks and loading dock operations.

Public Services

Like the project, Alternative 3 would not result in significant impacts on fire protection and law enforcement. The magnitude of this impact would be **similar** under Alternative 3 to the project because Alternative 3 would have the same overall extent of site development.

Transportation/Traffic

Like the project, Alternative 3 would result in VMT significant impacts under project and cumulative conditions. Mitigation has been identified to reduce the VMT impact (Mitigation Measure 3.7-1b). The magnitude of this impact would be **less** under Alternative 3 to the project because Alternative 3 would generate less VMT than the project with the elimination of Building 8.

Utilities and Service Systems

Like the project, Alternative 3 would not result in significant impacts to water supply, wastewater service, or solid waste service. The magnitude of this impact would be **less** under Alternative 3 to the project because Alternative 3 would have reduced utility demands from the elimination of Building 8.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Because Alternative 1 would avoid all adverse impacts resulting from construction and operation of the project, it is the environmentally superior alternative. However, Alternative 1 would not meet any of the project objectives.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126.6[e][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Table 5-1, below, the Alternative 3 would be environmentally superior alternative due to the reduced development of the site.

Table 5-1 Summary of Environmental Effects of the Alternatives Relative to the Project

Environmental Topic	Proposed Project	Alternative 1: No Project – No Development Alternative	Alternative 2: Modification of Special Events Alternative	Alternative 3: Reduced Development Alternative
Aesthetics	Less Than Significant (with Mitigation)	Less	Similar	Similar
Air Quality	Less Than Significant (with Mitigation)	Less	Similar	Similar
Biological Resources	Less Than Significant (with Mitigation)	Less	Similar	Similar
Cultural and Tribal Cultural Resources	Less Than Significant (with Mitigation)	Less	Similar	Similar
Energy	Less Than Significant	Less	Similar	Less
Geology and Soils	Less Than Significant	Less	Similar	Similar
Greenhouse Gas Emissions and Climate Change	Less Than Significant (with Mitigation)	Less	Similar	Less
Hydrology and Water Quality	Less Than Significant (with Mitigation)	Less	Similar	Similar
Hazards and Hazardous Materials	Less Than Significant	Less	Similar	Similar
Noise	Significant and Unavoidable (construction noise and blasting only)	Less	Less	Less
Public Services	Less Than Significant	Less	Similar	Similar
Transportation/Traffic	Significant and Unavoidable	Less	Similar	Less
Utilities and Service Systems	Less Than Significant	Less	Similar	Less

6 REFERENCES

Executive Summary

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Chapter 1 Introduction

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Chapter 5 Project Alternatives

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