FIRSTCARBONSOLUTIONS™

DRAFT
Environmental Impact Report
Creekside Plaza
El Dorado County, California

State Clearinghouse Number 2011092017

Prepared for:
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Date: December 12, 2017

EXHIBIT U

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List of Exhibits

ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ADT	average daily traffic
ALUC	Airport Land Use Commission
APN	Assessors Parcel Number
AQMD	Air Quality Management District
ARB	California Air Resources Board
BMP	Best Management Practices
C	Celsius
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CH_4	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
dB	decibel
DPM	diesel particulate matter
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
F	Fahrenheit
FAR	floor area ratio
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration

GWh/y	gigawatt-hours per year
GWP	global warming potential
HFC	hydrofluorocarbon
HRA	Health Risk Assessment
I	Interstate
L_{dn}	day/night average sound level
LED	light emitting diode
L_{eq}	equivalent sound level
LOS	Level(s) of Service
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
mph	miles per hour
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	ozone
PCB	polychlorinated biphenyl
pCi/l	picocuries per liter
PFC	perfluorocarbon
PM_X	particulate matter
ppb	parts per billion
ppm	parts per million
PVC	polyvinyl chloride
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SF_6	sulfur hexafluoride
SO_2	sulfur dioxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants

TCM	transportation control measures
TDM	Transportation Demand Management
TDS	total dissolved solids
therms/y	therms per year
TMA	Transportation Management Association
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
V/C	volume to capacity ratio

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EXECUTIVE SUMMARY

Purpose

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the Creekside Plaza Project (State Clearinghouse No. 201192017). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of this Draft EIR is to inform decision makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the proposed project. This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided.

Project Summary

Project Location

The project site consists of three parcels (Assessor's Parcel Numbers 327-211-14, 327-211-16, and 327-211-25) totaling approximately 4.1 acres and 0.22 acre of existing Forni Road Right of Way, for a site total of approximately 4.3 acres. It is located at the northwest corner of the intersection of Forni Road and Missouri Flat Road in the Diamond Springs area outside the incorporated City of Placerville, in El Dorado County, California. The project site is located within the El Dorado—Diamond Springs Community Region. The project site is located within the Placerville Quadrangle, Section 24, Township 10 North, Range 10 East on the USGS 7.5-minute topographic map.

Project Description

The proposed project is requesting approval of three related actions:

- Rezone (Application File #Z10-0009) of the site from Community Commercial—Design Control (CC-DC) to Community Commercial-Planned Development (CC-PD) and Open Space-Planned Development (OS-PD) (Exhibit 2-3a).
- Tentative Parcel Map (Application File # P10-0012) to subdivide the site into four parcels (Exhibit 2-3b), including three buildable parcels and one 1.14-acre open space parcel, as well as a general vacation of a 0.22-acre portion of Forni Road Right of Way that would be added to the development.
- Planned Development Permit (Application File # PD10-0005) to establish a Development Plan for the proposed commercial center containing three buildings totaling 30,560 square feet (at maximum buildout), served by on-site parking, lighting, signage, and landscaping (Table ES-1).

The three commercial buildings would be located on the south and southwestern portions of the property between Missouri Flats Road and the on-site riparian area. A retaining wall would divide the proposed developed area from the on-site riparian area. Boulders, trees, and other landscaping elements would complement the functionality of the retaining wall by providing a high-quality aesthetic barrier to soften or shield views from along Forni Road and beyond. Additional landscaping located along project frontages would reduce any potential aesthetic impacts from viewers along local roadways.

As illustrated on Table ES-1, Building A is located in the northernmost section of the property and would contain approximately 20,060 square feet of office and retail space in two-stories. Building B is located southeast of Building A and would contain a retail store of approximately 1,350 square feet and a 2,550-square-foot fast-food restaurant with drive-thru. The third building, Building C, would be located in the southernmost section of the site. Building C would contain approximately 6,600 square feet of retail space. Table ES-1 shows a summary of the development plan. Additionally, the site plan provides a total of 1.14 acres of open space as well as 77 shade trees, 50 percent of which would be evergreen species. The project would also include installation of bike racks, monument signs, three trash enclosures, on-site landscaping and wrought iron fencing, as well as a 156-stall parking lot and 15-foot-tall pole lights.

Table ES-1: Development Plan Summary

Parcel Number	Parcel Acreage	Project Component	Use	Building Square Footage	FAR*	Max. Building Height (ft.)	Setbacks	Parking Stalls
3	1.56	Building A	Office	9,860	0.30	43.25	20 feet from road	86
			Retail	10,200				
2	0.90	Building B	Fast Food	2,550	0.10	23.00	>20 feet from nearest parcel boundary	40
			Retail	1,350				
1	0.72	Building C	Retail	6,600	0.21	25.33	10 feet from roads	30
A	1.14	Open Space Area	Open Space	—	—	—	—	—
Total	**4.32**	—	—	**30,560**	0.16	—	—	**156**

Note:
*FAR—floor-area ratio
Source: Wickert, 2017.

Project Objectives

The objectives of the proposed project are to:

- Positively contribute to the local economy through new capital investment, the creation of new jobs, the provision of new services, and the expansion of the tax base.

- Promote commercial development consistent with County General Plan policies adopted to achieve the objective of providing greater opportunities for County residents to shop within El Dorado County.
- Develop vacant underutilized land within the Missouri Flat Road commercial corridor consistent with existing land use designations.
- Preserve in perpetuity, a portion of the on-site ravine and associated vegetation while maintaining consistency with the applicable United States Army Corps of Engineers 404 permit process.
- Provide for on-site development while maintaining areas of oak woodland and consistency with the Oak Resources Management Plan.
- Promote land use compatibility with Herbert C. Green Middle School by incorporating pedestrian paths of travel, including crosswalks and pathways.
- Develop a modern retail center that employs architecture consistent with the Missouri Flat Design Guidelines and provides ample landscaping, thereby promoting a high-quality visual appearance.
- Promote accessibility to public transit, bicycles, and pedestrians through the accommodation of these modes of transportation in site planning efforts.

Significant Unavoidable Adverse Impacts

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify any environmental impacts that are significant and unavoidable with project implementation. The proposed project would not result in any significant unavoidable impacts.

Summary of Project Alternatives

Below is a summary of the alternatives to the proposed project considered in Section 5, Alternatives to the Proposed Project.

No Project Alternative

The proposed project would not be pursued and the project site would remain undeveloped for the foreseeable future.

Reduced Intensity Alternative

The proposed project's square footage would be reduced by 15,280 square feet, or by 50 percent, which would be proportionately applied to the office, retail, and restaurant uses.

Wetland Avoidance Alternative

The proposed project's footprint would be reduced to avoid the on-site wetland and riparian area, including a 50-foot buffer. Under this alternative the project footprint would be limited to

approximately 1.55 acres on the western half of the project site along Missouri Flat Road. As a result, the project would consist of only Building A, totaling 20,060 square feet and consisting of 9,860 square feet of office space and 10,200 square feet of retail space in two stories.

Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) and Initial Study (IS) for the proposed project were issued on January 27, 2017. The NOP and IS describing the original concept for the project and issues to be addressed in the EIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from January 28, 2017 through February 27, 2017. The NOP and IS identified the potential for significant impacts on the environment related to the following topical areas:

- Air Quality
- Biological Resources
- Greenhouse Gases
- Transportation

Potentially Controversial Issues

Below is a list of potentially controversial issues that may be raised during the public review and hearing process of this Draft EIR:

- Air Pollution
- Biological Resources
- Greenhouse Gas Emissions
- Transportation

Comments will be accepted during the 45-day, statutory Draft EIR public review period. Decision makers would consider those comments and response to comments as part of the Final EIR.

Public Review of the Draft EIR

Upon completion of the Draft EIR, the County of El Dorado filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the El Dorado Development Services Division and the El Dorado County Library, Placerville Branch. The address for each location is provided below.

El Dorado County
2850 Fairlane Court
Placerville, CA 95667
Hours:
Monday, Tuesday, Thursday, and Friday
8:00 a.m.–4:00 p.m.
Wednesday 9:00 a.m.–4:00 p.m.

El Dorado County Library, Placerville
345 Fair Lane
Placerville, CA 95667
530.621.5540
Hours:
Tuesday and Wednesday 12p.m.–7p.m.
Thursday and Friday 10a.m.–5p.m.
Saturday 10a.m.–5p.m.
Closed Sundays and Mondays

El Dorado County Library, El Dorado Hills
7455 Silva Valley Pkwy.
El Dorado Hills, CA 95762
Hours:
Monday, Wednesday and Friday 10:00 a.m.–5:00 p.m.
Tuesday and Thursday 10:00 a.m.–7:00 p.m.
Saturday 1:00 p.m.–5:00 p.m.
Closed Sunday

Cameron Park Library
2500 Country Club Drive
Cameron Park, CA 95682
Hours:
Monday, Wednesday and Friday
10:00 a.m.–5:00 p.m.
Tuesday and Thursday 12:00 p.m.–7:00 p.m.
2nd Saturday 10:00 a.m.–3:00 p.m.
Closed remaining Saturdays and Sunday

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Rommel (Mel) Pabalinas, Senior Planner
El Dorado County
2850 Fairlane Court
Placerville, CA 95667
Phone: 530.621.5355
Fax: 530.642.0508
email: Rommel.pabalinas@edcgov.us

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the El Dorado Planning Commission on the project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

Executive Summary Matrix

Table ES-2 summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the proposed project. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding section of this EIR. Table ES-2 is included in the EIR as required by CEQA Guidelines Section 15123(b)(1).

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Table ES-2: Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.1—Air Quality/Greenhouse Gas Emissions		
Impact AIR-1: Implementation of the proposed project would not conflict with or obstruct implementation of an applicable air quality plan.	No mitigation is necessary.	Less than significant impact.
Impact AIR-2: The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.	**MM AIR-2:** Reduce Construction-related Emissions of Fugitive Dust. The developer shall comply with all applicable provisions of El Dorado County Air Quality Management District Rule 223-1 rules and regulations and shall require the contractor to submit a Fugitive Dust Plan that includes best management practices from Rule 223-1 Tables 1 through 4. The Dust Plan shall include the following key elements: • Construction and earthmoving activities • Bulk material handling • Removal and prevention of trackout	Less than significant impact.
Impact AIR-3: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	No mitigation is necessary.	Less than significant impact.
Impact AIR-4: The project would not expose sensitive receptors to substantial pollutant concentrations.	Implement Mitigation Measure AIR-2.	Less than significant impact.
Impact AIR-5: The project would not create objectionable odors affecting a substantial number of people.	No mitigation is necessary.	No mitigation is required.
Impact AIR-6: The project would generate direct and indirect greenhouse gas emissions; these emissions would result in a significant impact on the environment.	No mitigation is necessary.	Less than significant impact.
Impact AIR-7: The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	No mitigation is necessary.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.2—Transportation		
Impact TRANS-1: The project would generate new trips that would contribute to unacceptable traffic operations under Existing Plus Project conditions.	**MM TRANS-1:** Prior to the issuance of building permits, the project applicant shall contribute its fair share to the cost of regional circulation improvements via the El Dorado County Traffic Impact Mitigation fee program for impacts related to signalization of Missouri Flat Road at Enterprise Drive.	Less than significant impact.
Impact TRANS-2: The project would generate new trips that would contribute to unacceptable traffic operations under 2035 plus Project conditions.	Implement MM TRANS-1.	Less than significant impact.
Impact TRANS-3: The project would not generate new trips that would contribute to unacceptable traffic operations in the Mid-Afternoon Analysis.	No mitigation is necessary.	Less than significant impact.
Impact TRANS-4: The project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	Implement MM TRANS-1.	Less than significant impact.
Impact TRANS-5: The project may substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**MM TRANS-5a:** The project shall construct the following improvements at the Forni Road/Golden Center Drive/Project intersection: • Install a crosswalk along the north side of the intersection to indicate the preferred crossing location for pedestrians. The installation of a crosswalk on the north side will reduce the number of potential conflicts with motor vehicles as most vehicles at this intersection travel between Missouri Flat Road and Forni Road. • Sidewalk shall be installed along the entire project frontage on Forni Road. • A pathway/sidewalk shall be constructed connecting the pedestrian crossing on the north side of Golden Center Drive into the project site. • Install a No Parking Zone along the Forni Road project frontage to maximize sight distance at the driveway. • Install a crosswalk across the project driveway.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	• A speed survey shall be conducted by County staff to identify an appropriate speed limit along Forni Road in the project vicinity. Currently, the roadway is not signed, indicating a presumed speed limit of 55 mph. **MM TRANS-5b:** The following on-site circulation improvements and requirements shall be implemented: • Any landscaping over 2 feet in height and signage shall be placed outside of the sight lines of the Missouri Flat Road Right-In/Right-Out driveway to provide adequate sight distance. • A crosswalk at the drive-through lane entrance shall be installed to provide pedestrian access to the fast food restaurant. • Landscaping adjacent to the drive-through entrance shall be limited to vegetation no higher than 2 feet to provide visibility of the crosswalk area for inbound traffic from the Forni Road driveway. • Landscaping adjacent to the drive-through exit shall be limited to vegetation no higher than 2 feet to maintain visibility for exiting vehicles. • Install a stop sign with limit line at the drive-through exit. • Install a crosswalk 25 feet behind the limit line of the drive-through exit. • Truck access shall be limited to non-operational hours of the fast-food restaurant to prevent the drive aisle from being blocked while trucks are loading/unloading. • Install "Do Not Block" markings at internal intersections where blocking would hinder traffic flow.	
Section 7.2.3—Biological Resources		
The project would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. The project may also interfere substantially with the movement of any native resident or migratory fish or wildlife species or	**MM BIO-1:** Pre-construction Survey Required: If vegetation removal is conducted within the nesting period for most migratory bird species and nesting raptor species (between March 1 and August 15), a pre-construction survey for active bird nests shall be conducted no more than 15 days prior to initiation of ground-disturbing activities by a qualified biologist. If vegetation removal activities are delayed or suspended more than one month after the pre-construction survey, the area shall be re-surveyed. If active bird nests are identified, vegetation removal in these areas shall be	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.	postponed until after the nesting season, or a qualified biologist has determined the young have fledged and are independent of the nest site. No known active nests shall be disturbed without a permit or other authorization from the United States Fish and Wildlife Service or the California Department of Fish and Wildlife.	
The project would have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. The project would also have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	**MM BIO-2:** Streambed Alteration Agreement: A Streambed Alteration Agreement, pursuant to Fish and Game Code 1602, shall be obtained by the applicants, from the California Department of Fish and Wildlife (CDFW), if applicable, for each stream crossing and any other activities affecting the bed, bank, or associated riparian vegetation of any stream on the site. Appropriate mitigation measures shall be developed in coordination with CDFW in the context of the agreement process. Authorization prior to placement of any fill is required from the United States Army Corps of Engineers (USACE) if any impacts are proposed to jurisdictional riparian habitat. This authorization may require mitigation as deemed necessary by the USACE. The Agreement shall address the following to the satisfaction of the CDFW: a. The applicant will purchase credits in the National Fish and Wildlife Foundation Fund for impacts to the stream and riparian habitat. Credits will be obtained at a minimum ratio of 1:1. This must be done before County permits are issued. b. The applicant will: i. Set aside the unimpacted portion of the stream and adjacent riparian habitat (approximately 0.9 acre) in a separate legal parcel; ii. Place the preserved parcel in a Conservation Easement; iii. Obtain an approved 501(c)(3) non-profit organization to hold the Conservation Easement; iv. Provide a Long-term Operations and Management Plan describing activities for managing the preserved parcel, and v. Provide a long-term funding mechanism to be approved by the Department of Fish and Game. vi. Provisions a. through e. must be completed before County permits are issued.	Less than significant impact.

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	c. The applicant will provide an approved restoration plan for riparian planting. Elements of that plan will include: i. A map of locations and species for the plants installed in the restoration area; ii. A discussion of performance standards stating that 80 percent of the planted trees will be alive at the end of the five-year monitoring; iii. The method for determining whether plantings are alive at the end of each monitoring year (that is, each tree will be counted and determined to be dead or alive; dead trees will be replanted) iv. A discussion of contingency measures that could be used in the event that the restoration plantings fail. These measures could include, but are not limited to, making additional plantings and extending the monitoring period or purchasing additional credits in an acceptable fund or mitigation bank. v. Submission of annual reports for the restoration project to the CDFW. vi. This plan must be approved by the CDFW before County permits are issued. **MM BIO-3:** Wetland Delineation Verification: Prior to placement of fill material in on-site Waters of the U.S., the applicants shall request authorization from the United States Army Corps of Engineers (USACE) through the Section 404 Permit process. Along with the request, the applicants shall provide project construction and development drawings or maps, including, for example, wetland areas, denoting all proposed improvements in relation to the Ordinary High Water Mark (OHWM). Applicant shall strive to avoid and minimize adverse impacts to Waters of the United States, and to achieve a goal of no net loss of wetlands functions and values. Applicant shall propose to the USACE appropriate mitigation for unavoidable losses to Waters of the U.S. using USACE mitigation guidelines and regulations. The USACE Section 404 permit will define terms and conditions, including mitigation, for the fill activities. **MM BIO-4:** Water Quality Certification: A Water Quality Certification, Section 401 permit, if applicable, shall be obtained by the applicant from	

Table ES-2 (cont.): Executive Summary Matrix

Impacts	Mitigation Measures	Level of Significance After Mitigation
	the Regional Water Quality Control Board for applicable project improvements. Appropriate mitigation measures shall be developed in coordination within the context of the agreement process. Additionally, the following shall be included to the satisfaction of the Regional Water Quality Control Board: a. The applicant will prepare a Storm Water Pollution Prevention Plan for approval. That plan will describe methods for ensuring downstream water quality during construction and will be implemented before construction begins. b. Work areas will be separated by buffers and orange construction fencing to delineate the preserved riparian areas. No grading will be allowed within the fenced-off buffer zones. c. Waste and construction materials will be placed where they will not run off into the stream, or they will immediately be removed off-site. d. The project will include a Continuous Deflection Separation system to remove oil and other substances from runoff within the project area before it is discharged to Weber Creek. This system will be maintained by the property owner as described in the Contech Stormwater Solutions technical manuals.	
The project may conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**MM BIO-5:** Prior to site disturbance, an updated project-specific technical report and mitigation plan addressing impacts to on-site oak woodlands and consistent with the guidelines and regulations of the El Dorado County Oak Resources Management Plan must be prepared and approved by the County. The technical report must disclose the percentage of impacted oak woodland on-site and the related mitigation plan must indicate the appropriate mitigation ratio and mitigation type, consistent with the requirements of the ORMP. The identified mitigation must be implemented prior to site disturbance or in accordance with timing identified in the project-specific technical report and mitigation plan in accordance with the ORMP.	Less than significant impact.

SECTION 1: INTRODUCTION

1.1 - Overview of the CEQA Process

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the Creekside Plaza Project (State Clearinghouse No. 2011092017). The Project has been previously considered in an Initial Study, dated January 25, 2017, and included in this document at Appendix A. Consistent with CEQA Guidelines Section 15063(c)(3), the Initial Study was used to identify which effects of the Project were determined not to be significant; explain the reasons for determining that those effects would not be significant; and focus this Draft EIR on only the effects determined to be potentially significant. As indicated in the Initial Study, with the implementation of mitigation, impacts would be less than significant for all impact areas except for the CEQA Appendix G Checklist questions related to air quality, greenhouse gas emissions, and transportation. The Initial Study identified that additional analysis is warranted to fully determine impacts related to these topical areas. As such, this Draft EIR focuses on air quality, greenhouse gas emissions, and transportation.

This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.). This Draft EIR is intended to serve as an informational document for the public agency decision makers and the public regarding the proposed Project.

1.1.1 - Overview

Background

A previous iteration of the Project was originally processed pursuant to CEQA with a Mitigated Negative Declaration (MND). The El Dorado County Board of Supervisors certified the MND and approved the associated Project entitlements in February 2012. Following these actions, a local community organization filed suit against the County, contending that the MND was legally inadequate. In light of this development, and at the applicant's request, the County rescinded certification of the MND and approval of the Project. The applicant has now elected to initiate the preparation of a focused EIR in order to maximize legal defensibility.

Project Summary

The proposed Project consists of a rezone, Development Plan, and Tentative Parcel Map for a proposed commercial center containing three buildings totaling 30,560 square feet. The three buildings would provide for office, retail, and fast food commercial space. Section 2, Project Description provides a complete description of the Project.

1.1.2 - Purpose and Authority

This Draft EIR provides a Project-level analysis of the environmental effects of the Creekside Plaza Project with respect to air quality, greenhouse gas emissions, and transportation/traffic. The

environmental impacts of the proposed Project are analyzed in the EIR to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146 and the conclusions of the Initial Study (see Appendix A). This document addresses the potentially significant adverse environmental impacts that may be associated with the planning, construction, or operation of the Project. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts.

CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements are contained in this Draft EIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found not to be Significant
- Areas of Known Controversy

1.1.3 - Lead Agency Determination

The County of El Dorado is designated as the lead agency for the Project. CEQA Guidelines Section 15367 defines the lead agency as ". . . the public agency, which has the principal responsibility for carrying out or approving a project." Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by FirstCarbon Solutions, an environmental consultant. Prior to public review, it was extensively reviewed and evaluated by the County of El Dorado. This Draft EIR reflects the independent judgment and analysis of the County of El Dorado as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Section 9 of this Draft EIR.

1.2 - Scope of the EIR

This Draft EIR addresses the potential environmental effects of the proposed Project as they relate to air quality, greenhouse gas emissions, and transportation. Additional environmental effects of the Project have been addressed in the previously prepared Initial Study, and were all found to be less than significant, or less than significant with mitigation. The County of El Dorado issued a Notice of Preparation (NOP) for the proposed Project on January 27, 2017, which circulated between January 28 through February 27, 2017 for the statutory 30-day public review period. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP and Initial Study, as well as

issues raised by agencies and the public in response to the NOP and Initial Study. The NOP, Initial Study, and related comments are contained in Appendix A of this Draft EIR.

Pursuant to CEQA Guidelines Section 15082(c)(1), El Dorado County held a public scoping meeting for the proposed project on Wednesday, February 15, 2017 at the Placerville Seventh-Day Adventist Church.

Comment letters received in response to the NOP and at the public scoping meeting are listed in Table 1-1 and provided in Appendix A of this Draft EIR.

Table 1-1 : IS-NOP Comment Letters

Agency/Organization	Date	Topic	EIR Section
Public Agencies			
Sharaya Souza, Native American Heritage Commission	02/02/2017	Requests cultural resources consultation under AB 52	See Section 7.2.4, Cultural Resources
David Tucker (MLUSD)	02/15/2017	Traffic impacts on roadways	See Section 3.2, Transportation
Stephanie Tadlock, Central Valley Regional Water Quality Control Board	02/21/2017	Applicability of relevant CVRWQCB policies: wastewater discharge permits, construction stormwater general permits and storm sewer system permits, impacts relating to wetland disturbance, water quality certification, and construction dewatering	See Section 7.2.3, Biological Resources; Section 7.2.7, Hydrology and Water Quality; and Section 7.2.14, Utilities and Service Systems
Marcy M. Guthrie, Mother Lode Union School District	02/27/2017	Trip generation, public safety, circulation, air pollution (particulate matter)	See Section 3.1, Air Quality and Greenhouse Gas Emissions, and Section 3.2, Transportation
Erick Fredricks, Caltrans District 3	02/27/2017	Operational traffic hazards should be fully mitigated	See Section 3.2, Transportation
Amy Phillips, County of El Dorado Community Development Agency	02/27/2017	Discuss how the Project meets water quality requirements per the CVRWQCB	See Section 7.2.7, Hydrology and Water Quality
Individuals			
Richard Boylan	02/04/2017	Air pollution, greenhouse gas emissions, traffic generation, traffic hazards, water quality, erosion and stormwater runoff, wetlands, public safety	See Section 3.1, Air Quality and Greenhouse Gas Emissions; Section 3.2, Transportation; Section 7.2.3 Biological Resources; Section 7.2.5, Geology; and Soils; and Section 7.2.6, Hazards and Hazardous Materials
Richard Boylan	02/13/2017	Location of public scoping meeting	Comment noted
Marcy Guthrie	02/15/2017	Phone number provided	Comment noted

Table 1-1 (cont.): IS-NOP Comment Letters

Agency/Organization	Date	Topic	EIR Section
Anton Nemeth	02/15/2017	Traffic, chemical, and noise impacts on Herbert Green Middle School. Safety hazards on school children, compliance with Measure C and Measure Y and cumulative impacts	See Section 3.1, Air Quality and Greenhouse Gas Emissions; Section 3.2, Transportation; Section 7.2.8, Land Use and Planning; and Section 4, Cumulative Impacts
Chuck Wolf	02/15/2017	Traffic impacts on roadways, air pollution (particulate matter), and greenhouse gas emissions, compatibility with the surrounding community	See Section 3.1, Air Quality and Greenhouse Gas Emissions; Section 3.2, Transportation; and Section 7.2.1, Aesthetics, Light and Glare
Bob Smart	02/15/2017	Impacts on wildlife migration routes, bike/pedestrian access to Forni Road, bus stop	See Section 7.2.3, Biological Resources and Section 7.2.13, Recreation
David Tucker	02/15/2017	Left turns on Missouri Flat Road, the need for three lanes on Missouri Flat Road from Golden Center Drive to Arroyo Vista Way.	See Section 3.2, Transportation
Richard Boylan	02/15/2017	Air pollution, greenhouse gas emissions, traffic generation, traffic hazards, water quality, erosion and stormwater runoff, wetlands, public safety	See Section 3.1, Air Quality and Greenhouse Gas Emissions; Section 3.2, Transportation; Section 7.2.3, Biological Resources; and Section 7.2.7, Hydrology and Water Quality
Linda Rusk	02/17/2017	Traffic impacts on roadways	See Section 3.2, Transportation
John and Carol Nordquist	02/24/2017	Aesthetic impacts on Herbert Green Middle School, air quality from traffic emissions on schools (ozone and particulate matter), increase in noise, light pollution, traffic impacts on roadways affecting public services, traffic congestion and traffic hazards, opposition to Project	See Section 3.1, Air Quality and Greenhouse Gas Emissions; Section 3.2, Transportation; Section 7.2.1, Aesthetics, Light and Glare; Section 7.2.10, Noise; and Section 7.2.12, Public Services Opposition to the Project is noted.
Donna Ellis	02/24/2017	Traffic congestion, traffic hazards, opposition to Project	See Section 3.2, Transportation Opposition to the Project is noted.
Paula Hutson	02/25/2017	Traffic congestion, noise, air pollution	See Section 3.1, Air Quality and Greenhouse Gas Emissions; Section 3.2, Transportation; and Section 7.2.10, Noise

Table 1-1 (cont.): IS-NOP Comment Letters

Agency/Organization	Date	Topic	EIR Section
Sue Taylor (Save our County)	02/27/2017	Consistency with General Plan, County Measures Y and E, visual character, light and glare, oak woodlands mitigation plan. Impacts on soils and wetlands, cumulative impacts to water quality, stormwater runoff, safety hazards, traffic congestion, and mitigation enforcement Analysis for aesthetics and biological resources, cultural resources, hydrology and water, public utilities, public services, hazards and hazardous materials, mineral resources should all be included in the EIR	See Section 3.1, Air Quality and Greenhouse Gas Emissions; Section 3.2, Transportation; Section 7.2.1, Aesthetics, Light and Glare; Section 7.2.3, Biological Resources; Section 7.2.5, Geology and Soils; Section 7.2.7, Hydrology and Water Quality; Section 7.2.8, Land Use and Planning; and Section 7.2.10, Noise The EIR analyzes impacts based on the findings of the Initial Study. Impacts identified in the Initial Study with a potential significant impact are analyzed in detail in the EIR. Please refer to Section 7 for all resources not detailed in Section 3 of this document.
Renee Hargrove	2/28/2012	Opposition to project, increased traffic, and pedestrian safety.	See Section 3.2, Transportation. Opposition to the Project is noted.

1.2.1 - Environmental Issues Determined not to be Significant

The NOP and Initial Study identified topical areas that were determined not to be significant, as well as topical areas that were determined not be significant with the implementation of mitigation. An explanation of each related topical area is provided in Section 7, Effects Found not to be Significant.

As indicated in the Initial Study, the following topical areas were determined not to be significant because of the design, location, or setting, or because of the implementation of mitigation identified in the Initial Study.

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources (with mitigation)
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

The Initial Study included mitigation that would reduce potential biological resource impacts to less than significant. That mitigation is provided in Section 7, Effects Found not to be Significant and will be included in the Project's Mitigation Monitoring and Reporting Plan. All other topical areas were found to have less than significant or no impact, and required no mitigation.

1.2.2 - Potentially Significant Environmental Issues

The NOP and Initial Study found that the following topical areas may contain potentially significant environmental issues that will require further analysis in the EIR. These sections are as follows:

- Air Quality
- Greenhouse Gas Emissions
- Transportation/Traffic

1.3 - Organization of the EIR

This Draft EIR is organized into the following main sections:

- **Section ES: Executive Summary.** This section includes a summary of the proposed Project and alternatives to be addressed in the Draft EIR. A brief description of the areas of controversy and issues to be resolved, and overview of the Mitigation Monitoring and Reporting Program, in addition to a table that summarizes the impacts, mitigation measures, and level of significance after mitigation, are also included in this section.
- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.
- **Section 2: Project Description.** This section includes a detailed description of the proposed Project, including its location, site, and Project characteristics. A discussion of the Project objectives, intended uses of the Draft EIR, responsible agencies, and approvals that are needed for the proposed Project are also provided.
- **Section 3: Environmental Impact Analysis.** This section analyzes the environmental impacts of the proposed Project. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 3 are as follows:
  - **Section 3.1—Air Quality/Greenhouse Gas Emissions** Addresses the potential air quality impacts associated with Project implementation, as well as consistency with the El Dorado Air Quality Management District regulations. In addition, the section also evaluates project emissions of greenhouse gases.
  - **Section 3.2—Transportation:** Addresses the impacts on the local and regional roadway system, public transportation, bicycle, and pedestrian access.
- **Section 4: Cumulative Effects.** This section discusses the cumulative impacts associated with the proposed Project, including the impacts of past, present, and probable future projects.

- **Section 5: Alternatives to the Proposed Project.** This section compares the impacts of the proposed Project with three land-use Project alternatives: the No Project Alternative, the Reduced Emissions Alternative, and the Wetland Avoidance Alternative. An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.
- **Section 6: Other CEQA Considerations.** This section provides a summary of significant environmental impacts, related to unavoidable and growth-inducing impacts. In addition, the proposed Project's energy demand is discussed.
- **Section 7: Effects Found not to be Significant.** This section contains analysis of the topical sections not addressed in Section 3, incorporating the conclusions of the Initial Study.
- **Section 8: Persons and Organizations Consulted/List of Preparers.** This section contains a full list of persons and organizations that were consulted during the preparation of this Draft EIR. This section also contains a full list of the authors who assisted in the preparation of the Draft EIR, by name and affiliation.
- **Section 9: References.** This section contains a full list of references that were used in the preparation of this Draft EIR.
- **Appendices.** This section includes all notices and other procedural documents pertinent to the Draft EIR, as well as all technical material prepared to support the analysis.

1.4 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Draft EIR has also been described. The documents and other sources that have been used in the preparation of this Draft EIR include but are not limited to:

- January 25, 2017 Initial Study
- County of El Dorado General Plan
- County of El Dorado Municipal Code
- County of El Dorado Missouri Flat Design Guidelines

These documents are specifically identified in Section 9, References, of this Draft EIR. In accordance with CEQA Guidelines Section 15150(b), the General Plan, Initial Study, and County of El Dorado Municipal Code and the referenced documents and other sources used in the preparation of the Draft EIR are available for review at the El Dorado Development Services Division at the address shown in Section 1.6 below.

1.5 - Documents Prepared for the Project

The following technical studies and analyses were prepared for the proposed Project:

- Air Quality/Greenhouse Gas Emissions Analysis (Refer to Section 3.1 and Appendix B)
- Biological Resource Assessment, Barry Anderson/North Fork Associates (2011)
- Biological Resource Assessment Update, Salix Consulting (2016)
- Oak Canopy Cover Analysis, Salix Consulting (2016)
- All Tree Cover Analysis, Salix Consulting (2016)
- Updated Wetland Delineation, Salix Consulting, Inc. (2015)
- Cultural Resources Assessment, Peak & Associates (2009)
- Cultural Resources Assessment Supplemental Letter, FCS (2016)
- Preliminary Drainage Report, Lebeck and Young (2010)
- Facility Improvement Letter, El Dorado Irrigation District (2016)
- Traffic Impact Analysis for Creekside Plaza, KDAnderson & Associates (2017)

1.6 - Review of the Draft EIR

Upon completion of the Draft EIR, the County of El Dorado filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the El Dorado Development Services Division. The address for each location is provided below:

El Dorado County
2850 Fairlane Court
Placerville, CA 95667
Hours:
Monday, Tuesday, Thursday, and Friday
8:00 a.m.–4:00 p.m.
Wednesday 9:00 a.m.–4:00 p.m.

El Dorado County Library, Placerville
345 Fair Lane
Placerville, CA 95667
530.621.5540
Hours:
Tuesday and Wednesday 12p.m.–7p.m.
Thursday and Friday 10a.m.–5p.m.
Saturday 10a.m.–5p.m.
Closed Sundays and Mondays

El Dorado County Library, El Dorado Hills
7455 Silva Valley Pkwy.
El Dorado Hills, CA 95762
Hours:
Monday, Wednesday and Friday 10:00 a.m.–5:00 p.m.
Tuesday and Thursday 10:00 a.m.–7:00 p.m.
Saturday 1:00 p.m.–5:00 p.m.
Closed Sunday

Cameron Park Library
2500 Country Club Drive
Cameron Park, CA 95682
Hours:
Monday, Wednesday and Friday
10:00 a.m.–5:00 p.m.
Tuesday and Thursday 12:00 p.m.–7:00 p.m.
2nd Saturday 10:00 a.m.–3:00 p.m.
Closed remaining Saturdays and Sunday

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Rommel (Mel) Pabalinas, Senior Planner
El Dorado County
2850 Fairlane Court
Placerville, CA 95667
Phone: 530.621.5355
Fax: 530.642.0508
email: rommel.pabalinas@edcgov.us

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the El Dorado Planning Commission on the Project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the Project.

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SECTION 2: PROJECT DESCRIPTION

This Environmental Impact Report (EIR) analyzes select potential environmental effects of the proposed Creekside Plaza Project in the County of El Dorado.

2.1 - Project Background

A previous iteration of the Project was originally approved with a Mitigated Negative Declaration (MND) pursuant to CEQA. The El Dorado County Board of Supervisors certified the MND and approved the associated Project entitlements in February 2012. Following these actions, a local community organization filed suit against the County, contending that the MND was legally inadequate. In light of this development, and at the applicant's request, the County rescinded certification of the MND and approval of the Project. The applicant has now elected to initiate the preparation of a Focused EIR in order to maximize legal defensibility. This EIR is based upon the conclusions of the recirculated Initial Study (IS) (Appendix A). Appropriate updates have been made, as necessary, to the Project Description and applicable regulations. As indicated in the IS, any impacts identified in the IS as potentially significant requiring additional impact analysis are addressed in this Focused EIR. These impacts are limited to air quality/greenhouse gas emissions and transportation/traffic. All other impacts were found to be less than significant, or less than significant with mitigation.

2.2 - Project Location and Setting

2.2.1 - Location

The Project site consists of three parcels (assessor's parcel numbers 327-211-14, 327-211-16, and 327-211-25) totaling approximately 4.1 acres and 0.22 acre of existing Forni Road right-of-way, for a site total of approximately 4.3 acres. It is located at the northwest corner of the intersection of Forni Road and Missouri Flat Road in the Diamond Springs area outside the incorporated City of Placerville, in El Dorado County, California (Exhibit 2-1). The Project site is located within the El Dorado—Diamond Springs Community Region. The Project site is located within the Placerville Quadrangle, Section 24, Township 10 North, Range 10 East on the USGS 7.5-minute topographic map.

2.2.2 - Surrounding Land Uses

Surrounding land uses include existing single-family residential development to the north and northwest, while commercial uses are located to the west, south, and east (Exhibit 2-2). This portion of Missouri Flat Road has been developed with commercial retail and office land uses, although some residential housing still exists along Forni Road and Road 2233. The Herbert Green Middle School is located to the northeast of the Project site off Forni Road.

West

A number of single-family homes are located west of the Project site on both sides of Missouri Flat Road up to Highway 50, located approximately 0.37 mile northwest of the Project site via Missouri

Flat Road. The Church of Christ, Best Western Plus Placerville Inn, and Casa Ramos Mexican Restaurant are located further west of the Project site near State Route 50.

North

Immediately north of the Project site is a single-family residence. Several homes are located along Forni Road, which winds up through the hillsides north of the Project site. Northeast of the Project site and east of Forni Road is the Herbert C. Green Middle School and, adjacently north, the Mother Lode Union School District office.

East

East of Forni Road, running parallel to Missouri Flat Road, consists of commercial/public services, and high-density residential. BloodSource Placerville and El Dorado Surgery Center are located immediately south of Forni Road. Adjacently south of these facilities is an Autozone, a McDonald's, and other fast-food restaurants. The Gold Country Retirement Community is located north of these establishments, north of Golden Center Drive.

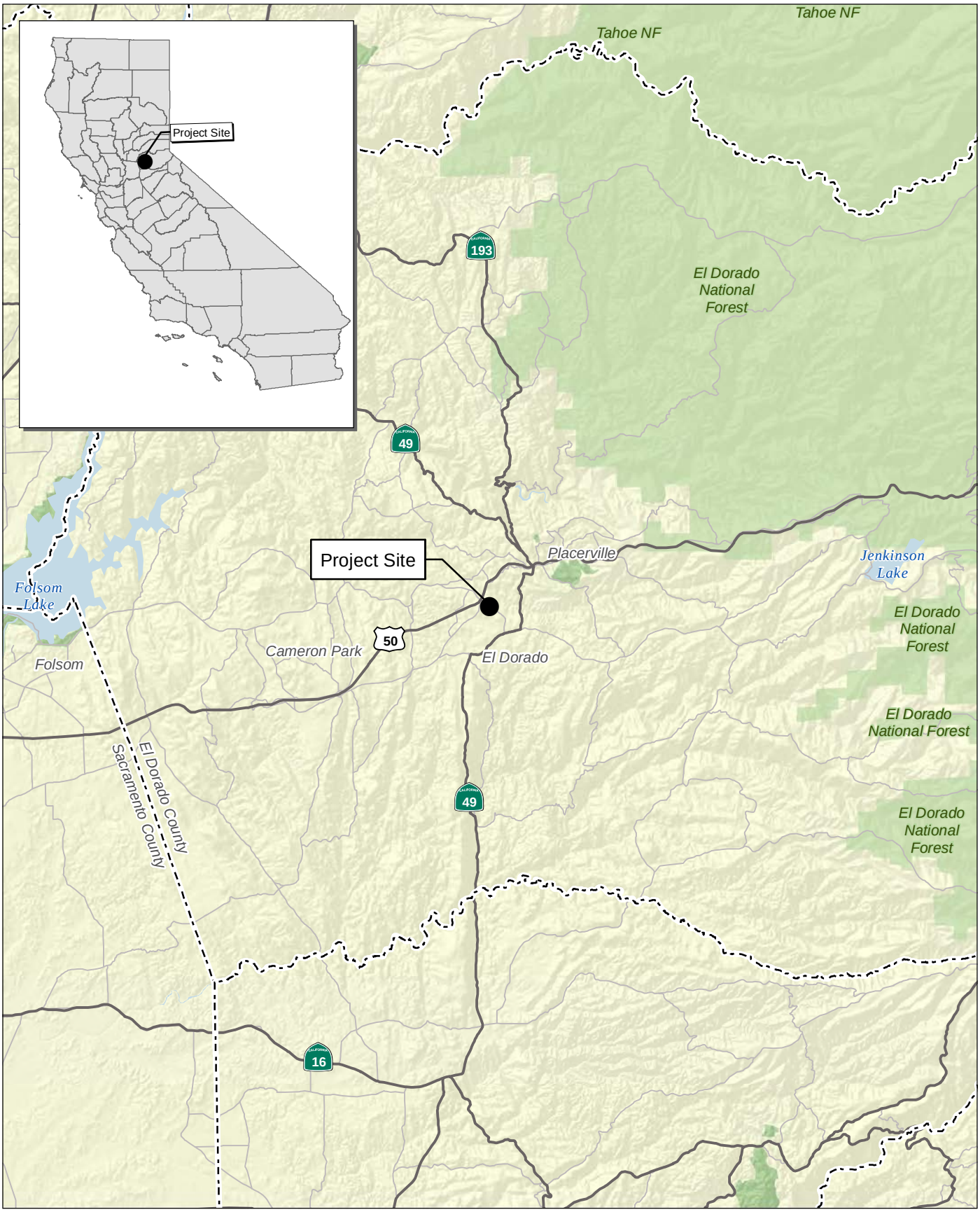
South

A Walgreens is located south of Missouri Flat Road across from the Project site. Further south of the Forni Road and Missouri Flat Road intersection is a Panda Express and a Walmart. Beyond these commercial buildings are several residential properties.

2.2.3 - Existing Conditions

The Project site is undeveloped and is dominated by a stream channel within a ravine, oriented southeast to northwest, that is fed from a culvert located under Forni Road (Exhibit 2-3b). According to the soils map as well as the submitted archaeological report, portions of the area were placer-mined at one time and tailing piles are present along the stream channel. Since then, a portion of the site has been graded and filled flat on the south side of the creek, adjacent to Missouri Flat Road. The Slope Map submitted under the Project's previous iteration shows that approximately 30 percent of the parcel contains slopes below 10 percent, and an estimated 22 percent contains slopes over 30 percent. The majority of those steeply sloped portions adjoin the areas previously filled and graded with imported soil. On-site elevations range between 1,723 to 1,761 feet above mean sea level.

On-site vegetation consists of riparian trees and oaks along the ravine with the remainder covered by annual non-native grasses or disturbed, gravel areas. An Oak Canopy Cover Analysis (Appendix D.2) was conducted for the Project site indicating that approximately 0.78-acre or 18.1 percent of the 4.3-acre site is covered by oak canopy. In addition, as indicated in the Canopy Cover Analysis (Appendix D.2), total tree canopy cover on-site includes approximately 2.47 acres or 57.4 percent of the 4.3-acre site. On-site tree species other than oaks consist predominately of riparian trees such as willows and cottonwoods.



Source: Census 2000 Data, The CaSIL, FCS GIS 2013.

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5 2.5 0 5 Miles

Exhibit 2-1
Regional Location Map

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Source: ESRI Imagery, 2015

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1,000 500 0 1,000
Feet

Exhibit 2-2
Local Vicinity Map
Aerial Base

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2.2.4 - Land Use Designations and Zoning

The Project site is designated Commercial (C) by the El Dorado County General Plan. The Project site is zoned Community Commercial with a Design Review—Community combining zone (CC-DC) by the El Dorado County zoning map.

The parcel was rezoned from one-acre residential (R1A) to CC-DC as part of the Targeted General Plan Amendment and Zoning Ordinance Update adopted by the County Board of Supervisors on December 15, 2015. This targeted amendment and update modernized the General Plan implementation tool and included revisions of the text and the Zone District Map to bring it into conformance with the General Plan. The Board's stated objectives for the Targeted General Plan Amendment and Zoning Ordinance Update were to (1) reduce constraints to the development of moderately priced housing, (2) support jobs creation, (3) capture more sales tax revenues, (4) protect and promote agriculture and natural resources, and (5) meet the requirements of Government Code 65860.

2.3 - Project Characteristics

The proposed Project is requesting approval of three related actions:

- Rezone (Application File #Z10-0009) of the site from Community Commercial—Design Control (CC-DC) to Community Commercial-Planned Development (CC-PD) and Open Space-Planned Development (OS-PD), as shown in Exhibit 2-3a.
- Tentative Parcel Map (Application File # P10-0012) to subdivide the site into four parcels (Exhibit 2-3b), including three buildable parcels and one 1.14-acre open space parcel, as well as a general vacation of a 0.22-acre portion of Forni Road Right of Way that would be added to the development.
- Planned Development Permit (Application File # PD10-0005) to establish a Development Plan for the proposed commercial center containing three buildings totaling 30,560 square feet (at maximum buildout), served by on-site parking, lighting, signage, and landscaping (Exhibit 2-3b).

Table 2-1 provides a summary of the Development Plan for the Project.

Table 2-1: Development Plan Summary

Parcel Number	Parcel Acreage	Project Component	Use	Building Square Footage	FAR*	Max. Building Height (ft.)	Setbacks	Parking Stalls
3	1.56	Building A	Office	9,860	0.30	43.25	20 ft. from road	86
			Retail	10,200				
2	0.90	Building B	Fast Food	2,550	0.10	23.00	>20 ft. from nearest parcel boundary	40
			Retail	1,350				

Table 2-1 (cont.): Development Plan Summary

Parcel Number	Parcel Acreage	Project Component	Use	Building Square Footage	FAR*	Max. Building Height (ft.)	Setbacks	Parking Stalls
1	0.72	Building C	Retail	6,600	0.21	25.33	10 ft. from roads	30
A	1.14	Open Space Area	Open Space	—	—	—	—	—
Total	**4.32**	**—**	**—**	**30,560**	0.16	—	—	**156**

Note:
* FAR = floor-area ratio
Source: Wickert, 2017.

As indicated in Table 2-1 and illustrated on Exhibit 2-3b, Building A is located in the northernmost section of the property and would contain 20,060 square feet of office and retail space in two stories. Building B is located southeast of Building A and would contain a retail store of 1,350 square feet and a 2,550-square-foot fast-food restaurant with drive thru. The third building, Building C, would be located in the southernmost section of the site. Building C would contain 6,600 square feet of retail space. The Development Plan includes bike racks, monument signs, three trash enclosures, and wrought-iron fencing; 156 parking stalls; and 15-foot-tall pole lights.

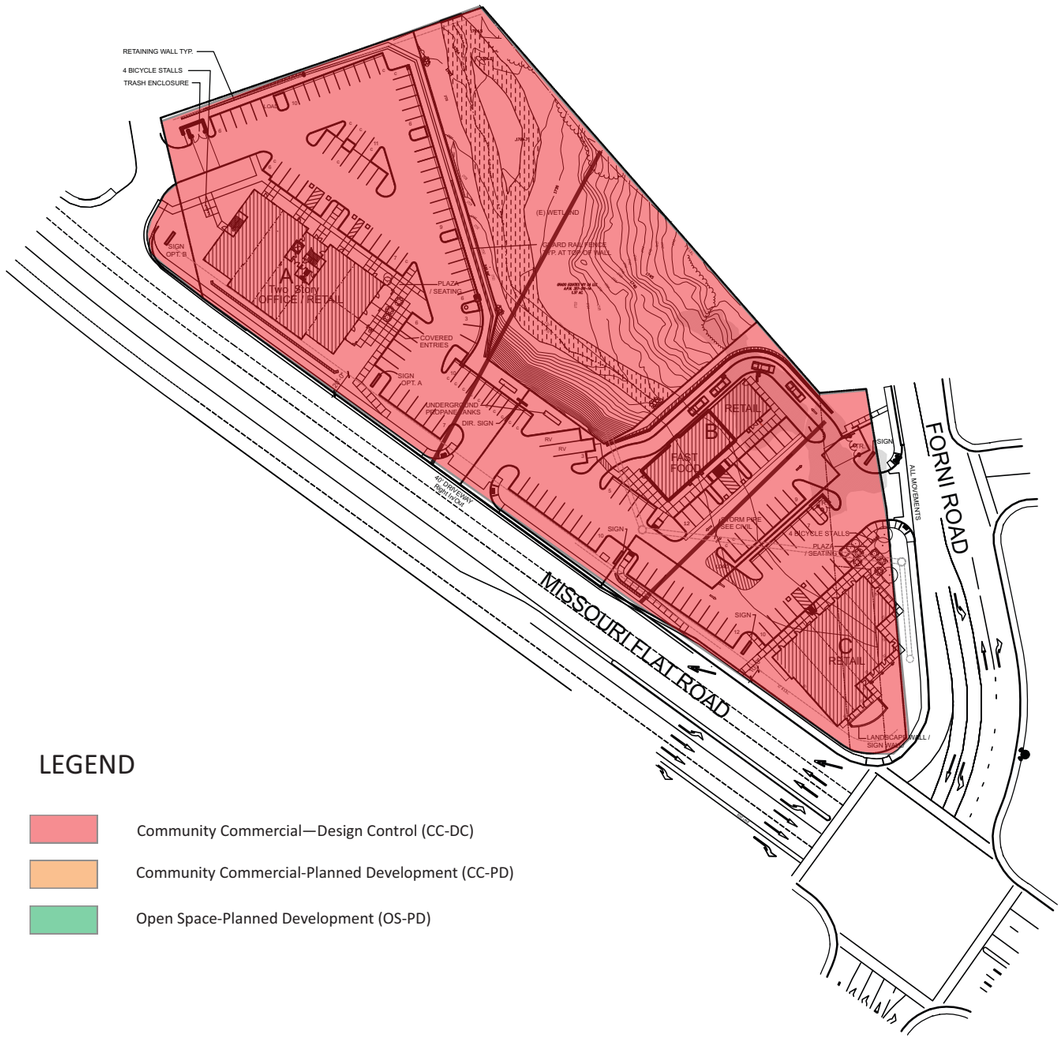
The three commercial buildings would be located on the southern and southwestern portions of the property between Missouri Flat Road and the on-site riparian area. A proposed retaining wall would divide the proposed developed area from the on-site riparian area. Boulders, trees, and other landscaping elements would complement the functionality of the retaining wall by providing a high-quality aesthetic barrier to soften or shield views from along Forni Road and beyond. Additional landscaping located along Project frontages would reduce any potential aesthetic impacts from viewers along local roadways.

2.3.1 - Landscaping, Lighting, and Signage

A total of 35,202 square feet of shade would be provided on-site. Additionally, a total of 77 shade trees would be provided, 50 percent of which would be evergreen species. Note that landscaping configuration is subject to change but would be consistent with county requirements.

The Project would include new lighting including pole lighting, security lighting, and spot lighting for buildings. All lighting would be required to comply with the Missouri Flat Development Guidelines for lighting as well as County Zoning Ordinance Chapter 130.34, Outdoor Lighting. As such, the Project would be required to utilize hooded or screen lighting to direct the source of light downward and focus it onto the project site.

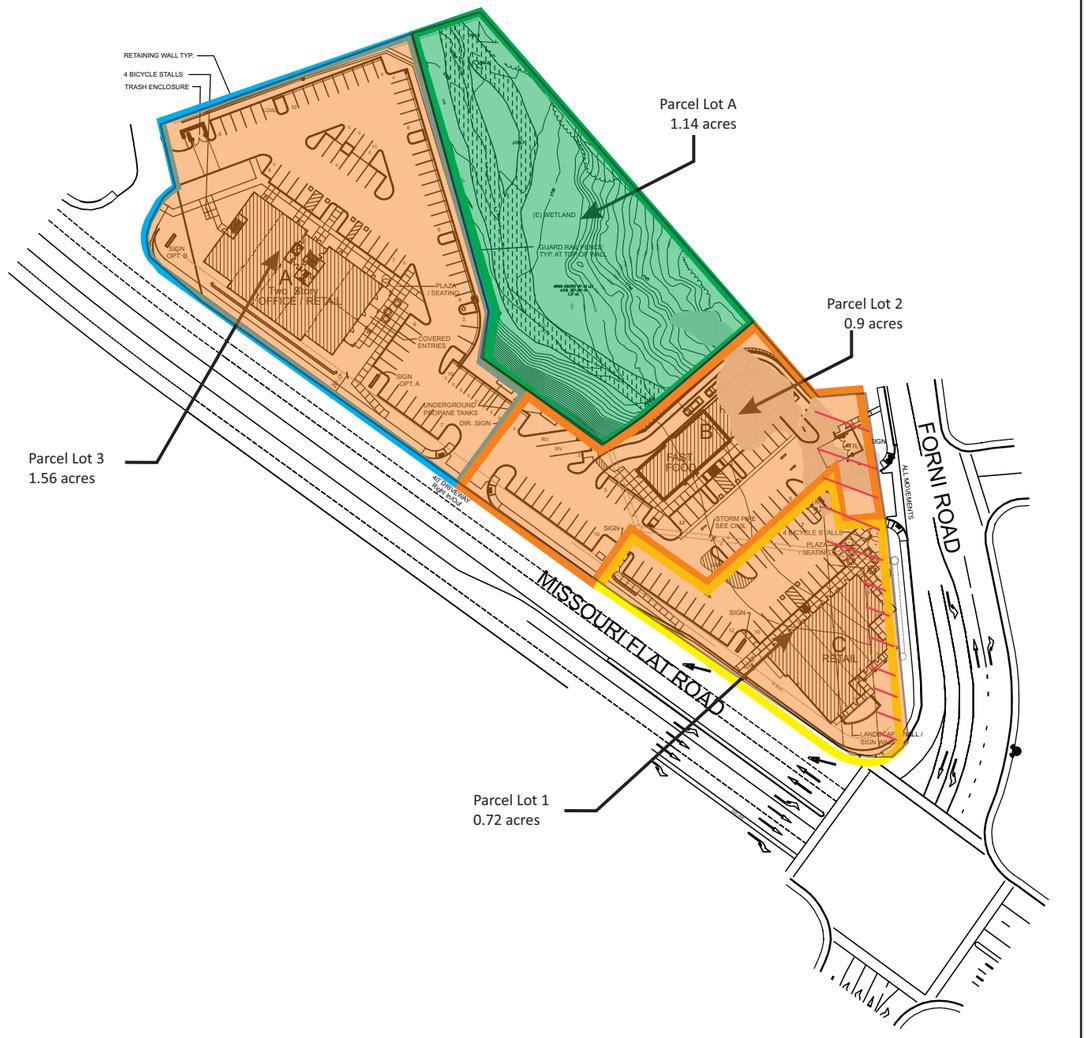
Existing Zoning Designations



LEGEND

- Community Commercial—Design Control (CC-DC)
- Community Commercial-Planned Development (CC-PD)
- Open Space-Planned Development (OS-PD)

Proposed Zoning Designations



Source: Wickert, 2017

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Exhibit 2-3a
Zoning Designations - Existing and Proposed

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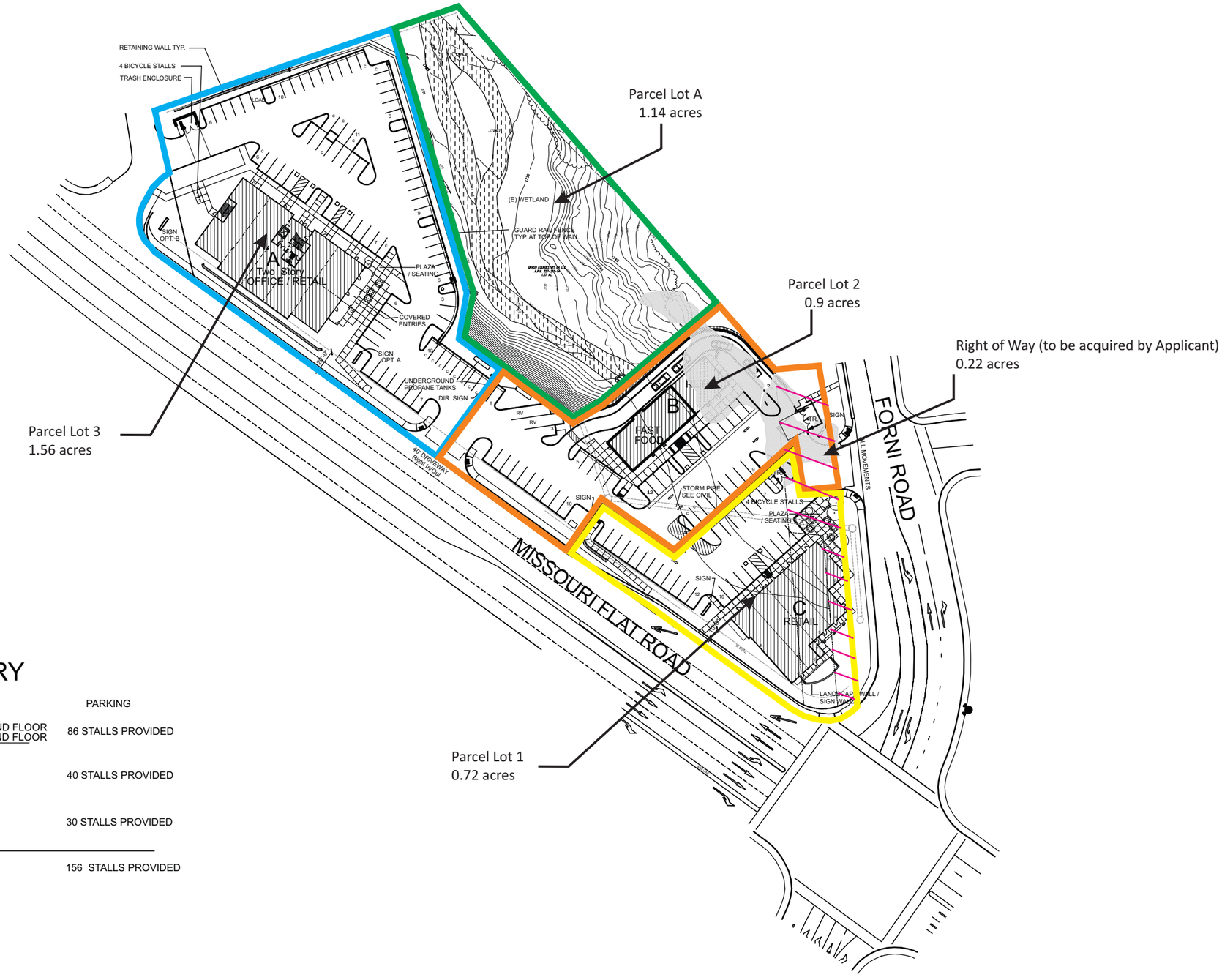

SITE SUMMARY

PARCEL	BUILDING		AREA	PARKING
3	A	OFFICE / RETAIL	10,200 RETAIL GROUND FLOOR 9,860 OFFICE SECOND FLOOR 20,060 S.F. TOTAL	86 STALLS PROVIDED
2	B	FAST FOOD / RETAIL	2,550 S.F. 1,350 S.F.	40 STALLS PROVIDED
1	C	RETAIL BLDG.	6,600 S.F.	30 STALLS PROVIDED
		TOTAL	30,560 S.F.	156 STALLS PROVIDED

Source: Wickert, 2017

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Exhibit 2-3b
Site Plan

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The Project would also include signage for the various commercial tenants in compliance with Chapter 130.16, Signs.

2.3.2 - Transportation/Circulation/Parking

The primary access to the site would be from encroachments onto Missouri Flat Road, Forni Road, and Road 2233, all of which are maintained by the County. The Diamond Springs-El Dorado Fire Protection District (Fire District) and the El Dorado County Transportation Division (TD) have previously reviewed the proposed on-site and off-site access and circulation proposed for the Project. The Fire District found the proposed driveway circulation plans to be adequate for safe emergency ingress/egress and access width and surfacing. The TD has recommended conditions of approval to assure the three encroachments would be constructed to county standards for size, line-of-sight, turn-lane safety, and surfacing.

2.3.3 - Open Space Parcel

As indicated by the 2011 Biological Resource Assessment (BRA), the Project site contains 1.1 acres of riparian habitat, within which is 0.50 acre of Waters of the U.S as verified by the United States Army Corps of Engineers (USACE).Portions of the proposed development area would occur within the 50-foot setback riparian area for the construction and installation of the retaining walls and parking areas. Approximately 299 feet of the identified intermittent stream (Waters of the U.S) and associated riparian area are proposed to be filled with soil beginning at the culvert under Forni Road then northwest into the project area. That portion would be routed through a 48-inch-diameter culvert installed underground and routed to the west of proposed Building C, continuing to just north of proposed Building B, then back into the remaining creek bed. As indicated by the USACE, work within the potentially jurisdictional Waters of the U.S. should not start until USACE has permitted authorization for the activity. As such, the Project applicants have initiated the permit application process for the Project with the USACE, and they in turn are developing mitigation measures through the 404 Permit process. The USACE permit will define terms and conditions, including mitigation, for the fill activities.

The proposed 1.14-acre open space parcel would include the undisturbed portion of the riparian habitat and Waters of the U.S, and would become a Conservation Easement. The parcel would be protected in perpetuity by creating the easement with a third-party conservator, who would hold the easement and ensure that the conditions of the United States Army Corps of Engineers (USACE) permit and the easement are enforced. The Applicant would also provide an endowment for the management of the preserved area. The conservation easement is required via Mitigation Measure BIO-2 of the Initial Study (Appendix A).

The Project proposes to share 156 parking stalls among the Project parcels.

2.3.4 - Utilities and Infrastructure

There are existing phone and electrical facilities which would be extended near the parcel boundaries to the Project. Domestic water service is available at the site and would be upgraded as required by the El Dorado Irrigation District (EID) and the Fire District. The Project would connect to

existing EID wastewater water and sewer facilities which consist of an existing 10-inch water line in Forni Road and a 6-inch sewer line and lift station located to the north on an adjoining parcel, which would be extended to provide water and sewer service to the Project. The existing on-site storm drainage that feeds the on-site wetlands would be rerouted underground, extending from Forni Road, through the parking lot to an outfall northwest of Building B. Re-routing would follow one of the two routes shown on Exhibit 2-4. On-site stormwater is proposed to be collected through a series of stormwater pipes and conveyed to the northerly portion of the site where it will be filtered through a continuous deflective separation (CDS) device, in order to ensure water quality is preserved.

2.3.1 - General Plan Designation and Zoning

The Project site is designated Commercial (C) by the County of El Dorado 2004 General Plan. The purpose of the Commercial land use category is to provide a full range of commercial retail, office, and service uses to serve the residents, businesses, and visitors of El Dorado County (County of El Dorado 2004; 2009). The acceptable floor area ratio (FAR) for the Commercial designation is 0.85.

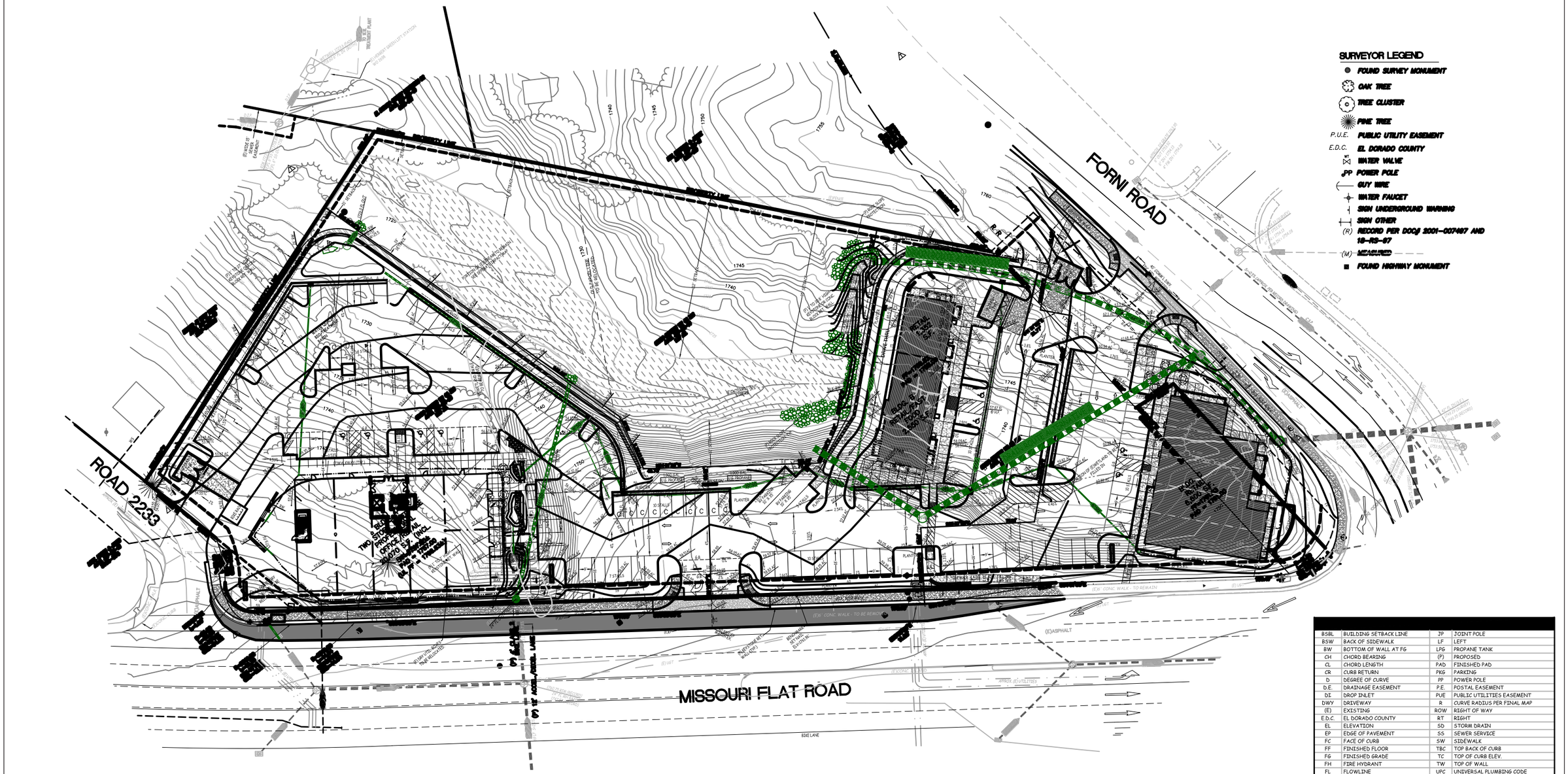
The Project site is zoned Community Commercial with a Design Review—Community combining zone (CC-DC) by the El Dorado County zoning map. The Project proposes to rezone the portions of three subject parcels to be developed from the current CC-DC zoning to Community Commercial-Planned Development (CC-PD) and Open Space—Planned Development (OS-PD).

The rezone is also requested in order to establish a contiguous open space parcel, which would become a Conservation Easement. The parcel would be protected in perpetuity by creating the easement with a third-party conservator, who would hold the easement and ensure that the conditions of the United States Army Corps of Engineers (USACE) permit and the easement are enforced. The Applicant would also provide an endowment for the management of the preserved area. The Conservation Easement is discussed in full within Impact Section 4, Biological Resources of the Initial Study, as well as Section 7, Effects Found not to be Significant, of this DEIR.

Planned developments, such as that proposed for the Project, provide for innovative planning and development techniques and encourage balanced growth to better reflect the character and scale of the community in which it occurs, while minimizing impacts on the surrounding areas, to provide more efficient utilization of the land, and to allow for flexibility of development while providing for general public benefits (County of El Dorado 2004; 2009).

2.3.2 - Construction Considerations

The development of the Project would consist of on-site road encroachment, site fill, and grading improvements, utility installation, trenching, and construction of buildings. Project construction would take approximately 1 year. On-site earthwork would consist of approximately 2,041 cubic yards of cut and 44,697 cubic yards of imported fill.



BSBL	BUILDING SETBACK LINE	JP	JOINT POLE
BSW	BACK OF SIDEWALK	LF	LEFT
BW	BOTTOM OF WALL AT FG	LPG	PROPANE TANK
CH	CHORD BEARING	(P)	PROPOSED
CL	CHORD LENGTH	PAD	FINISHED PAD
CR	CURB RETURN	PKG	PARKING
D	DEGREE OF CURVE	PP	POWER POLE
D.E.	DRAINAGE EASEMENT	P.E.	POSTAL EASEMENT
DI	DROP INLET	PUE	PUBLIC UTILITIES EASEMENT
DWY	DRIVEWAY	R	CURVE RADIUS PER FINAL MAP
(E)	EXISTING	ROW	RIGHT OF WAY
E.D.C.	EL DORADO COUNTY	RT	RIGHT
EL	ELEVATION	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SS	SEWER SERVICE
FC	FACE OF CURB	SW	SIDEWALK
FF	FINISHED FLOOR	TBC	TOP BACK OF CURB
FG	FINISHED GRADE	TC	TOP OF CURB ELEV.
FH	FIRE HYDRANT	TW	TOP OF WALL
FL	FLOWLINE	UPC	UNIVERSAL PLUMBING CODE
FND.	FOUND	US	UTILITY SERVICE
GA	GUY ANCHOR	W	WALL HEIGHT
GB	GRADE BREAK	WL	WATER LINE
HP	HIGH POINT	WS	WATER SERVICE

Source: Wickert, 2017

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Exhibit 2-4
Grading and Drainage Plan

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2.4 - Project Objectives

The objectives of the proposed project are to:

- Positively contribute to the local economy through new capital investment, the creation of new jobs, the provision of new services, and the expansion of the tax base.
- Promote commercial development consistent with County General Plan policies adopted to achieve the objective of providing greater opportunities for County residents to shop within El Dorado County.
- Develop vacant underutilized land within the Missouri Flat Road commercial corridor consistent with existing land use designations.
- Preserve in perpetuity, a portion of the on-site ravine and associated vegetation while maintaining consistency with the applicable United States Army Corps of Engineers 404 permit process.
- Provide for on-site development while maintaining areas of oak woodland and consistency with the Oak Resources Management Plan.
- Promote land use compatibility with Herbert C. Green Middle School by incorporating pedestrian paths of travel, including crosswalks and pathways.
- Develop a modern retail center that employs architecture consistent with the Missouri Flat Design Guidelines and provides ample landscaping, thereby promoting a high-quality visual appearance.
- Promote accessibility to public transit, bicycles, and pedestrians through the accommodation of these modes of transportation in site planning efforts.

2.5 - Intended Uses of this Draft EIR

This Draft EIR is being prepared by the County of El Dorado to assess the potential environmental impacts that may arise in connection with actions related to implementation of the proposed Project. Pursuant to CEQA Guidelines Section 15367, the County of El Dorado is the lead agency for the proposed Project and has discretionary authority over the proposed Project and Project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future development that are within the parameters of the proposed Project.

2.5.1 - Discretionary and Ministerial Actions

Discretionary approvals and permits are required by the County of El Dorado for implementation of the proposed Project. The Project application would require the following discretionary approvals and actions, including:

- Rezone (Z10-0009)
- Development Plan (PD10-0005)
- Tentative Parcel Map (P10-0012)

Subsequent ministerial actions would be required for the implementation of the proposed Project, such as the following:

- El Dorado Department of Transportation: grading and encroachment permits
- County of El Dorado Environmental Health Division: yearly permit for food service
- El Dorado Air Quality Management District-Fugitive Dust Plan
- County of El Dorado Hazardous Materials/Solid Waste Division: trash and recycling dumpsters during construction and for long-term operation of project
- County of El Dorado Planning and Building Services: building permits, business license
- El Dorado County Resource Conservation District: grading permit review
- Diamond Springs-El Dorado Fire Protection District: building permit review
- El Dorado Irrigation District: water and sewer installation review

2.5.2 - Responsible and Trustee Agencies

A number of other agencies in addition to the County of El Dorado will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of Project implementation. These agencies may include but are not limited to the following:

- U.S. Army Corps of Engineers-Section 404 Permit, Nationwide 39 Permit
- California Department of Fish and Game-1602 Permit
- Central Valley Regional Water Quality Control Board-Section 401 Permit
- Central Valley Regional Water Quality Control Board—Storm Water Pollution Prevention Plan

SECTION 3: ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation, or through subsequent analysis that the proposed project would result in "potentially significant impacts." Sections 3.1 and 3.2 discuss the environmental impacts that may result with approval and implementation of the proposed project. All other environmental topics are discussed in Section 7, Effects Found not to be Significant or Less than Significant.

Issues Addressed in this EIR

The following environmental issues are addressed in Section 3:

- Air Quality/Greenhouse Gas Emissions
- Transportation

Level of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers in approving a project to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and checklist; state, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.

Summary Heading of Impact

Impact AES-1: **An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact number identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.**

Impact Analysis

A narrative analysis follows the impact statement.

Level of Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to state and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

MM AES-1 Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact it is associated with (**AES-1** in this example); mitigation measures are numbered sequentially.

Level of Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the mitigation measure numbering are:

Code	Environmental Issue
AIR	Air Quality/Greenhouse Gas Emissions
TRANS	Transportation

3.1 - Air Quality/Greenhouse Gas Emissions

This section describes the existing air quality setting and potential effects from project implementation on the site and its surrounding area. FirstCarbon Solutions (FCS) performed an air quality analysis for the proposed project, which included an evaluation of construction and operational impacts. CalEEMod version 2013.2.2 was used to quantify project-related construction and operational emissions. The air quality model output for the air quality analysis is included in Appendix B. This analysis was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the Guide to Air Quality Assessment—Determining Significance of Air Quality Impacts Under the California Environmental Quality Act (Guide) prepared by the El Dorado County Air Quality Management District (EDCAQMD) to facilitate the evaluation and review of air quality impacts for projects under CEQA (EDCAQMD 2002). The EDCAQMD does not have adopted recommendations; therefore, this analysis follows the Sacramento Metropolitan Air Quality Management District (SMAQMD) and Placer County Air Pollution Control District (PCAPCD) recommendations for preparing a greenhouse gas analysis under CEQA.

3.1.1 - Environmental Setting

Regional Overview

The project site is located near the southwest corner of the City of Placerville, near the City's boundary within unincorporated El Dorado County. Placerville has cool, wet winters and warm, dry summers. Average January temperatures are a maximum of 58 degrees Fahrenheit (°F) and a minimum of 33°F. Average July temperatures are a maximum of 93°F and a minimum of 57°F. Average rainfall at Placerville is about 39 inches. The majority of the rain falls between November and March (Local Information Data Server 2016).

El Dorado County, located in east-central California, encompasses 1,805 square miles of rolling hills and mountainous terrain. The County's western boundary contains part of Folsom Lake, and the eastern boundary is also the California-Nevada state line. The County is topographically divided into two zones. The northeast corner of the County is in the Lake Tahoe basin, while the remainder of the County is in the "western slope," the area west of Echo Summit. There are two municipalities within El Dorado County. The largest city in the County is the City of South Lake Tahoe, with a 2006 population estimate of 23,594. The City of Placerville, the County seat, is located 45 miles northeast of Sacramento, the State capital. The City of Placerville has a 2006 estimated population of 10,171. The remainder of the County's 144,144 residents lives outside the two incorporated areas (El Dorado County 2016).

From an air quality perspective, the proposed project site is located within the Mountain Counties Air Basin (MCAB). The MCAB includes Plumas, Sierra, Nevada, Placer (middle portion), El Dorado (western portion), Amador, Calaveras, Tuolumne, and Mariposa counties, an area of roughly 11,000 square miles (ARB 2016a).

Regional Climate

The general climate of the MCAB varies considerably with elevation and proximity to the Sierra Nevada mountain range ridge. The terrain features of the MCAB make it possible for various climates to exist relatively close to each other. The pattern of mountains and hills causes a wide variation in rainfall, temperature, and localized winds throughout the MCAB. Temperature variations have an important influence on MCAB wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. The Sierra Nevada mountain range receives large amounts of precipitation from storms moving in from the Pacific in the winter, with lighter amounts from intermittent "Monsoonal" moisture flows from the south and cumulus buildup in the summer. Precipitation levels are high in the highest mountain elevations but decline rapidly toward the western portion of the MCAB. Winter temperatures in the mountainous areas can be below freezing for weeks at a time, and substantial depths of snow can accumulate, but in the western foothills, winter temperatures usually dip below freezing only at night and precipitation is mixed as rain or light snow. In the summer, temperatures in the mountainous areas are mild, with daytime peaks from 70° to the low 80s F); however, the western portion of El Dorado County can routinely experience temperatures exceeding 100°F. The proposed project site is located within the upper western portion of El Dorado County.

The topography and meteorology of the MCAB combine such that local conditions predominate in determining the effect of emissions in each area. Regional airflows are affected by the mountains and hills, which direct surface airflows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently occur and trap pollutants close to the ground. In the winter, these conditions can lead to CO "hot spots" along heavily traveled roads and at busy intersections.

During summer's longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_x), which results in the formation of ozone (O_3). In the summer, the strong upwind valley air flowing into the MCAB from the Central Valley to the west is an effective transport medium for ozone precursors and ozone generated in the San Francisco Bay Area and the Sacramento and San Joaquin valleys. These transported pollutants predominate as the cause of ozone in the MCAB and are largely responsible for the exceedance of the state and federal standards in the MCAB.

Existing Local Air Quality

Air pollutants are regulated at the national, state, and air basin or county level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The EDCAQMD regulates at the air basin level.

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as the federal standards described earlier.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards (ARB 2014). The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—an air district prepares its federal attainment plan, which is sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The ARB regional air quality monitoring network provides information on ambient concentrations of criteria air pollutants. ARB operates four ambient air monitoring stations within the MCAB portion of El Dorado County and five stations in Placer County. The nearest monitoring site to the project site is in Placerville (Placerville-Gold Nugget Way site), located approximately 1.34 miles northeast of the project site, which measures ozone. The next closest monitoring site is in Roseville (Roseville-N Sunrise Blvd) within Placer County, located approximately 23.53 miles northwest of the project site, which measures nitrogen dioxide (NO_2) and particulate matter (PM_{10} and $PM_{2.5}$). Table 3.1-1 presents a recent four-year summary of air pollutant (concentration) data collected at these monitoring stations for ozone, NO_2, PM_{10} and $PM_{2.5}$. The data shows that during the past few years, the project area has exceeded the standards for ozone (state and national) and PM_{10} (state). While the data gathered at this monitoring station may not necessarily reflect the unique meteorological environment of the project site or the proximity of site-specific stationary and street sources, it does present the nearest available benchmark and provide the reader with a reference point to what the pollutants of greatest concern are in the region and the degree to which the area is out of attainment with specific air quality standards. No recent monitoring data for El Dorado County and Placer County, including MCAB and Sacramento Valley Air Basin, were available for carbon monoxide (CO) and sulfur dioxide (SO_2). Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 3.1-1: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2012	2013	2014	2015
Ozone[1]	1 Hour	Max 1 Hour (ppm)	**0.108**	**0.097**	**0.104**	**0.103**
		Days > State Standard (0.09 ppm)	**6**	**1**	**1**	**4**
	8 Hour	Max 8 Hour (ppm)	**0.097**	**0.085**	**0.090**	**0.090**
		Days > State Standard (0.07 ppm)	**50**	**21**	**36**	**23**
		Days > National Standard (0.075 ppm)	**20**	**11**	**12**	**7**
Carbon monoxide (CO)	8 Hour	Max 8 Hour (ppm)	ND	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND	ND

Table 3.1-1 (cont.): Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2012	2013	2014	2015
Nitrogen dioxide (NO_2)[2]	Annual	Annual Average (ppm)	0.010	0.010	0.008	0.008
	1 Hour	Max 1 Hour (ppm)	0.055	0.056	0.054	0.050
		Days > State Standard (0.18 ppm)	0	0	0	0
Sulfur dioxide (SO_2)	Annual	Annual Average (ppm)	ND	ND	ND	ND
	24 Hour	Max 24 Hour (ppm)	ND	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND	ND
Inhalable coarse particles (PM_{10})[2]	Annual	Annual Average (µg/m^3)	15.3	ID	18.0	ID
	24 hour	24 Hour (µg/m^3)	44.8	**54.1**	31.8	**59.1**
		Days > State Standard (50 µg/m^3)	0.0	ID	0.0	ID
		Days > National Standard (150 µg/m^3)	0.0	0.0	0.0	ID
Fine particulate matter ($PM_{2.5}$)[2]	Annual	Annual Average (µg/m^3)	9.5	7.5	10.5	8.1
	24 Hour	24 Hour (µg/m^3)	28.0	57.0	30.7	44.1
		Days > National Standard (35 µg/m^3)	0.0	0.0	0.0	0.0

Notes:
> = exceed ppm = parts per million µg/m^3 = micrograms per cubic meter
ID = insufficient data ND = no data max = maximum
Bold = exceedance
State Standard = California Ambient Air Quality Standard
National Standard = National Ambient Air Quality Standard
[1] Placerville—Gold Nugget Way
[2] Roseville—N Sunrise Blvd
Source: California Air Resources Board 2016a: Placerville—Gold Nugget Way and Roseville—N Sunrise Blvd.

Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or "form" of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring value exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

Table 3.1-2 shows the current attainment status of the project area. In summary, El Dorado County is nonattainment for the 8-hour ozone (state and federal), PM_{10} (state), and $PM_{2.5}$ (federal) standards. El Dorado County is either attainment or unclassified for the remaining criteria pollutant National Ambient Air Quality Standards.

Table 3.1-2: El Dorado County Attainment Status

Pollutant	Designation/Classification	
	Federal Status	State Status
Ozone[1]	Nonattainment	Nonattainment
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$[2]	Nonattainment/Attainment	Unclassified
CO	Unclassified/Attainment	Unclassified
Nitrogen dioxide	Unclassified/Attainment	Attainment
Sulfur dioxide	Unclassified	Attainment
Lead	Unclassified/Attainment	Attainment
Hydrogen sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility reducing particles	No Federal Standard	Unclassified

Notes:
[1] Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications.
[2] The mountain areas of El Dorado County are in attainment of the federal $PM_{2.5}$ standard but the foothill areas are designated nonattainment.
Source: ARB 2016b

Local Sources of Air Pollution

Exhaust gas from motor vehicles that travel along the nearby roadways constitute a major source of ambient air pollutants in the project area. Nearby sources of air pollution from vehicles include Missouri Flat Road immediately adjacent to the western boundary of the project site and Forni Road immediately adjacent to the eastern boundary of the project site, as well as U.S. Highway 50 Interchange, approximately a third of a mile north of the project site.

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs). The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), NO_x, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations, resulting in climate change.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in

watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a GHG compared with the reference gas, CO_2.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. CO_2, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming. To describe how much global warming a given type and amount of GHG may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO_2. For example, CH_4's warming potential of 21 indicates that CH_4 has 21 times greater warming effect than CO_2 on a molecule-per-molecule basis. A carbon dioxide equivalent is the mass emissions of an individual GHG multiplied by its global warming potential. GHGs defined by AB 32 (see the Climate Change Regulatory Environment section for a description) include CO_2, CH_4, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 3.1-3. A seventh GHG, nitrogen trifluoride (NF_3), was added to Health and Safety Code section 38505(g)(7) as a GHG of concern.

Table 3.1-3: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.

Table 3.1-3 (cont.): Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Hydrofluorocarbons	Hydrofluorocarbons are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is man-made and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Nitrogen trifluoride	Nitrogen trifluoride (NF_3) was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. It has a high global warming potential of 17,200.	This gas is used in electronics manufacture for semiconductors and liquid crystal displays.
Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change 2007a and 2007b.		

The State has begun the process of addressing pollutants referred to as short-lived climate pollutants. Senate Bill 605, approved by the Governor on September 14, 2014 required the ARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants by January 1, 2016. The ARB released the Proposed Short-Lived Climate Pollutant Reduction Strategy in April 2016. ARB has completed an emission inventory of these pollutants, identified research needs, identified existing and potential new control measures that offer co-benefits, and coordinated with other state agencies and districts to develop measures (ARB 2016c).

The short-lived climate pollutants include three main components: black carbon, fluorinated gases, and CH_4. Fluorinated gases and CH_4 are described in Table 3.1-3 and are already included in the California GHG inventory. Black carbon has not been included in past GHG inventories; however, ARB will include it in its comprehensive strategy (ARB 2015a).

Ozone is another short-lived climate pollutant that will be part of the strategy. Ozone affects evaporation rates, cloud formation, and precipitation levels. Ozone is not directly emitted, so its precursor emissions, volatile organic compounds (VOC) and NO_x on a regional scale and CH_4 on a hemispheric scale, will be subject of the strategy (ARB 2015b).

Black carbon is a component of fine particulate matter. Black carbon is formed by incomplete combustion of fossil fuels, biofuels, and biomass. Sources of black carbon within a jurisdiction may include exhaust from diesel trucks, vehicles, and equipment, as well as smoke from biogenic combustion. Biogenic combustion sources of black carbon include the burning of biofuels used for transportation, the burning of biomass for electricity generation and heating, prescribed burning of agricultural residue, and natural and unnatural wildfires. Black carbon is not a gas but an aerosol—particles or liquid droplets suspended in air. Black carbon only remains in the atmosphere for days to weeks, whereas other GHGs can remain in the atmosphere for years. Black carbon can be deposited on snow, where it absorbs sunlight, reduces sunlight reflectivity, and hastens snowmelt. Direct effects include absorbing incoming and outgoing radiation; indirectly, black carbon can also affect cloud reflectivity, precipitation, and surface dimming (cooling).

Global warming potentials for black carbon were not defined by the IPCC in its Fourth Assessment Report. The ARB has identified a global warming potential of 3,200 using a 20-year time horizon and 900 using a 100-year time horizon from the IPCC Fifth Assessment. Sources of black carbon are already regulated by ARB, and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion sources (ARB 2015b). Additional controls on the sources of black carbon specifically for their GHG impacts beyond those required for toxic and fine particulates are not likely to be needed.

Water vapor is also considered a GHG. Water vapor is an important component of our climate system and is not regulated. Increasing water vapor leads to warmer temperatures, which causes more water vapor to be absorbed into the air. Warming and water absorption increase in a spiraling cycle. Water vapor feedback can also amplify the warming effect of other GHGs, such that the warming brought about by increased CO_2 allows more water vapor to enter the atmosphere (NASA 2015).

Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

An individual project cannot generate enough GHG emissions to effect a discernible change in global climate. However, the project participates in the potential for global climate change by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change.

In California, climate change may result in consequences such as the following (from CCCC 2006 and Moser et al. 2009).

- A reduction in the quality and supply of water from the Sierra snowpack. If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- Increased risk of large wildfires**.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range.
- A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If heat-trapping emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- Damage to marine ecosystems and the natural environment.
- An increase in infections, disease, asthma, and other health-related problems.
- A decrease in the health and productivity of California's forests.

3.1.2 - Regulatory Framework

As previously indicated, air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The EPA regulates at the national level. The ARB regulates at the state level and EDCAQMD regulates at the air basin level. Greenhouse gases are regulated at the international, federal, and state level with primary responsibilities falling on the EPA

and ARB. The following section describes the regulatory framework for air quality and greenhouse gas emissions.

Air Quality Regulatory Framework

The EPA handles global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards or national standards. There are national standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970. The criteria pollutants are:

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

The national standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary national standards are the levels of air quality necessary, with an adequate margin of safety, to protect public health, as discussed in Ambient Air Quality Standards summary prepared by the ARB.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain national standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. The ARB also administers California Ambient Air Quality Standards for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six national standards listed above as well as the following: visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

The national and state ambient air quality standards, the most relevant effects, the properties, and sources of the pollutants are summarized in Table 3.1-4.

Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or 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. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate hazardous air pollutants (HAP). Section 112 of the Clean Air Act lists 187 hazardous air pollutants to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. ARB and local air districts regulate TACs and HAPs in California.

Table 3.1-4: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), nitrous oxides (NO_x), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO_x) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hour	0.070 ppm	0.070 ppm[f]			
Carbon monoxide (CO)	1 Hour	20 ppm	35 ppm	Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.
	8 Hour	9.0 ppm	9 ppm			
Nitrogen dioxide[b] (NO_2)	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contributions to atmospheric discoloration; increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO_x (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). NO_x is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NO_x can react with compounds to form nitric acid and related small particles and result in PM related health effects.	NO_x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide forms quickly from NO_x emissions. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Table 3.1-4 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfur dioxide[c] (SO_2)	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO_x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}.	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3 Hour	—	0.5 ppm			
	24 Hour	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	- Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. - Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to particulate matter that is between 2.5 and 10 microns in diameter, (one micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.
	Mean	20 µg/m^3	—			
Particulate matter ($PM_{2.5}$)	24 Hour	—	35 µg/m^3			
	Annual	12 µg/m^3	12.0 µg/m^3			
Visibility reducing particles	8 Hour	See note below[d]				

Table 3.1-4 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfates	24 Hour	25 µg/m^3	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO42−. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead[e]	30-day	1.5 µg/m^3	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.	Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m^3			
	Rolling 3-month average	—	0.15 µg/m^3			
Vinyl chloride[e]	24 Hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.

Table 3.1-4 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).
Volatile organic compounds (VOC)		There are no State or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, CO_2, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
Benzene		There are no ambient air quality standards for benzene.		Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.	Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" carcinogen.	Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at one to two percent by volume. The primary route of human exposure is through inhalation.

Table 3.1-4 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	Diesel PM is a source of $PM_{2.5}$—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Notes:
ppm = parts per million (concentration) $\mu g/m^3$ = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter

[a] Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3-Hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[b] To attain the 1-hour nitrogen dioxide national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (0.100 ppm).

[c] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[d] Visibility reducing particles: In 1989, ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

[e] ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[f] The EPA Administrator approved a revised 8-hour ozone standard of 0.07 ppb on October 1, 2015. The new standard went into effect 60 days after publication of the Final Rule in the Federal Register. The Final Rule was published in the Federal Register on October 26, 2015 and became effective on December 28, 2015.

Source of effects, properties, and sources: South Coast Air Quality Management District 2007a; California Environmental Protection Agency 2002; California Air Resources Board 2009; United States Environmental Protection Agency 2003, 2009a, 2009b, 2010, 2011a, and 2012; National Toxicology Program 2011a and 2011b. Source of standards: California Air Resources Board 2013a and EPA 2016.

State Air Quality Regulations—California Air Resources Board (ARB)

The ARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act (CAA) (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The ARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has National Ambient Air Quality Standards and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. Table 3.1-4 provides listing of the federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants. Several pollutants listed in Table 3.1-4 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because project's land uses would not use the chemical processes that create this pollutant, and there are no such uses in the project vicinity. The project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

Low-Emission Vehicle Program

The ARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan. In 2012, ARB adopted the LEV III amendments to California's Low-Emission Vehicle (LEV) regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and GHGs for new passenger vehicles (ARB 2012a).

On-Road Heavy-Duty Vehicle Program

The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others (ARB 2015c).

Tractor-Trailer Greenhouse Gas Regulation. The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers, or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting

their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

ARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the ARB adopted a regulation to reduce diesel particulate matter (DPM) and NO_x emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_x emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less) (ARB 2015b).

Diesel Risk Reduction Plan

The ARB's Diesel Risk Reduction Plan has led to the adoption of new state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020 (ARB 2000). The following are regulations implementing the Diesel Risk Reduction Plan:

Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 horsepower and Greater. Effective February 19, 2011, each fleet shall comply with weighted reduced particulate matter emission fleet averages by compliance dates listed in the regulation.

ARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks, requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to "neutral" or "park." Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

Asbestos Regulations

ARB Airborne Toxic Control Measure for Asbestos. In July 2001, the ARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The

measure establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials containing asbestos, but no demolition is associated with this project. However, asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

Areas are subject to the asbestos regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The measure also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near the City of Placerville (USGS 2016).

Regional Air Quality Regulations

El Dorado Air Quality Management District

The air pollution control agency for El Dorado County is the EDCAQMD, the local agency with primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. The EDCAQMD accomplishes its responsibility through a comprehensive program of planning, regulation, enforcement, and promotion of air quality issues.

The clean air strategy of the EDCAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the federal Clean Air Act and the California Clean Air Act.

The EDCAQMD has adopted rules and regulations as a means of implementing the air quality plan for El Dorado County. The EDCAQMD has also prepared the Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts (Guide) under the California Environmental Quality Act (EDCAQMD 2002), which provides quantitative emission thresholds and established protocols for the analysis of air quality impacts from projects and plans.

EDCAQMD rules and regulations that apply to the proposed project include but are not limited to the following:

- 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.
- 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
- Rule 223-1 governs the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions and applies to any construction or construction related activities, including but not limited to land clearing, grubbing, scraping, travel on-site, and travel on access roads. This rule also applies to all sites where carryout or track out has occurred or may occur on paved public roads or the paved shoulders of a paved public road.
- Rule 223-2 may potentially apply if any portion of the area to be disturbed is located in a geographic ultramafic rock unit or if naturally occurring asbestos is discovered during construction. This rule reduces the amount of asbestos entrained into the air as a result of construction or construction-related activities.
- Rule 224—Cutback and Emulsified Asphalt Paving Materials. A person shall not manufacture for sale nor use for paving, road construction, or road maintenance any: rapid cure cutback asphalt; slow cure cutback asphalt containing organic compounds which evaporate at 500°F or lower as determined by current American Society for Testing and Materials (ASTM) Method D402; medium cure cutback asphalt except as provided in EDCAQMD Rule 224.1.B.; or emulsified asphalt containing organic compounds which evaporate at 500°F or lower as determined by current ASTM Method D244, in excess of 3 percent by volume.

Local Air Quality Policies

The project is located in the Diamond Springs area outside the incorporated City of Placerville, in El Dorado County. The applicable general plan is the County of El Dorado General Plan. The County of El Dorado General plan was adopted in July of 2004 and was last amended in December of 2016. El Dorado County's applicable air quality goals, objectives, and policies for the project from the Health, Safety, and Noise Element are listed below.

El Dorado County General Plan

Health, Safety, and Noise Element

- **Goal 6.7A: Air Quality Maintenance.** Strive to achieve and maintain ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board.

- **Goal 6.7B: Air Quality Maintenance.** Minimize public exposure to toxic or hazardous air pollutants and air pollutants that create unpleasant odors.
- **Objective 6.7.1: El Dorado County Clean Air Plan.** Adopt and enforce Air Quality standards to reduce the health impacts caused by harmful emissions.
- **Policy 6.7.1.1:** Improve air quality through land use planning decisions.
- **Policy 6.7.1.2:** Support local and regional air quality improvement efforts.
- **Objective 6.7.2: Vehicular Emissions.** Reduce motor vehicle air pollution by developing programs aimed at minimizing congestion and reducing the number of vehicle trips made in the County and encouraging the use of clean fuels.
- **Policy 6.7.2.1:** Develop and implement a public awareness campaign to educate community leaders and the public about the causes and effects of El Dorado County air pollution and about ways to reduce air pollution.
- **Policy 6.7.2.2:** Encourage, both through County policy and discretionary project review, the use of staggered work schedules, flexible work hours, compressed work weeks, teleconferencing, telecommuting, and car pool/van pool matching as ways to reduce peak-hour vehicle trips.
- **Policy 6.7.2.3:** To improve traffic flow, synchronization of signalized intersections shall be encouraged as a means to reduce congestion, conserve energy, and improve air quality.
- **Policy 6.7.2.5:** Upon reviewing projects, the County shall support and encourage the use of, and facilities for, alternative-fuel vehicles to the extent feasible. The County shall develop language to be included in County contract procedures to give preference to contractors that utilize low-emission heavy-duty vehicles.
- **Objective 6.7.4: Project Design and Mixed Uses.** Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.

Greenhouse Gas Regulatory Framework

International

International organizations such as the ones discussed below have made substantial efforts to reduce GHGs. Preventing human-induced climate change will require the participation of all nations in solutions to address the issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention). On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at average of five percent against 1990 levels over the five-year period from 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2°C above pre-industrial levels, subject to a review in 2015. The UN Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

On September 23, 2014, more than 100 heads of state and government, and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the United Nations. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the U.N. Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts, and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties, or COP 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2 degrees Celsius, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;

- Commit all countries to submit new NDCs every five years, with the clear expectation that they will "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a).

On June 1, 2017, President Trump announced the decision for the United States to withdraw from the Paris Climate Accord (White House 2017). California remains committed to combating climate change through programs aimed to reduce GHGs (ARB 2017b).

Federal Regulations

Prior to the last decade, there were no concrete federal regulations of GHGs or major planning for climate change adaptation. Since then, federal activity has increased. The following are actions regarding the federal government, GHGs, and fuel efficiency.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four GHGs, including CO_2, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the United States Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator findings (EPA 2009b).

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light-duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They required these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards were expected to cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second-phase joint rulemaking, establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012 (EPA 2012b). The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that began in the 2014 model year and achieve up to a 20-percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies proposed separate gasoline and diesel truck standards, which phased in starting in the 2014 model year and achieved up to a 10-percent reduction for gasoline vehicles, and a 15-percent reduction for diesel vehicles by the 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10-percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs,

manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010 that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, the EPA states:

> This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatt would be required to meet an output based standard of 1,000 pounds of CO_2 per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently only California and Quebec are participating in the cap and trade program (C2ES 2015b).

California Regulations

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 California Global Warming Solutions Act of 2006 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include CO_2, CH_4, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The ARB is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB approved the 1990 GHG emissions level of 427 million metric tons of carbon dioxide equivalents ($MMTCO_2e$) on December 6, 2007 (ARB 2007). Therefore, to meet the State's target, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a Business as Usual (BAU) scenario were estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (ARB 2008). At that rate, a 28 percent reduction was required to achieve the 427 $MMTCO_2e$ 1990 inventory. In October 2010, ARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. The 2020 inventory without the benefits of adopted regulation is now estimated at 545 $MMTCO_2e$. Therefore, under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels (ARB 2010).

Progress in Achieving AB 32 Targets and Remaining Reductions Required

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by ARB for 2000 through 2012 to show progress achieved to date (ARB 2014a). The State has also achieved the

Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target. Also shown are the average reductions needed from all statewide sources (including all existing sources) to reduce GHG emissions back to 1990 levels.

- 1990: 427 million $MTCO_2e$ (AB 32 2020 Target)
- 2000: 463 million $MTCO_2e$ (an average 8-percent reduction needed to achieve 1990 base)
- 2010: 450 million $MTCO_2e$ (an average 5-percent reduction needed to achieve 1990 base)
- 2020: 545 million $MTCO_2e$ BAU (an average 21.7-percent reduction from BAU needed to achieve 1990 base)

ARB Scoping Plan. The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32 (ARB 2008). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions (ARB 2008).

The ARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identifies the next steps for California's climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The Update identifies progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities Climate for the next several years. The Update does not set new targets for the State, but describes a path that would achieve the long term 2050 goal of Executive Order S-05-03 for emissions to decline to 80 percent below 1990 levels by 2050.

The ARB has no legislative mandate to set a target beyond the 2020 target from AB 32 or to adopt additional regulations to achieve a post-2020 target. The Update estimates that reductions averaging 5.2 percent per year would be required after 2020 to achieve the 2050 goal. With no estimate of future reduction commitments from the State, identifying a feasible strategy including plans and measures to be adopted by local agencies is not currently possible (ARB 2014b).

Cap and Trade Program. The Cap and Trade Program is a key element of the Scoping Plan. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest cost options to reduce emissions. The program conducted its first auction in November 2012. Compliance obligations began for power plants and large industrial sources in January 2013. Other significant milestones include linkage to Quebec's cap and trade system in January 2014 and starting the compliance obligation for distributors of transportation fuels, natural gas, and other fuels in January 2015 (ARB 2015d).

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by ARB in the First Update:

> The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative (ARB 2014b).

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more

than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate:

> The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the "capped sectors." Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. The Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85 percent of California's GHG emissions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by ARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures (ARB 2014b).

SB 375—the Sustainable Communities and Climate Protection Act of 2008. Senate Bill (SB) 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets;
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies); and
3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493 Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011 (ARB 2013d).

The standards are to be phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in an approximately 22-percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant (ARB 2013e).

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. The regulations will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California (ARB 2011).

SB 1368—Emission Performance Standards. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 lbs CO_2 per megawatt-hour (MWh).

SB 1078—Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017.

SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

SB 350—Clean Energy and Pollution Reduction Act of 2015. The legislature recently approved and the Governor signed SB 350 which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50 percent reduction in the use of petroleum statewide were removed from the Bill due to opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

SBX 7-7—The Water Conservation Act of 2009. The legislation directs urban retail water suppliers to set individual 2020 per capita water use targets and begin implementing conservation measures to achieve those goals. Meeting this statewide goal of 20 percent decrease in demand will result in a reduction of almost 2 million acre-feet in urban water use in 2020.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

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

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15. On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The executive order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, and directs the ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of $MMCO_2e$. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this executive order is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

Executive Order S-01-07—Low Carbon Fuel Standard. The Governor signed Executive Order S 01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

The Low Carbon Fuel Standard was subject to legal challenge in 2011. Ultimately, on August 8, 2013, the Fifth District Court of Appeal (California) ruled that ARB failed to comply with CEQA and the Administrative Procedure Act (APA) when adopting regulations for Low Carbon Fuel Standards. In a partially published opinion, the Court of Appeal directed that Resolution 09-31 and two executive orders of ARB approving LCFS regulations promulgated to reduce GHG emissions be set aside. However, the court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while ARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, ARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The second public hearing for the new LCFS regulation was held on September 24, 2015 and September 25, 2015, where the LCFS Regulation was adopted. The Final Rulemaking Package adopting the regulation was filed with

the Office of Administrative Law (OAL) on October 2, 2015. The OAL approved the regulation on November 16, 2015 (ARB 2015e).

Executive Order S-13-08. Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the ". . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations. California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2012).

Title 24 Energy Efficiency Standards. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The CEC has completed the process of preparing the 2016 Building Energy Efficiency Standards that went into effect on January 1, 2017 (CEC 2016).

Title 24 California Green Building Standards Code (California Code of Regulations Title 24, Part 11 code) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings. The 2013 Building Energy Efficiency Standards (which are updated on an approximately three-year cycle) went into effect on July 1, 2014. The Energy Commission then developed 2016 Standards, which continue to improve upon the 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2016 Standards went into effect on January 1, 2017. Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling

guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

For each year of construction, in both newly constructed buildings and alterations to existing buildings, the 2013 Standards (for residential and nonresidential buildings) were expected to reduce the growth in electricity use by 555.5 gigawatt-hours per year and to reduce the growth in peak electrical demand by 148.4 megawatts. The 2013 Standards were also expected to reduce the growth in natural gas use by 7.04 million therms per year beyond the prior 2008 Standards. Overall, the 2013 Standards use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 Standards. For comparison purposes, single-family homes built to the 2016 standards will use about 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards. In 30 years, California will have saved enough energy to power 2.2 million homes, reducing the need to build 12 additional power plants.

Model Water Efficient Landscape Ordinance. The Model Water Efficient Landscape Ordinance (Ordinance) was required by AB 1881 Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with (SBX-7-7) 2020 mandate are expected for Ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015, which became effective on December 15, 2015. New development projects that include landscaped areas of 500 square feet or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems
- Incentives for graywater usage
- Improvements in on-site stormwater capture
- Limiting the portion of landscapes that can be planted with high water use plants
- Reporting requirements for local agencies.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)."

Section 21097 was also added to the Public Resources Code, which provided an exemption until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of

GHGs would not violate CEQA. The Natural Resources Agency completed the approval process and the Amendments became effective on March 18, 2010.

The 2010 CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of GHG emissions:

- The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guidelines amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts, respectively. GHG mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze GHG emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable; however, it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic GHG analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable, according to Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in Appendix G was amended to include GHG questions.

CEQA emphasizes that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (see CEQA Guidelines Section 15130(f)).

California Supreme Court GHG Ruling

In a November 30, 2015 ruling, the California Supreme Court in *Center for Biological Diversity v. California Department of Fish and Wildlife* Case No. S217763 ("Newhall Ranch Case") concluded that whether the project was consistent with meeting statewide emission reduction goals is a legally permissible criterion of significance, but the significance finding for the project was not supported by a reasoned explanation based on substantial evidence. The Court offered potential solutions on pages 25-27 of the ruling to address this issue summarized below:

Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU**. A lead agency may use a BAU comparison based on the Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the "data behind the Scoping Plan's business-as-usual model" to determine the necessary project-level reductions from new land use development at the proposed location (p. 25).
- **Compliance with Regulatory Programs or Performance Based Standards**. A lead agency "might assess consistency with A.B. 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, supra, at p. 64 [greenhouse gas emissions 'may be best analyzed and mitigated at a programmatic level.'].) To the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Resources Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with 'performance based standards' adopted to fulfill 'a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions' (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including 'plans or regulations for the reduction of greenhouse gas emissions']) (p. 26).
- **Compliance with GHG Reduction Plans or Climate Action Plans (CAPs)**. A lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (p. 26).
- **Compliance with Local Air District Thresholds**. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts (p. 27).

Therefore, consistent with CEQA Guidelines Appendix G, the analysis considered the three factors identified in CEQA Guidelines Section 15064.4 and the recently issued Newhall Ranch opinion to determine project significance:

- Would the project conflict with a compliant GHG Reduction Plan if adopted by the lead agency?

  No GHG reduction plan has been adopted by El Dorado County; therefore, this option is not available.

- Would the project exceed the applicable air district GHG reduction threshold?

  The ECAQMD has not adopted GHG reduction thresholds. In the absence of an adopted threshold, the County considered thresholds adopted by other agencies for use in El Dorado County. The SMAQMD CEQA Guidelines include GHG thresholds based on substantial evidence including a bright line screening threshold of 1,100 $MTCO_2e$ per year. If projects exceed the screening level, the SMAQMD recommends that the Lead Agency prepare a BAU analysis to determine if the project will exceed a 21.7 percent reduction from BAU in 2020. The analysis includes a BAU assessment to determine the reduction from BAU that would be achieved by the project. The mass emission thresholds suggested by the PCAPCD for project-level operational greenhouse gas generation includes a bright line screening threshold of 1,100 $MTCO_2e$ per year. If a project exceeds the screening level and generates less than 10,000 $MTCO_2e$ per year, the PCAPCD recommends a threshold of 26.5 $MTCO_2e$ per 1,000 square feet for a non-residential, urban project.

- Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs?

  A consistency analysis was prepared to determine if the project would conflict with the AB 32 Scoping Plan.

Local Regulatory Framework

El Dorado County adopted its General Plan in July of 2004, which was last amended in December 2016. The County's General Plan includes the following applicable goals and policies related to improving air quality that may also co-benefit climate change impacts:

Health, Safety, and Noise Element

- **Objective 6.7.2: Vehicular Emissions.** Reduce motor vehicle air pollution by developing programs aimed at minimizing congestion and reducing the number of vehicle trips made in the County and encouraging the use of clean fuels.
- **Policy 6.7.2.1:** Develop and implement a public awareness campaign to educate community leaders and the public about the causes and effects of El Dorado County air pollution and about ways to reduce air pollution.
- **Policy 6.7.2.5:** Upon reviewing projects, the County shall support and encourage the use of, and facilities for, alternative-fuel vehicles to the extent feasible. The County shall develop language to be included in County contract procedures to give preference to contractors that utilize low-emission heavy-duty vehicles.

- **Policy 6.7.3.2 Transit Service**. The County shall promote infill development that is compact, mixed used, pedestrian friendly, and transit oriented in areas identified as Transit Priority Project Areas.
- **Objective 6.7.4: Project Design and Mixed Uses**. Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.
- **Objective 6.7.7: Construction Related, Short-Term Emissions.** Reduce construction related, short-term emissions by adopting regulations which minimize their adverse effects.

3.1.3 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to air quality are significant environmental effects, the following questions are analyzed and evaluated.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

d) Expose sensitive receptors to substantial pollutant concentrations?

e) Create objectionable odors affecting a substantial number of people?

On February 16, 2010, the Office of Administrative Law filed the CEQA Guideline Amendments with the Secretary of State. The Amendments became effective on March 18, 2010. The CEQA Guidelines amendments included two new checklist questions pertaining to greenhouse gas emissions, listed below:

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

This analysis will follow the guidance in the CEQA Guideline Amendments.

While the final determination of whether or not a project is significant is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b), the County of El Dorado recommends that its quantitative and qualitative air pollution thresholds be used to determine the significance of project emissions. These thresholds are discussed under each impact section below.

3.1.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

Impact AIR-1:	**Implementation of the proposed project would not conflict with or obstruct implementation of an applicable air quality plan.**

Impact Analysis

The applicable air quality plan for the project site is the Sacramento Area Regional Nonattainment Plan. This plan provides the Sacramento region's strategy for achieving the 2008 federal 8-hour ozone standard. The Sacramento region is designated a nonattainment area for this pollutant, and includes all of Sacramento and Yolo counties and portions of Placer, El Dorado, Solano, and Sutter counties. No other air quality plans for other criteria pollutants are applicable to El Dorado County.

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The EDCAQMD Guide to Air Quality Assessment does not provide specific guidance on analyzing conformity with the Air Quality Plan (AQP). Therefore, this document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project conform to the assumptions in the AQPs?
3. Will the project comply with applicable control measures in the AQPs?

To address the first criterion, an analysis was prepared to determine if project emissions would exceed EDCAQMD quantitative thresholds of significance. The results of the analysis are presented under Impact AIR-2 in Table 3.1-5 and Table 3.1-6. The analysis found that the project would not exceed any EDCAQMD threshold of significance. Therefore, the project is consistent with criterion 1.

Conformity with criterion 2 is assessed by reviewing the plan assumptions used to predict attainment of the ozone standard to determine if the emissions generated by the project can be accommodated within the Plan's growth projections. The plan's clean air strategy relies on growth projections that are based on existing and planned uses as reflected in the El Dorado County General Plan and rates of growth predicted for the region. The Proposed Revisions to the 8-Hour Ozone State Implementation Plan for the Sacramento Federal Nonattainment Area includes an updated

attainment demonstration inventory and analysis to determine if the plan is achieving reasonable further progress toward meeting the ozone standard by 2018. The report indicates that the projected reductions are sufficient to meet the amounts needed for attainment by the deadline (ARB 2013). The project would designate a portion of the site previously designated for development as Open Space Planned Development, thereby prohibiting any future development under the General Plan designation. Since the proposed project would result in fewer emissions than projected under the air quality plan and the other planned uses are consistent with the uses planned for in the El Dorado County General Plan, the proposed project would be consistent with the applicable air quality plan. Consequently, the proposed project would not conflict with or obstruct implementation of any applicable air quality plan, regulation, or policy.

Criterion 3 requires review of the control measures contained in the air quality plan to determine if the project would comply with applicable measures. The Sacramento Area Regional Ozone Attainment Plan includes reasonably available control technology (RACT) and reasonably available control measures (RACM) that meet EPA requirements. RACT applies to stationary sources. RACM applies to areawide sources and mobile sources. The plan relies upon existing control measures and adopted rules, new state and federal regulations, and new local and regional measures. Most of the needed reductions are obtained from new and existing state and federal regulations and adopted EDCAQMD rules and regulations. New local and regional measures in the plan consist of non-regulatory incentive programs, and EDCAQMD rules and regulations provide additional reductions. No control measures with specific requirements for new development projects were committed to by El Dorado County. The plan includes transportation control measures (TCM) and is administered by the Sacramento Area Council of Governments (SACOG). The TCMs include Intelligent Transportation System (ITS) projects, park and ride lots/transit centers, transit service funding programs, and outreach programs. No TCMs apply to individual development projects.

Therefore, based on review of the three criteria used to determine conformity with the applicable air quality plan, this impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Regional Criteria Pollutant Impacts

Impact AIR-2: The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis

This section analyzes the potential impacts of the proposed project on the air quality in the area surrounding the site. Air quality impacts can be described in a short-term and long-term perspective and can be qualitatively or quantitatively analyzed. Short-term impacts will occur during site grading and project construction. Long-term air quality impacts will occur once the project is in operation. Impacts from project construction and operation emissions were estimated using the CalEEMod 2013.2.2 emission model.

Construction-Related Impacts

Construction-related emissions arise from a variety of activities, including (1) grading, excavation, and other earth moving activities; (2) travel by construction equipment and employee vehicles, especially on unpaved surfaces; (3) exhaust from construction equipment; (4) architectural coatings; and (5) asphalt paving. Construction of the proposed project would temporarily generate ROG, CO, NO_x, PM_{10} and $PM_{2.5}$ emissions. In addition, construction equipment and construction-worker commute vehicles would also generate criteria air pollutant emissions. Criteria pollutant emissions of ROG and NO_x from these emissions sources would incrementally add to regional atmospheric loading of ozone precursors during the construction period.

PM_{10} and $PM_{2.5}$ emissions from construction would vary greatly from day to day, depending on the level of activity, the equipment being operated, silt content of the soil, and the prevailing weather. Larger-diameter dust particles (greater than 30 microns) generally fall out of the atmosphere within several hundred feet of construction sites, and represent more of a soiling nuisance than a health hazard. Smaller-diameter particles (e.g., PM_{10} and $PM_{2.5}$) are associated with adverse health effects and generally remain airborne until removed from the atmosphere by moisture.

Therefore, unmitigated construction dust emissions could result in significant local effects. The EDCAQMD does not consider fugitive dust emissions associated with construction as significant if complete mitigation is undertaken as part of the proposed project (or made a mandatory condition of the proposed project) in compliance with the requirements of the EDCAQMD Rule 223-1. Based on this requirement, the EDCAQMD does not require estimation of fugitive dust emissions. The EDCAQMD stipulates, however, that the mitigation be such that there will be no visible dust beyond the boundaries of the project site.

As shown in Table 3.1-5, the estimated emissions during the one-year construction period in 2017 would not exceed the EDCAQMD's ROG and NO_x threshold of 82 pounds per day. As discussed in the Guide to Air Quality Assessment (EDCAQMD 2002), if ROG and NO_x emissions are below the threshold (based on fuel use), then CO and PM_{10} exhaust emissions from construction equipment, and exhaust emissions of all constituents from worker commute vehicles may also be deemed less than significant, and no additional analysis is warranted for those pollutants. Thus, these impacts are considered less than significant.

Table 3.1-5: Project Construction Emissions

Pollutant	Unmitigated Project Construction Emissions (lbs/day)		
	Project Emissions Year 2017	EDCAQMD Thresholds (pounds per day)	Exceed Threshold?
ROG	75.8	82	No
NO_x	70.4	82	No
Source of emissions: CalEEMod Output (Appendix B) Source of Thresholds: EDCAQMD 2002			

According to the EDCAQMD Guide to Air Quality Assessment, construction-related fugitive dust emissions are not considered significant if mitigation is part of the project or a mandatory condition of the project. To make this finding, the project must commit to implementing fugitive dust control measures sufficient to prevent visible dust beyond the project property lines. Implementation of Mitigation Measure AIR-2 would ensure that emissions of fugitive dust generated during project construction would be controlled to the extent feasible and would result in less than significant impacts.

Operational Impacts

The main source of air pollutant emissions during operation is off-site motor vehicles traveling on the roads surrounding the project. For reasons described in the Regulatory Framework section, the criteria pollutants of greatest concern for the project area are ozone, PM_{10}, and $PM_{2.5}$. Ozone is a secondary pollutant created during photochemical reactions of the pollutants ROG and NO_x in the atmosphere. Therefore, ozone is controlled by reducing its precursors ROG and NO_x. PM is particulate matter in the air that includes a mixture of solids and liquid droplets. Some particles are emitted directly; others are formed in the atmosphere when other pollutants react. PM is so small that it can get into the lungs, potentially causing serious health problems. PM_{10} is 10 microns in diameter, smaller than the width of a human hair. $PM_{2.5}$ is 2.5 microns in diameter and consists of "fine" particles. These fine particles are so small they can be detected only with an electron microscope. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

Over the long term, the proposed project would result in an increase in emissions, primarily due to related motor vehicle trips. On-site stationary sources and area sources would result in lesser quantities of criteria pollutant emissions. Operational emissions in the year 2018 were calculated using CalEEMod and the traffic data included in Section 3.2, Transportation.

The estimates shown in Table 3.1-6 are based on 2,265 average daily traffic trips generated by the 30,560-square-foot development. Modeling assumptions and output files are included in Appendix B.

Table 3.1-6: Project Operational Emissions (Pounds per Day)

Pollutant	Unmitigated Project Operation Emissions (lbs/day)		
	Year 2019	EDCAQMD Thresholds (pounds per day)	Exceed Threshold?
ROG	9.5	82	No
NO_x	10.2	82	No
Source of emissions: CalEEMod Output (Appendix B) Source of Thresholds: EDCAQMD 2002			

Based on the estimates shown in Table 3.1-6, emissions of criteria pollutants emitted by the proposed project would not exceed the EDCAQMD thresholds for the ozone precursors ROG and NO_x. Therefore, ozone impacts are less than significant.

The EDCAQMD also considers development projects of the type and size that fall below its significance "cut-off point" (62,000 square feet for a shopping center) for operational ROG and NO_x emissions to also be insignificant for operational CO and PM_{10} emissions. As a point of reference, the project is roughly 50 percent of the size of a project that the EDCAQMD would deem likely to result in potentially significant operational ROG or NO_x emissions, and the modeling results contained in Table 3.1-6 confirm that long-term operation of the project would not exceed applicable thresholds for ROG and NO_x. Therefore, the EDCAQMD would also consider CO and PM_{10} emissions to be less than significant, and the project's overall along-term operational air quality impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AIR-2 **Reduce Construction-related Emissions of Fugitive Dust.** The developer shall comply with all applicable provisions of El Dorado County Air Quality Management District Rule 223-1 rules and regulations and shall require the contractor to submit a Fugitive Dust Plan that includes best management practices from Rule 223-1 Tables 1 through 4. The Dust Plan shall include the following key elements:

- Construction and earthmoving activities
- Bulk material handling
- Removal and prevention of trackout

Level of Significance After Mitigation

Less than significant impact.

Cumulative Air Quality Impacts

Impact AIR-3:	**The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

Impact Analysis

This impact is related to cumulative criteria pollutant impacts. The nonattainment pollutants of concern are ozone, PM_{10}, and $PM_{2.5}$. Ozone is not emitted directly into the air but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, VOC and NO_x, react in the atmosphere in the presence of sunlight to form ozone.

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The project area is in nonattainment for ozone, $PM_{10,}$ and $PM_{2.5}$. Therefore, if the project exceeds the regional thresholds for PM_{10}, $PM_{2.5,}$ or any of the ozone precursors (NO_x or VOC), then it contributes to a cumulatively considerable impact for those pollutants.

Cumulative impacts can result from individually minor but collectively significant impacts, meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. The nonattainment status of regional pollutants is a result of past and present development within the MCAB and upwind in the Sacramento Air Basin, and this regional impact is cumulative rather than attributable to any one source.

According to the EDCAQMD guidelines, a proposed project is considered to have a considerable cumulative significant impact if one or more of the following are met:

1. The project requires a change in the existing land use designation (e.g., general plan amendment, rezone), and projected emissions (ROG, NO_x, CO, or PM_{10}) are greater than the emissions anticipated for the site if developed under the existing land use designation;
2. The project would individually exceed any EDCAQMD significance criteria;
3. For impacts that are determined to be significant, the lead agency for the project does not require the project to implement the emission reduction measures contained in and/or derived from the Air Quality Attainment Plan (AQAP); or
4. The project is located in a jurisdiction that does not implement the emission reduction measures contained in and/or derived from the AQAP.

As described in Impact AIR-1, the project is consistent with the general plan land use designation and will designate a portion of the site as open space, resulting in fewer emissions from developable

space than would have otherwise occurred under the general plan. Therefore, the project would not trigger the requirements of EDCAQMD criterion 1.

Project emissions were compared with EDCAQMD significance criteria in Impact AIR-2. As shown in Table 3.1-5 and Table 3.1-6, the proposed project would not exceed the EDCAQMD significance criteria during short-term construction activities and long-term operations. Therefore, the project would not trigger the requirements of EDCAQMD criterion 2.

The project was assessed for its compliance with emission reduction measures contained in the applicable air quality plan under Impact AIR-1. The project would comply with state and EDCAQMD regulations adopted to implement the air quality plan. No measures from the plan would apply directly to the project. Therefore, the project would not trigger the requirements of EDCAQMD criterion 3.

As described under Impact AIR-1, the 2013 Proposed Revisions to the 8-Hour Ozone State Implementation Plan indicates that the region is achieving reasonable further progress in meeting the reductions required to achieve the federal ozone standard. No jurisdictions were reported as delinquent in implementing emission reduction measures contained in or derived from the plan. Therefore, the project would not trigger the requirements of EDCAQMD criterion 4.

In summary, the proposed project would not exceed the EDCAQMD significance criteria during short-term construction after implementation of fugitive dust control measures. The proposed project would not exceed the EDCAQMD significance criteria during long-term operations. The proposed project would comply with the existing AQP and all applicable air district rules and regulations. Other cumulative projects would also be expected to demonstrate their consistency and provide for mitigation measures as necessary. Therefore, construction and operation of the proposed project would not result in a cumulatively considerable increase of criteria pollutant emissions; impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Impacts to Sensitive Receptors

Impact AIR-4:	**The project would not expose sensitive receptors to substantial pollutant concentrations.**

Impact Analysis

Impacts to sensitive receptors are considered localized impacts where the potential for adverse air quality impacts increases as the distance between the source of emissions and members of the

public decreases. Dispersion of pollutants in the atmosphere results in decreased concentrations with distance to the point where the emissions cannot be differentiated from background concentrations. While impacts on all members of the population should be considered, impacts on sensitive receptors are of particular concern. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, and convalescent facilities are examples of sensitive receptors. A significant impact would occur if the project would result in any sensitive receptor being exposed to an increased pollutant concentration that exceeds health based standards or, in locations where standards are already exceeded, the project would result in a significant increase to an existing violation. The locations of the nearest sensitive receptors to the project site are as follows:

- Single-family residential development located approximately 60 feet to the north of the project site.
- Single-family residential development located approximately 250 feet to the north of the project site.
- Herbert Green Middle School located approximately 130 feet northeast of the project site, off Forni Road.

Construction Fugitive Dust

The EDCAQMD considers fugitive dust impacts from projects that implement the standard dust control measures listed in Mitigation Measure AIR-2 to be less than significant. Therefore, the localized impacts from project fugitive dust generated during construction would be less than significant with the implementation of Mitigation Measure AIR-2.

Carbon Monoxide Hotspots

CO is a localized pollutant of concern; however, motor vehicle regulations have reduced CO concentrations to such an extent that monitoring of this pollutant is no longer conducted in El Dorado County or any nearby monitoring stations in other counties. However, localized CO hotspots may occur near road intersections with extreme congestion and high traffic volumes. The project traffic study found that no significant reductions in level of service (LOS) would occur with the implementation of planned roadway improvements and mitigation measures. Therefore, no CO hotspot would occur. Thus, mobile-source emissions of CO would not result in or contribute substantially to an air quality violation. In addition, on-site construction activities would not emit CO in quantities that could pose health concerns. The short-term construction and long-term operational mobile-source impact of the proposed project on CO concentrations would be less than significant and no mitigation is required.

Toxic Air Contaminants

The greatest potential for TAC emissions would be related to DPM emissions associated with heavy equipment during grading, excavation, and diesel truck usage during operations. Health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime would contract cancer, based on the use of standard risk-assessment methodology (OEHHA 2003).

The project does not include land uses identified in the ARB Land Use Air Quality Handbook as facilities that emit pollutants of concern for TAC impacts on sensitive receptors (ARB 2005). The short-term increase in diesel exhaust emissions associated with construction of the proposed project would be insignificant over the 70-year health risk assessment period, based on the short-term (1-year) duration of construction and the distance to the nearest sensitive receptors. With regard to operations, the proposed project uses would generate limited numbers of diesel truck trips and the project is not expected to have permitted sources of TACs. Therefore, the project would not expose sensitive receptors in the vicinity to substantial pollutant concentrations. Consequently, the proposed project would result in a less than significant impact.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure AIR-2.

Level of Significance After Mitigation

Less than significant impact.

Objectionable Odors

Impact AIR-5:	**The project would not create objectionable odors affecting a substantial number of people.**

Impact Analysis

Odor impacts are based on the location of the sensitive receptors in proximity to sources of odors. A project can be a generator of odors, and, therefore, concern would be focused on what sensitive receptors are already in the proximity of the proposed project. A project can also be a new sensitive receptor that could be affected by sources of existing air pollution or odors. The project would not be considered a new sensitive receptor.

While offensive odors rarely cause any physical harm, they can still be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the EDCAQMD. The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; the wind speed and direction; and the sensitivity of the receptor. Generally, increasing the distance between the receptor and the source will mitigate odor impacts. Diesel exhaust and ROGs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and are temporary; therefore, construction of the project would not create objectionable odors that would affect a substantial number of people. Construction of the project would have a less than significant impact related to objectionable odors.

Types of land uses that typically pose potential odor problems include agriculture, wastewater treatment plants, food processing and rendering facilities, chemical plants, composting facilities, landfills, waste transfer stations, and dairies. The proposed project does not include any of these or

similar land uses. Therefore, the project would not create objectionable odors that would affect a substantial number of people. Consequently, operations of the project would have a less than significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No mitigation is required.

Greenhouse Gas Emissions

Impact AIR-6:	**The project would generate direct and indirect greenhouse gas emissions; these emissions would result in a significant impact on the environment.**

Impact Analysis

GHG impacts are considered inherently cumulative; there are no non-cumulative GHG emission impacts from a climate change perspective. The proposed project's construction-related (temporary, short-term) and long-term operational emissions of GHGs and whether they would result in a cumulatively considerable contribution to global climate change are described below.

Construction- and operational-related GHG emissions and energy use were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2. CalEEMod has separate databases for specific counties and air districts. The El Dorado Mountain County database was used for the proposed project. The model calculates CO_2, CH_4, and N_2O, which are used to determine the annual carbon dioxide equivalent (CO_2e) emissions. In addition, the model calculates the annual energy usage (i.e., natural gas and electricity) during operational-related activities. Appendix B of this Draft EIR provides detailed emission calculations used in this analysis.

Thresholds of Significance

The EDCAQMD has not adopted a significance threshold for GHG emissions during either construction or operations. EDCAQMD recommends use of the SMAQMD GHG thresholds and the recently adopted PCAPCD GHG thresholds for impact significance determinations. The SMAQMD guidance includes a small project screening threshold of 1,100 metric tons CO_2e per year. For projects that exceed the small project threshold, the SMAQMD previously recommended preparation of an analysis to determine the project's reduction from BAU conditions in 2020. Projects that provide reductions of at least 21.7 percent from BAU would have less than significant impacts from GHG emissions. However, SMAQMD no longer advises using this threshold in light of the Newhall Ranch ruling. Current guidance indicates that if a project's emissions exceed the threshold, the lead agency shall implement all feasible mitigation.

The SMAQMD screening thresholds were developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reduction goals of AB 32, the Scoping Plan, and Executive Orders.

The SMAQMD-recommended screening thresholds of significance for construction and operational emissions from land use projects are as follows:

- Construction phase of projects—1,100 metric tons of CO_2e per year.
- Operational phase of a land development project—1,100 metric tons of CO_2e per year.

If a project's emissions exceed the thresholds of significance, then the project would then apply all feasible mitigation to reduce GHG emissions from the project.

The mass emission thresholds suggested by the PCAPCD for project-level operational GHG generation are as follows:

- 1,100 $MTCO_2e$/year, or
- 26.5 metric tons of CO_2e/1,000 sf for a non-residential, urban development project.

Project Screening Analysis

The following analysis was prepared to determine if the project would qualify for use of the screening thresholds described above. The analysis quantifies emissions from project construction and operations.

Construction

During construction of the proposed project, GHG emissions would be generated by fuel consumed by off-road equipment, and vehicles used for haul trips and construction worker trips. The total combined GHG emissions during the 12-month construction period would be approximately 395 $MTCO_2e$ per year (approximately 13.2 $MTCO_2e$ per year amortized over 30 years). As shown in Table 3.1-7, the project would not exceed the 1,100 $MTCO_2e$ screening level for construction activities.

Table 3.1-7: Construction Greenhouse Gas Emissions

Construction Phase	$MTCO_2e$/year		
	On-site	Off-site	Total
Demolition	22.4	1.8	24.2
Site Preparation	1.6	0.1	1.7
Grading	18.4	141.9	160.3
Building Construction	185.4	15.9	201.3
Paving	6.2	0.4	6.6
Architectural Coating	1.3	0.1	1.3
Total			395.4

Table 3.1-7 (cont.): Construction Greenhouse Gas Emissions

Construction Phase	$MTCO_2e$/year		
	On-site	Off-site	Total
Significance Threshold			1,100 $MTCO_2e$/year
Significant?			**No**

Notes:
Due to rounding, total $MTCO_2e$ may be marginally different from CalEEMod output.
$MTCO_2e$ = metric tons of carbon dioxide equivalents
Source: CalEEMod output (Appendix B).

Operation

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential wood burning. The project benefits from its location near existing pedestrian infrastructure, transit, and proximity to various land uses. The above measures are represented in CalEEMod as mitigation measures; however, they are not considered mitigation for CEQA, as they are required by regulation or are a result of the project's location. In addition, the project seeks to rezone the project site from the existing Community Commercial-Design Review—Community (CC-DC) to 3.18 acres of Community Commercial-Planned Development (CC-PD) and 1.14 acres of Open Space-Planned Development (OS-PD). The parcel to be rezoned as Open Space, Parcel A, would be protected in perpetuity by creating the easement with a third-party conservator, who would hold the easement and ensure that the conditions of the United States Army Corps of Engineers (USACE) permit and the easement are enforced. The Applicant would also provide an endowment for the management of the preserved area. The conservation easement is required via Mitigation Measure BIO-2 of this project's Initial Study and as identified in Section 7.0, Effects Found Not To Be Significant Or Less Than Significant of this Draft EIR. Table 3.1-8 contains the estimated operational greenhouse gas emissions for the project.

Table 3.1-8: Project Unmitigated Operational Greenhouse Gases at Project Buildout

Source	Emissions at Buildout with Regulation and Design Features ($MTCO_2e$ per year)
Area	0.003
Energy	102.8
Mobile	962.3
Waste	19.7
Water	7.7
Total	**1,092.4**
Screening Significance Threshold ($MTCO_2e$)*	**1,100**
Emissions exceed screening threshold?	**No**

Table 3.1-8 (cont.): Project Unmitigated Operational Greenhouse Gases at Project Buildout

Source	Emissions at Buildout with Regulation and Design Features ($MTCO_2e$ per year)
Notes: * The 1,100 $MTCO_2e$/year threshold is recommended by both the SMAQMD and the PCAPCD. $MTCO_2e$ = metric tons of carbon dioxide equivalents Source: CalEEMod annual output (Appendix B).	

As shown in Table 3.1-8, the project's estimated GHG emissions would not exceed the SMAQMD and the PCAPCD operational screening threshold of 1,100 $MTCO_2e$ per year. Therefore, the project would not generate greenhouse gas emissions, either directly or indirectly, in amounts that would have a significant impact on the environment.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary**.**

Level of Significance After Mitigation

Less than significant impact.

Plan Consistency

Impact AIR-7: **The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.**

Impact Analysis

The second GHG-related question in Appendix G asks if the project will conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. In order to answer this question, project emissions should be evaluated with respect to consistency with the applicable plans and policies that have been adopted to reduce GHG emissions. For El Dorado County, the applicable plan is the AB 32 ARB Scoping Plan. The El Dorado County General Plan is not a plan adopted for the purpose of reducing greenhouse gas emissions. Therefore, no consistency analysis is required or provided herein.

Scoping Plan Consistency

As previously indicated in Impact AIR-6, the California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (CO_2, CH_4, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions

recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's GHG emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from 2008 levels. On a per-capita basis, that means reducing annual emissions of 14 tons of CO_2 for every man, woman, and child in California down to about 10 tons per person by 2020. As stated earlier, the ARB has updated its emission inventory forecasts and now estimates a reduction of 21.7 percent is required from BAU in 2020 to achieve AB 32 targets.

The ARB Scoping Plan is California's comprehensive plan to achieve the emission reductions required by AB 32. The Scoping Plan does not contain any measures that require a specific action by local government agencies. However, the Scoping Plan does include a full range of measures that when implemented with regulations affect local government operations and development projects. As described in the Regulatory Environment section and quantified under Impact AIR-6, implementation of the Scoping Plan measures has resulted in reductions that put the State on track to achieving AB 32 2020 targets. In addition, Scoping Plan measures that apply to motor vehicles, energy production, and conservation provide sufficient reductions to exceed the quantitative thresholds for GHG emissions as described under Impact AIR-6.

The 2008 Scoping Plan included 18 measures to reduce emissions from the various sectors. The measures often overlap and have interdependent relationships with other measures as described earlier. The measures are implemented with regulations and programs applicable to specific sources of emissions. More detailed descriptions of the measures are provided in Scoping Plan Appendix C, Sector Overview and Emission Reduction Strategies. The State has been very aggressive in adopting regulations to implement the Scoping Plan and as a result, the State is on track to achieve the 2020 target as discussed above.

A project's consistency with AB 32 can be determined by comparing its emissions under a BAU scenario to the project scenario. A reduction in 21.7 percent or more from the BAU scenario would demonstrate consistency with AB 32. Results of this analysis are presented in Table 3.1-10.

***Center for Biological Diversity v. California Department of Fish and Wildlife* ("Newhall Ranch")**

The proper application of a BAU threshold was the subject of a recent California Supreme Court ruling, which requires Lead Agencies to provide substantial evidence supporting the percent reduction chosen to demonstrate consistency with State GHG targets. The implications of the ruling on project GHG analysis are provided below.

On November 30, 2015, the *California Supreme Court in Center for Biological Diversity v. California Department of Fish and Wildlife* ("Newhall Ranch") invalidated the GHG analysis for a large master planned residential development in Los Angeles County consisting of over 20,000 residential dwelling units and other uses, determining that the GHG significance finding was "not supported by a reasoned explanation based on substantial evidence." In particular, the Court upheld: (1) use of the statewide emissions reduction goal in AB 32 as a significance criterion (pp. 15-19), (2) use of the Scoping Plan's BAU model "as a comparative tool for evaluating efficiency and conservation efforts" of the Project (pp. 18-19), and (3) a comparison of the project's expected emissions to a BAU model rather than a baseline of pre-project conditions (pp. 15-19).

Notwithstanding, however, the Court invalidated the GHG analysis on the grounds that the "administrative record discloses no substantial evidence that the Newhall Ranch's project-level reduction of 31 percent in comparison to [BAU] is consistent with achieving AB 32's statewide goal of a 29 percent reduction from [BAU]" (p. 19); see also p. 23 ("Nor is Justice Corrigan correct that our analysis 'assumes project-level reduction in greenhouse gas emissions must be greater than the reduction California is seeking to achieve statewide.' [internal citations omitted] . . . [W]e hold only that DFW erred in failing to substantiate its assumption that the Scoping Plan's statewide measure of emissions reduction can also serve as the criterion for an individual land use project.")

In so doing, the Court in *Newhall Ranch* questioned whether "a greater degree of reduction may be needed" from new versus existing development to achieve the statewide goal set forth in AB 32 (p. 20). The Court also stated that the EIR failed to contain sufficient evidence to conclude that the "land use density" assumptions used in the EIR's GHG emissions model relate to the land use density assumptions used in the Scoping Plan's BAU model (pp. 21–22). Because this information was not contained in the *Newhall Ranch* EIR, the Court determined that the record in *Newhall Ranch* did not contain substantial evidence supporting the BAU threshold.

The Court found that the BAU methodology was a valid approach because it was not used to describe the baseline existing conditions but was instead properly used as a yardstick for determining the significance of future emissions associated with the project. The Court also noted that, given the global scope of climate impacts, it makes sense to use an efficiency metric such as AB 32 consistency, rather than an absolute numerical standard, in determining the significance of emissions related to a project.

The Court in *Newhall Ranch* outlined "potential pathways to compliance" that future EIRs could use to determine if GHG emissions from a given project are significant. Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU**. A lead agency may use a BAU comparison based on the Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the "data behind the Scoping Plan's business-as-usual model" to determine the necessary project-level reductions from new land use development at the proposed location (p. 25).
- **Compliance with Regulatory Programs or Performance Based Standards**. A lead agency "might assess consistency with AB 32's goal in whole or part by looking at compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, supra, at p. 64 [greenhouse gas emissions 'may be best analyzed and mitigated at a programmatic level.'].) To the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Resources Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with 'performance based standards' adopted to fulfill 'a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.' (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively

considerable may rest on compliance with previously adopted plans or regulations, including 'plans or regulations for the reduction of greenhouse gas emissions']) (p. 25).

- **Compliance with GHG Reduction Plans or Climate Action Plans (CAPs)**. A lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (p. 26).
- **Compliance with Local Air District Thresholds**. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts (p. 27).

The SMAQMD 21.7 percent BAU threshold is based on the average percentage reductions required by the State from all emission sectors to achieve the AB 32 2020 target. An examination of the Scoping Plan reveals that the emission reductions expected from development related sectors are higher than sectors such as industry and agriculture. In other words, on a sector basis, development projects, which are dominated by transportation and energy emissions, are required to do more than average. Therefore, the amount of reduction from BAU is higher than the average for development related sectors.

The State has aggressively pursued its regulatory strategy to implement the Scoping Plan. The State regulations that have been adopted achieve higher rates of reductions from development related sectors than other sectors. This means that development projects are directly and indirectly subject to regulations that are more stringent than required of other sectors. In addition, the State has indicated in the 2014 Update to the Scoping Plan and in remarks from Governor Brown that the State is on track to achieve the AB 32 2020 target with its adopted regulations. Under CEQA Guidelines 15064(h)(3), a determination that an impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including 'plans or regulations for the reduction of greenhouse gas emissions'. The regulations adopted to implement the Scoping Plan are projected to achieve the AB 32 2020 target accounting for growth in emissions from new development in the State. Under that circumstance, the percentage reduction achieved by regulations applicable to development projects is the amount needed.

The percentage reduction achieved from regulation varies somewhat project to project due to the mix of sources within a project. For example, projects with a large number of heavy-duty truck trips will achieve a lower percentage reduction than projects dominated by passenger vehicle trips that are subject to more regulations and achieve greater reductions. However, since the State target is achieved by the combined benefit of all regulations, projects with lower percentage reductions due to the mix of sources would not necessarily conflict with the State achieving its target. Just because a project serves a different purpose and has a different mix of sources does not mean it has a greater or lesser cumulative impact. They are all part of the same economy that generates the activity causing the impact. The performance standard for new development is in reality a range. Based on the results of a variety of project BAU analyses conducted by FCS, the percentage reduction range from regulations applicable to development projects is roughly 26 and 32 percent below BAU. This is about 4 to 10 percent higher than the average reduction of 21.7 percent needed by the State to

achieve the 2020 AB 32 target from all emission sectors. The San Joaquin Valley Air Pollution Control District (SJVAPCD) and several other air districts have identified a 29 percent reduction from BAU as the performance standard for new development. This amount represents a reasonable reduction target for development projects to show consistency with AB 32 targets, especially considering that the State projects that it is on track to achieve the target.

Greenhouse gas emissions also vary because of the land use pattern and transportation system serving the projects. The Scoping Plan addresses this through SB 375, which sets regional targets based on per capita reductions from light-duty vehicle travel. SB 375 is applicable to regions with Metropolitan Planning Organizations (MPO). Portions of El Dorado County are part of the Sacramento Area Council of Governments (SACOG), which prepared the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (SCS) to comply with SB 375. The SCS does not establish a threshold of significance under CEQA Guidelines Section 15064.7 or a legal presumption that a project inconsistent with the SCS does not meet greenhouse gas emissions reduction targets or AB 32 goals. In short, the SCS is a tool to address greenhouse gas compliance, and it provides incentives for development projects that are consistent with the SCS. The project is not within a Transit Priority Area so has no related requirements. The project does include design features that would reduce project vehicle miles traveled as quantified by the CalEEMod mitigation component. These reductions are in addition to those obtained through compliance with regulations.

Post 2020 Targets

As the year 2020 approaches, the need for a post-2020 target and new thresholds is of increasing importance. AB 32 does not include a post-2020 mandate. Although new legislation (SB 32) was signed by Governor Brown that includes a target for goal for 2030, the amount required from development projects cannot be determined in the absence of a new Scoping Plan that provides the State's strategy for achieving the 2030 goal. The Executive Orders signed by Governor Brown and Governor Schwarzenegger that include a goal for 2050 are not binding without additional legislation to provide a solid legal basis for the State to pursue a 2050 target. The project is expected to be operational prior to 2020, so consistency with the 2020 target is the appropriate comparison in this case. Nevertheless, additional discussion regarding this topic provided below.

SB 32 and Executive Order S-3-05 establish goals to reduce GHG emissions to 40 percent below 1990 levels by 2030. Executive Order S-3-05 includes a goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. The 2050 goal has not been codified. However, studies have shown that, in order to meet the 2050 target, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. In its Climate Change Scoping Plan, ARB acknowledged that the "measures needed to meet the 2050 target are too far in the future to define in detail." ARB in the First Scoping Plan Update generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; largescale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." Because of the technological shifts required and the unknown parameters of the

regulatory framework in 2030 and 2050, quantitatively analyzing the project's impacts further relative to the 2030 and 2050 goals is speculative for purposes of CEQA.

Regarding goals for 2050 under Executive Order S-3-05, it is not possible at this time to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever measures are enacted that state lawmakers decide would lead to an 80-percent reduction below 1990 levels by 2050. Note again that the project already includes several project design features that exceed regulatory requirements and reduce vehicle miles traveled.

Accordingly, taking into account the proposed project's emissions, project design features, standard measures and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project furthers the State's goals of reducing greenhouse gas emissions to 1990 levels by 2020 and an 80-percent reduction below 1990 levels by 2050, and does not obstruct their attainment.

2020 Operational Emissions

Operational emissions for the year 2020 were modeled using CalEEMod, version 2013.2.2. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide (SCAQMD 2011). The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

Emissions Accounting for Applicable Regulations

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I motor vehicle emission standards
- Low Carbon Fuel Standard (LCFS)
- 2005 and 2008 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by the regulations:

- Pavley II (LEV III) Advanced Clean Cars Program
- 2013 and 2016 Title 24 Energy Efficiency Standards
- Renewable Portfolio Standards (RPS)
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (Outdoor Water)
- CalRecycle Waste Diversion and Recycling Mandate (75 percent)

Pavley II/LEV III standards have not been incorporated in the latest version of CalEEMod. Reductions from standards are calculated by adjusting the CalEEMod GHG passenger car and light truck emission factors by ARB's estimated three percent reduction expected from the vehicle categories subject to the regulation by 2020 (ARB 2010).

Title 24 reductions for 2013 are not accounted for in the CalEEMod version 2013.2.2. The California Energy Commission (CEC) estimates that 2013 Title 24 standards would result in an increase in energy efficiency of 30 percent in non-residential buildings compared to 2008 Title 24 (CEC 2014a). The benefits of 2013 Title 24 are applied in the CalEEMod mitigation component to correctly allocate the reductions only to building components subject to the regulation.

Title 24 reductions for 2016 are not accounted for in CalEEMod, version 2013.2.2. The California Energy Commission (CEC) estimates that 2016 Title 24 standards would result in an increase in energy efficiency of 5 percent in commercial buildings compared to 2013 Title 24 (CEC 2015). The benefits of 2016 Title 24 are applied in the CalEEMod mitigation component to correctly allocate the reductions only to building components subject to the regulation.

RPS is not accounted for in the current version of CalEEMod. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility complying with the 33 percent renewable mandate by 2020 (ARB 2010 and CPUC 2011).

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model Water Efficient Landscape Ordinance for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations (CDWR 2013). Benefits of the water conservation regulations are applied in the CalEEMod mitigation component.

Regulations applicable to project sources and the percent reduction anticipated from each source are shown in Table 3.1-9. The percentage reductions are only applied to the specific sources subject to the regulations. For example, the Pavley Low Emission Vehicle Standards apply only to light-duty cars and trucks.

Table 3.1-9: Reductions from Greenhouse Gas Regulations and Project Design Features

Regulation	Project Applicability	Reduction Source	Percent Reduction in 2020
Pavley Low Emission Vehicle Standards	Light-duty cars and trucks accessing the site are subject to the regulation	CalEEMod defaults (Pavley I)I	25.1[1]
		Adjusted GHG emission factor (Pavley II/LEV III) in CalEEMod.	3%[2]
Low Carbon Fuel Standard (LCFS)	Vehicles accessing the site will use fuel subject to the LCFS	CalEEMod defaults	10%[1]
Title 24 Energy Efficiency Standards	Project buildings will be constructed to meet the latest version of Title 24 (currently 2016). Reduction applies only to energy consumption subject to the regulation.	CalEEMod defaults (2008 Title 24) and CalEEMod mitigation component (2013 and 2016 Title 24)	33.5[3,4]

Table 3.1-9 (cont.): Reductions from Greenhouse Gas Regulations and Project Design Features

Regulation	Project Applicability	Reduction Source	Percent Reduction in 2020
Green Building Code Standards	The project will include water conservation features required by the standard	CalEEMod mitigation component	20%[5]
Water Efficient Land Use Ordinance	The project landscaping will comply with the regulation	CalEEMod mitigation component	20%[6]
Renewable Portfolio Standard (RPS)	Electricity purchased for use at the project site is subject to the 33% RPS mandate	CalEEMod adjusted energy intensity factors from Pacific Gas and Electric with RPS	23.3%[7]
Solid waste	The solid waste service provider will need to provide programs to increase diversion and recycling to meet the mandate.	CalEEMod mitigation component	25%[8]

Notes:
Regulations are described in Section 2.3 Regulatory Environment. The source of the percentage reductions from each measure are from the following sources:
1 Pavley 1 + Low Carbon Fuel Standard Postprocessor Version 1.0 User's Guide (ARB 2010)
2 ARB Staff Report for LEV III Amendments (ARB 2013e)
3 California Energy Commission News Release: New Title 24 Standards Will Cut Residential Energy Use by 25 Percent, Save Water, and Reduce Greenhouse Gas Emissions (CEC 2014b)
4 California Energy Commission Adoption Hearing Presentation: 2016 Buildings Energy Efficiency Standards (CEC 2015)
5 2013 California Green Building Standards Code Section 5.303.2
6 California Water Plan Update 2013 (CDWR 2013)
7 Based on CalEEMod default PG&E rate for 2005 reduced to meet the 33% RPS requirement
8 CalRecycle 75 Percent Initiative: Defining the Future (2016b)

In addition to rules and regulations, the project would incorporate design features and would obtain benefits from its location and infrastructure that would reduce project vehicle miles traveled compared with default values. The project involves preserving 1.14 acres of the 4.32-acre project site as open space, which was not credited in the emission estimates. The project would construct pedestrian infrastructure connecting to adjacent land uses. In addition, the project would provide electrical outlets for landscaping equipment that would be used in accordance with statewide usage rates for this type of equipment.

Note that CalEEMod nominally treats these design elements and conditions as "mitigation measures," despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions. Full assumptions and model outputs are provided in Appendix B. Results of this analysis are presented in Table 3.1-10.

Table 3.1-10: Unmitigated Operational Greenhouse Gas Emissions

Source	Emissions ($MTCO_2e$ per year)	
	Business as Usual	2020 (with Regulation and Design Features)
Area	0.00366	0.00347
Energy	170.7	121.0
Mobile	1,396.6	942.6
Waste	26.2	26.2
Water	12.9	8.5
Amortized Construction Emissions	13.2	13.2
Total	1,619.6	1,111.4
Reduction from BAU		508.1
Percent Reduction		31.4%
Percent required to show consistency with AB 32 Targets		21.7%

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalents
The project achieves the 21.7 percent reduction from BAU threshold required to show consistency with AB 32 targets as previously recommended by SMAQMD and the more stringent 29 percent reduction required by the San Joaquin Valley Air Pollution Control District (SJVAPCD) threshold.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2020 without regulations (Appendix B).
Source of 2020 emissions: CalEEMod output for the year 2020 (Appendix B).

As shown in Table 3.1-10, the project has a reduction of 31.4-percent from BAU to the year 2020 with regulations and design features incorporated. This is 9.7 percent above the 21.7 percent average reduction from all sources of GHG emissions now required to achieve AB 32 targets. This is also above a reduction of 29 percent performance standard identified by the SJVAPCD. This demonstrates that the project is doing its fair share toward reaching AB 32 targets through compliance with regulations and incorporation of design features into the project.

Table 3.1-11 provides an analysis of the project's consistency with the Scoping Plan measures. The project is consistent with all applicable measures and would not result in a conflict with the Scoping Plan. The 2014 First Update to the Climate Change Scoping Plan contains no new measures beyond those contained in the Scoping Plan adopted in 2008.

Table 3.1-11: Consistency with Scoping Plan Reduction Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	**California Cap-and-Trade Program Linked to Western Climate Initiative**	Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	**Consistent.** Cap and Trade does not apply directly to projects, but the motor vehicle fuels used by project customers and electricity used by project buildings are subject to Cap and Trade. The cost of products or services (such as electricity) subject to Cap and Trade offset requirements would be transferred to the consumers and end users by the regulated entities.
	California Light-Duty Vehicle Greenhouse Gas Standards.	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles 2012 LEV III Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards	**Consistent.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, the standards would be applicable to the light-duty vehicles that would access the project site.
	Low Carbon Fuel Standard.	2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the project would utilize low carbon transportation fuels as required under this measure.
	Regional Transportation-Related Greenhouse Gas Targets.	SB 375. Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28	**Consistent.** The project would provide retail services to support growth in the region that are consistent with the 2014 Regional Transportation Plan/Sustainable Communities Strategy (SCS). The project is not within a SCS priority area and so is not subject to requirements applicable to those areas.
	Vehicle Efficiency Measures	2009 ARB Regulation for under Inflated Vehicle Tires	**Consistent.** The standards would be applicable to the light-duty vehicles that would access the project site.
	Goods Movement	Goods Movement Action Plan January 2007.	**Not applicable.** The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.

Table 3.1-11 (cont.): Consistency with Scoping Plan Reduction Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
	Medium/Heavy-Duty Vehicles	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	**Consistent.** This measure applies to medium and heavy-duty vehicles that operate in the State. The project would not conflict with implementation of this measure. Medium- and heavy-duty vehicles associated with construction and operation of the project would be required to comply with the requirements of this regulation.
	High Speed Rail	Funded under SB 862	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency.
Electricity and Natural Gas	**Energy Efficiency**	CEC Title 20 Appliance Efficiency Regulation	**Consistent.** The project would not conflict with implementation of this measure. The project will comply with the latest energy efficiency standards.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	
	Renewable Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	**Consistent.** Pacific Gas and Electric will be required to obtain 33 percent of its power supply from renewable sources by 2020. The project would not conflict with implementation of this measure. Electricity purchased for the project will purchased through PG&E, which is required to comply with the appropriate renewable energy content.
		SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	
	Million Solar Roofs Program.	Tax incentive program	**Consistent.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The project will meet the "solar ready" requirements of the Green Building Code Standards.

Table 3.1-11 (cont.): Consistency with Scoping Plan Reduction Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Water	**Water**	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The project would comply with Green Building Code regulations and would implement required water conservation features.
		SBX 7-7—The Water Conservation Act of 2009	
		Model Water Efficient Landscape Ordinance (MWELO)	
Green Building	**Green Building Strategy**	Title 24 Part 11 California Green Building Code Standards	**Consistent.** Under this strategy, the State is to increase the use of green building practices. The project would implement required green building strategies through compliance with the CALGreen code.
Industry	**Industrial Emissions**	2010 ARB Mandatory Reporting Regulation	**Not applicable.** The project is not an industrial land use.
Recycling and Waste Management	**Recycling and Waste**	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The project would not conflict with implementation of these measures. The project is required to achieve the recycling mandates via mandatory compliance with the CALGreen code.
		CalRecycle Mandatory Commercial Recycling	
		Mandatory Commercial Organics Recycling	
		AB 341 Statewide 75 Percent Goal	
Forests	**Sustainable Forests**	Cap and Trade Offset Projects	**Not applicable.** The project site is in an area designated for urban uses and would not be a candidate as a Cap and Trade Forestry Offset project.
High Global Warming Potential	**High Global Warming Potential Gases**	ARB Refrigerant Management Program CCR 95380	**Consistent.** The Refrigerant Management Program applies to refrigeration systems with 50 pounds or more of refrigerants. If project businesses install air conditioning and refrigerators requiring this amount of refrigerants, the business will be required to comply with refrigerant management regulations.

Table 3.1-11 (cont.): Consistency with Scoping Plan Reduction Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Agriculture	**Agriculture**	Cap and Trade Offset Projects for Livestock and Rice Cultivation	**Not applicable.** The project site is designated for urban development. No grazing, feedlot, or other agricultural activities that generate manure occur currently exist on-site or are proposed to be implemented by the project.
Source of ARB Scoping Plan Reduction Measure: California Air Resources Board 2008. Source of Project Consistency or Applicability: FirstCarbon Solutions.			

In summary, the project incorporates a number of features that would minimize GHG emissions. These features are consistent with project-level strategies identified by the ARB's Scoping Plan, the SMAQMD GHG emission guidelines, and the PCAPCD GHG emission guidelines. As show in Table 3.1-10, the project would achieve a 31.4 percent reduction from BAU to the year 2020 with regulations and design features incorporated. This is 9.7 percent above the 21.7 percent average reduction from all sources of GHG emissions now required to achieve AB 32 targets. The project promotes the goals of the Scoping Plan through implementation of design measures that reduce energy consumption, water consumption, and reduction in vehicle miles traveled. Therefore, the project does not conflict with any plans to reduce GHG emissions. The impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary**.**

Level of Significance After Mitigation

Less than significant impact.

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3.2 - Transportation

This section describes the existing transportation setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the September 25, 2017 Transportation Impact Analysis (TIA), prepared by KD Anderson & Associates, Inc., included in this EIR as Appendix C.

3.2.1 - Existing Conditions

Study Area

The TIA addresses traffic conditions at 11 existing intersections and three roadway segments generally along Missouri Flat Road (Exhibit 3.2-1). The limits of the study area were based on previous traffic studies for the project site prepared by Kimley Horn Associates in 2009 and KD Anderson & Associates, Inc. in 2014. The limits of the study were reviewed with El Dorado County Long Range Planning (LRP); LRP's traffic engineering consultant, DKS Associates (DKS); and California Department of Transportation (Caltrans) staff. The text that follows describes the roadway facilities included in this analysis.

Study Area Intersections

The **Missouri Flat Road/Westbound US 50 ramps** intersection is controlled by a coordinated traffic signal. The Missouri Flat Road approaches feature dual northbound left-turn lanes and a separate southbound right-turn lane. The four-lane exit from US 50 is configured with dual left and right-turn lanes.

The **Missouri Flat Road/Eastbound US 50 ramps** intersection is controlled by a coordinated traffic signal. The Missouri Flat Road approaches feature dual southbound left-turn lanes and a separate northbound right-turn lane. The three-lane exit from US 50 is configured with a separate left-turn lane and right-turn lanes, as well as a combined left, thru, and right-turn lane.

The **Missouri Flat Road/Mother Lode Drive** intersection is signalized and located roughly 250 feet from the Eastbound US 50 ramps intersection. The Missouri Flat Road approaches have separate left turn and right-turn lanes. The eastbound Mother Lode Drive approach has three lanes configured as dual left turns and a separate right-turn lane.

The **Missouri Flat Road/Road 2233** intersection is stop controlled along Road 2233 and is located roughly 1,600 feet south of the Mother Lode Drive intersection. The Missouri Flat Road approaches include two lanes in each direction with a two-way left-turn lane extending from Perks Court just south of Mother Lode Drive to 250 feet south of the Road 2233 intersection. The Road 2233 approach has a single lane for traffic entering the intersection.

The **Missouri Flat Road/Forni Road** intersection is also signalized and located roughly ½ mile south of the Mother Lode Drive intersection. The Missouri Flat Road approaches each include separate left-turn and right-turn lanes. The Forni Road approaches have separate left turn, through and right-turn lanes, and a second left-turn lane has been provided on the eastbound approach.

The **Missouri Flat Road/Golden Center Drive** intersection is located about 1,100 feet south of Forni Road. This signalized intersection includes separate left-turn lanes on the Missouri Flat Road approaches and a separate right-turn lane on the southbound approach. The Golden Center Drive approaches are single lanes that operate with permitted phasing.

The **Missouri Flat Road/China Garden Road** intersection is located about 2,100 feet south of Golden Center Drive. This unsignalized intersection includes single lanes along Missouri Flat Road with a separate left-turn lane on the southbound approach. A two-way left-turn lane is present on the northbound approach of Missouri Flat Road and north of the southbound left-turn lane. The China Garden Road approach consists of a single lane that is stop controlled. A driveway is present along the west side of the intersection.

The **Missouri Flat Road/Industrial Drive** intersection is located about 600 feet south of China Garden Road. This unsignalized intersection includes single lanes along Missouri Flat Road with a two-way left-turn lane present along Missouri Flat Road. The Industrial Drive approach consists of a single lane that is stop controlled.

The **Missouri Flat Road/Enterprise Drive** intersection is located along a two-lane section of Missouri Flat Road. A two-way left-turn lane is available on Missouri Flat Road. The eastbound Enterprise Drive approach is controlled by a stop sign. A driveway is present along the east side of the intersection.

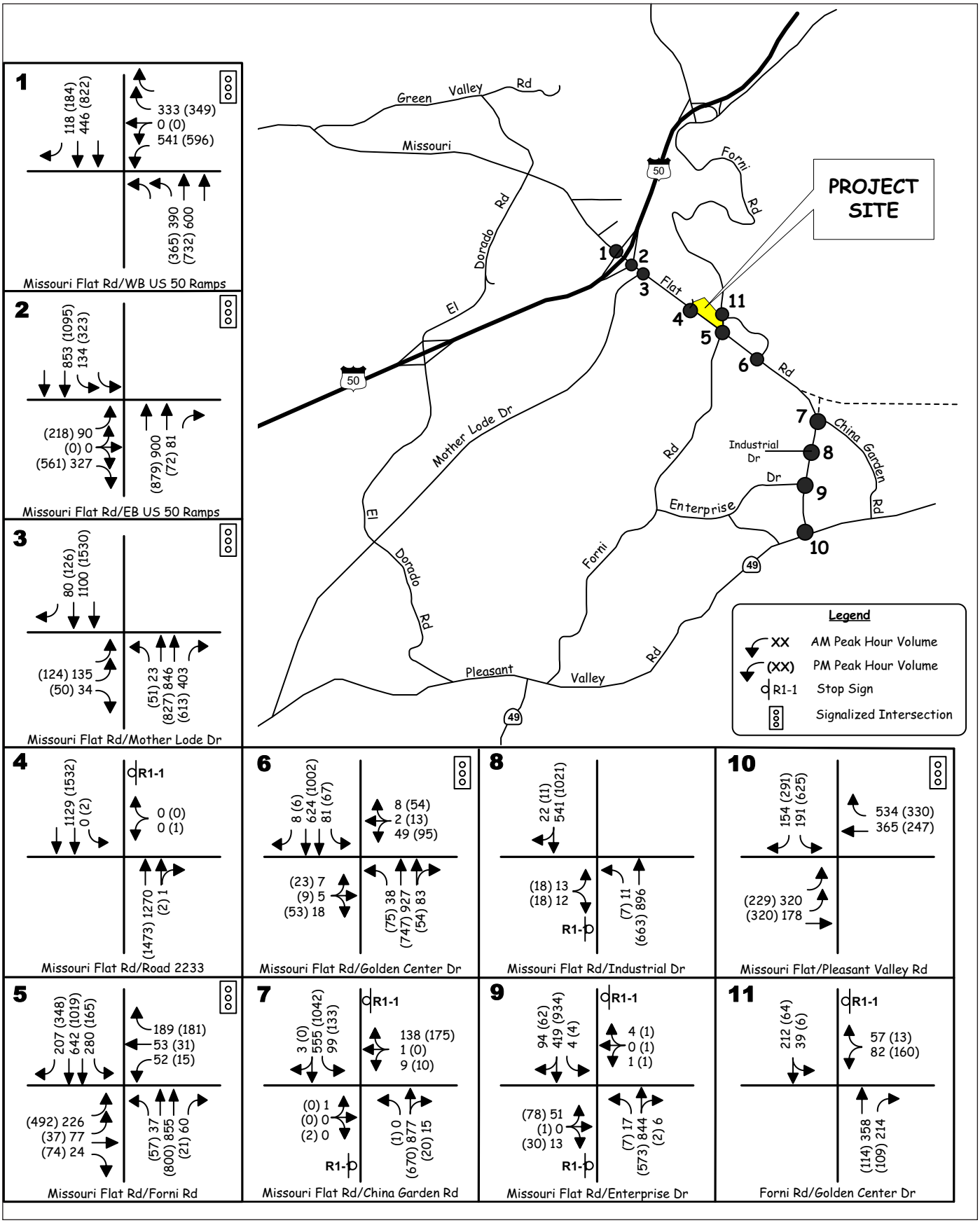
The **Missouri Flat Road/(SR 49) Pleasant Valley Road** intersection is located at the southern end of Missouri Flat Road roughly two miles from the project site. This tee intersection is controlled by an actuated traffic signal. The Pleasant Valley Road approaches have single through lanes in each direction, with dual eastbound left-turn lanes and a separate westbound right-turn lane. The two-lane southbound approach on Missouri Flat Road is configured as separate left turn and right-turn lanes, and the right turn "overlaps" the eastbound left turn phase.

The **Forni Road/Golden Center Drive** intersection is located about 300 feet east of Missouri Flat Road. This unsignalized intersection includes a single lane along westbound Forni Road, and a through lane and a right-turn lane along eastbound Forni Road. The Golden Center Drive approach consists of a single lane that is stop controlled.

The **Missouri Flat Road/Diamond Springs Parkway** intersection is a future intersection that is part of the Diamond Springs Parkway project. When completed, this intersection will consist of a left-turn lane, two through lanes and a right-turn lane along the eastbound (Missouri Flat Road) and westbound (Diamond Springs Parkway) approaches. The northbound Missouri Flat Road approach will consist of dual left-turn lanes and a through-right lane. The opposing southbound approach will consist of a left-turn lane and a through-right lane. This intersection will be signalized.

Study Area Missouri Flat Road Roadway Segments

The **Mother Lode Drive to Golden Center Drive** segment is a four-lane roadway between Mother Lode Drive and Golden Center Drive. The segment includes a two-way-left-turn lane from Perks Court to just north of Forni Road. The roadway includes a raised median with left-turn lanes between Mother Lode Drive and Perks Court and from Forni Road to Golden Center Drive.



Source: KD Anderson & Associates, Inc., 2017

FIRSTCARBON SOLUTIONS™

Exhibit 3.2-1
Existing Traffic Volumes and Lane Configurations

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The **Golden Center Drive and China Garden Road** segment is generally a two-lane roadway with a two-way left-turn lane between Golden Center Drive and China Garden Road. Upon departing the Golden Center Drive intersection to the south, a lane drop is present, reducing the southbound direction to one lane. Similarly, the approach to the Golden Center Drive intersection consists of a single lane with a two-way left-turn lane that widens to two lanes just prior to the intersection. The two-way left-turn lane changes into a northbound left-turn lane at the intersection. This also occurs in the southbound direction at China Garden Road with the two-way left-turn lane becoming a dedicated left-turn lane at the intersection.

The **China Garden Road and Pleasant Valley Road** segment is a two-lane roadway with a two-way left-turn lane between China Garden Road and Peasant Valley Road. About 500 feet from the Pleasant Valley Road intersection, the two-way left-turn lane is removed while a right-turn-only lane is added.

Level of Service

Level of Service (LOS) provides a basis for describing existing traffic conditions and for evaluating the significance of project traffic impacts. LOS measures the *quality* of traffic flow and is represented by letter designations from "A" to "F," where "A" refers to the best conditions, and "F" represents the worst conditions.

Existing Traffic Operations Conditions

Traffic Volume Counts

Traffic counts were completed during the first week of May 2017. These counts were compared with the traffic volumes used in the previous Creekside traffic study completed in December 2014. The 2014 study used peak-hour traffic volume counts presented in the Diamond Springs El Dorado Area Mobility and Livable Community Plan technical report, as well as supplemental traffic counts conducted on July 22, 2014. The July 2014 counts were adjusted on the basis of turning movement counts that were conducted at adjacent intersections while school was in session.

Each study intersection was reviewed to determine the percentage increase or decrease in traffic volumes between 2014 and 2017. Eight intersections experienced increases in traffic volumes of 8.0 percent or less, while three intersections (Missouri Flat Road at Industrial Drive, Missouri Flat Road at Enterprise Drive, and Missouri Flat Road at Pleasant Valley Road) experienced traffic volume increases of up to 11.4 percent. Traffic counts vary on a daily basis and the FHWA's *Traffic Monitoring Guide* indicates that volumes within a 10 percent variance are acceptable. Therefore, the majority of 2014 intersections volumes meet the FHWA criteria.

Based on direction received from the applicant, and after discussion of the variance in traffic volumes between 2014 and 2017, the traffic volumes used in preparation of the December 2014 report were used as the basis for existing conditions.

Traffic count data from 2014 and 2017 are included in Appendix C. The intersection turning movements are presented in Exhibit 3.2-1.

Existing Intersection Levels of Service

Table 3.2-1 summarizes current operating LOS at the study area intersections. All study intersections except the eastbound approach of the Missouri Flat Road/Enterprise Drive intersection and the eastbound and westbound approaches of the Missouri Flat Road/China Garden Road intersection currently operate with acceptable LOS during the AM and PM peak hours. The eastbound approach along Enterprise Drive operates at LOS F in the AM peak hour and LOS F in the PM peak hour. The eastbound driveway opposite China Garden Road operates at LOS F while the westbound China Garden Road approach operates at LOS F in the AM peak hour.

Table 3.2-1: Existing Peak Hour Levels of Service at Intersections

Location	Control	AM Peak Hour		PM Peak Hour		Traffic Signal Warranted?
		LOS	Average Delay	LOS	Average Delay	
1. Missouri Flat Rd/WB US 50 ramps	Signal	B	18.7	B	17.6	N/A
2. Missouri Flat Rd/EB US 50 ramps	Signal	B	16.3	C	21.0	N/A
3. Missouri Flat Rd/Mother Lode Dr	Signal	A	8.0	A	8.3	N/A
4. Missouri Flat Rd/Road 2233	WB Stop					No
SB Left		—	—	(B)	(14.0)	
WB		—	—	(E)	(38.7)	
6. Missouri Flat Rd/Forni Rd	Signal	C	20.3	C	22.4	N/A
7. Missouri Flat Rd/Golden Center Dr	Signal	B	13.7	C	21.1	N/A
8. Missouri Flat Rd/China Garden Rd	WB Stop					No*
NB Left		—	—	(B)	(10.6)	
SB Left		(B)	(11.2)	(A)	(9.8)	
EB		**(F)**	**(185.9)**	(C)	(18.6)	
WB		**(F)**	**(55.9)**	(E)	(43.5)	
9. Missouri Flat Rd/Industrial Dr	EB Stop					No
NB Left		(A)	(8.9)	(B)	(10.9)	
EB		(C)	(17.8)	(C)	(24.5)	
10. Missouri Flat Rd/Enterprise Dr	EB Stop					Yes**
NB Left		(A)	(8.7)	(B)	(10.5)	
SB Left		(B)	(10.2)	(A)	(8.7)	
EB		**(F)**	**(99.1)**	**(F)**	**(250.8)**	
WB		(C)	(23.7)	(E)	(40.0)	
11. Missouri Flat Rd/SR 49 (Pleasant Valley Rd)	Signal	B	17.0	B	15.9	N/A
12. Forni Rd/Golden Center Dr	WB Stop					No
SB Left		A	6.2	A	2.8	
WB		B	12.3	A	6.9	

Notes:
* meets volume portion of peak-hour warrant in AM and PM peak hours
** meets peak-hour warrant in PM peak hour
(xx) delay and level of service using Synchro 2010 including two-way left-turn lane analysis
Source: KDAnderson & Associates, Inc., 2017.

Traffic Signal Warrants

The Missouri Flat Road/Enterprise Drive intersection meets the peak-hour signal warrant in the PM peak hour, while the Missouri Flat Road/China Garden Road intersection meets the volume portion of the peak-hour warrant in the AM and PM peak hours.

Intersection Queues

Table 3.2-2 presents information regarding current peak period queuing in lanes at signalized study intersections. In each case, the available storage has been presented along with current peak-hour traffic volumes and the 95th percentile queue length. On multiple lane approaches, the longest queue among a group of common lanes has been noted.

Most intersections have lane storage capacity that can accommodate peak period queues. Those 95th percentile queues with length exceeding the available storage are identified in bold. The 95th percentile queue exceeds available storage at nine intersections.

Table 3.2-2: Existing Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	AM Peak Hour		PM Peak Hour	
		VPH	Queue (feet)	VPH	Queue (feet)
1. Missouri Flat Road/WB US 50 ramps					
NB left turn	160	390 (2)	**167**	365 (2)	**163**
NB through	360	600 (2)	299	732 (2)	223
SB through	520	446 (2)	194	822 (2)	223
WB left turn	410	541 (2)	218	596 (2)	217
WB right turn	410	333 (2)	124	349 (2)	143
2. Missouri Flat Road/EB US 50 ramps					
NB through	160	900 (2)	**202**	879 (2)	**187**
NB right turn	140	81	77	72	85
SB left	160	134 (2)	**187**	323 (2)	**217**
SB through	380	853 (2)	362	1,095 (2)	**415**
EB left + through + right turn	540	417 (3)	145	779 (3)	209
3. Missouri Flat Road/Mother Lode Drive					
NB left turn	150	23	49	51	76
NB through	2,300	846 (2)	164	827 (2)	163
SB through	140	1,100 (2)	99	1,530 (2)	**166**
SB right turn	130	80	<25	126	72
5. Missouri Flat Road/Forni Road					
NB left turn	250	37	50	57	87
NB through	1,000	855 (2)	259	800 (2)	243

Table 3.2-2 (cont.): Existing Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	AM Peak Hour		PM Peak Hour	
		VPH	Queue (feet)	VPH	Queue (feet)
NB right turn	160	60	122	21	57
SB left turn	300	280	270	165	191
SB through	2,300	642 (2)	205	1,019 (2)	274
SB right turn	150	207	121	348	**183**
EB left turn	195	226	129	492	**232**
WB left turn	190	52	90	15	42
6. Missouri Flat Road/Golden Center Drive					
NB left turn	120	38	62	75	112
SB left turn	160	81	121	67	142
10. Missouri Flat Road/SR 49 (Pleasant Valley Rd)					
SB left turn	600	191	152	625	237
SB right turn	600	154	68	291	91
EB left turn	160	320 (2)	**165**	229 (2)	154
WB right turn	190	534	**224**	330	138

Note:
Highlighted values indicate queue length in excess of available storage
Source: KDAnderson & Associates, Inc., 2017.

Existing Roadway Segment Levels of Service

Table 3.2-3 summarizes the LOS based on the current traffic volumes on study area roads with the existing roadway configuration. Applicable LOS thresholds and roadway classifications are presented. The LOS along Missouri Flat Road were computed using the HCS two-lane roadway and multilane highways methodologies. The multilane segments operate at LOS C or better, while the two-lane roadway segment operates within acceptable LOS thresholds (LOS E). El Dorado County's LOS standards are discussed below in Section 3.2.3, Methodology.

Table 3.2-3: Existing Missouri Flat Road Segment Levels of Service

Roadway	Location	Facility Classification	AM				PM			
			ATS	PTSF	Density	LOS	ATS	PTSF	Density	LOS
Missouri Flat Rd	Mother Lode Dr to Golden Center Dr									
	NB	Multi Lane Highway	—	—	16.6	B	—	—	18.4	C
	SB		—	—	17.0	B	—	—	20.1	C
	Golden Center Dr to China Garden Rd									
	NB	Multi Lane Highway	—	—	13.2	B	—	—	12.6	B
	SB		—	—	12.7	B	—	—	15.3	B
	China Garden Rd to Pleasant Valley Rd									
	NB	Class I Highway	21.8	88.4	—	E	20.6	85.1	—	E
	SB		21.9	85.9	—	E	20.4	92.3	—	E

Source: KDAnderson & Associates, Inc., 2017.

Public Transit

The El Dorado County Transit Authority (EDCTA) offers local fixed route, regional commuter route, dial-a-ride and para-transit services. Three local fixed routes pass the project site on Missouri Flat Road. These include the Placerville East (PE), Placerville West (PW) and Diamond Springs (DS) routes. The DS route travels along Missouri Flat Road and Pleasant Valley Road. It loops along Racquet Way to return to Missouri Flat Road on its way to Folsom Lake College. The route also loops along Golden Center Drive and Forni Road in the northbound direction to Folsom Lake College. The route operates from about 7:00 a.m. to about 6:00 p.m. Monday through Friday at 1-hour headways. Transit passengers can also use other routes to travel to the Missouri Flat Road Transit Center where they can transfer to the DS route.

The PE and PW routes generally provide transit access paralleling the US 50 corridor from Missouri Flat Road to the east side of Placerville along Broadway. The PW route begins on the east side of Placerville and terminates at the Missouri Flat Transfer Center. The PE route begins at the Missouri Flat Transfer Center and travels east where it terminates at the Broadway and Pint View Drive intersection. Both routes operate Monday through Friday, with the first departure for both routes at 7:00 a.m. The PW route's last bus terminates at Missouri Flat Transit Center at 5:00 p.m. The last bus along the PE route begins at 5:00 and ends service at about 5:45 p.m.

EDCTA also operates commuter routes to downtown Sacramento Monday through Friday. A park-n-ride lot is available along Commerce Way, between Enterprise Drive and Pleasant Valley Road. Four inbound routes to Sacramento are operated from the Commerce Way lot between 5:30 a.m. and 6:00 a.m. Ten return trips from Sacramento are available but are "request only" stops.

The Western El Dorado County Short-Range and Long-Range Transit Plan Study has identified the following improvements for transit service in the Diamond Springs area. Short-range improvements include beginning the route schedule at 6:00 a.m., extending the existing weekday route schedule by 1 hour at the end of the day and instituting Saturday service between 9:00 a.m. and 5:00 p.m. Long-range improvements include revising routes as a result of the construction of Diamond Springs Parkway between Missouri Flat Road and Diamond Road.

Bicycle and Pedestrian Facilities

Designated bicycle facilities exist in the vicinity of the project site. Class 2 bike lanes are present along Missouri Flat Road from Plaza Drive south to Golden Center Drive. Narrow paved shoulders are present intermittently along Forni Road and are not designated bicycle lanes. Future bicycle improvements in the vicinity include a Class 3 bicycle route along Forni Road from Enterprise Drive to Missouri Flat Road, a Class 2 bicycle lane along the future Diamond Springs Parkway between Diamond Road and Missouri Flat Road, and a Class 1 bicycle path along Missouri Flat Road from Forni Road to the US 50 interchange. The US 50 Corridor Bike Route is also projected to be extended west of Missouri Flat Road along the El Dorado Trail.

Sidewalk is present along the east side of Missouri Flat Road from Plaza Drive to south of Golden Center Drive, and along the south side of Forni Road from the US 50 interchange to south of Golden Center Drive. Sidewalk is also present along the perimeters of each of the retail developments in the

Missouri Flat Road/Forni Road intersection. Sidewalk is not present along the project frontage (west side) of Forni Road. The Diamond Springs El Dorado Area Mobility and Livable Community Plan identifies sidewalk installation south of the proposed Diamond Springs Parkway to complete pedestrian connectivity along Missouri Flat Road.

3.2.2 - Regulatory Setting

State Regulations

California Department of Transportation

Caltrans builds, operates, and maintains the state highway system, including the interstate highway system. Caltrans's mission is to improve mobility statewide. The department operates under strategic goals to provide a safe transportation system, optimize throughput and ensure reliable travel times, improve the delivery of state highway projects, provide transportation choices, and improve and enhance the State's investments and resources. Caltrans controls the planning of the state highway system and accessibility to the system. Caltrans establishes LOS goals for highways and works with local and regional agencies to assess impacts and develop funding sources for improvements to the state highway system.

Senate Bill 743

In response to Senate Bill (SB) 743, the Office of Planning and Research (OPR) is updating California Environmental Quality Act (CEQA) guidelines to include new transportation-related evaluation metrics. As of the writing of this Draft EIR, new guidelines have not yet been adopted that address SB 743.

The new guidelines that will be adopted to address SB 743 will require lead agencies to assess vehicle miles traveled (VMT) impacts for projects. The draft guidelines indicate that "a development project that is not exempt and that results in vehicle miles traveled greater than regional average for the land use type may indicate a significant impact." However, the lead agency has yet to establish specific local VMT thresholds and industry-wide standards are still in the advisory stage. As such, a VMT analysis is not provided as a part of this CEQA analysis.

Regional Regulations

El Dorado County Transportation Commission

The El Dorado County Transportation Commission (EDCTC) is the designated Regional Transportation Planning Agency (RTPA) for El Dorado County and serves as the planning and programming authority for transportation projects on the western slope of El Dorado County, excluding those areas within the Tahoe Regional Planning Agency boundaries.

El Dorado County General Plan—Transportation and Circulation Element

The 2004 El Dorado County General Plan Transportation and Circulation Element provides the framework for decisions in El Dorado County concerning the countywide transportation system. It provides for coordination with the incorporated cities within the County, the El Dorado County Transportation Commission, the Sacramento Area Council of Governments, the Tahoe Regional Planning Agency, and state and federal agencies that fund and manage the County's transportation

facilities. The Transportation and Circulation Element reflects the urban and rural diversity of the unincorporated areas of El Dorado County and establishes standards that guide development of the transportation system, including access to the road and highway system required by new development.

The Transportation and Circulation Element includes numerous goals and policies that could apply to the project:

- **Goal TC-1:** To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.
- **Goal TC-X:** To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on County roads.
- **Policy TC-Xa:** The following policies shall remain in effect until December 31, 2018:
  1. Traffic from residential development projects of five or more units or parcels of land shall not result in, or worsen, Level of Service F (gridlock, stop-and-go) traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county.
  2. The County shall not add any additional segments of U.S. Highway 50, or any other highways and roads, to the County's list of roads from the original Table TC-2 of the 2004 General Plan that are allowed to operate at Level of Service F without first getting the voters' approval.
  3. 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.
  4. Intentionally blank, Resolution 159-2017, October 24, 2017.
  5. The County shall not create an Infrastructure Financing District unless allowed by a 2/3rds majority vote of the people within that district.
  6. Intentionally blank, Resolution 159-2017, October 24, 2017.
  7. Before giving approval of any kind to a residential development project of five or more units or parcels of land, the County shall make a finding that the project complies with the policies above. If this finding cannot be made, then the County shall not approve the project in order to protect the public's health and safety as provided by state law to assure that safe and adequate roads and highways are in place as such development occurs.
- **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.
- **Goal TC-4:** To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.
- **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.
- **Goal TC-5:** To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.
- **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.
- **Goal TC-8:** To support the coordination of local, regional, State, and Federal transportation and circulation planning.
- **Goal TC-9:** To support the development of complete streets where new or substantially improved roadways shall safely accommodate all users, including bicyclist, pedestrians, transit riders, children, older people, and disabled people, as well as motorist.
- **Policy TC-9a:** Incorporate circulation concepts that accommodate all users in new developments as appropriate.

Measure Y

Measure Y was an initiative passed by the voters of El Dorado County in November 1998. The measure specified several new General Plan policies related to traffic impact mitigation. The Board of Supervisors incorporated the new policies into the County's General Plan when they adopted it in 2004. Those policies are Policy TC-Xa through Policy TC-Xi. In 2008, the Board of Supervisors placed the policies of Measure Y on the ballot for an extension with certain modifications. These modifications included the ability of the Board to amend Table TC-2 by adding roads allowed to operate at LOS F with a four-fifths vote, enabled the County to use taxpayer funds to pay for road improvements needed for new development, and allowed developers to move forward with projects as long as the roads needed for the projects were in the County's CIP.

In November 2008, the voters approved a new version of Measure Y (also listed as Measure Y on the ballot) that modified some of the policies. The Board of Supervisors also approved a companion General Plan Amendment revising several related policies. As indicated by General Plan Policy TC-Xg, development projects must construct or fund improvements necessary to mitigate the effects of traffic from the Project. Policy TC-Xg, as adopted in November 2008, indicated that for road improvements that provide significant benefit to other development, the County may allow a project to fund its fair share of improvement costs through traffic impact fees or receive reimbursement from impact fees for construction of improvements beyond the project's fair share. The amount and timing of reimbursements were to be determined by the County. Measure Y provided that the new General Plan policies related to traffic impact mitigation be placed on the ballot prior to expiration for the voters to decide on a 10-year extension.

Measure E

In 2014, the Initiative to Reinstate Measure Y's Original Intent—No More Paper Roads was submitted to the County and was placed on the ballot as Measure E for the June 2016 election, which added new policies to the General Plan and reinstated some policies that existed prior to voter-approved amendments made in 2008 as part of the second Measure Y. Measure E removed the ability of the Board of Supervisors to allow roads to operate at unacceptable LOS F. Revisions to Policy TC-Xa required that road improvements necessary to prevent cumulative traffic impacts of new development from reaching LOS F during peak hours be fully completed before any form of discretionary approval can be given to a project. The second option of Policy TC-Xf—which required that commencement of construction of the necessary road improvements of a project are included in either the County's 10- or-20-year CIP—was removed. In addition, Measure E added a policy prohibiting the use of County tax revenue to pay for building road capacity improvements to offset traffic impacts from new development, unless County voters first approve. On June 7, 2016, Measure E was approved by the electors.

Measure E Ruling

Measure E was legally challenged by Alliance for Responsible Planning, indicating that portions of Measure E were invalid. As indicated in an El Dorado County News Release on August 8, 2017, the El Dorado County Superior Court ruled that certain aspects of Measure E were unconstitutional, violated state law, and were inconsistent with the General Plan, while also upholding other aspects of the Measure. As such, General Plan Policies TC-Xa 1 through 7 and TC-Xf and Xg, were amended.

Measure E Applicability to the Project

The County has determined that, because the project application was deemed complete before Measure E's adoption and subsequent ruling, Measure E policies do not apply to the project. However, the 2008 Measure Y policies (before Measure E took effect) are applicable (Pabalinas, pers. comm.).

The language 2008 Measure Y Policy TC-Xa is provided as follows:

- **Policy TC-Xa—**The following policies shall remain in effect until December 31, 2018:
  1. Traffic from single family residential subdivision development projects of five or more parcels of land shall not result in, or worsen, Level of Service F (gridlock, stop-and-go) traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county.
  2. The County shall not add any additional segments of U.S. Highway 50, or any other roads, to the County's list of roads that are allowed to operate at Level of Service F without first getting the voters' approval or by a four-fifths vote of the Board of Supervisors.
  3. 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 upon any highways, arterial roads and their intersections during weekday, peak-hour periods in unincorporated areas of the county.

Traffic Impact Mitigation Fee Program

The fees included in the Traffic Impact Mitigation Fee Program by the El Dorado County Board of Supervisors have been determined based on the estimated costs of building the needed road improvements for the planned growth forecasted in the 2004 General Plan. Traffic impact mitigation fees pay for major roadway improvements as listed in the program's current Resolution as Exhibit B.

El Dorado County Regional Transportation Plan and Capital Improvement Program (CIP)

The EDCTC is the RTPA for El Dorado County (excluding the Tahoe Basin) and is responsible for preparation of the El Dorado County Regional Transportation Plan (RTP). The El Dorado County 2015–2035 RTP was developed by the EDCTC to document the policy direction, actions and funding recommendations intended to meet El Dorado County's short- and long-range transportation needs over the next 20 years. The RTP is designed to be a blueprint for the systematic development of a balanced, comprehensive, multi-modal transportation system. In general, RTPs are 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 RTP also serves as the El Dorado County portion of the Sacramento Area Council of Governments Metropolitan Transportation Plan. The RTP identifies the County's 10-year Capital Improvement Program (CIP) in its regional road network short-term action plan.

El Dorado County Bicycle Transportation Plan

The El Dorado County Bicycle Transportation Plan (EDCTC 2010) provides a blueprint for the development of a bicycle transportation system on the western slope of El Dorado County. The 2010

plan complies with Caltrans's Streets and Highways Code (Sections 890–894.2), enabling the County to be eligible for State Bicycle Transportation Account funds. The Bicycle Transportation Plan addresses bicycle transportation issues and goals within El Dorado County, including those related to bicycle commuting, safety and education, implementation and maintenance of bicycle facilities, the integration of bicycle and pedestrian facilities in land use development, integration of bicycle facilities with multi-modal transportation connections, funding, and bicycle facility connectivity. The Bicycle Transportation Plan also identifies existing and proposed/planned future bicycle facilities within the County. Within the project area, the Bicycle Transportation Plan identifies proposed Class II bike lanes along the Parkway that connect with the adjacent El Dorado Multi Use Trail Class I bike path and Class II bike lanes along Missouri Flat Road.

Missouri Flat Master Circulation and Funding Plan

The proposed project is located in the Missouri Flat Area Master Circulation and Funding Plan (MC&FP) area. The MC&FP was prepared and adopted by the County in order to provide a comprehensive and coordinated approach to address both existing traffic congestion and the issue of providing capacity for future development in the Missouri Flat Area (Economic & Planning Systems 1998). The MC&FP established a "master circulation and funding plan" for roadway improvements within the Missouri Flat Area which would be funded through a variety of sources, including fees and taxes generated by retail development in the Missouri Flat Area. The proposed project is located within the boundaries of the MC&FP.

In 1998, EDAW, under contract to DOT, prepared the Missouri Flat Area Master Circulation and Funding Plan Program EIR (EDAW 1998). The MC&FP EIR contemplated a total of 1,700,000 square feet of retail development to be constructed between 1998 and 2015 in two separate phases on lands designated as commercial. The proposed project would be considered part of the second phase "Future MC&FP Retail." Under the MC&FP, all new developments in the Missouri Flat Area are obligated to pay a proportional share of improvement costs in adherence with DOT's current CIP and the County's Traffic Impact Mitigation Fee Program.

The Sacramento-Placerville Transportation Corridor Master Plan

The Sacramento-Placerville Transportation Corridor (SPTC) Master Plan, dated February 25, 2003, considers the feasibility of the corridor's interim use, and develops a set of guiding principles to use in the development of specific projects that are consistent with the Master Plan. "Three types of trails are envisioned for the corridor: natural or hiking/bike trails; improved trails; and, paved trails. Additional guidelines specific to the development of each trail type are identified in the respective sections [in the Master Plan]" (SPTC Master Plan, Section V. Design Guidelines). The Master Plan identifies configurations for road crossing design of the trail and alternatives to consider in light of traffic volumes, and vertical and horizontal sight distances, including guidelines for the construction of trails on banks and above channels.

3.2.3 - Methodology

Level of Service

Local agencies adopt minimum LOS standards for their facilities. El Dorado County identifies LOS E as the acceptable LOS on roadways and state highways within the unincorporated areas of the County in the Community Regions, and LOS D in the Rural Centers and Rural Regions, except as specified in the General Plan. The County's General Plan allows some roadway segments to operate at LOS F. Two segments are along Missouri Flat Road, from US 50 to Mother Lode Drive and from Mother Lode Drive to China Garden Road. Intersections and roadway segments in these segments may operate at LOS F. The analysis techniques presented in the *2010 Highway Capacity Manual* were used to calculate LOS and to provide a basis for describing existing traffic conditions and evaluating the significance of project traffic impacts.

Intersections

Various software programs have been developed to assist in calculating intersection LOS, and the level of sophistication of each program responds to factors that affect the overall flow of traffic. In this case, Synchro-SimTraffic software was used for intersection analysis in order to account for the effects of closely spaced traffic signals along Missouri Flat Road. Additional information regarding Synchro-SimTraffic as applied in this analysis is provided in Appendix C. Applicable LOS thresholds based on average delay are shown in Table 3.2-4.

Table 3.2-4: Levels of Service Definitions

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
A	Uncongested operations, all queues clear in a single-signal cycle. Delay $\leq$ 10.0 sec	Little or no delay. Delay $\leq$ 10 sec/veh	Completely free flow.
B	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and $\leq$ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and $\leq$ 15 sec/veh	Free flow, presence of other vehicles noticeable.
C	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and $\leq$ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and $\leq$ 25 sec/veh	Ability to maneuver and select operating speed affected.
D	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and $\leq$ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and $\leq$ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.

Table 3.2-4 (cont.): Levels of Service Definitions

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
E	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
F	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Sources: 2010 Highway Capacity Manual, Transportation Research Board (TRB) Special Report 209.
Source: KDAnderson & Associates, Inc., 2017.

Two-Lane Roadway Segments

Missouri Flat Road was analyzed using methods presented in the *Highway Capacity Manual 2010 (HCM)*. A two-lane highway is an undivided roadway with one lane in each direction. Passing a slower vehicle requires use of the opposing lane as sight distance and gaps in the opposing traffic stream permit. As volumes and geometric restrictions increase, the ability to pass decreases and platoons form. Motorists in platoons are subject to delay because they are unable to pass. The HCM divides these roadways into three types: Class I, Class II, and Class III. They are defined as follows:

- Class I two-lane highways are highways where motorists expect to travel at relatively high speeds. Two-lane highways that are major intercity routes, primary connectors of major traffic generators, daily commuter routes, or major links in state or national highway networks are generally assigned to Class I. These facilities serve mostly long-distance trips or provide the connections between facilities that serve long-distance trips.
- Class II two-lane highways are highways where motorists do not necessarily expect to travel at high speeds. Two-lane highways functioning as access routes to Class I facilities, serving as scenic or recreational routes (and not as primary arterials), or passing through rugged terrain (where high-speed operation would be impossible) are assigned to Class II. Class II facilities most often serve relatively short trips, the beginning or ending portions of longer trips, or trips for which sightseeing plays a significant role.
- Class III two-lane highways are highways serving moderately developed areas. They may be portions of a Class I or Class II highway that pass through small towns or developed recreational areas. On such segments, local traffic often mixes with through traffic, and the density of unsignalized roadside access points is noticeably higher than in a purely rural area. Class III highways may also be longer segments passing through more spread-out recreational

areas, also with increased roadside densities. Such segments are often accompanied by reduced speed limits that reflect the higher activity level.

Two-Lane Roadway Segment Levels of Service

Three measures of effectiveness are incorporated into the methodology to determine automobile LOS:

1. Average Travel Speed (ATS) reflects mobility on a two-lane highway. It is defined as the highway segment length divided by the average travel time taken by vehicles to traverse it during a designated time interval.
2. Percent Time Spent Following (PTSF) represents the freedom to maneuver and the comfort and convenience of travel. It is the average percentage of time that vehicles must travel in platoons behind slower vehicles because of the inability to pass. Because this characteristic is difficult to measure in the field, a surrogate measure is the percentage of vehicles traveling at headways of less than 3.0 at a representative location within the highway segment. PTSF also represents the approximate percentage of vehicles traveling in platoons.
3. Percent of free-flow speed (PFFS) represents the ability of vehicles to travel at or near the posted speed limit.

Speed and delay due to passing restrictions are both important to motorists on Class I two-lane highways; therefore, LOS is defined in terms of both ATS and PTSF. Travel speed is not a significant issue on Class II highways; therefore, LOS is defined in only terms of PTSF. High speeds are not expected on Class III highways and since the length of the Class III segments may be generally limited, passing restrictions are also not a major concern. In Class III segments, drivers are expected to want to travel at or near the speed limit. Therefore, PFFS is used to define LOS. The LOS criteria for two-lane highways are shown in Table 3.2-5.

Table 3.2-5: Automobile LOS for Two-Lane Highways[†]

	Class I Highways		Class II Highways	Class III Highways
LOS	ATS (mi/hr)	PTSF (%)	PTSF (%)	PFFS (%)
A	>55	≤35	≤40	>91.7
B	>50–55	>35–50	>40–55	>83.3–91.7
C	>45–50	>50–65	>55–70	>75.0–83.3
D	>40–45	>65–80	>70–85	>66.7–75.0
E	≤40	>80	>85	≤66.7

Note:
[†] HCM 2010, Chapter 15, December 2010
Source: KDAnderson & Associates, Inc., 2017.

Multi-lane Highway Roadway Segments

Multi-lane highways were analyzed for this traffic impact study using methods presented in the *Highway Capacity Manual 2010*. Multi-lane highways usually have a total of four or six lanes, counting both directions and are typically located in suburban communities, leading into central cities, or along high-volume rural corridors connecting two cities or two significant activities that generate a substantial number of daily trips.

Multi-lane highways in suburban and rural settings have different operational characteristics from freeways, urban streets, and two-lane highways. They are not completely access controlled and can have at-grade intersections and traffic signals. They also may be divided highways or include two-way let-turn lanes. Free flow speed (FFS) and density describe the operating characteristics of multi-lane highways. FFS is impacted by the lane width, the lateral clearance, the type of median and the number of access points on a segment.

The capacity of a multilane highway is the maximum sustained hourly flow rate at which vehicles reasonably can be expected to traverse a uniform segment under prevailing roadway and traffic conditions. LOS on multilane highways is defined based on density of traffic. Table 3.2-6 defines the LOS based on the FFS and the density in passenger cars per mile per lane (pcpmpl)

Table 3.2-6: Automobile LOS for Multi-Lane Highways‡

LOS	Free Flow Speed (mph)	Density (pcpmpl)
A	All	>0–11
B	All	>11–18
C	All	>18–26
D	All	>26–35
E	60 55 50 45	>35–40 >35–41 >35–43 >35–45
F	Demand Exceeds Capacity	
	60 55 50 45	>40 >41 >43 >45
Source: KDAnderson & Associates, Inc., 2017.		

Intersection Queuing Analysis

The quality of traffic flow can also be affected by queuing at signalized intersections. For this study, the lengths of peak period queues have been identified and compared with available storage in order to determine whether spillover from turn lanes can affect adjoining travel or extend through adjacent intersections. The 95th percentile queue lengths have been calculated as a byproduct of the

Synchro-SimTraffic simulation. Those locations where the 95th percentile queue exceeds the available storage have also been noted.

Traffic Signal Warrants

The extent to which existing or projected traffic volumes may justify signalization at unsignalized intersections has been determined based on consideration of traffic signal warrant presented in the *Manual of Uniform Traffic Control Devices, 2014.* For this analysis, the volume thresholds associated with Warrant 3 (Peak Hour Volume) have been assessed. The "rural" criteria have been employed based on speed limits in excess of 40 miles per hour (mph).

Trip Generation

The development of this project will attract traffic to the project site. The amount of additional traffic on a particular section of the street network is dependent upon two factors:

- Trip Generation, the number of new trips generated by the project, and
- Trip Distribution and Assignment, the specific routes that the new traffic takes.

The trip generation for this project was calculated using trip generation rates published in the Trip Generation Manual (Institute of Transportation Engineers, 9th Edition, 2012). Applicable rates are found in categories 820 (Shopping Center), 710 (Professional Office) and 934 (Fast Food Restaurant with Drive-Through), as shown in Table 3.2-7.

Table 3.2-7: Trip Generation

Land Use	Unit Quantity	Size	Trips Per Unit						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Fast Food with Drive-Through—Bldg B	KSF	2.55	496.12	51%	49%	45.42	52%	48%	32.65
Professional Office—Bldg A	KSF	9.86	22.89	88%	12%	11.75	17%	83%	8.44
Retail-Shopping Center—Bldgs A, B and C	KSF	18.15	42.70	62%	38%	0.96	48%	52%	3.71
Fast Food with Drive-Through—Bldg B	—	—	**1,265**	59	57	**116**	43	40	**83**
Professional Office—Bldg A	—	—	**226**	19	11	**30**	15	74	**89**
Retail-Shopping Center—Bldgs A, B, and C	—	—	**775**	11	7	**17**	32	35	**67**
Sub-Total Trips			**2,266**	88	75	163	91	149	240
Pass-By Trips									
Fast Food with Drive-Through—Bldg B (49% Daily, 49% AM, 50% PM)			(620)	(29)	(28)	(57)	(22)	(20)	(42)
Professional Office—Bldg A			(0)	(0)	(0)	(0)	(0)	(0)	(0)
Retail-Shopping Center—Bldgs A, B, and C			(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Pass-By Trips			**(620)**	(29)	(28)	**(57)**	(22)	(20)	**(42)**
Net New Trips			**1,646**	**60**	**47**	**106**	**69**	**129**	**198**

Notes:
KSF—thousand square feet
Numbers may not match due to rounding
Source: KDAnderson & Associates, Inc., 2017.

Trips generated by retail commercial projects fit into two categories. Some trips will be made by patrons who would not otherwise be on the local street system and who go out of their way to reach the site. These are "new" trips. Other trips will be made by patrons who are already in the roadway network and stop by the site as part of a trip made for another purpose. These "pass-by" trips do not add traffic to the overall system.

ITE research has suggested typical pass-by percentages for various retail land uses. The ITE Trip Generation Handbook, 2nd Edition noted that about 50 percent of all traffic for fast food restaurants with drive-through capabilities is pass-by. Table 3.2-7 presents the pass-by trips used for this study. Internally captured trips, (those that visit the different uses within the site) were assumed not to be present. Application of these rates yields a total of 620 daily pass-by trips, 57 pass-by AM peak-hour trips and 42 pass-by PM peak-hour trips. After accounting for this traffic, the project is expected to generate 1,646 new daily trips, 106 new AM peak-hour trips and 198 new PM peak-hour trips.

Trip Distribution

To evaluate the traffic-related effects of the project, trips that would be generated by the project were distributed onto the roadway network. Trip distribution simulates the geographical pattern of travel, matching trips generated by one type of land use (residential) with trips generated by other types of land uses (education, employment, and shopping). Table 3.2-8 presents the project trip distributions for the existing and 2035 scenarios. The traffic distribution is shown in Exhibit 3.2-2, while the generated traffic volumes are shown in Exhibit 3.2-3.

Table 3.2-8: Project Trip Distribution

Direction	Route	Distribution	
		Existing	2035
North	Missouri Flat Road, north of US 50	5%	5%
South	Along Pleasant Valley Road	20%	6%
West	US 50 west of Missouri Flat Road	20%	20%
	Mother Lode Drive west of Missouri Flat Road	5%	5%
	Forni Road west of Missouri Flat Road	10%	10%
East	US 50 east of Missouri Flat Road	20%	20%
	Forni Road east of Missouri Flat Road	10%	10%
	Diamond Springs Parkway	—	14%
Internal along Missouri Flat Road	Golden Center Drive	10%	10%
Total		100%	100%

Source: KDAnderson & Associates, Inc., 2017.

Analysis Scenarios

The County has determined that under current General Plan Policy, four scenarios should be analyzed. These include:

- Existing Conditions
- Existing plus Project Conditions
- 2035 Conditions
- 2035 plus Project Conditions

3.2.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether transportation and traffic impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Refer to Section 7, Effects Found not to be Significant or Less Than Significant)

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

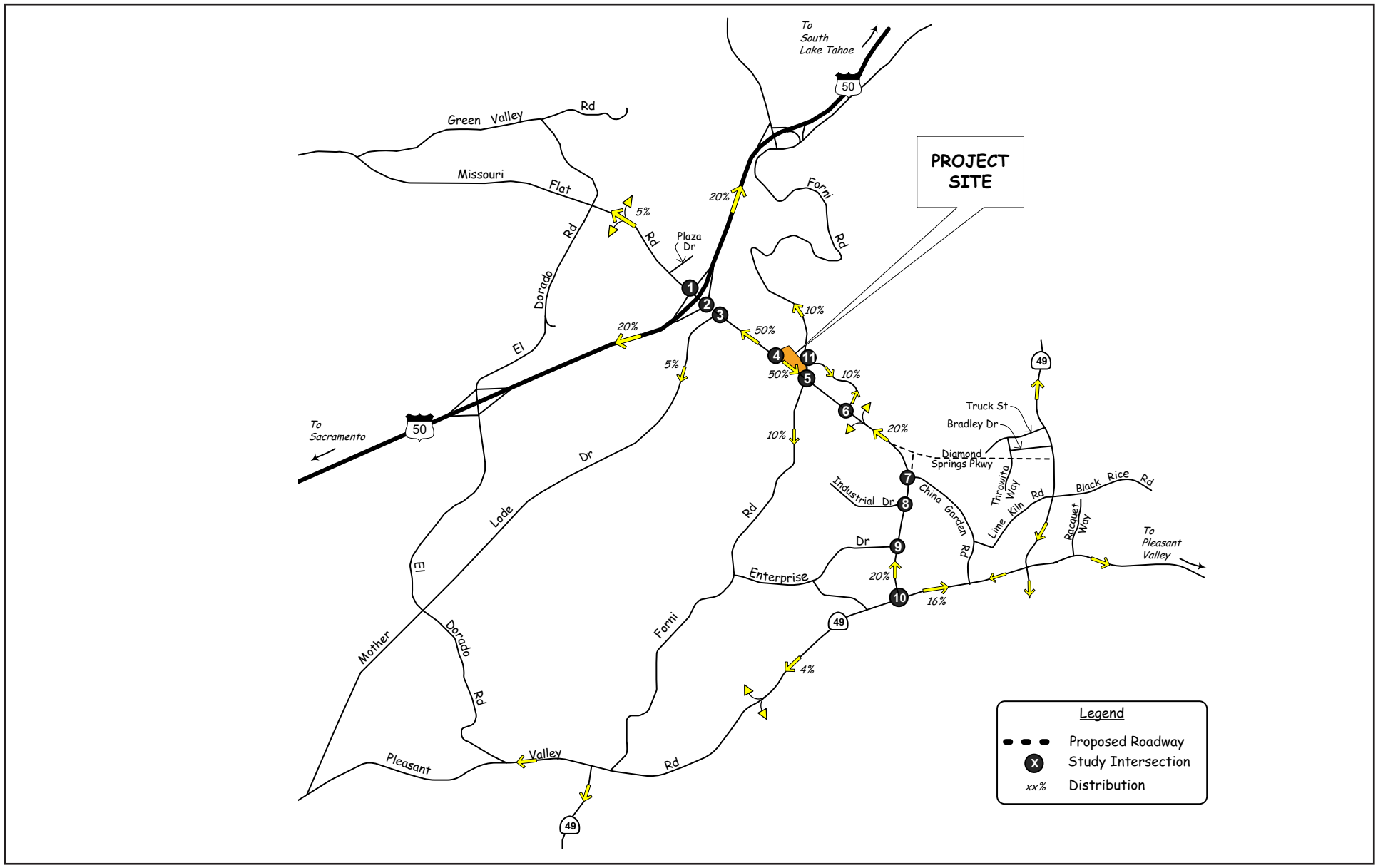
e) Result in inadequate emergency access? (Refer to Section 7, Effects Found Not To Be Significant or Less Than Significant)

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Refer to Section 7, Effects Found Not To Be Significant or Less Than Significant)

Standards of Significance

A traffic impact is considered to be significant under El Dorado County guidelines if the project causes an intersection to change from LOS E to LOS F. Worsening of conditions at facilities already operating at unacceptable levels of service is also considered a significant impact. The County's General Plan Policy TC-Xe defines "worsen" as any of the following conditions:

a) A 2% increase in traffic during the AM peak hour, PM peak hour or daily trips, or
b) The addition of 100 or more daily trips, or
c) The addition of 10 or more trips during the AM peak hour or the PM peak hour.



Source: KD Anderson & Associates, Inc., 2017

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Exhibit 3.2-2
Existing Project Trip Distribution

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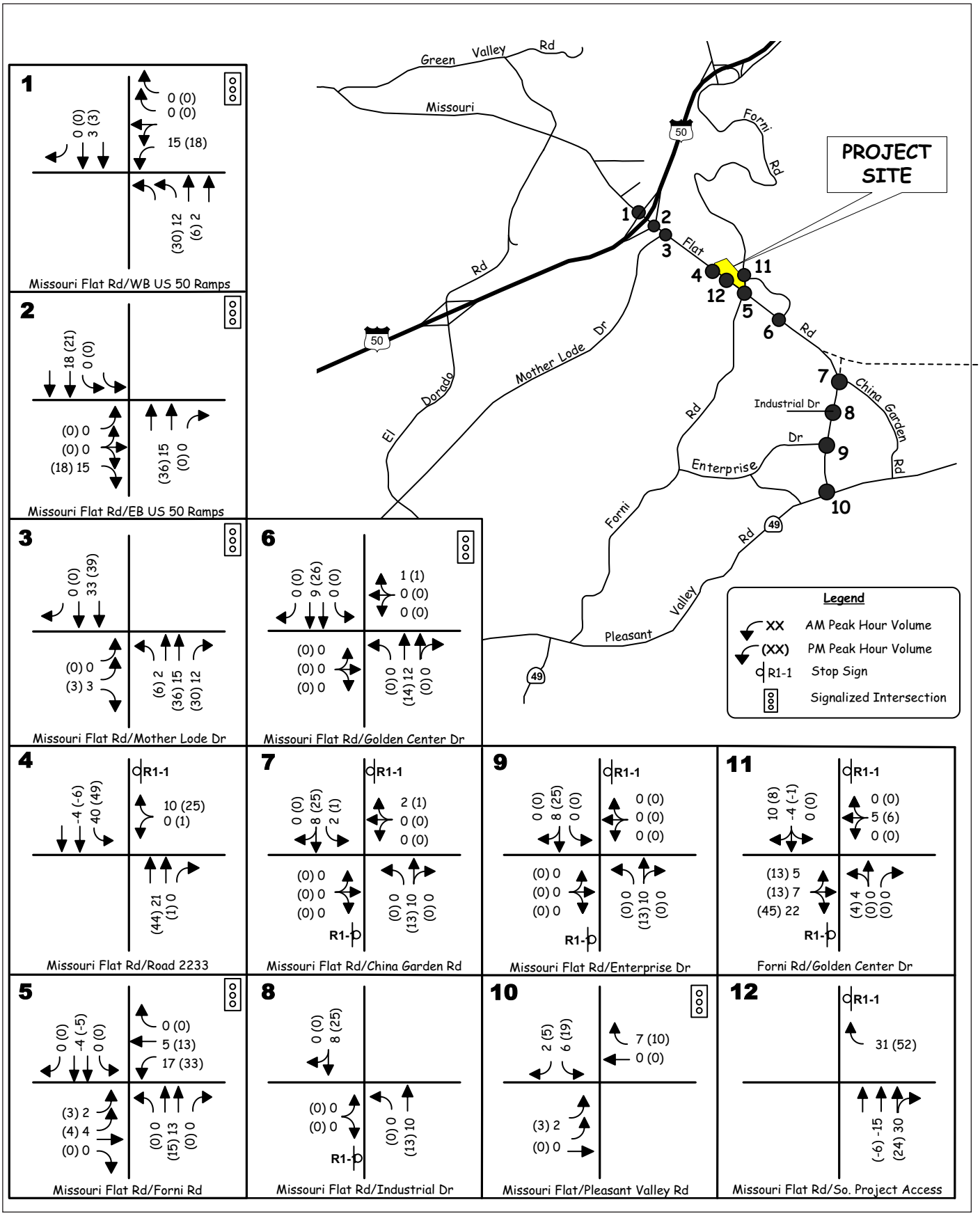

Source: KD Anderson & Associates, Inc., 2017

Exhibit 3.2-3
Project Only Traffic
Volumes Existing Scenarios

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The County's current General Plan Policy TC-Xf notes that for all residential subdivisions of five or more parcels that worsens traffic on a County road as defined in Policies TC-Xe [A], [B] or [C], "the County shall condition the project to construct all road improvements necessary to maintain or attain LOS 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." For all other discretionary projects that worsen traffic "the County shall condition the project to construct all road improvements necessary to maintain or attain adopted LOS standards."

However, the El Dorado County Superior Court issued a ruling in July 2017 that found certain provisions in Measure E unconstitutional. The court ruled that the previous language contained in Measure Y was still valid as detailed below:

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 that commencement of construction of the necessary road improvements is 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 as detailed in this Transportation and Circulation Element; or

(2) Ensure that construction of the necessary road improvements is included in the County's 20-year CIP.

3.2.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Existing Plus Project Conditions

Impact TRANS-1:	**The project would generate new trips that would contribute to unacceptable traffic operations under Existing Plus Project conditions.**

Impact Analysis

The impacts of developing the project uses on the project site have been identified by superimposing project traffic onto existing background conditions. Exhibit 3.2-4 displays the "Existing Plus Project" traffic volumes at each study intersection in both AM and PM peak hours.

Existing Plus Project Conditions

Intersection geometry and traffic controls resulting from implementation of the project's planned improvements along Missouri Flat Road are illustrated in Exhibit 3.2-4. Currently, three northbound lanes depart the Missouri Flat Road/Forni Road intersection with the third lane ending about 200 feet north of the intersection. As part of the project, the third lane would be extended along the project frontage with a mandatory right turn at Road 2233. Full access along Road 2233 would remain, while the proposed access point along Missouri Flat Road would provide right-in, right-out access only. A third access, along Forni Road, would be constructed and become the fourth leg of the existing Forni Road/Golden Center Drive intersection.

Intersection Levels of Service

Intersection LOS were calculated and used as the basis for evaluating project impacts. Table 3.2-9 displays the peak-hour LOS at each study intersection and compares existing LOS with those accompanying the project. All intersections except the Missouri Flat Road/China Garden Road intersection and the Missouri Flat Road/Enterprise Drive intersection would continue to operate above the minimum El Dorado County standard (LOS E or better). The Missouri Flat Road/China Garden Road intersection and the Missouri Flat Road/Enterprise Drive intersection would operate with the side streets at LOS F.

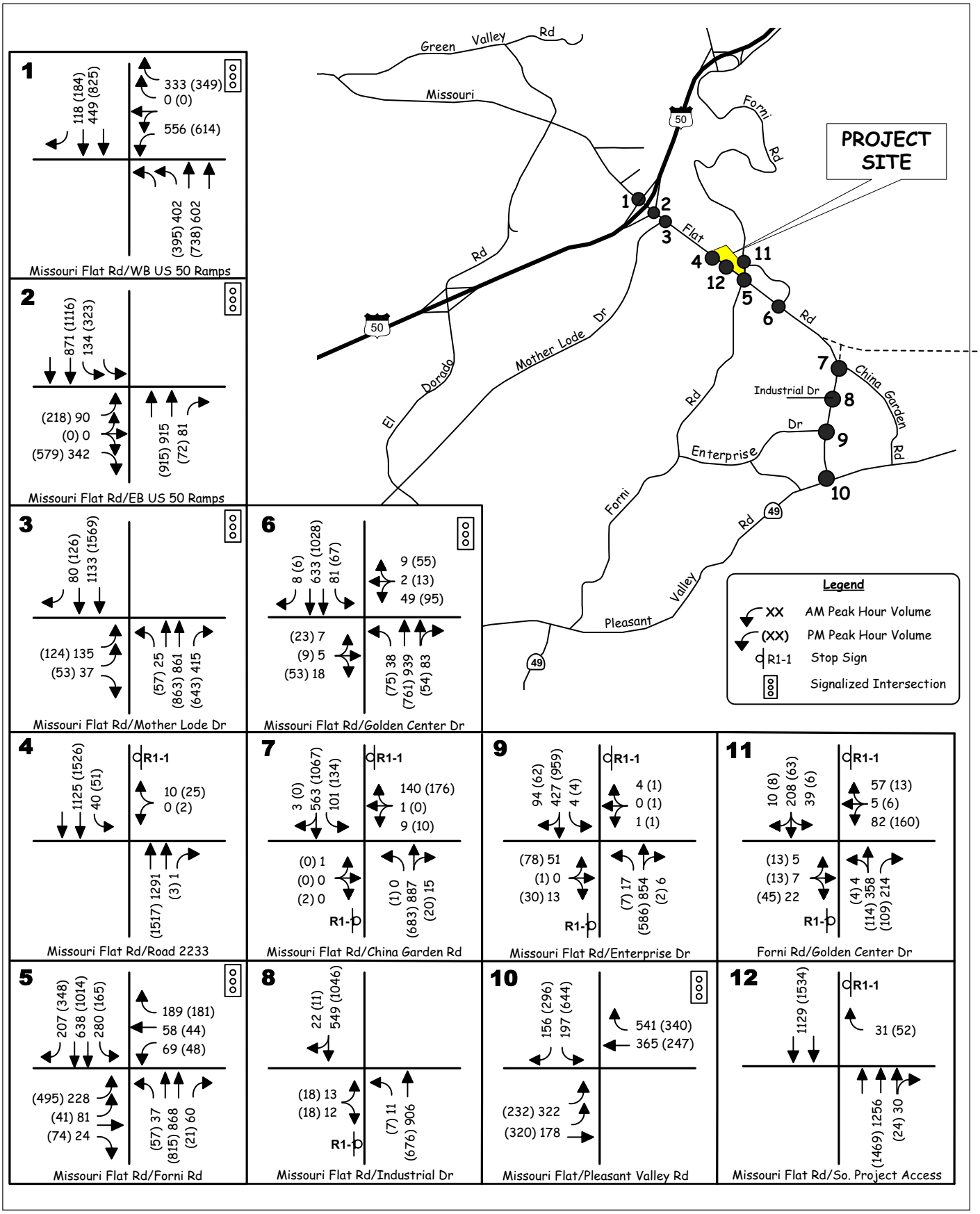
Missouri Flat Road/China Garden Road

The eastbound driveway opposite China Garden Road and the China Garden Road approach will operate at LOS F in the AM peak hour. While this intersection is at the boundary of a segment allowed to operate at LOS F, a conservative approach was undertaken assuming the LOS E threshold. The intersection will not meet the peak-hour signal warrant including both volume and delay, but it will add 10 or more trips through the intersection. However, since the signal warrant is not met, this is not considered a significant impact.

Note that, as a result of the mitigation measures identified in the El Dorado County Public Safety Facility Project Draft EIR, side-street approaches to the Missouri Flat Road/China Garden Road intersection will be limited to right turns only. The DEIR noted two alternative mitigation measures for this intersection: installation of a traffic signal or limiting minor street access to right turns only. County staff determined that a signal at China Garden Road is not the preferred alternative based on the installation of a future traffic signal at Industrial Drive as part of the El Dorado County Public Safety Facility Project. Implementation of a right-turn only along China Garden Road will result in LOS D conditions for side street traffic. Because of access considerations, the County has determined that the right-in, right-out reconfiguration of the intersection will be modified once Diamond Springs Parkway is completed.

Missouri Flat Road/Enterprise Drive

This intersection will operate at LOS F during both peak hours, will meet the peak-hour traffic signal warrant, and will add 10 or more project trips through the intersection. This is considered a significant impact. The improvements for this impacted intersection are included in the 20-year time frame of the County's CIP. Therefore, implementation of Mitigation Measure (MM) TRANS-1 requiring the payment of Traffic Impact Mitigation (TIM) fees, would reduce this impact to less than significant.



Source: KD Anderson & Associates, Inc., 2017

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Exhibit 3.2-4
Existing Plus Project Traffic Volumes and Lane Configurations

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Traffic Signal Warrants

Existing Plus Project traffic volumes at unsignalized intersections were compared with peak-hour warrant requirements to determine whether traffic signals may be needed. The Missouri Flat Road/Enterprise Drive intersection would meet the peak-hour signal warrant in the PM peak hour with the addition of the project, resulting in a potentially significant impact. However, implementation of MM TRANS-1 requiring the payment of TIM fees would reduce this impact to less than significant.

Intersection Queues

Table 3.2-10 identifies peak period queues assuming the addition of project trips. Those 95th percentile queues with lengths exceeding the available storage have been highlighted. Under Existing Plus Project conditions, nine locations would exceed the available storage. These locations are the same as under Existing Conditions and would not be significantly worsened by the project; therefore, impacts would be less than significant.

Table 3.2-9: Peak Hour Intersection Levels of Service Existing Plus Project Conditions

Location	Control	AM Peak Hour				PM Peak Hour				Traffic Signal Warranted?
		Existing		Ex Plus Project		Existing		Ex Plus Project		
		LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	
1. Missouri Flat Rd/WB US 50 ramps	Signal	B	18.7	B	17.0	B	17.6	B	18.0	N/A
2. Missouri Flat Rd/EB US 50 ramps	Signal	B	16.3	B	16.7	C	21.0	C	21.7	N/A
3. Missouri Flat Rd/Mother Lode Dr	Signal	A	8.0	A	8.3	A	8.3	A	8.5	N/A
4. Missouri Flat Rd/Road 2233	WB Stop									No
SB Left		—	—	(B)	(13.2)	(B)	(14.0)	(C)	(15.8)	
WB		—	—	(B)	(14.7)	(E)	(38.7)	(C)	(20.0) ◊	
5. Missouri Flat Rd/Forni Rd	Signal	C	20.3	C	20.8	C	22.4	C	22.9	N/A
6. Missouri Flat Rd/Golden Center Dr	Signal	B	13.7	B	13.5	C	21.1	C	21.3	N/A
7. Missouri Flat Rd/China Garden Rd	EB/WB Stop									No*
NB Left		—	—	—	—	(B)	(10.6)	(B)	(10.7)	
SB Left		(B)	(11.2)	(B)	(11.3)	(A)	(9.8)	(A)	(9.9)	
EB		**(F)**	**(185.9)**	**(F)**	**(195.5)**	(C)	(18.6)	(C)	(19.1)	
WB		**(F)**	**(55.9)**	**(F)**	**(59.8)**	(E)	(43.5)	(E)	(49.2)	
8. Missouri Flat Rd/Industrial Dr	EB Stop									No
NB Left		(A)	(8.9)	(A)	(8.9)	(B)	(10.9)	(B)	(11.1)	
EB		(C)	(17.8)	(C)	(18.0)	(C)	(24.5)	(D)	(25.4)	
9. Missouri Flat Rd/Enterprise Dr	EB/WB Stop									Yes**
NB Left		(A)	(8.7)	(A)	(8.8)	(B)	(10.5)	(B)	(10.7)	
SB Left		(B)	(10.2)	(B)	(10.2)	(A)	(8.7)	(A)	(8.8)	
EB		**(F)**	**(99.1)**	**(F)**	**(107.4)**	**(F)**	**(250.8)**	**(F)**	**(288.8)**	
WB		(C)	(23.7)	(C)	(24.2)	(E)	(40.0)	(E)	(42.2)	
10. Missouri Flat Rd/Pleasant Valley Rd (SR 49)	Signal	B	17.0	B	16.6	B	15.9	B	17.2	N/A

Table 3.2-9 (cont.): Peak Hour Intersection Levels of Service Existing Plus Project Conditions

Location	Control	AM Peak Hour				PM Peak Hour				Traffic Signal Warranted?
		Existing		Ex Plus Project		Existing		Ex Plus Project		
		LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	
11. Forni Rd/Golden Center Dr	WB Stop									No
NB Left		—	—	A	2.7	—	—	A	2.6	
SB Left		—	—	A	6.2	—	—	A	3.9	
EB		A	6.2	A	7.1	A	2.8	A	4.8	
WB		A	12.3	B	13.7	A	6.9	A	6.8	
12. Missouri Flat Road/Project Access	WB Stop									
WB		—	—	A	6.1	—	—	A	6.8	No

Notes:
* meets volume portion of peak-hour warrant in AM and PM peak hours
** meets peak-hour warrant in PM peak hour
◊ decrease in delay due to additional capacity with turn lane added
(xx) delay and level of service using Synchro 2010 including two-way left-turn lane analysis
Source: KDAnderson & Associates, Inc., 2017.

Table 3.2-10: Existing Plus Project Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	AM Peak Hour				PM Peak Hour			
		VPH			Ex Plus Project Queue (feet)	VPH			Ex Plus Project Queue (feet)
		Existing	Project Only	Total		Existing	Project Only	Total	
1. Missouri Flat Road/WB US 50 ramps									
NB left turn	160	390 (2)	12	402	**169**	365 (2)	30	395	**166**
NB through	360	600 (2)	2	602	284	732 (2)	6	738	256
SB through	520	446 (2)	3	449	139	822 (2)	3	825	246
WB left turn	410	541 (2)	15	556	228	596 (2)	18	614	240
WB right turn	410	333 (2)	0	333	130	349 (2)	0	349	150
2. Missouri Flat Road/EB US 50 ramps									
NB through	160	900 (2)	15	915	**201**	879 (2)	36	915	**187**
NB right turn	140	81	0	81	70	72	0	72	84
SB left	160	134 (2)	0	134	**193**	323 (2)	0	323	**216**
SB through	380	853 (2)	18	871	358	1,095 (2)	21	1,116	**431**
EB left + through + right turn	540	417 (3)	15	432	149	779 (3)	18	797	229
3. Missouri Flat Road/Mother Lode Drive									
NB left turn	150	23	2	25	58	51	6	57	82
NB through	2,300	846 (2)	15	861	177	827 (2)	36	863	165
SB through	140	1,100 (2)	33	1,133	105	1,530 (2)	37	1,567	**162**
SB right turn	130	80	0	80	<25	126	0	126	64
5. Missouri Flat Road/Forni Road									
NB left turn	250	37	0	37	84	57	0	57	70
NB through	1,000	855 (2)	13	868	259	800 (2)	15	815	253

Table 3.2-10 (cont.): Existing Plus Project Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	AM Peak Hour				PM Peak Hour			
		VPH			Ex Plus Project Queue (feet)	VPH			Ex Plus Project Queue (feet)
		Existing	Project Only	Total		Existing	Project Only	Total	
NB right turn	160	60	0	60	120	21	0	21	79
SB left turn	300	280	0	280	272	165	0	165	182
SB through	2,300	642 (2)	-4	638	195	1,019 (2)	-6	1,013	271
SB right turn	150	207	0	207	118	348	0	348	**184**
EB left turn	195	226	2	228	139	492	3	495	**232**
WB left turn	190	52	17	69	99	15	33	48	78
6. Missouri Flat Road/Golden Center Drive									
NB left turn	120	38	0	38	72	75	0	75	116
SB left turn	160	81	0	81	112	67	0	67	145
10. Missouri Flat Road/SR 49 (Pleasant Valley Rd)									
SB left turn	600	191	6	197	152	625	6	627	238
SB right turn	600	154	2	156	78	291	2	293	102
EB left turn	160	320	2	322	**165**	229	3	232	142
WB right turn	190	534	7	541	**229**	330	10	340	147

Note:
Highlighted values indicate queue length in excess of available storage
Source: KDAnderson & Associates, Inc., 2017.

Roadway Segment Levels of Service

Table 3.2-11 summarizes the LOS based on the Existing plus Project traffic volumes on study area roadway segments with the modified roadway configurations as a result of the project. Applicable LOS thresholds and roadway classifications are presented. The LOS along Missouri Flat Road were computed using the HCS two-lane roadway and multilane highways methodologies. The multilane segments operate at LOS C or better while the two-lane roadway segment operates within acceptable LOS thresholds, operating at LOS E. As such, all roadway segments would continue to operate within the County level of service threshold, at LOS E or better. Impacts would be less than significant.

Table 3.2-11: Existing Plus Project Missouri Flat Road Segment Levels of Service

Roadway	Location	Facility Classification	AM				PM			
			ATS	PTSF	Density	LOS	ATS	PTSF	Density	LOS
Missouri Flat Road	Mother Lode Dr to Golden Center Dr	Multi Lane Highway								
	NB		—	—	17.0	B	—	—	19.3	C
	SB		—	—	17.4	B	—	—	20.6	C
	Golden Center Dr to China Garden Rd	Multi Lane Highway								
	NB		—	—	13.4	B	—	—	12.7	B
	SB		—	—	12.8	B	—	—	15.6	B
	China Garden Rd to Pleasant Valley Rd	Class I Highway								
	NB		21.6	89.0	—	E	20.3	85.7	—	E
	SB		21.7	86.6	—	E	20.0	92.6	—	E

Source: KDAnderson & Associates, Inc., 2017.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-1 Prior to the issuance of building permits, the project applicant shall contribute its fair share to the cost of regional circulation improvements via the El Dorado County Traffic Impact Mitigation fee program for impacts related to signalization of Missouri Flat Road at Enterprise Drive.

Level of Significance After Mitigation

Less than significant impact.

2035 Plus Project Conditions

Impact TRANS-2: The project would generate new trips that would contribute to unacceptable traffic operations under 2035 plus Project conditions.

Impact Analysis

The analysis of the long range 2035 cumulative condition is intended to consider the impact of the project within the context of buildout of the General Plan circulation element occurring in 2035.

2035 Conditions

Roadway Conditions

Roadways in 2035 are generally projected to maintain their current lane configurations, with the following changes to the roadway network:

- The Diamond Springs Parkway, north of China Garden Road, will connect Missouri Flat Road to Diamond Road (SR 49) and is projected to be completed by 2035. This roadway will include two through lanes in each direction with turn lanes at key intersections. Missouri Flat Road will become the west and south legs of the Missouri Flat Road/Diamond Springs Parkway intersection.
- Missouri Flat Road south of Diamond Springs Parkway will be widened to include two through lanes in each direction.
- A traffic signal will be installed at the Missouri Flat Road/Industrial Drive intersection as identified in the El Dorado County Public Safety Facility Project Draft EIR.
- Side street approaches to the Missouri Flat Road/China Garden Road intersection will be limited to right turns only as a result of the mitigation measures identified in the El Dorado County Public Safety Facility Project Draft EIR. The DEIR noted two alternative mitigation measures for this intersection: installation of a traffic signal or limiting minor street access to right turns only. County staff determined that a signal at China Garden Road is not the preferred alternative based on the installation of the traffic signal at Industrial Drive, as noted above.

The Missouri Flat Road/Diamond Springs Parkway intersection will include two left-turn lanes and a through-right lane along the northbound approach; a left-turn lane, two through lanes and a right-turn lane along the eastbound approach; a single lane along the southbound approach; and a left-turn lane, a through lane and a through-right lane on the westbound approach. The intersection will be signalized, and was analyzed as part of the 2035 conditions.

Traffic Forecasts

Year 2035 traffic forecasts were based on the most recent Countywide traffic model modified to include the four-lane section of Missouri Flat Road south of Diamond Springs Parkway. Projected 2035 roadway volumes were reviewed and approved by County staff.

The methods used to develop forecasts of future year peak-hour intersection turning movement traffic volumes for this traffic impact study are detailed in Appendix C. Table 3.2-12 displays the AM and PM peak-hour LOS at each study intersection in the 2035 condition.

Intersection Levels of Service

The identified Year 2035 volumes were used to recalculate operating LOS at the study intersections. Table 3.2-12 displays the AM and PM peak-hour LOS at each study intersection in the 2035 condition.

Two intersections will operate with LOS F conditions. These include the Missouri Flat Road/Road 2233 intersection, which will operate with the westbound approach at LOS F in the PM peak hour and the eastbound driveway at LOS F in the AM peak hour and PM peak hour; and the Missouri Flat Road/Enterprise Drive intersection, which will operate at LOS F along the eastbound approach in the PM peak hour.

Table 3.2-12: Peak Hour Intersection Levels of Service 2035 Plus Project Conditions

Location	Control	AM Peak Hour				PM Peak Hour				Traffic Signal Warranted?
		2035		2035 Plus Project		2035		2035 Plus Project		
		LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	
1. Missouri Flat Rd/WB US 50 ramps	Signal	B	19.1	B	16.3	C	20.1	C	23.3	N/A
2. Missouri Flat Rd/EB US 50 ramps	Signal	B	13.4	B	14.6	C	23.9	C	25.8	N/A
3. Missouri Flat Rd/Mother Lode Dr	Signal	A	8.9	B	12.4	B	12.6	B	17.4	N/A
4. Missouri Flat Rd/Road 2233	WB Stop									No
SB Left		—	—	(C)	(17.8)	(C)	(17.4)	(C)	(24.1)	
WB		—	—	(C)	(16.6)	**(F)**	**(58.0)**	(C)	(20.9) ◊	
5. Missouri Flat Rd/Forni Rd	Signal	C	29.2	C	31.8	D	45.6	E	56.1	N/A
6. Missouri Flat Rd/Golden Center Dr	Signal	C	22.3	C	23.5	C	34.8	D	36.7	N/A
7. Missouri Flat Rd/China Garden Rd	WB Stop									No*
NB Left		A	7.9	B	12.3	—	—	—	—	
SB Left		B	14.6	C	16.6	B	10.8	B	11.0	
EB Right		A	7.2	A	8.9	B	13.5	A	9.8	
WB Right		A	9.5	A	9.6	B	10.4	B	13.8	
8. Missouri Flat Rd/Industrial Dr	Signal	A	4.4	A	4.2	A	4.0	A	4.2	N/A
9. Missouri Flat Rd/Enterprise Dr	EB/WB Stop									Yes**
NB Left		(A)	(8.7)	(A)	(8.7)	(B)	(10.6)	(B)	(10.7)	
SB Left		(A)	(9.8)	(A)	(9.9)	(A)	(8.6)	(A)	(8.6)	
EB		(D)	(32.3)	(D)	(32.9)	**(F)**	**(200.5)**	**(F)**	**(208.4)**	
WB		(C)	(21.9)	(C)	(22.1)	(D)	(29.0)	(D)	(29.5)	
10. Missouri Flat Rd/Pleasant Valley Rd (SR 49)	Signal	B	15.0	B	16.1	B	12.6	B	13.2	N/A
11. Forni Rd/Golden Center Dr	WB Stop									No
SB Left		A	5.4	A	6.7	A	3.3	A	3.0	
WB		A	9.6	B	11.7	A	5.1	A	5.7	

Table 3.2-12 (cont.): Peak Hour Intersection Levels of Service 2035 Plus Project Conditions

Location	Control	AM Peak Hour				PM Peak Hour				Traffic Signal Warranted?
		2035		2035 Plus Project		2035		2035 Plus Project		
		LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	
12. Missouri Flat Rd/Project Access WB	WB Stop	—	—	A	8.7	—	—	B	11.3	N/A
13. Missouri Flat Road/Diamond Springs Pkwy	Signal	B	16.4	B	16.8	B	17.0	B	17.5	N/A

Notes:
* meets volume portion of peak-hour warrant in AM and PM peak hours
** meets peak-hour warrant in AM and PM peak hour
◊ decrease in delay due to additional capacity with turn lane added
(xx) delay and level of service using Synchro 2010 including two-way left-turn lane analysis
Source: KDAnderson & Associates, Inc., 2017.

2035 Plus Project Conditions

Trip Distribution & Assignment

A new trip distribution pattern was applied to 2035 project trips. Table 3.2-8 presents the project trip distributions for 2035 conditions. The 2035 Plus Project scenario considers the completion of Diamond Springs Parkway between Missouri Flat Road and Diamond Road. Project traffic that is projected to use Missouri Flat Road and Pleasant Valley Road to get to the project site in the short term will be able to use Diamond Springs Parkway by 2035 to access the site directly. Exhibit 3.2-5 presents the modified trip distribution with Diamond Springs Parkway completed.

Intersection Levels of Service

The Year 2035 plus Project volumes were used to recalculate operating LOS at the study intersections. Exhibit 3.2-5 displays the "2035 Project Only" traffic volumes while Exhibit 3.2-6 presents the "2035 Plus Project traffic" traffic volumes at each study intersection in both AM and PM peak hours. Table 3.2-12 displays the AM and PM peak-hour LOS at each study intersection under 2035 Plus Project conditions. One intersection, Missouri Flat Road/Enterprise Drive, will operate at LOS F conditions (eastbound approach) with the proposed project. This is a potentially significant impact. However, the Missouri Flat Road is identified to be widened to four lanes in the 2035 scenario, and with signalization the intersection will operate at LOS A in the PM peak hour. The project will contribute its fair share towards the cost of signalization at this intersection. As such, with implementation of MM TRANS 1, impacts would be less than significant.

Traffic Signal Warrants

2035 traffic volumes and 2035 Plus Project traffic volumes at unsignalized intersections were compared with peak-hour warrant requirements to determine whether traffic signals would be needed. The Missouri Flat Road/Enterprise Drive intersection would continue to meet both conditions of the peak-hour signal warrant in the PM peak hour with or without the project in the 2035 scenario. The Missouri Flat Road/China Garden Road intersection would continue to meet the volume portion of the peak-hour warrant in the PM peak hour with or without the project. No other intersections would meet any portion of the peak-hour warrant. As such, impacts would be less than significant.

Intersection Queues

Table 3.2-13 identifies peak period queues for the Year 2035 base condition. Project trips will result in additional queuing throughout the study area, with ten locations projected to exceed the available storage.

Table 3.2-13 also identifies peak period queues for the Year 2035 plus Project condition assuming the addition of project trips**.** Project trips would result in additional queuing throughout the study area with fourteen locations (four more locations than without the project) projected to exceed the available storage.

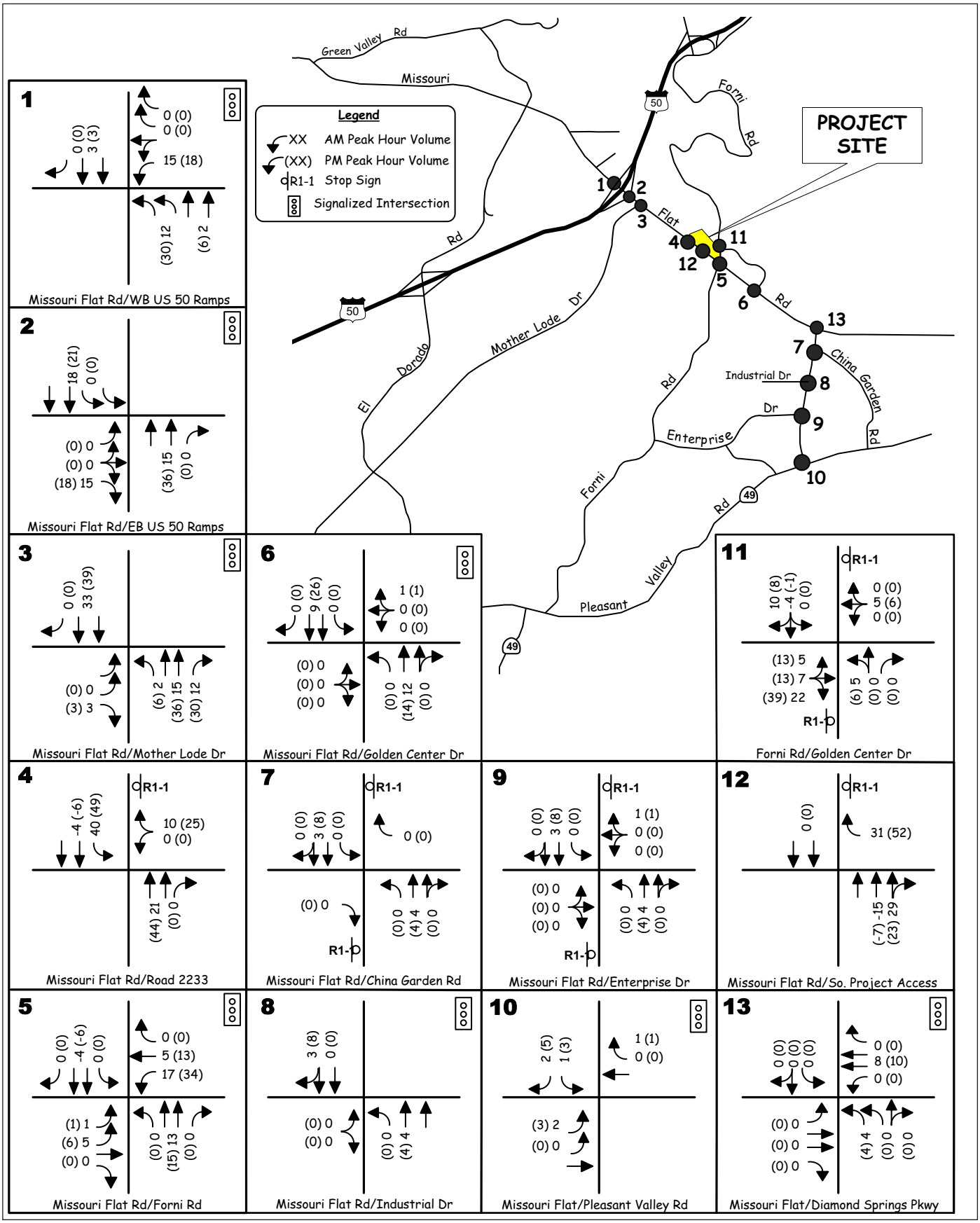
Table 3.2-13: 2035 Plus Project Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	AM Peak Hour					PM Peak Hour				
		VPH			Queue (feet)	2035 Plus Project Queue (feet)	VPH			Queue (feet)	2035 Plus Project Queue (feet)
		2035	Project Only	Total			2035	Project Only	Total		
1. Missouri Flat Rd/WB US 50 ramps											
NB left turn	160	490 (2)	12	502	168	**163**	475 (2)	30	505	166	**164**
NB through	360	740 (2)	2	742	424	**441**	870 (2)	6	876	246	300
SB through	520	535 (2)	3	538	158	162	920 (2)	3	923	290	289
WB left turn	410	550 (2)	15	565	199	196	715 (2)	18	733	307	**502**
WB right turn	410	360 (2)	0	360	147	148	390 (2)	0	390	188	307
2. Missouri Flat Rd/EB US 50 ramps											
NB through	160	1,095 (2)	15	1,110	197	**192**	1,085 (2)	36	1,121	189	**185**
NB right turn	140	90	0	90	37	35	75	0	75	<25	<25
SB left	160	150 (2)	0	150	95	101	325 (2)	0	325	186	**192**
SB through	380	935 (2)	18	953	103	127	1,310 (2)	21	1,311	351	377
EB left + through + right turn	540	590 (3)	15	605	166	177	925 (3)	18	943	278	316
3. Missouri Flat Rd/Mother Lode Drive											
NB left turn	150	10	2	12	67	68	40	6	46	148	**167**
NB through	2,300	1,170 (2)	15	1,185	281	503	1,205 (2)	36	1,241	543	768
SB through	140	1,370 (2)	33	1,403	185	**192**	1,960 (2)	39	1,999	205	**207**
SB right turn	130	15	0	15	35	<25	20	0	20	<25	35
5. Missouri Flat Rd/Forni Rd											
NB left turn	250	65	0	65	c	203	100	0	100	206	**258**
NB through	1,000	1,115 (2)	13	1,128	423	449	1,045 (2)	15	1,060	361	423
NB right turn	160	60	0	60	155	156	25	0	25	84	109
SB left turn	300	235	0	235	341	**355**	155	0	155	332	**324**

Table 3.2-13 (cont.): 2035 Plus Project Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	AM Peak Hour					PM Peak Hour				
		VPH			Queue (feet)	2035 Plus Project Queue (feet)	VPH			Queue (feet)	2035 Plus Project Queue (feet)
		2035	Project Only	Total			2035	Project Only	Total		
SB through	2,300	865 (2)	-4	861	402	404	1,335 (2)	-6	1,329	533	450
SB right turn	150	295	0	295	205	**209**	465	0	465	232	**228**
EB left turn	200	315 (2)	1	316	183	186	605 (2)	1	606	246	**234**
WB left turn	185	60	17	77	103	116	15	34	49	46	83
6. Missouri Flat Rd/Golden Center Drive											
NB left turn	120	60	0	60	156	**152**	95	0	95	194	**203**
SB left turn	160	95	0	95	172	**183**	75	0	75	182	**183**
8. Missouri Flat Road/Industrial Drive											
NB left turn	200	40	0	40	58	57	5	0	5	<25	<25
EB left-right	500	35	0	35	54	55	105	0	105	86	81
10. Missouri Flat Rd/SR 49 (Pleasant Valley Rd)											
SB left turn	600	175	1	176	118	116	470	3	473	198	209
SB right turn	600	185	2	187	81	73	410	5	415	122	132
EB left turn	160	420 (2)	2	422	149	**165**	285 (2)	3	288	118	130
WB right turn	190	435	1	436	150	177	230	1	231	82	106
13. Missouri Flat Rd/Diamond Springs Pkwy											
NB left	275	835 (2)	4	839	249	259	820 (2)	4	824	235	270
EB through	1,600	235 (2)	7	242	113	111	570 (2)	18	588	101	183
EB right (free)	250	705	3	708	<25	<25	1,015	8	1,023	40	28
WB left	500	75	0	75	92	95	60	0	60	59	80

Note:
Highlighted values indicate queue length in excess of available storage
Source: KDAnderson & Associates, Inc., 2017.



Source: KD Anderson & Associates, Inc., 2017

Exhibit 3.2-5
Project Only Traffic
Volumes 2035 Scenario

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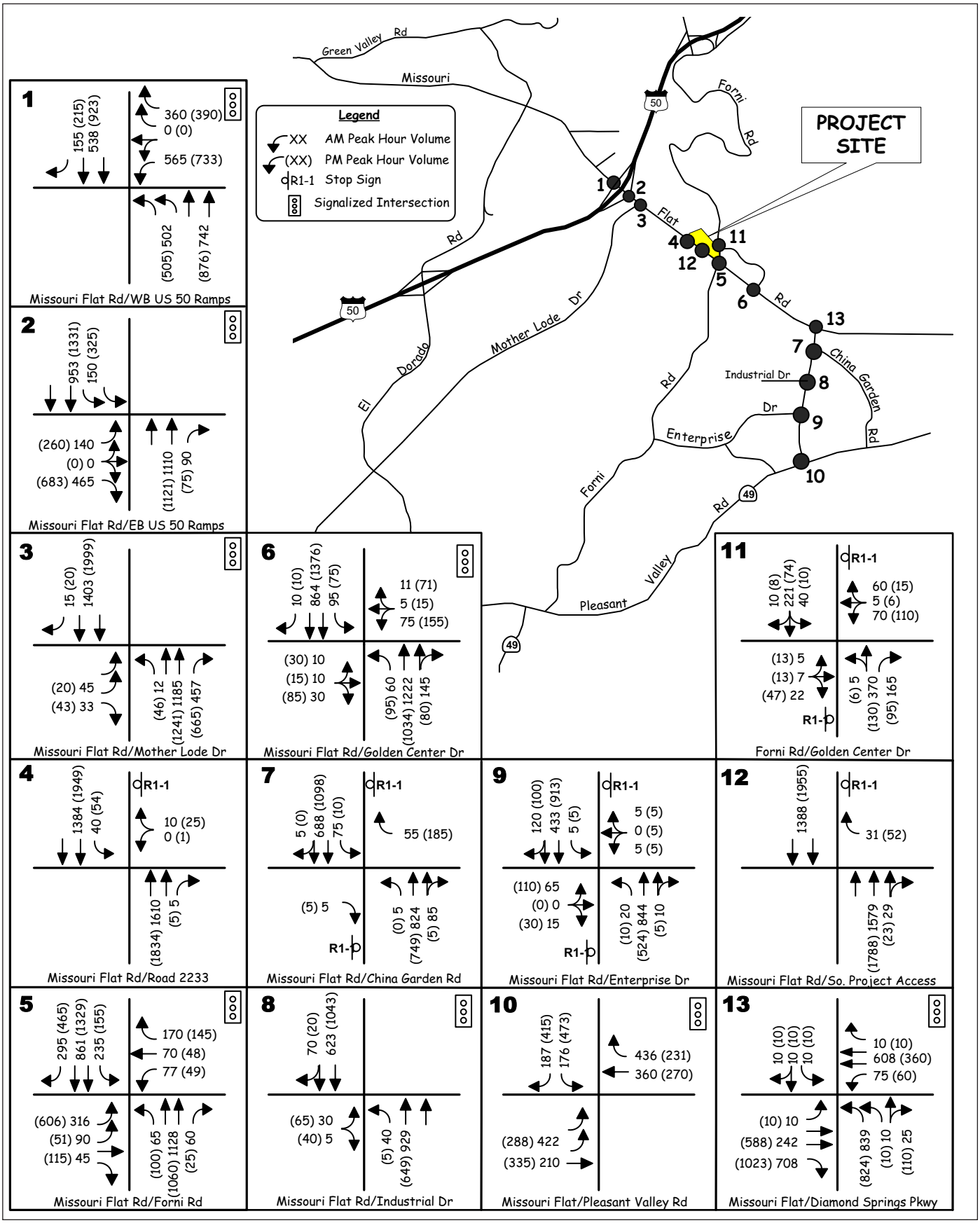

Source: KD Anderson & Associates, Inc., 2017

Exhibit 3.2-6
2035 Plus Project Traffic Volumes and Lane Configurations

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The following analysis discusses the four locations where queues would exceed available storage under 2035 conditions as a result of addition of project traffic.

The left-turn lanes along the **Westbound US 50 off-ramps at Missouri Flat Road** are projected have queues of up to 502 feet in the PM peak hour. The westbound ramp currently provides for dual left-turn lanes of about 415 feet each. The off-ramp extends an additional 1,000 feet with single lanes for right- and left-turning vehicles prior to reaching US 50. This provides adequate storage for this projected queue. As such, impacts would be less than significant and no mitigation is necessary.

The northbound left-turn lane at the **Missouri Flat Road/Mother Lode Drive intersection** is projected to require storage of about 167 feet. The existing left-turn lane is about 140 feet. The left turn bay taper provides about 30 feet of additional storage before a left turning vehicle will block the northbound through lane. This provides the additional storage needed to accommodate the projected turn length. As such, impacts would be less than significant and no mitigation is necessary.

The northbound left-turn lane at the **Missouri Flat Road/Forni Road** intersection is projected to require storage of about 258 feet. The existing left-turn lane is about 250 feet. The left turn bay taper provides about 25 feet of additional storage before a left turning vehicle will block the northbound through lane. This provides the additional storage needed to accommodate the projected turn length. As such, impacts would be less than significant and no mitigation is necessary.

The eastbound left-turn lane at the **Missouri Flat Road/Pleasant Valley Road** intersection is projected to require storage of about 165 feet. The existing dual left-turn lane is about 130 feet. The left turn bay taper provides about 50 feet of additional storage before a left turning vehicle will block the eastbound through lane. This provides the additional storage needed to accommodate the projected turn length. As such, impacts would be less than significant and no mitigation is necessary.

In summary, sufficient additional storage is available to accommodate 2035 plus project projected turn lengths. Impacts would be less than significant.

Roadway Segment Levels of Service

Table 3.2-14 summarizes the roadway segment LOS based on the projected 2035 traffic volumes on study area roads as a result of the project and the future widening project along Missouri Flat Road. Applicable LOS thresholds and roadway classifications are presented. All segments are projected to operate at LOS C or better in both the 2035 and 2035 Plus Project scenario. Impacts would be less than significant and no mitigation is necessary.

Table 3.2-14: 2035 Plus Project Missouri Flat Road Segment Levels of Service

Roadway	Location	Facility Classification	2035 AM		2035 PM		2035 plus Project AM		2035 plus Project PM	
			Density	LOS	Density	LOS	Density	LOS	Density	LOS
Missouri Flat Rd	Mother Lode Dr to Golden Center Dr NB SB	Multi-Lane Highway	 20.1 17.3	 C B	 23.2 24.7	 C C	 20.4 17.8	 C B	 24.1 25.2	 C C
	Golden Center Dr to China Garden Rd NB SB	Multi-Lane Highway	 17.5 11.9	 B B	 14.8 19.7	 B C	 17.6 12.0	 B B	 14.9 20.0	 B C
	China Garden Rd to Pleasant Valley Rd NB SB	Multi-Lane Highway	 11.8 8.5	 B A	 8.8 13.0	 A B	 11.8 8.6	 B A	 8.8 13.1	 A B
Source: KDAnderson & Associates, Inc., 2017.										

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MM TRANS-1.

Level of Significance After Mitigation

Less than significant impact.

Mid-Afternoon Traffic Operating Analysis

Impact TRANS-3: The project would not generate new trips that would contribute to unacceptable traffic operations in the Mid-Afternoon Analysis.

Impact Analysis

Herbert Green Middle School is located north of the project site, in the northeast quadrant of the Forni Road/Golden Center Drive intersection. School-related traffic typically coincides with peak-hour traffic in the morning, but school site traffic peaks in the mid-afternoon and not in the late afternoon/early evening commuter period. It is possible that traffic conditions in the nearby area could worsen during the mid-afternoon time period. As such, four intersections identified by the County were analyzed for mid-afternoon conditions:

- Forni Road/Golden Center Drive
- Missouri Flat Road/Forni Road
- Missouri Flat Road/Golden Center Drive
- Missouri Flat Road/Road 2233

Mid-Afternoon Existing and Existing Plus Project

Traffic Volumes

Traffic counts were completed during the mid-week in the first week of May 2017. This included bicycle and pedestrian counts to consider those students that may walk or ride to school as well as other facility users in the surrounding area, such as residents from Gold Country Retirement Center along Golden Center Drive. A large number of students (65) were observed crossing Golden Center Drive, as many parents park along Golden Center Drive rather than enter the school parking lot.

Traffic count data is included in Appendix C. Road 2233 was not counted because of the minimal number of residences (approximately five). To account for side street traffic at this location, five vehicle trips were assumed for each movement into and out of the site. This would equate to about twenty residences, overstating the actual number of residences and providing a conservative analysis of traffic conditions. The intersection turning movements are presented in Exhibit 3.2-7.

Trip Generation

Project trip generation for the mid-afternoon scenario was calculated using trip generation rates published in Trip Generation (Institute of Transportation Engineers, 9th Edition, 2012). Applicable rates for hourly variation of traffic for an average weekday were used in conjunction with the

projected daily traffic to estimate mid-afternoon project traffic conditions. Hourly variation values are available for fast food and shopping center traffic, and the higher rate was also used for the professional office portion of the site. The project's mid-afternoon trip generation is shown in Table 3.2-15 and is presented in Exhibit 3.2-7.

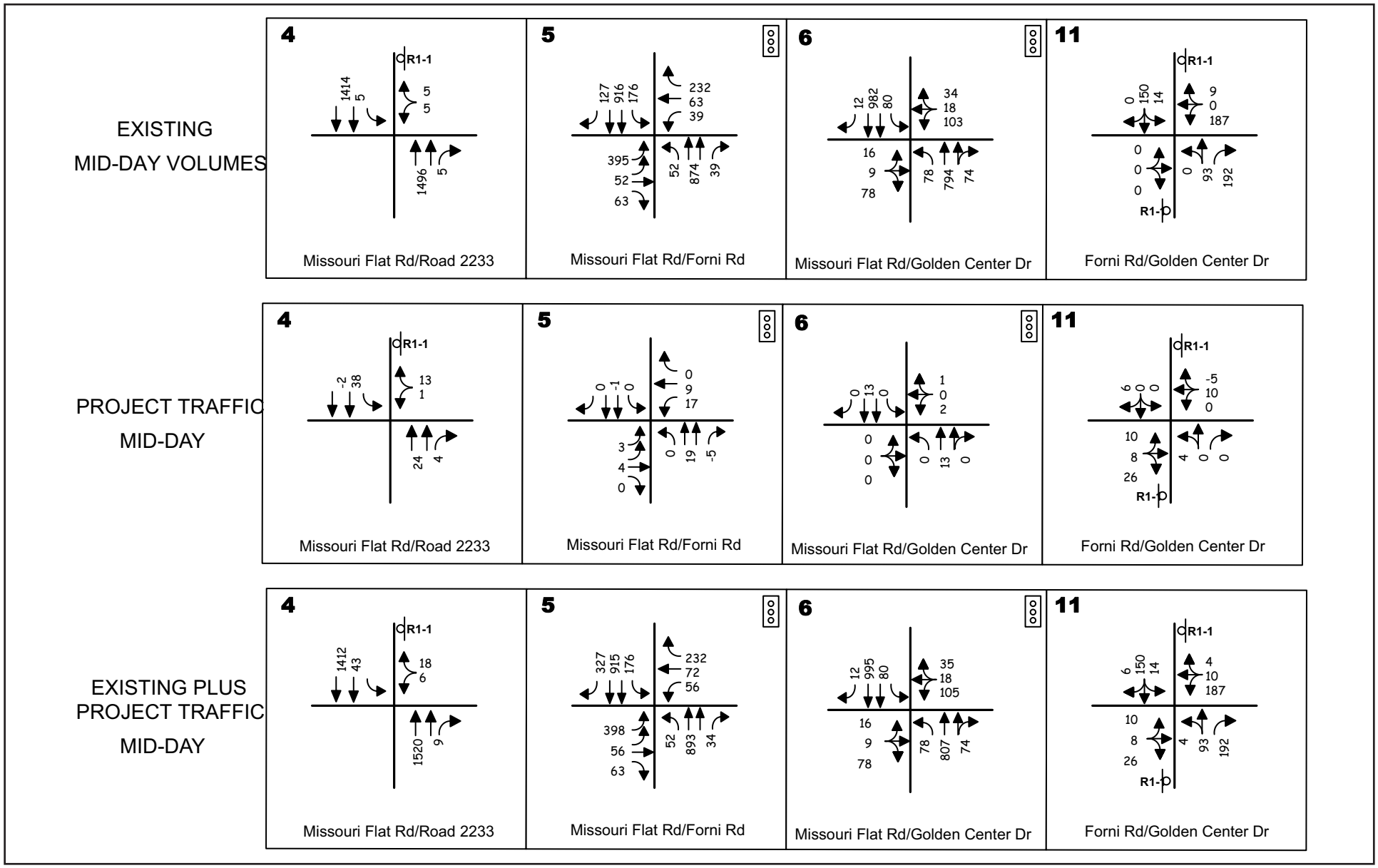
Table 3.2-15: Project Mid-Afternoon Trip Generation

Land Use	Unit Quantity	Size	Trips Per Unit				
			Daily	Hourly Variation	Mid-Afternoon Peak Hour		
					In	Out	Total
Fast Food with Drive-Through—Bldg B	KSF	2.55	496.12	7.6%	51%	49%	37.71
Professional Office—Bldg A	KSF	9.86	22.89	7.7%	50%	50%	1.76
Retail—Shopping Center—Bldgs A, B and C	KSF	18.15	42.70	7.7%	50%	50%	3.29
Fast Food with Drive-Through—Bldg B	—	—	—	—	49	47	96
Professional Office—Bldg A	—	—	—	—	9	8	17
Retail—Shopping Center—Bldgs A, B and C	—	—	—	—	30	30	60
Sub-Total Trips			—	—	88	85	**173**
Pass-By Trips							
Fast Food with Drive-Through—Bldg B *(49% Daily, 49% AM, 50% PM)*			—	—	(24)	(23)	(47)
Professional Office—Bldg A			—	—	(0)	(0)	(0)
Retail—Shopping Center—Bldgs A, B and C			—	—	(0)	(0)	(20)
Total Pass-By Trips			—	—	**(24)**	(23)	**(47)**
Net New Trips			—	—	**64**	**63**	**126**

Notes:
KSF—thousand square feet
Numbers may not match due to rounding
Source: KDAnderson & Associates, Inc., 2017.

Intersection Levels of Service

Table 3.2-16 summarizes current mid-afternoon operating LOS at the study area intersections. Unlike the AM and PM peak-hour scenarios that simulated traffic along Missouri Flat Road between US 50 and Pleasant Valley Road, this mid-day analysis is specific to four intersections. Therefore, the analysis techniques presented in the *2010 Highway Capacity Manual* were used to calculate LOS using Synchro software. As shown in Table 3.2-16, all study intersections currently operate with acceptable LOS during the afternoon, at LOS D or better.



Source: KD Anderson & Associates, Inc., 2017

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Exhibit 3.2-7
Existing Mid-Afternoon Traffic Volumes and Lane Configurations

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In the period immediately after school, the Forni Road/Golden Center Drive intersection can back up. This is an effect of the congestion associated with the drop-off/pick-up zone inside Herbert Green Middle School and is typical of schools where access to the school zones is limited. At Herbert Green Middle School, most traffic enters and exits the site along Forni Road from the south. Congestion occurs when the number of parents arriving to pick up students exceeds the available parking and loading supply. Under those circumstances, waiting motorists can form queues that extend back into the adjoining street. This results in short term delays. However, over an entire hour these delays become contributory but not necessarily significant to the overall operation of the intersection.

Intersection LOS were calculated and used as the basis for evaluating project impacts. Projected traffic volumes are presented in Exhibit 3.2-7. Table 3.2-16 displays the peak-hour LOS at each study intersection and compares existing LOS with those accompanying the project. All intersections would continue to operate above the minimum El Dorado County standard (LOS E or better) with the addition of project traffic. Impacts would be less than significant.

Table 3.2-16: Mid-Afternoon Peak Hour Levels of Service at Intersections

Location	Control	Existing Mid-Afternoon Peak Hour		Existing + Project Mid-Afternoon Peak Hour		Traffic Signal Warranted?
		LOS	Average Delay	LOS	Average Delay	
4. Missouri Flat Rd/Road 2233	WB Stop					No
SB Left		B	13.8	C	15.0	
WB		D	27.4	D	29.0	
5. Missouri Flat Rd/Forni Rd	Signal	C	24.8	C	25.8	N/A
6. Missouri Flat Rd/Golden Center Dr	Signal	B	17.6	B	17.7	N/A
11. Forni Rd/Golden Center Dr	WB Stop					No
NB Left		—	—	A	7.7	
SB Left		A	7.6	A	7.6	
EB		—	—	B	11.0	
WB		C	19.5	C	24.8	

Source: KDAnderson & Associates, Inc., 2017.

Traffic Signal Warrants

The two unsignalized intersections do not meet the peak-hour traffic signal warrant under mid-afternoon existing conditions. Warrant 5, "School Crossing" was also reviewed to determine whether the unsignalized intersections currently meet the warrant for signalization. A full analysis was not undertaken as this is beyond the scope of the Creekside Plaza project; however, the intersections would not appear to meet the criteria for a traffic signal under Warrant 5. The California Manual on Uniform Traffic Control Devices notes that implementation of other measures should be considered such as warning signs, flashers, speed zones and school crossing guards.

Warning signs and speed zones are already present along the approaches. Further enhancements, if appropriate, could include a crossing guard in the afternoons when school is dismissed.

Mid-Afternoon Existing Plus Project traffic volumes at unsignalized intersections were compared with peak-hour warrant requirements to determine whether traffic signals may be needed with the addition of the project. Neither of the two intersections would meet the peak-hour warrant under plus project conditions. Impacts would be less than significant.

Intersection Queues

Table 3.2-17 presents information regarding current mid-afternoon peak period queuing in lanes at signalized study intersections. In each case, the available storage has been presented along with current peak-hour traffic volumes and the 95th percentile queue length. On multiple lane approaches, the longest queue amongst a group of common lanes has been noted. Most intersections have lane storage capacity that can accommodate peak period queues. Those 95th percentile queues with length exceeding the available storage have been highlighted. The 95th percentile queue exceeds available storage in three locations.

Table 3.2-17 also identifies peak period queues assuming the addition of project trips. Those 95th percentile queues with lengths exceeding the available storage have been highlighted. Similar to existing conditions, Existing Plus Project conditions would result in three locations exceeding the available storage. As such, impacts would be less than significant.

Table 3.2-17: Mid-Afternoon Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	Existing Mid-Afternoon Peak Hour		Existing + Project Mid-Afternoon Peak Hour	
		VPH	Queue (feet)	VPH	Queue (feet)
5. Missouri Flat Road/Forni Road					
NB left turn	250	52	81	52	81
NB through	1,000	874 (2)	399	893 (2)	414
NB right turn	160	39	<25	34	<25
SB left turn	300	176	250	176	250
SB through	2,300	916 (2)	383	915 (2)	383
SB right turn	150	327	75	327	75
EB left turn	195	395	**247**	398	**251**
WB left turn	190	39	66	56	102
6. Missouri Flat Road/Golden Center Drive					
NB left turn	120	78	**181**	78	**181**
SB left turn	160	80	**174**	80	**174**

Note:
Highlighted values indicate queue length in excess of available storage
Source: KDAnderson & Associates, Inc., 2017.

Summary

Addition of the project's mid-afternoon traffic in the existing scenario would not result in unacceptable intersection level of service, satisfaction of traffic signal warrants, or exceedance of available queue lengths. Impacts would be less than significant.

Mid-Afternoon 2035 Conditions and 2035 Conditions Plus Project

Traffic Volumes

Traffic forecasts were developed for the mid-afternoon period based on the PM peak-hour annual rate increases. Intersection turning movement volumes were developed using the NCHRP 255 methodology. Intersection turning movements are presented in Exhibit 3.2-8.

Intersection LOS

The identified Year 2035 volumes were used to recalculate operating LOS at the Mid-Afternoon study intersections. Table 3.2-18 displays the AM and PM peak-hour mid-afternoon LOS at each study intersection in the 2035 condition. All intersections would operate within the County LOS threshold, at LOS E or better.

Table 3.2-18 also illustrates the mid-afternoon peak-hour LOS at each study intersection under 2035 plus Project conditions. Project trip generation and 2035 plus Project volumes are presented in Exhibit 3.2-8. As shown, all intersections would continue to operate above the minimum El Dorado County standard (LOS E or better). Impacts would be less than significant.

Table 3.2-18: 2035 Mid-Afternoon Peak Hour Levels of Service at Intersections

Location	Control	2035 Mid-Afternoon Peak Hour		2035 + Project Mid-Afternoon Peak Hour		Traffic Signal Warranted?
		LOS	Average Delay	LOS	Average Delay	
7. Missouri Flat Rd/Road 2233	WB Stop					No
SB Left		C	17.3	C	19.6	
WB		E	40.1	D	34.5	
8. Missouri Flat Rd/Forni Rd	Signal	C	30.5	C	31.5	N/A
9. Missouri Flat Rd/Golden Center Dr	Signal	C	29.2	C	29.7	N/A
12. Forni Rd/Golden Center Dr	WB Stop					No
NB Left		—	—	A	7.7	
SB Left		A	7.6	A	7.6	
EB		—	—	B	11.3	
WB		C	17.2	C	20.8	

Source: KDAnderson & Associates, Inc., 2017.

Traffic Signal Warrants

The 2035 traffic volumes at the two unsignalized intersections were compared with peak-hour warrant requirements to determine whether traffic signals may be needed under mid-afternoon 2035 conditions. The two intersections would not meet the peak-hour warrant.

The mid-afternoon 2035 plus Project traffic volumes at unsignalized intersections were compared with peak-hour warrant requirements to determine whether traffic signals may be needed. Neither intersection would meet the peak-hour warrant with the addition of the project. Impacts would be less than significant.

Intersection Queues

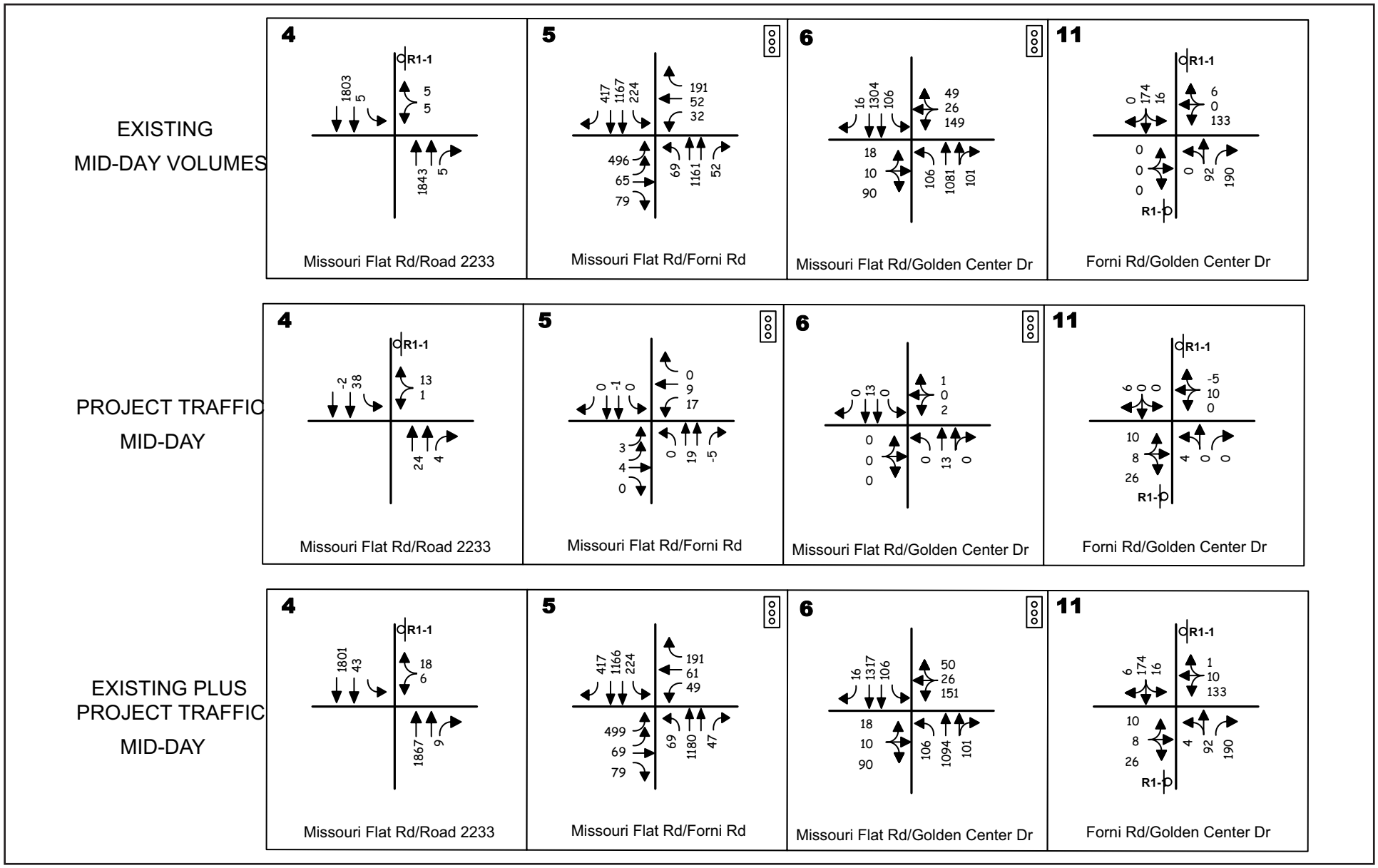
Table 3.2-19 presents information regarding peak period queuing in 2035 mid-afternoon conditions. The available storage has been presented along with peak-hour traffic volumes and the 95th percentile queue length. Those 95th percentile queues with length exceeding the available storage have been highlighted with the 95th percentile queue exceeding available storage in five locations.

Table 3.2-19 also identifies peak period queues assuming the addition of project trips. Those 95th percentile queues with lengths exceeding the available storage have been highlighted. The five locations exceeding the available storage identified under the 2035 No Project condition will continue to exceed the available storage under the plus Project condition. No additional queue exceedances were identified. Impacts would be less than significant.

Table 3.2-19: 2035 Mid-Afternoon Peak Hour Queues at Signalized Intersections

Location	Capacity (feet)	2035 Mid-Afternoon Peak Hour		2035 + Project Mid-Afternoon Peak Hour	
		VPH	Queue (feet)	VPH	Queue (feet)
5. Missouri Flat Road/Forni Road					
NB left turn	250	69	118	69	118
NB through	1,000	1,161 (2)	655	1,180 (2)	670
NB right turn	160	52	<25	47	<25
SB left turn	300	224	338	224	338
SB through	2,300	1,167 (2)	572	1,166 (2)	571
SB right turn	150	417	156	417	155
EB left turn	195	496	336	499	338
WB left turn	190	32	56	49	86
6. Missouri Flat Road/Golden Center Drive					
NB left turn	120	106	245	106	245
SB left turn	160	106	233	106	233

Note:
Highlighted values indicate queue length in excess of available storage
Source: KDAnderson & Associates, Inc., 2017.



Source: KD Anderson & Associates, Inc., 2017

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Exhibit 3.2-8
2035 Mid-Afternoon Traffic Volumes and Lane Configurations

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Summary

Addition of the project's mid-afternoon traffic in the 2035 conditions scenario would not result in unacceptable intersection level of service, satisfaction of traffic signal warrants, or exceedance of available queue lengths. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Congestion Management Program

Impact TRANS-4:	**The project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.**

Impact Analysis

As illustrated under Impact TRANS-1, TRANS-2, and TRANS-3, the project would not conflict with acceptable level of service standards with the implementation of mitigation requiring the provision of Traffic Impact Mitigation fees. As a result, the project would not conflict with the El Dorado Regional Transportation Plan.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MM TRANS-1.

Level of Significance After Mitigation

Less than significant impact.

Hazards

Impact TRANS-5:	**The project may substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Impact Analysis

An on-site review of the project's transportation facilities was conducted based on the County's TIS Guidelines. The following provides the results of that analysis.

Accident Review of Local Roadways

County staff were contacted to obtain accident history in the area adjacent to the project location. The County noted that there have been accidents at the Missouri Flat Road/Forni Road intersection and the Missouri Flat Road/Golden Center Drive intersection. The accident rate is below the County threshold to investigate improvements; therefore, no additional action to address safety is currently being considered at these locations. The County identified that Forni Road, near the intersection of Oak Lane had an accident rate of 2.13, which is above its threshold for improvements. The County has made improvements to the sight distance at the intersection and this intersection is now being monitored. No other locations were identified.

Site Circulation/Driveway Locations

The project site would have three access driveways: one along Road 2233 allowing full access at Missouri Flat Road; a right-in, right-out driveway along Missouri Flat Road; and a full access driveway at the existing Forni Road/Golden Center Drive intersection. A single drive/parking aisle is provided in the center portion of the site.

The site's northern driveway provides access onto Missouri Flat Road via Road 2233. This road is a low volume road providing access for about five residences. Full access is provided at Missouri Flat Road and it is expected that southbound site traffic will enter via this access point. Because of the traffic volumes along Missouri Flat Road, it is expected that most southbound traffic will exit the site via Forni Road during the peak hours to use the traffic signal at Missouri Flat Road to head south. Northbound traffic is expected to use the right-in, right-out driveway and the Road 2233 intersection to travel north on Missouri Flat Road. Aside from the residences along Road 2233, there are no other driveways in the immediate proximity.

The project is designed to provide the minimum 25-foot throat depth at each of the driveways. The worst on-site queues are projected to occur during the 2035 PM peak hour. At each of the three locations, the outbound queues are projected to be 62 feet or less. The longest queue of 62 feet is projected to occur during the 2035 plus Project scenario for outbound right turns at the Missouri Flat Road/Project Access driveway. Adequate queuing is available at the driveways, although the outbound queues could create short delays for customers transiting the site. However, this is not considered a significant impact.

Two RV parking spaces are identified on the site plan near the Missouri Flat Road right-in, right-out driveway. The location of these spaces allows these vehicles to enter the site via a right turn from Missouri Flat Road and proceed directly into the stalls. Approaching from the north, RVs can enter the site via Road 2233 and also proceed to these stalls. Upon exiting, these vehicles will back up to the driveway then proceed to the Forni Road driveway. There would likely be a short time where traffic is blocked from entering or exiting the site via this driveway. However, this is not considered a significant impact.

Sight Distance

A sight distance analysis was completed at the proposed project driveways at the Forni Road/Golden Center Drive intersection and at the proposed right-in, right-out driveway on Missouri Flat Road.

Available sight distance was evaluated using the standards documented in the Caltrans Highway Design Manual (HDM). Based on the locations of the driveways, Minimum Stopping Sight Distance (MSSD) and Corner Sight Distance (CSD) were considered. These criteria are documented in Tables 201.1 and 405.1A of the HDM; the HDM notes that the MSSD criterion is used for CSD evaluation at driveways.

Missouri Flat Road Right-In/Right-Out Driveway

The posted speed limit along Missouri Flat Road is 45 mph. The corresponding minimum sight distance standard for this speed is 360 feet. Missouri Flat Road is generally a four-lane roadway. Northbound traffic departing the Forni Road intersection Missouri Flat Road will have three northbound lanes extending to Road 2233. This third lane will a provide deceleration and acceleration lane for project traffic. The lane will end with a mandatory right turn at Road 2233. Any landscaping over 2 feet in height and signage should be placed outside of the sight lines to provide adequate sight distance. This is included as a requirement under MM TRANS-5b.

Forni Road Driveway

This driveway will become the fourth leg of the Forni Road/Golden Center Drive intersection. Corner sight distance criterion was used to determine the minimum sight distance required with a presumed 55 mph speed limit along Forni Road. The minimum required sight distance is 430 feet. From the project driveway, Forni Road has an uphill grade with an approximately 600-foot-radius curve to the east, beginning about 175 feet north of the driveway. Additionally, the grade of the project site appears to be below the roadway; thus, the sight distance should be longer than the minimum requirement to account for the lower eye height of the driver. While Caltrans notes that driveways can use the MSSD criterion, CSD criterion was considered based on the existing conditions. The current available sight distance is about 400 feet, which corresponds to about a 36 mph design speed. Signs in advance of the Herbert Green Middle School provide a 25 mph speed limit when children are present. The portion of Forni Road between Missouri Flat Road and Heady Lane is reflective of entering into an urbanized area where a 55 mph speed on a two-lane roadway is impractical. Therefore, the completion of a speed survey to identify an appropriate speed limit along Forni Road in the project vicinity is included in MM-TRANS-5a. In addition, site improvements—including crosswalks, sidewalk, and a no parking zone—are included in MM TRANS-5a and would ensure that pedestrian/vehicle conflicts would be minimized at the Forni Road driveway.

Site Review

An on-site review of sight distance was also completed to determine whether any visibility issues may be present. Based on the proposed site plan, the drive aisles appear to provide adequate sight distance for site uses. Pedestrian access within the site is generally along the Missouri Flat Road and Forni Road perimeters, with sidewalk also provided at the fast food restaurant. The entrance and exit to the fast food drive-through lane was reviewed. The entry is located near the Forni Road driveway, and vehicles entering the drive-through from Forni Road have to make a right turn to enter the drive-through lane. This area should have unconstrained sight lines. Vehicles exiting the drive-through lane exit into the main drive-aisle. Parking is proposed on both sides of the lane with curbing/landscaping separating the drive through lane from the parking spaces. Sight lines to allow exiting motorists to view drive aisle traffic should be provided. A crosswalk is proposed across the exit; however, this should be situated about 25 feet behind the “intersection” to allow pedestrians to cross behind a vehicle waiting to exit the drive-through lane. These site improvements, as well as installation of a

stop sign and crosswalk at the drive-through exit, are included in MM TRANS-5b, and would reduce potential impacts to less than significant.

Parking and Drive-Through Requirements

Parking requirements were reviewed to determine needed parking due to the zoning code and requirements relative to projected parking demand. Parking requirements relate to vehicles parked for extended periods of time for employees and customers within the office and retail uses, as well as short-term parking and drive-through storage for the fast food restaurant site. Table 130.35.030.1 of the County's zoning code identifies off-street parking requirements for various uses. Table 3.2-20 displays the parking space requirements for each use type and the projected parking needs for the project. Based on the zoning code, 96 stalls are required. The project proposes to provide 156 spaces.

Table 3.2-20: Parking Requirements Per Zoning Code

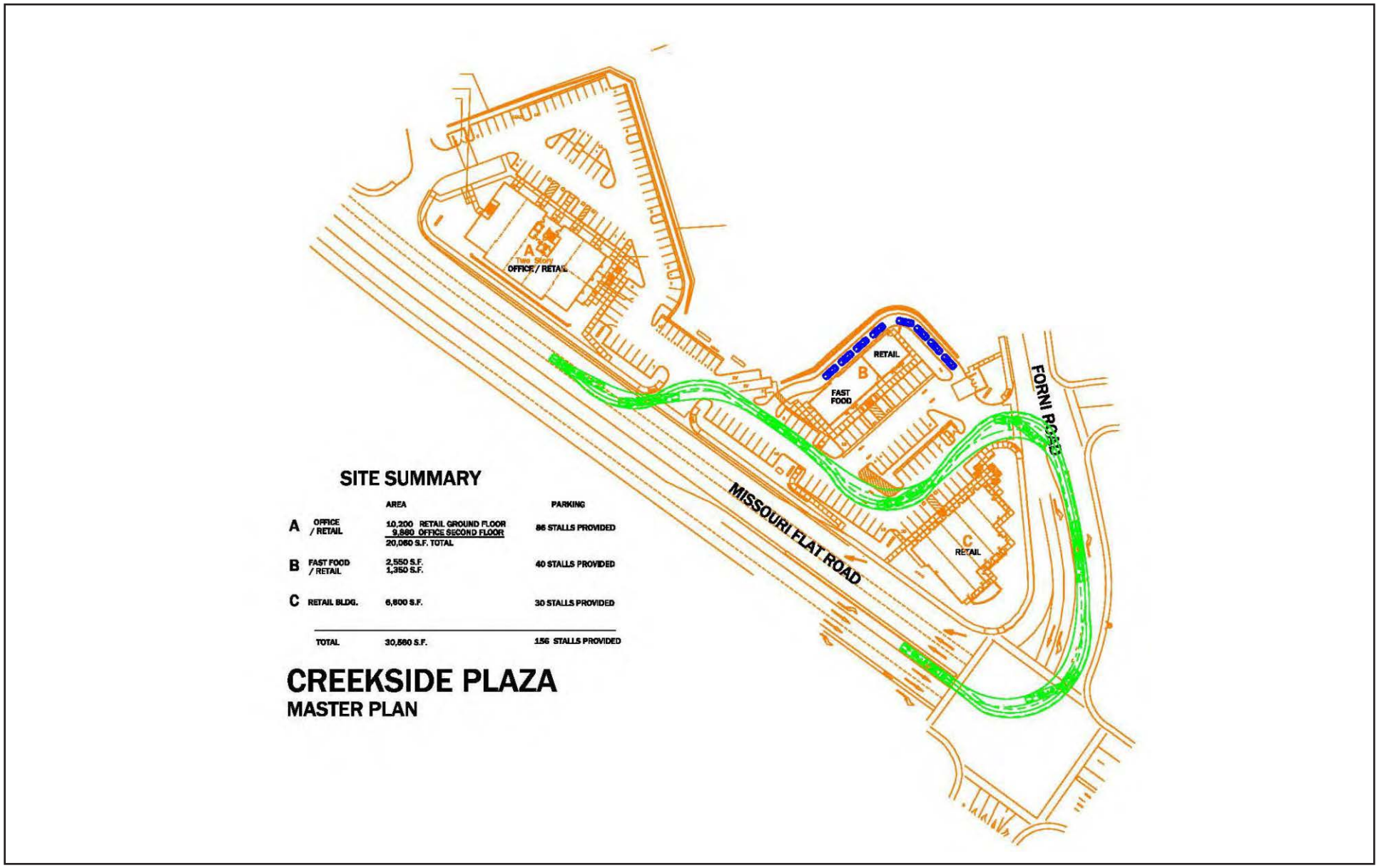
Use Type	Parking Space Requirement	Size	Parking Required
General Office	1 per 250 sf (AUA)	10,200 sf	41
Retail/Shopping Center	1 per 400 sf (GFA)	17,810 sf	45
Restaurant with drive-through	1 per 300 sf (GFA) plus 1 RV space for every 20 spaces	2,550 sf	10
		Total Stalls Required	**96**

Notes:
AUA—active use area
GFA—gross floor area
sf = square feet
Source: KDAnderson & Associates, Inc., 2017.

The County's Parking and Loading Standards identifies requirements for fast food restaurants with drive-through facilities. The drive-through facility shall be located at the rear or side of a commercial site with the stacking lane physically separated from other on-site circulation. A minimum storage length for four cars per drive-through window (in addition to the car receiving service) is required.

The project proposes to locate the fast food restaurant in the northeast corner of the site. The drive-through lane would be accessed from the rear of the building with the service window on the side of the building. Based on the proposed site plan, the stacking lane is about 185 feet long from the service window to the entrance. The reader board is about 87 feet from the entrance. Eight vehicles will be able to queue in the drive-through lane (four between the service window and menu board and four between the menu board and the entrance). Therefore, the project meets the County's drive-through facility requirements.

It is expected that a California Legal truck (CA-Legal) is the design vehicle that will need access to the fast food restaurant. An AutoTurn assessment was completed and is shown in Exhibit 3.2-9. A CA-Legal truck will be able to enter the site from Forni Road and exit via the Missouri Flat Road driveway. Truck access should be limited to non-operational hours of the fast-food restaurant, as the drive aisle could be blocked while trucks are loading/unloading. This access limitation is included in MM TRANS-5b. Potential impacts would be less than significant.



Source: KD Anderson & Associates, Inc., 2017

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Exhibit 3.2-9
Auto Turn Site Assessment

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Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-5a The project shall construct the following improvements at the Forni Road/Golden Center Drive/Project intersection:

- Install a crosswalk along the north side of the intersection to indicate the preferred crossing location for pedestrians. The installation of a crosswalk on the north side will reduce the number of potential conflicts with motor vehicles as most vehicles at this intersection travel between Missouri Flat Road and Forni Road.
- Sidewalk shall be installed along the entire project frontage on Forni Road.
- A pathway/sidewalk shall be constructed connecting the pedestrian crossing on the north side of Golden Center Drive into the project site.
- Install a No Parking Zone along the Forni Road project frontage to maximize sight distance at the driveway.
- Install a crosswalk across the project driveway.
- A speed survey shall be conducted by County staff to identify an appropriate speed limit along Forni Road in the project vicinity. Currently, the roadway is not signed, indicating a presumed speed limit of 55 mph.

MM TRANS-5b The following on-site circulation improvements and requirements shall be implemented:

- Any landscaping over 2 feet in height and signage shall be placed outside of the sight lines of the Missouri Flat Road Right-In/Right-Out driveway to provide adequate sight distance.
- A crosswalk at the drive-through lane entrance shall be installed to provide pedestrian access to the fast food restaurant.
- Landscaping adjacent to the drive-through entrance shall be limited to vegetation no higher than 2 feet to provide visibility of the crosswalk area for inbound traffic from the Forni Road driveway.
- Landscaping adjacent to the drive-through exit shall be limited to vegetation no higher than 2 feet to maintain visibility for exiting vehicles.
- Install a stop sign with limit line at the drive-through exit.
- Install a crosswalk 25 feet behind the limit line of the drive-through exit.
- Truck access shall be limited to non-operational hours of the fast-food restaurant to prevent the drive aisle from being blocked while trucks are loading/unloading.
- Install “Do Not Block” markings at internal intersections where blocking would hinder traffic flow.

Level of Significance After Mitigation

Less than significant impact.

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SECTION 4: CUMULATIVE EFFECTS

4.1 - Introduction

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effects are cumulatively considerable. Cumulatively considerable means that ". . . the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), ". . . the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed project's cumulative impacts were considered in conjunction with other proposed and approved projects in the project vicinity within El Dorado County and the City of Placerville. Table 4-1 provides a list of the other projects considered in the cumulative analysis.

Table 4-1: Cumulative Projects

Jurisdiction	Project	Characteristics	Location	Status
El Dorado County	Piedmont Oak Estates	75 single-family homes and one commercial lot	State Route 49 and Black Rice Road	Pending
	Diamond Springs Village	81 multi-family residential units on 10.7 acres	State Route 49 and Black Rice Road	Pending
	El Dorado Mirage Plaza Phase 1	Tentative Parcel Map creating a total of 13 commercial and multifamily residential parcels	Runnymeade Drive and El Dorado Road	Pending
City of Placerville	Courthouse/Justice Center	77,600-square-foot courthouse including six courtrooms	8.27 acres on Ray Lawyer drive	Approved
	Briggs Business Park	7-Lot Commercial Tentative Map	Gold Nugget Way and Forni Road	Approved
	Hotel	125 Rooms	3110 Forni Road	Pending
	Office Building	7,000-square-foot Air Quality Management District Office Building	Adjacent to Building C	Proposed
Source: Pabalinas, pers. comm; Rivas, pers. comm.				

4.2 - Cumulative Impact Analysis

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project and other projects. An EIR should not discuss impacts that do not result from the proposed project.
- When the combined cumulative impact from the increment associated with the proposed project and other projects is not significant, an EIR need only briefly explain why the impact is not significant; detailed explanation is not required.
- An EIR may determine that a project's contribution to a cumulative effect impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share of mitigation intended to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on these principles as the basis for determining the significance of the proposed project's cumulative contribution to various impacts.

4.2.1 - Air Quality/Greenhouse Gas Emissions

The geographic scope of the cumulative air quality emissions analysis is the Mountain Counties Air Basin, which covers all or portions of the counties of Plumas, Sierra, Nevada, Placer (middle portion), El Dorado (western portion), Amador, Calaveras, Tuolumne, and Mariposa. Air quality is impacted by topography, dominant air flows, atmospheric inversions, location, and season; therefore, using the Air Basin represents the area most likely to be impacted by air emissions.

All of the projects listed in Table 4-1 would result in new air emissions, during construction or operations, or both. The Air Basin is currently nonattainment for the 8-hour ozone (state and federal), PM_{10} (state), and $PM_{2.5}$ (federal) standards. Therefore, there is an existing cumulatively significant air quality impact with respect to these pollutants. The project would result in new air emissions, but would not exceed the EDCAQMD significance criteria during short-term construction or long-term operations. Therefore, it would not significantly contribute to the existing cumulatively significant air quality impact.

Greenhouse gas emissions are inherently cumulative in nature, and the appropriate scope of analysis is the global climate. The proposed project and other projects would emit new greenhouse gas emissions. The proposed project's greenhouse gas emissions would not exceed the applicable operational thresholds. Therefore, the project's contribution of greenhouse gas emissions would not be cumulatively significant.

All other project-related air quality impacts were found to be less than significant and did not require mitigation. Other projects that result in similar impacts would be required to mitigate for their impacts. Therefore, the project would not have a related cumulatively significant impact with respect to other project-related air quality impact areas.

4.2.2 - Biological Resources

The geographic scope of the cumulative biological resources analysis is the region surrounding the project site. The project site is located in an area characterized by a mixture of urban and rural development and infrastructure; accordingly, habitats in these areas tend to be characterized as disturbed, and impacts would be localized. Recent development patterns and growth in the area have resulted in an existing cumulatively significant impact to biological resources that is due to the loss of potential habitat for rare, endangered, and threatened species.

The proposed project has the potential to result in significant impacts to nesting raptors and migratory birds. Mitigation Measure BIO-1 is proposed, requiring pre-construction surveys for these species and delay of vegetation removal if active nests are found on-site. Other projects listed in Table 4-1 are located on sites with similar biological attributes and therefore would be required to mitigate for potential impacts to nesting birds in a manner similar to the proposed project. The required mitigation would reduce the project's contribution to any significant cumulative impact on nesting birds to less than cumulatively considerable.

The proposed project would result in potentially significant impacts related to the disturbance of on-site riparian habitat and Waters of the United States. Mitigation Measures BIO-2, BIO-3, and BIO-4 would require a Lake and Streambed Alteration Agreement, pursuant to Fish and Game Code 1602, a Section 404 permit from the United States Army Corps of Engineers, and Section 401 Water Quality Certification from the Regional water Quality Control Board. Other projects listed in Table 4-1 may be located on sites with similar attributes and therefore would be required to mitigate for impacts in a manner similar to the proposed project. The required mitigation would reduce the project's contribution to any significant cumulative impact on riparian habitation and Waters of the United States to less than cumulatively considerable.

The proposed project has the potential to result in significant impacts related to removal of on-site oak woodlands. Mitigation Measure BIO-5 would require compliance with the County's adopted Oak Resource Management Plan. Projects listed in Table 4-1may be located on sites containing oak woodlands and therefore would be required to mitigate for impacts in a manner similar to the proposed project. The required mitigation would reduce the project's contribution to any significant cumulative impact on oak woodlands.

4.2.3 - Transportation

Cumulative traffic scenarios are evaluated in Section 3.2, Transportation, under Impacts TRANS-2 and TRANS-3.Existing deficiencies related to intersection queues and traffic signal warrants were identified that would occur even without development of the proposed project, which represents an existing cumulatively significant impact. Because the proposed project can mitigate its intersection operations and roadway segment impacts to a level of less than significant, it would not have a cumulatively considerable contribution to intersection operation and roadway segments impacts.

For other transportation-related areas (air traffic patterns, emergency access and roadway safety hazards, and public transit, bicycles, and pedestrians), the proposed project would have potentially significant impacts related to roadway hazards, but after the implementation of mitigation, these

impacts would be reduced to a level of less than significant. Other projects that result in similar impacts would be required to mitigate for their impacts. Because the proposed project can mitigate all other transportation impacts to a level of less than significant, it would not have a cumulatively considerable contribution to any significant cumulative impact relative to these other topics.

SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with CEQA Guidelines Section 15126.6, this Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the proposed project. The primary purpose of this section is to provide decision makers and the general public with a reasonable number of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6).

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
  - Failure to meet most of the basic project objectives;
  - Infeasibility; or
  - Inability to avoid significant environmental effects.

5.1.1 - Significant Unavoidable Impacts

The proposed project would not result in any significant unavoidable impacts.

5.1.2 - Alternatives to the Proposed Project

The three alternatives to the proposed project analyzed in this section are as follows:

- **No Project Alternative:** The proposed project would not be pursued and the project site would remain undeveloped for the foreseeable future.
- **Reduced Intensity Alternative:** The proposed project's square footage would be reduced by 15,280 square feet or 50 percent, which would be proportionately applied to the office, retail, and restaurant uses. Under this alternative, the proposed project would total 15,280 square feet.
- **Wetland Avoidance Alternative:** The proposed project's footprint would be reduced to avoid the on-site wetland and riparian area, including a 50-foot buffer. Under this alternative the project footprint would be limited to approximately 1.55 acres on the western half of the project site along Missouri Flat Road. As a result, the project would consist of only Building A, totaling 20,060 square feet and consisting of 9,860 square feet of office space and 10,200 square feet of retail space in two stories.

The three alternatives to the proposed project are analyzed below. These analyses compare the proposed project and each individual project alternative. In several cases, the description of the

impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the project and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the proposed project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.2 - Project Objectives

As stated in Section 2, Project Description, the objectives of the proposed project are to:

- Positively contribute to the local economy through new capital investment, the creation of new jobs, the provision of new services, and the expansion of the tax base.
- Promote commercial development consistent with County General Plan policies adopted to achieve the objective of providing greater opportunities for County residents to shop within El Dorado County.
- Develop vacant underutilized land within the Missouri Flat Road commercial corridor consistent with existing land use designations.
- Preserve in perpetuity, a portion of the on-site ravine and associated vegetation while maintaining consistency with the applicable United States Army Corps of Engineers 404 permit process.
- Provide for on-site development while maintaining areas of oak woodland and consistency with the Oak Resources Management Plan.
- Promote land use compatibility with Herbert C. Green Middle School by incorporating pedestrian paths of travel, including crosswalks and pathways.
- Develop a modern retail center that employs architecture consistent with the Missouri Flat Design Guidelines and provides ample landscaping, thereby promoting a high-quality visual appearance.
- Promote accessibility to public transit, bicycles, and pedestrians through the accommodation of these modes of transportation in site planning efforts.

5.3 - Alternative 1—No Project Alternative

CEQA Guidelines Section 15126.6(e) requires EIRs to evaluate a "No Project Alternative," which is defined as the "circumstance under which the project does not proceed." Under the No Project Alternative, the proposed three commercial buildings would not be developed. The rezoning and parcel subdivision would also not occur under this alternative. The site would stay under its general plan current land designation of Commercial (C) and would remain zoned as Community Commercial with a Design Review-Community combining zone (CC-DC). On-site vegetation, including riparian trees and oaks along the ravine, would remain and the site would continue to be undeveloped. This alternative would not meet any of the project objectives.

5.3.1 - Impact Analysis

The proposed project would not advance any of the project objectives and the project site would remain undeveloped for the foreseeable future. No disturbance or new development would occur on the project site, thereby eliminating the potential for impacts associated with air quality/greenhouse gas emissions, biological resources, and transportation. Accordingly, this alternative would avoid all of the proposed project's significant impacts, as well as the need to implement any mitigation measures.

5.3.2 - Conclusion

The No Project Alternative would have less impact on all environmental topical areas. However, this alternative would not advance any of the project objectives.

5.4 - Alternative 2—Reduced Intensity Alternative

Under the Reduced Intensity Alternative, the proposed project's square footage would be reduced by 15,280 square feet or 50 percent, which would be proportionately applied to the office, retail, and restaurant uses. Under this alternative, the proposed project would total 15,280 square feet.

All uses would be identical to those proposed by the project; however, 50 percent less square footage would be applied to each use. Additional landscaping, pedestrian facilities, and outdoor seating areas would be developed in place of the eliminated building square footage. In addition, the site plan would be adjusted to reduce, but not entirely avoid, impacts to the on-site wetland.

Table 5-1 summarizes the Reduced Intensity Alternative. The purpose of the Reduced Intensity Alternative is to evaluate a project alternative that develops the same end uses but with less square footage, in order to lessen the severity of impacts associated with air quality/greenhouse gases and transportation.

Table 5-1: Reduced Intensity Alternative Summary

Parcel Number	Project Component	Use	Reduced Building Square Footage
3	Building A	Office	4,930
		Retail	5,100
2	Building B	Fast Food	1,275
		Retail	675
1	Building C	Retail	3,300
A	Open Space Area	Open Space	—
Total	**—**	**—**	**15,280**

5.4.1 - Impact Analysis

Air Quality/Greenhouse Gas Emissions

The Reduced Intensity Alternative consists of developing 15,280 square feet of office, retail, and restaurant uses on the project site, which represents a reduction of 50 percent relative to the proposed project. The buildout potential of this alternative would be less than the proposed project and, therefore, would result in fewer construction emissions. Although construction emissions impacts can be mitigated to a level of less than significant, the reduction in emissions would be considered more beneficial. The Reduced Intensity Alternative would also generate 823 fewer daily vehicle trips than the proposed project and, therefore, would reduce operational emissions of criteria pollutants, toxic air contaminants, and greenhouse gas emissions. Therefore, the Reduced Intensity Alternative would have less impact on air quality/greenhouse gas emissions than the proposed project.

Biological Resources

The Reduced Intensity Alternative consists of developing 15,280 square feet of office, retail, and restaurant uses on the project site, which represents a reduction of 50 percent relative to the proposed project. While on-site buildings would be situated to reduce impacts to the on-site wetland, some impacts would still occur as a result of accommodating site access points and circulation. Similar ground-disturbing activities would occur and, therefore, mitigation identical to the proposed project for special-status species, habitat, wetlands, and oak woodlands would be implemented. Therefore, the Reduced Intensity Alternative would have similar biological resource impacts as the proposed project, although the severity of impacts would be less.

Transportation

The Reduced Intensity Alternative consists of developing 15,280 square feet of office, retail, and restaurant uses on the project site, which represents a reduction of 50 percent relative to the proposed project. The Reduced Intensity Alternative would result in a net reduction of 823 daily trips (50 percent). The reduction in peak-hour trips would avoid or lessen the severity of potentially significant impacts at intersections and roadway segments; however, the project would still contribute to facilities experiencing unacceptable operations and would require mitigation measures. Therefore, the Reduced Intensity Alternative would have similar transportation impacts as the proposed project, although the severity of impacts would be less.

5.4.2 - Conclusion

The Reduced Intensity Alternative would reduce the air quality/greenhouse gas, biological resources, and transportation impacts associated with the proposed project, which can all be mitigated to below a level of significance.

The Reduced Intensity Alternative would advance all of the project objectives, although one objective would be advanced to a significantly lesser degree than the proposed project due to fewer positive economic benefits resulting from the reduced development square footage. This includes the objective of positively contributing to the local economy through new capital investment, the creation of new jobs, the provision of new services, and the expansion of the tax base.

5.5 - Alternative 3—Wetland Avoidance Alternative

The Wetland Avoidance Alternative consists of developing 20,060 square feet of office and retail space in a two-story building. The building and associated infrastructure (parking, landscaping, access points) would be situated to avoid the on-site wetland and riparian area, including a 50-foot buffer. Under this alternative the project footprint would be limited to approximately 1.55 acres on the western half of the project site along Missouri Flat Road. The remainder of the project site, containing the wetland and riparian habitat, would be designated as open space and left undeveloped in perpetuity.

Table 5-2 summarizes the Wetland Avoidance Alternative. The purpose of the Wetland Avoidance Alternative is to evaluate a project alternative that develops somewhat similar end uses, but with a reduced site footprint to avoid impacts biological resources.

Table 5-2: Wetland Avoidance Alternative Summary

Parcel Number	Parcel Acreage	Project Component	Use	Reduced Building Square Footage
2	1.56	Building A	Office	9,860
			Retail	10,200
A	2.76 acres	Open Space Area	Open Space	—
Total	**4.32 acres**	**—**	**—**	**20,060**
Source: FCS, 2017.				

5.5.1 - Impact Analysis

Air Quality/Greenhouse Gas Emissions

The Wetland Avoidance Alternative consists of developing 20,060 square feet of office, retail, and restaurant uses on the project site, which represents a reduction of 35 percent or 10,500 square feet relative to the proposed project. The buildout potential of this alternative would be less than the proposed project and, therefore, would result in fewer construction emissions. Although construction emissions impacts can be mitigated to a level of less than significant, the reduction in emissions would be considered more beneficial. The Wetland Avoidance Alternative would generate fewer daily vehicle trips than the proposed project and, therefore, would reduce operational emissions of criteria pollutants, toxic air contaminants, and greenhouse gas emissions Therefore, the Wetland Avoidance Alternative would have similar air quality and greenhouse gas impacts as the proposed project, although the severity of impacts would be less.

Biological Resources

The Wetland Avoidance Alternative consists of developing 20,060 square feet of office, retail, and restaurant uses on the project site, which represents a reduction of 35 percent or 10,500 square feet relative to the proposed project. Under this alternative the project footprint would be limited to approximately 1.55 acres on the western half of the project site along Missouri Flat Road, avoiding

the on-site wetland and riparian habitat, which would be designated as open space and left undeveloped in perpetuity. Unlike the proposed project, this alternative would not result in impacts to the wetland and riparian habitat and would not require a Streambed Alteration Agreement, Section 404 permit, or Section 401 Water Quality Certification. Therefore, the Wetland Avoidance Alternative would have less impact on biological resources than the proposed project.

Transportation

The Wetland Avoidance Alternative consists of developing 20,060 square feet of office, retail, and restaurant uses on the project site, which represents a reduction of 35 percent or 10,500 square feet relative to the proposed project. Accordingly, fewer corresponding daily vehicle trips would be generated as compared to the proposed project. The reduction in peak-hour trips would avoid or lessen the severity of significant impacts at several intersections and roadway segments; however, this alternative would still contribute to facilities experiencing unacceptable operations and would require mitigation measures, similar to the proposed project. Therefore, the Wetland Avoidance Alternative would have similar less than significant transportation impacts as the proposed project, although the severity of impacts would be reduced.

5.5.2 - Conclusion

The Wetland Avoidance Alternative would lessen the severity of air quality/greenhouse gas and transportation impacts associated with the proposed project. The Wetland Avoidance Alternative's impacts to biological resources would be less than that of the proposed project.

The Wetland Avoidance Alternative would advance all of the project objectives, although one objective would be advanced to a lesser degree than the proposed project due to fewer positive economic benefits resulting from the reduced development square footage. This includes the objective of positively contributing to the local economy through new capital investment, the creation of new jobs, the provision of new services, and the expansion of the tax base.

5.6 - Environmentally Superior Alternative

The qualitative environmental effects of each alternative in relation to the proposed project are summarized in Table 5-3.

Table 5-3: Summary of Alternatives

Environmental Topic Area	No Project	Reduced Intensity Alternative	Wetland Avoidance Alternative
Air Quality/Greenhouse Gas Emissions	Less Impact	Less Impact	Less Impact
Biological Resources	Less Impact	Less Impact	Less Impact
Transportation and Traffic	Less Impact	Less Impact	Less Impact
Source: FirstCarbon Solutions 2017.			

The No Project Alternative is the environmentally superior alternative, as it would avoid impacts relative to all impact areas.

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

Of the two remaining alternatives, the Reduced Intensity Alternative has the potential to yield the greatest reductions in the severity of impacts associated with air quality/greenhouse gas emissions and transportation, because it would have the smallest square footage and would therefore generate the fewest daily vehicle trips. Therefore, the Reduced Intensity Alternative is the environmentally superior alternative from among the other alternatives.

5.7 - Alternatives Rejected from Further Consideration

5.7.1 - Alternative Location

CEQA Guidelines Section 15126.6(f)(2) sets forth considerations to be used in evaluating an alternative location. The section states that the "key question" is whether any of the significant effects of the project would be avoided or substantially lessened by relocating the project. The CEQA Guidelines identify the following factors that may be taken into account when addressing the feasibility of an alternative location:

1) Site suitability
2) Economic viability
3) Availability of infrastructure
4) General Plan consistency
5) Other plans or regulatory limitations
6) Jurisdictional boundaries
7) Whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site.

The CEQA Guidelines establish that only locations that can avoid or substantially lessen the proposed project's significant impacts should be considered. However, the project applicant does not own, control, or otherwise have access to other sites that may accommodate the proposed project. Other project sites may reduce the project's impact on wetland and riparian habitat. However, locating the project elsewhere within El Dorado County's western slope and El Dorado Air Quality Management District's jurisdiction would not avoid the significant and unavoidable impacts related to greenhouse gas emissions. For these reason, no alternative locations were considered.

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SECTION 6: OTHER CEQA CONSIDERATIONS

6.1 - Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented. This section describes significant impacts that would be unavoidable, including those that can be mitigated but not reduced to a level considered less than significant. Where there are impacts that cannot be alleviated without imposing a project alternative, their implications, and the reason why the project is being proposed, notwithstanding their effect, is described. Implementation of the proposed project and mitigation identified in this EIR would not result in any significant impacts that cannot be avoided.

6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2(d)).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

The project site is located within the Missouri Flat Road commercial corridor in unincorporated El Dorado County and is surrounded by commercial development to the east and south. Herbert C. Green Middle school is located to the northeast, while residential areas are located to the west. The project is located in an area served by existing urban infrastructure. As such, the development of the proposed project would not represent the removal of a physical barrier to growth. The project is consistent with existing and proposed land use and zoning designations and, therefore, represents planned growth contemplated by El Dorado County. The project would not construct any new infrastructure that would remove obstacles to further growth in the area. Moreover, the proposed on-site services are intended to serve population growth that has already occurred in the region. As such, they would not be considered growth inducing. No impacts would occur.

6.3 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical energy-producing facilities, and, therefore, will not create a significant impact on energy resources.

6.3.1 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and state energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy

for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by United States Environmental Protection Agency, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The United States Environmental Protection Agency calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the United States Department of Transportation is authorized to assess penalties for noncompliance. In the course of its over 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as ABAG were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, State, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The 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 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 providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least $15.8 billion. The latest 2016 Title 24 energy efficiency standards went into effect January 1, 2017.

6.3.2 - Energy Requirements of the Proposed Project

The proposed project would not result in the unnecessary, wasteful, or inefficient use of energy.

Impact Analysis

Short-term construction and long-term operational energy consumption are discussed below.

Short-term Construction

The United States Environmental Protection Agency (EPA) regulates nonroad diesel engines that power both mobile equipment (bulldozers, scrapers, front-end loaders, etc.) and stationary equipment (generators, pumps, compressors, etc.). The EPA has no formal fuel economy standards for nonroad (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emission standards ("Tier 1") for all new nonroad diesel engines greater than 37 kilowatts (kW [50 horsepower]). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing nitrogen oxide (NO_X) emissions from these engines by 30 percent. Subsequently, the EPA adopted more stringent emission standards for NO_x, hydrocarbons, and particulate matter from new nonroad diesel engines. This program included the first set of standards for nonroad diesel engines less than 37 kW. It also phased in more stringent "Tier 2" emission standards from 2001 to 2006 for all engine sizes and added yet more stringent "Tier 3" standards for engines between 37 and 560 kW (50 and 750 horsepower) from 2006 to 2008. These standards further reduced nonroad diesel engine emissions by 60 percent for NO_x and 40 percent for particulate matter (PM) from Tier 1 emission levels. In 2004, the EPA issued the Clean Air Nonroad Diesel Rule. This rule cut emissions from nonroad diesel engines by more than 90 percent, and was phased in between 2008 and 2014. These emission standards are intended to promote advanced clean technologies for nonroad diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

The proposed project would entail short-term construction activities that would consume energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools). Compulsory consistency with the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR] would ensure that energy is not consumed in a wasteful or inefficient manner. Additionally, the County's Construction and Demolition Debris Recycling Ordinance requires that a minimum of 50 percent of all construction and demolition debris materials be recycled. Recycling construction and demolition waste not only keeps it from being transported to the landfill, but also reduces the "upstream" energy consumption from the manufacturing of virgin material in the first place. The proposed project would be required to comply with this ordinance.

Construction activities would be required to monitor air quality emissions using applicable regulatory guidance such as the El Dorado Air Quality Management District's Construction Dust Rules, Diesel Equipment Regulations, District Rules, and Guide to Air Quality Assessment. These regulations indirectly relate to construction energy conservation because when air pollutant emissions are reduced as a result of the efficient use of equipment and materials, this results in reduced energy consumption. There are no aspects of the proposed project that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities.

Long-term Operations

Transportation Energy Demand

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards and for revising existing standards.

The proposed project would generate vehicle trips that would consume energy in the form of transportation fuel (gasoline and diesel). Vehicle fuel efficiency standards are set at the federal level and vehicles serving the proposed project would be subject to these standards. There are no aspects of the proposed project that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during operational activities related to transportation.

Building Energy Demand

Pacific Gas and Electric Company (PG&E) is the primary electricity provider to the northern and central parts of California, including the El Dorado County.

Electricity

PG&E, which is regulated by the California Public Utilities Commission (CPUC) provides electricity to all or part of the 47 counties in California, including Alameda County. PG&E charges connection and user fees for all new development, and sliding use-based rates for electrical and natural gas service. In 2014, PG&E obtained 35.8 percent of electricity from its own generation sources and the remaining 64.2 percent from outside sources. PG&E-owned generating facilities include nuclear, natural gas, and hydroelectric, with a net generating capacity of more than 7,684 megawatts. Outside suppliers to PG&E include DWR, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 141,700 circuit miles of transmission and distribution lines. PG&E is interconnected with electric power systems in the western Electricity Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico. In 2016, PG&E delivered 83,017 gigawatt-hours of electricity to its 5.3 million electrical customers.

Annual Consumption

Table 6-1 provides an estimate of the proposed project's annual energy consumption.

Table 6-1: Annual Energy Consumption

Energy Source	Square feet	Consumption Rate	Annual Consumption
Electricity	30,560	15.7 kWh/square foot	0.48 million kWh

Note:
kWh = kilowatt hour
Source: FirstCarbon Solutions, 2017.

As shown in Table 6-1, the estimate of the proposed project's annual electricity consumption is 0.48 million kWh. This figure was derived from energy consumption rates provided by the United States Energy Information Administration. The energy usage estimates are based on national consumption figures for commercial buildings that operate continuously. These estimates likely overstate actual consumption, because they include structures located in different climate regions or states with less stringent energy efficiency standards than California. All new development would be subject to the latest adopted edition of the Title 24 energy efficiency standards, which are among the most stringent in the United States.

SECTION 7: EFFECTS FOUND NOT TO BE SIGNIFICANT OR LESS THAN SIGNIFICANT

7.1 - Introduction

This section is based on the Notice of Preparation (NOP) and Initial Study, dated January 25, 2017, and contained in Appendix A of this Environmental Impact Report (EIR). The NOP and Initial Study were prepared to identify the potentially significant effects of the proposed project and were circulated for public review between January 28, 2017 and February 27, 2017. In the course of this evaluation, certain impacts were found to be less than significant because the proposed project's characteristics would not create such impacts. Other impacts were found to be less than significant with the implementation of mitigation that was provided in the Initial Study. This section provides a brief description of effects found not to be significant, less than significant or less than significant with mitigation, based on the NOP comments or more detailed analysis conducted as part of the Initial Study and EIR preparation process. For additional information, refer to the Initial Study, included in this document as Appendix A. Note that a number of impacts that are found to be less than significant are addressed in the two EIR topical sections (Sections 3.1 and 3.2) to provide more comprehensive discussion of why impacts are less than significant, in order to better inform decision makers and the general public.

7.2 - Effects Found not to be Significant

7.2.1 - Aesthetics, Light, and Glare

Scenic Vistas

The project site and vicinity is not identified by the County as a scenic view or resource (El Dorado County 2004). No impacts would occur.

State Scenic Highways

The project site is not located near any roadway that is classified as a State Scenic Highway (California Department of Transportation 2016). This condition precludes the possibility of damaging scenic resources within a state scenic highway. No impacts would occur.

Visual Character

The proposed project would not be anticipated to significantly degrade the visual character or quality of the site and its surroundings in ways not anticipated for lands designated by the General Plan for commercial land uses. The project would be consistent with the visual character of other commercial developments along Missouri Flat Road.

The County analyzed the project design, proposed construction materials, and colors of the physical elements for consistency with the Missouri Flat Design Guidelines. The project was found to be substantially consistent with the recommendations of those Guidelines. Impacts would be less than significant.

Light and Glare

The project would comply with the Missouri Flat Development Guidelines by establishing lighting fixtures of 15 feet (County of El Dorado 2008).[1] The project would also be required to comply with the County Zoning Ordinance Chapter 130.34 Outdoor Lighting. As such, the project would be required to utilize hooded or screened lighting to direct the source of light downward and focus it onto the project site. The Applicant is also required to submit a Lighting Plan to the County for approval. Thus, impacts would be less than significant.

7.2.2 - Agriculture and Forestry Resources

Important Farmland

Review of the Important Farmland GIS map layer for El Dorado County developed under the Farmland Mapping and Monitoring Program indicates that the project site contains soils that are classified as unique and soils of local importance, but not as statewide important farmland or prime farmland. Review of the General Plan Land Use Map for the project area indicates that the project site is designated for commercial uses and is not located within or adjacent to lands designated with the Agricultural Districts (A) General Plan Land Use Overlay. Additionally, the project site is designated and zoned for commercial development. As such, no project-related impacts would occur.

Williamson Act Contracts or Agricultural Zoning

The property is not located within a Williamson Act contract, and the project would not conflict with existing zoning for agricultural use, as the site is currently zoned for community commercial (CC) land uses. Thus, the project would not affect any properties under a Williamson Act contract. No impacts would occur.

Forest Lands or Timberland

The project site is designated by the County General Plan for commercial uses and is currently zoned for residential uses. The site is not an important Timberland Preserve Zone and the underlying soil types are not those known to support timber production. No conversion of timber or forest lands would occur as a result of the project. No impacts would occur.

7.2.3 - Biological Resources

Candidate, Sensitive, or Special-Status Species

A Biological Resource Assessment Update (BRA Update) was prepared for the project by Salix Consulting, Inc., dated June 7, 2016 (Appendix D.1). The BRA Update is a review and update of a previously prepared Biological Resource Assessment for the Creekside Plaza Study Area, dated February 14, 2011 (2011 BRA) (Appendix D.1). The BRA Update indicates that current on-site conditions—including habitat types, geology and soils, hydrology, vegetation, and wildlife—are similar to those reported in the 2011 BRA. The project site's habitat types consist of approximately 0.7 acre of ruderal vegetation, 2.5 acres of foothill woodland and 1.1 acres of riparian area (Exhibit 7-1). The parcel does not fall within designated critical habitat or core areas for the red-legged and yellow-

[1] El Dorado County Development Services Staff Report "Missouri Flat Design Guidelines" 2008

legged frog species. The project site is located within Rare Plant Mitigation Area 2, an area not known to contain listed species.

The BRA Update included a search of the California Natural Diversity Database, the United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation database, and the CNPS Inventory for special-status species occurring on and within the project vicinity.

As noted in the BRA Update and consistent with the 2011 BRA, 14 special-status plant species were identified as occurring in the project vicinity (see Table 3 of the BRA Update, Appendix D.1); however, there is no likelihood for these plant species to occur on-site because of the absence of suitable habitat or substrates.

As noted in the BRA Update (see Table 4 of the BRA, Appendix D.1), nine special-status wildlife species were identified as occurring in the project vicinity; however, on-site assessment indicated that the potential for these species to occur on the project site is either none or unlikely because of the absence of suitable habitat. This assessment was also consistent with the 2011 BRA.

The project would include habitat modification to a portion of the on-site 0.50 acre of Waters of the U.S (Exhibit 7-2). The USACE has issued a Preliminary Jurisdictional Determination (Appendix D.3). Through implementation of the USACE, CDFW, RWQCB, and County requirements, impacts to the wetland habitat would not be considered significant.

Consistent with the 2011 BRA, the BRA Update confirmed that mitigation should be required to reduce or avoid impacts to nesting raptors and migratory birds. However, Mitigation Measure BIO-1, inclusive of the update recommended in the BRA Update, would ensure impacts to nesting raptors and migratory birds would be less than significant.

Overall, consistent with the 2011 BRA, the BRA Update found that the project would not have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, and regulations or by the CDFW or USFWS after implementation of regulatory requirements and mitigation.

MM BIO-1 **Pre-construction Survey Required**: If vegetation removal is conducted within the nesting period for most migratory bird species and nesting raptor species (between March 1 and August 15), a pre-construction survey for active bird nests shall be conducted no more than 15 days prior to initiation of ground-disturbing activities by a qualified biologist. If vegetation removal activities are delayed or suspended more than one month after the pre-construction survey, the area shall be re-surveyed. If active bird nests are identified, vegetation removal in these areas shall be postponed until after the nesting season, or a qualified biologist has determined the young have fledged and are independent of the nest site. No known active nests shall be disturbed without a permit or other authorization from the United States Fish and Wildlife Service or the California Department of Fish and Wildlife.

Riparian Habitat, Sensitive Natural Community, or Federal Wetlands

As indicated in the BRA Update (Appendix D), approximately 1.1 acres of riparian habitat occurs on-site. Within this riparian habitat, 0.50 acre of Waters of the United States is present.

The 2011 BRA determined that the unnamed tributary to Weber Creek within the project boundaries, the associated riparian habitat, and the oak woodland, were potential important habitats present at the site. The 2011 BRA's wetland delineation determined that portions of the proposed development area would occur within the 50-foot setback riparian area shown on the submitted site plan for the construction and installation of the retaining walls and parking areas. Approximately 299 feet of the identified intermittent stream and associated riparian area are proposed to be filled with soil beginning at the culvert under Forni Road then northwest into the project area. That portion would be routed through a 48-inch-diameter culvert installed underground and routed to the west of proposed Building C, continue to just north of proposed Building B, then back into the remaining creek bed, eventually to join the waters of Weber Creek. The project has the potential to adversely affect water quality downstream, both during construction and during operation of the project. This impact would be potentially significant. The applicant would implement mitigation requiring a Water Quality Certification, Section 401 permit to ensure downstream water quality impacts would be less than significant.

North Fork Associates delineated Waters of the United States for the project site in July of 2006. The USACE verified the revised delineation on September 9, 2008; however, the verification expired in 2013. Therefore Salix, Inc. prepared an updated wetland delineation, dated November 2015 (Appendix D.3). The USACE has again provided verification of the wetland delineation (Appendix D.3) on April 16, 2016. The letter provided concurrence of preliminary determination of the approximately 0.50 acre of wetlands and other water bodies present within the project site as potential Waters of the United States regulated under Section 404 of the Clean Water Act.

As indicated in the USACE's letter, work within the potentially jurisdictional Waters of the United States should not start until USACE has permitted authorization for the activity. In addition, an approved jurisdictional delineation may later be necessary. Through the required Section 404 permit process, the USACE will analyze the project's potential impacts to jurisdictional features, including any potential impacts from undergrounding utilities (such as connection to the sewer line and lift station located on the northern adjoining parcel) through the wetland area.

The project applicants have initiated the permit application process for the project with the USACE, and they in turn are developing mitigation measures through the 404 Permit process. The USACE permit will define terms and conditions, including mitigation, for the fill activities. The project may also be regulated by potential Streambed Alteration Agreements to be obtained from the CDFW, if applicable, pursuant to Sections 1602 of the California Fish and Game Code, as well as a potential California Water Quality Certification, Section 401 permit from the Regional Water Quality Control Board. All three agencies would require review of the development plans prior to issuance of a grading and/or building permit.

Source: Salix Consulting, 2015

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0 50 100
Feet

Exhibit 7-1
Habitat Types

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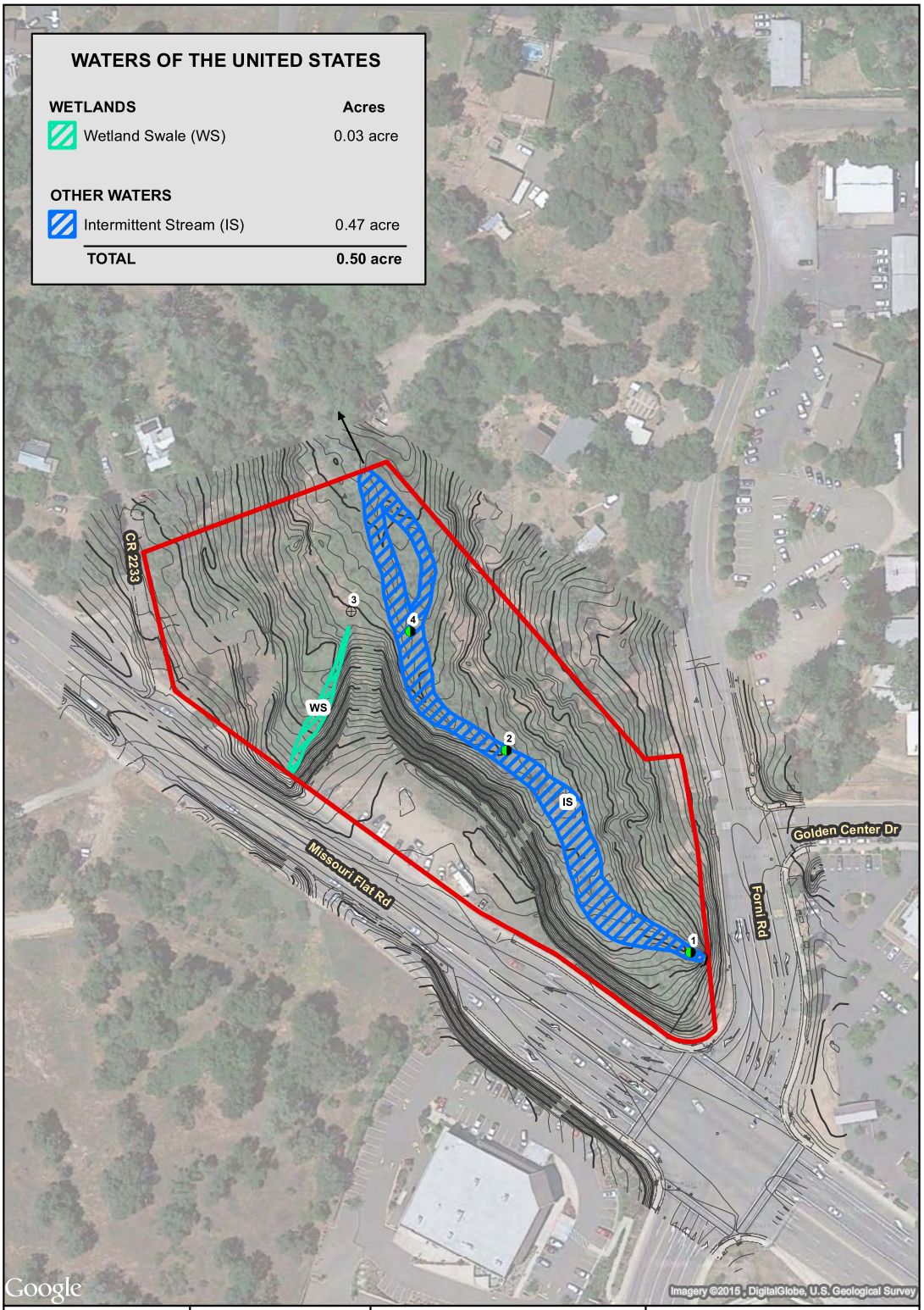

Source: Salix Consulting, 2015

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Exhibit 7-2
Wetlands

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In summary, the project will affect the bed, bank, and channel of a stream, including the adjacent riparian habitat. The project as proposed will affect 0.5 acre of riparian habitat, including nearly 300 linear feet of stream channel. In addition, construction and operation of the project could result in downstream water quality impacts. These impacts are considered potentially significant. However, implementation of the following mitigation measures would ensure the project impacts would be reduced to less than significant:

MM BIO-2 **Streambed Alteration Agreement**: A Streambed Alteration Agreement, pursuant to Fish and Game Code 1602, shall be obtained by the applicants, from the California Department of Fish and Wildlife (CDFW), if applicable, for each stream crossing and any other activities affecting the bed, bank, or associated riparian vegetation of any stream on the site. Appropriate mitigation measures shall be developed in coordination with CDFW in the context of the agreement process. Authorization prior to placement of any fill is required from the United States Army Corps of Engineers (USACE) if any impacts are proposed to jurisdictional riparian habitat. This authorization may require mitigation as deemed necessary by the USACE. The Agreement shall address the following to the satisfaction of the CDFW:

a. The applicant will purchase credits in the National Fish and Wildlife Foundation Fund for impacts to the stream and riparian habitat. Credits will be obtained at a minimum ratio of 1:1. This must be done before County permits are issued.
b. The applicant will:
    i. Set aside the unimpacted portion of the stream and adjacent riparian habitat (approximately 0.9 acre) in a separate legal parcel;
    ii. Place the preserved parcel in a Conservation Easement;
    iii. Obtain an approved 501(c)(3) non-profit organization to hold the Conservation Easement;
    iv. Provide a Long-term Operations and Management Plan describing activities for managing the preserved parcel, and
    v. Provide a long-term funding mechanism to be approved by the Department of Fish and Game.
    vi. Provisions a. through e. must be completed before County permits are issued.
c. The applicant will provide an approved restoration plan for riparian planting. Elements of that plan will include:
    i. A map of locations and species for the plants installed in the restoration area;
    ii. A discussion of performance standards stating that 80 percent of the planted trees will be alive at the end of the five-year monitoring;
    iii. The method for determining whether plantings are alive at the end of each monitoring year (that is, each tree will be counted and determined to be dead or alive; dead trees will be replanted)
    iv. A discussion of contingency measures that could be used in the event that the restoration plantings fail. These measures could include, but are not limited to, making additional plantings and extending the monitoring period or purchasing additional credits in an acceptable fund or mitigation bank.

v. Submission of annual reports for the restoration project to the CDFW.
vi. This plan must be approved by the CDFW before County permits are issued.

MM BIO-3 **Wetland Delineation Verification**: Prior to placement of fill material in on-site Waters of the U.S., the applicants shall request authorization from the United States Army Corps of Engineers (USACE) through the Section 404 Permit process. Along with the request, the applicants shall provide project construction and development drawings or maps, including, for example, wetland areas, denoting all proposed improvements in relation to the Ordinary High Water Mark (OHWM). Applicant shall strive to avoid and minimize adverse impacts to Waters of the United States, and to achieve a goal of no net loss of wetlands functions and values. Applicant shall propose to the USACE appropriate mitigation for unavoidable losses to Waters of the U.S. using USACE mitigation guidelines and regulations. The USACE Section 404 permit will define terms and conditions, including mitigation, for the fill activities.

MM BIO-4 **Water Quality Certification**: A Water Quality Certification, Section 401 permit, if applicable, shall be obtained by the applicant from the Regional Water Quality Control Board for applicable project improvements. Appropriate mitigation measures shall be developed in coordination within the context of the agreement process. Additionally, the following shall be included to the satisfaction of the Regional Water Quality Control Board:

a. The applicant will prepare a Storm Water Pollution Prevention Plan for approval. That plan will describe methods for ensuring downstream water quality during construction and will be implemented before construction begins.
b. Work areas will be separated by buffers and orange construction fencing to delineate the preserved riparian areas. No grading will be allowed within the fenced-off buffer zones.
c. Waste and construction materials will be placed where they will not run off into the stream, or they will immediately be removed off-site.
d. The project will include a Continuous Deflection Separation system to remove oil and other substances from runoff within the project area before it is discharged to Weber Creek. This system will be maintained by the property owner as described in the Contech Stormwater Solutions technical manuals.

Native Resident, Migratory Fish or Wildlife Species, Wildlife Movement, Corridors, Nursery Sites

Review of the California Department of Fish and Wildlife California Wildlife Habitat Relationship System indicates that there are no mapped critical deer migration corridors on the project site. The 2011 BRA found that the project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with any established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. The project has the potential to impact migratory birds as discussed under checklist question a) above. As conditioned, mitigated (Mitigation Measure BIO-1), and with adherence to County Code, impacts would be less than significant.

Local Biological Resources Policies or Ordinances

El Dorado County Code and General Plan

El Dorado County Code and General Plan Policies pertaining to the protection of biological resources include protection of rare plants, setbacks to riparian areas, and mitigation of impacted oak woodlands. Rare plants were discussed above in the Special-status Species section. As indicated therein, no rare plants are present on-site.

County Zoning Ordinance Section 130.30.030.G—Setback Requirements and Exceptions, Protection of Wetlands and Sensitive Riparian Habitat

Zoning Ordinance Section 130.30.030.G requires preparation of a biological resource evaluation (BRE) for all discretionary development that has the potential to impact wetlands or sensitive riparian habitat. The BRE shall establish the area of avoidance and any buffers or setbacks required to reduce impacts to a less than significant level. The BRE may also identify mitigation measures to be employed to reduce identified impacts, including compliance with state or federal permit requirements.

As indicated in the 2011 BRA, the project site has severe constraints to development, including the relative narrowness of the project site and the steeply graded slope along Missouri Flat Road. As such, the project includes a request to reduce the on-site wetland setback for the project to no setback. To support this request, as indicated in the 2011 BRA and the BRA Update, neither the on-site wetlands nor any other area of the project supports plants or animals identified as threatened, endangered, or of special status on both the Federal or State lists, and the identified wetlands were identified to be seasonal in nature.

The project biological consultant has recommended that the setbacks to the wetland features be waived, because the wetlands are of low habitat value and they are stable from erosion, provided that appropriate stormwater Best Management Practices (BMPs) are in place to catch runoff. Table 7-1 provides a list of examples of the BMPs to which the project would be required to adhere as part of the grading permit requirements by County Code. County staff will review the submitted grading plan and verify that the plan includes BMPs consistent with the County's Grading and Erosion and Sediment Control Ordinance, the County's Stormwater Quality Ordinance, the Stormwater Management Plan (SWMP) for the West Slope, and the California Stormwater Pollution Prevention Plan issued by the State Water Resources Control Board, prior to grading permit issuance.

Table 7-1: Required Stormwater Best Management Practices (BMPs)

Erosion Control	Sediment Control	Tracking Control	Non-Storm Water Management
Hydroseeding	Silt Fence	Stabilized Construction Entrance	Water Conservation Practices
Straw Mulch	Fiber Rolls	Waste Management	Vehicle and Equipment Cleaning
Geotextiles and Mats	Gravel Bag Berm	Material Delivery and Storage	Vehicle and Equipment Maintenance
Erosion Control	Street Sweeping and Vacuuming	Material Use	Non-Storm Water Management

With the incorporation of BMPs and Mitigation Measures BIO-2 through BIO-5 to minimize impacts on the wetlands, the request to reduce the required setbacks could be found to be consistent with the County Zoning Ordinance Section 130.30.030.G. Therefore, impacts would be less than significant.

General Plan Policy 7.4.4.4—Oak Resources Protection

Impacts to oak resources have been addressed in the current El Dorado County General Plan EIR. The version of Policy 7.4.4.4 in place at the time of the project's application completion, and therefore applicable to the project, establishes native oak tree canopy retention and replacement standards. As indicated in the Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A), if the project site contains 10 to 19 percent of existing oak canopy cover, then 90 percent of existing canopy must be retained and removed oak canopy must be replaced at a 1:1 ratio. Option B of the previous version of Policy 7.4.4.4, which allows for the payment of a mitigation fee instead of retention and replacement, was not available, because the County did not have an adopted Oak Woodland Management Plan (OWMP) that would establish the provisions for conservation in-lieu fees. (An OWMP was previously adopted by the Board of Supervisors in 2008, but was rescinded in 2012.)

As indicated in the Oak Canopy Cover Analysis (Appendix A.2), the project contains 0.78 acre or 18.1 percent oak canopy and, therefore, would be required to retain 90 percent or 0.70 acre of on-site oak canopy in accordance with the previous version of General Plan Policy 7.4.4.4 and the Interim Interpretive Guidelines. However, the project as proposed would not maintain the required amount and therefore would not be consistent with the previous version of General Plan Policy 7.4.4.4.

The County recently adopted a General Plan Biological Resources Policy Update and Oak Resources Management Plan (ORMP) (an update of the 2008 OWMP); establishing an in-lieu mitigation fee to mitigate impacts to oak woodland areas and individual oak trees; and adopting an Oak Resources Conservation Ordinance. The ORMP was adopted by the Board of Supervisors on October 24, 2017, during the preparation of this Draft EIR. While the project's application approval predates new regulations under the General Plan Biological Resources Policy Update and ORMP, because the project cannot implement Option A of the previous Policy 7.4.4.4, it must comply with the newly adopted ORMP.

The ORMP reflects the following revisions to the requirements previously contained in Policy 7.4.4.4, including but not limited to:

- Use of 'oak woodland' as a measurement
- Development of a 2-tiered mitigation approach that incorporates oak woodland mitigation (Policy 7.4.4.4) and oak tree mitigation (including heritage trees (Policy 7.4.5.2).
- Removal of the necessity for two oak woodland mitigation options (previously defined as Option A and Option B) and removal of retention standards by incorporating an incentive-based approach for oak woodland impact avoidance.

The ORMP identifies standards for oak woodland and native oak tree impact determination, mechanisms to mitigate impacts, technical report submittal requirements, minimum qualifications for technical report preparation, mitigation monitoring and reporting requirements, and projects or actions that are exempt from mitigation requirements. The ORMP also establishes an in-lieu fee payment option for impacts to oak woodlands and individual native oak trees.

Under the ORMP, mitigation for impacts to oak woodlands is based on the percent of oak woodland impacted on-site. Projects impacting 0 to 50 percent of on-site oak woodland are required to mitigate for such impacts at a 1:1 ratio; projects impacting 50.1 to 75 percent of on-site oak woodlands are required to mitigate at a 1.5:1 ratio; and projects impacting 75.1 to 100 percent of on-site oak woodlands are required to mitigate at a 2:1 ratio. Oak woodland is defined as an oak stand with greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover.

Based on an Oak Canopy Cover Analysis previously prepared for the project by Salix Consulting, Inc. (June 17, 2016), approximately 53.8 percent of on-site oak canopy would require removal for construction of the project. Since the Oak Canopy Cover Analysis focused on differentiating the oak woodland canopy from other woody vegetation on the site, the measurement of canopy would be considered an accurate representation of the extent of oak woodland on the site. For this reason, in accordance with the ORMP, it is likely that the project will be required to provide mitigation for oak woodland removal at a 1.5:1 ratio. In addition, as outlined in the ORMP, a deed restriction or conservation easement shall be placed over retained on-site woodlands, and those woodlands retained on-site shall not be counted towards the impacted amount or the towards the required mitigation. Mitigation at the applicable ratio would be implemented using one or more of the following options, as outlined in the ORMP:

1. Off-site deed restriction or conservation easement acquisition, and/or acquisition in fee title by a land conservation organization for purposes of off-site oak woodland conservation;
2. In-lieu fee payment;
3. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
4. Replacement planting off-site within an area subject to a conservation easement; or
5. A combination of numbers 1 through 4 above.

Because the project would impact on-site oak woodlands and would need to comply with the newly adopted ORMP, an updated project-specific technical report and a mitigation plan addressing impacts to oak woodlands must be prepared in accordance with the approved ORMP and approved by the County. Implementation of this mitigation would ensure that impacts to oak woodlands would be less than significant. Furthermore, compliance with the newly adopted ordinance requiring permits for oak tree and oak woodland removal, including heritage trees, would be required.

MM BIO-5 Prior to site disturbance, an updated project-specific technical report and mitigation plan addressing impacts to on-site oak woodlands and consistent with the guidelines and regulations of the El Dorado County Oak Resources Management Plan must be prepared and approved by the County. The technical report must disclose the percentage of impacted oak woodland on-site and the related mitigation plan must indicate the appropriate mitigation ratio and mitigation type, consistent with the requirements of the ORMP. The identified mitigation must be implemented prior to site disturbance or in accordance with timing identified in the project-specific technical report and mitigation plan in accordance with the ORMP.

Habitat, Natural Community, or Other Conservation Plan

This project, as designed, would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Impacts would be less than significant.

7.2.4 - Cultural Resources

Historic Resources

The Cultural Resource Assessment and Supplemental Letter determined that no significant prehistoric or historic archaeological sites, features, or artifacts were present on the proposed project site. In the event sub-surface historical, cultural, or archaeological sites or materials are disturbed during earth disturbances and grading activities on the site, standard conditions of approval would be included to reduce impacts to a less than significant level. Impacts would be less than significant.

Archaeological and Paleontological Resources

The Cultural Resources Study and the Cultural Resources Assessment Supplemental Letter concluded that no significant prehistoric or historic archaeological sites, features, or artifacts were found, and the project site does not contain any known paleontological sites or known fossil strata/locales. Impacts would be less than significant.

Note that because the project's planning application was deemed complete prior to implementation of AB 52, the County has determined that corresponding Native American consultation is not required for this project.

Burial Sites

There is a low likelihood of human remains discovery on the project site. During all grading activities, standard conditions of approval would be required that address accidental discovery of human remains. Impacts would be less than significant.

7.2.5 - Geology and Soils

Seismic Hazards

The project is not located near an Alquist-Priolo fault zone and El Dorado County is considered an area with low potential for seismic activity. Any potential impacts due to seismic impacts would be addressed through compliance with the Uniform Building Code (UBC). All structures would be built to meet the construction standards of the UBC for the appropriate seismic zone. Potential landslide impacts would be reduced through compliance with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Potential areas for liquefaction on the project site would include the wetlands. Areas of the wetlands that would be filled as part of the project would be filled with engineered soil to reduce or eliminate potential liquefaction. Remaining areas of wetlands would be preserved as open space and would not be developed for human residency or use. Therefore, impacts would be less than significant.

Soil Erosion

All grading activities on-site would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance as well as the Stormwater Quality Ordinance, including the implementation of pre- and post-construction BMPs. The implemented BMPs are required to be consistent with the County's Grading and Erosion and Sediment Control Ordinance, the County's Stormwater Quality Ordinance, the SWMP for the West Slope, and the California Stormwater Pollution Prevention Plan issued by the State Water Resources Control Board to eliminate runoff and erosion and sediment controls. Impacts would be less than significant.

Unstable Soils

On-site grading to occur as part of the project would ensure that all geologic units and soils are stable and suitable for building. The retaining wall and adjacent slopes to be created along the northern part of the development would be engineered to ensure the risk of landslide or lateral spreading is minimized. The site would not be subject to off-site landslide, lateral spreading, subsidence, liquefaction or collapse, nor does it have expansive soils. The project would be required to comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance, and the development plans for the proposed buildings would be required to implement the Uniform Building Code Seismic construction standards. As such, impacts would be less than significant.

Expansive Soils

The project site contains soils that have low shrink-swell potential. Therefore, construction of the proposed project would not pose a substantial risk to life and property due to expansive soils. Impacts are less than significant.

Septic or Alternative Wastewater Disposal Systems

The project proposes to connect to the existing El Dorado Irrigation District sewer facilities. No septic tanks or alternative wastewater disposal systems are proposed on-site. There would be no impacts related to septic systems.

7.2.6 - Hazards and Hazardous Materials

Transport, Use, or Disposal of Hazardous Materials

Prior to any use of hazardous materials, the project would be required to obtain, as applicable, a Hazardous Materials Business Plan through the Environmental Management-Hazardous Materials and Solid Waste Division of El Dorado County. The project includes conditions of approval required by the Division to ensure the project follows proper procedures for any materials considered hazardous. As such, impacts would be less than significant.

Accidental Release of Hazardous Materials into Environment

The project would be required to obtain a Hazardous Materials Business Plan through the Environmental Management-Hazardous Materials and Solid Waste Division of El Dorado County, thereby reducing any potential impacts relating to upset and accident conditions. Thus, impacts would be less than significant.

Exposure of Schools to Hazardous Materials

While the project is located adjacent to Herbert C. Greene Middle School, the project would not be anticipated to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. The project is conditioned to ensure that any minimal quantities of hazardous chemicals and solid wastes are handled in accordance with county, state, and federal regulations. Thus, impacts would be less than significant.

Hazardous Materials Sites

No parcels within El Dorado County are included on the Cortese List of known hazardous sites in California. The project site is not listed on the California Department of Toxic Substances Control's EnviroStor database. Therefore, no impacts would occur.

Airports

The project is not located within an Airport Safety (AA) District overlay, nor is the site located within 2 miles of a public airport. As such, the project would not be subject to any land use limitations contained within any adopted Comprehensive Land Use Plan, and there would be no immediate hazard for people working in the project area or safety hazard resulting from airport operations and aircraft over-flights in the vicinity of the project site. No impacts would occur.

Private Airstrips

The project is not located within 2 miles of a private airstrip and no impacts would occur.

Emergency Response or Evacuation Plan

The project would be required to make encroachment improvements and construct turn lanes to ensure public safety and adequate emergency vehicle circulation, which would address the additional impacts to the road systems. Because such improvements are required, no mitigation is needed. Impacts would be less than significant.

Wildland Fires

The Diamond Springs-El Dorado Fire Protection District previously reviewed the project and determined that the submitted site plans show adequate interior roadways to allow emergency vehicle circulation. The project has been conditioned to assure any new and existing fire hydrant deliver adequate water pressure, and to provide District-approved locks on any gates on buildings. As conditioned, the Fire District has determined that impacts would be reduced to a less than significant level.

7.2.7 - Hydrology and Water Quality

Water Quality Standards

Any grading, encroachment, and improvement plans required by the County would be required to be prepared and designed to meet the County of El Dorado Grading, Erosion, and Sediment Control Ordinance as well as the County's Stormwater Quality Ordinance and the SWMP for the West Slope. Project related construction activities would also be subject to these ordinances and requirements, which would require the implementation and execution of BMPs to minimize potential degradation of water quality during and following construction. The project is conditioned to undergo review and permitting by the Regional Water Quality Control Board and the County. Potential impacts to the creek from the extension of the sewer line or other improvements would be addressed through the USACE Section 404 permitting process. As conditioned and mitigated, and with adherence to County Code, impacts would be less than significant.

Groundwater Supply

Potable water in the project area is provided by the El Dorado Irrigation District. As a local water provider, the El Dorado Irrigation District (EID) does not utilize groundwater supplies, thereby precluding impacts from the use of groundwater. The Environmental Health Division reviewed the project proposal and found there is no evidence that the project would substantially reduce or alter the quantity of groundwater in the vicinity, or materially interfere with groundwater recharge in the area of the proposed project. Impacts would be less than significant.

Erosion or Siltation

No adverse increase in the overall runoff and flows are expected as a result of the project. The Drainage Report for the Creekside Plaza Project was reviewed by the County and was found to show that the preliminary plan demonstrates proper drainage considerations. The project shall implement Section 4.5 of the SWMP for post-construction stormwater runoff treatment requirements. Any potential impacts to the creek from the alteration of drainage patterns would be addressed through the USACE Section 404 permitting and Regional Water Quality Control Board Lake and Streambed Alteration Agreement.

The project is conditioned to require compliance with the County's Erosion and Sediment Control Ordinance, the Stormwater Quality Ordinance, and the SWMP for the West Slope, and the California Stormwater Pollution Prevention Plan issued by the State Water Resources Control Board, as well as any applicable requirements of the California Water Quality Control Board. Furthermore, the project

would be required to conform to the El Dorado County Grading, Erosion Control and Sediment Ordinance. Impacts would be less than significant.

Surface Runoff

No adverse increase in the overall runoff and flows are expected. Furthermore, the Drainage Report was reviewed by the County and was found to show that the preliminary plan includes proper drainage considerations. The project would be required to implement Section 4.5 of the SWMP to address post-construction stormwater runoff treatment requirements. The project is not located within a flood zone. The project would be required to conform to the El Dorado County Grading, Erosion Control and Sediment Ordinance, the Stormwater Quality Ordinance, and the SWMP for the West Slope. Additionally, the SWRCB, Office or Administrative Law, and United States Environmental Protection Agency 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). Collectively they are called the "Trash Policy." The Trash Policy requires the implementation of Full Trash capture devices or equivalent for storm drain infrastructure within Priority Land Use (PLU) areas. This project is a commercial development, which is defined by the Trash Policy as a PLU and therefore would be required to implement Trash Policy requirements. Impacts would be less than significant.

100-Year Flood Hazards

The project site is not located within any mapped 100-year flood areas. The project would not result in the construction of any structures that would impede or redirect flood flows. No impacts would occur.

Levee or Dam Failure

The project site is not located adjacent to or downstream from a dam or levee that has the potential to fail and inundate the project site with floodwaters. No impacts would occur.

Seiches, Tsunamis, or Mudflows

The proposed project is not located near a coastal area or adjacent to a large body of water such as a lake, bay, or estuary, volcanoes, or other volcanic features, and the site is located on relatively stable soils. There is no potential for impacts from seiche or tsunami, or from mudflow at this site. No impact would occur.

7.2.8 - Land Use and Planning

Division of an Established Community

The project would not result in the physical division of an established community as it proposes commercial uses on lands designated by the General Plan for commercial uses. The project proposes retail, office, and restaurant related uses, which would be compatible with the project site's General Plan Commercial land use designation and surrounding commercial land uses. Impacts would be less than significant.

Land Use Plans

The current Community Commercial with a Design Control combining zone (CC-DC) is consistent with the existing commercial General Plan land use designation. The project proposes a rezone of the majority of the project site to General Commercial-Planned Development (CG-PD), with a portion re-zoned to Open Space-Planned Development (OS-PD). The proposed Rezone, Development Plan, and Tentative Parcel Map, as conditioned, would be consistent with the specific, fundamental, and mandatory land use development goals, objectives, and policies of the General Plan and are consistent with the development standards contained within the El Dorado County Zoning and Subdivision Ordinances. As such, impacts would be less than significant.

Conservation Plans

The project site is not within the boundaries of an adopted Habitat Conservation Plan, or a Natural Community Conservation Plan or any other conservation plan, including the El Dorado County Integrated Natural Resource Management Plan. No impact would occur.

7.2.9 - Mineral Resources

Mineral Resources of Statewide or Local Importance

The project site is not located within a Mineral Resource Zone by the State of California Division of Mines and Geology. No impacts would occur.

Mineral Resource Recovery Site

Review of the mapped areas of the County indicates that the project site does not contain any mineral resources of known local or statewide economic value. No impacts would occur.

7.2.10 - Noise

Generation of Noises

The project would not expose persons to noise levels exceeding the performance standards contained in Table 130.37.060.2 of the Zoning Ordinance due to the type and location of the project, as well as adherence to current Building Code construction standards. Potential impacts from excessive noise levels into the project site would be less than significant.

Groundborne Vibration

The project may generate intermittent groundborne vibration or shaking events during project construction. However, these potential impacts would be limited to project construction.

Adherence to the time limitations of construction activities to 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 5:00 p.m. on weekends and federally recognized holidays would help minimize construction-related vibration impacts in the project area. Impacts would be less than significant.

Ambient, Temporary, or Periodic Noise

The project would include construction activities for the grading of the site and construction of structural features. Section 130.37.020.I of the Zoning Code provides an exemption for construction activities during daylight hours provided that all construction equipment is fitted with factory-installed muffling devices and maintained in good working order. Adherence to the limitations of construction would reduce potentially significant impacts to a less than significant level. The proposed office/retail/restaurant-related uses would not be anticipated to exceed the established General Plan noise thresholds. Impacts would be less than significant.

Aviation Noise

The proposed project is not located within an airport land use plan or within 2 miles of a public airport or private landing strip. No impacts would occur.

7.2.11 - Population and Housing

Growth Inducement

The project would not induce substantial population growth in an area that is proposed for lands designated by the General Plan for commercial uses. No impacts would occur.

Displacement of Persons or Housing

The General Plan designates the project site for commercial uses, and no residences are currently present on-site. Therefore, no existing housing stock would be displaced by the proposed project. No impacts would occur.

7.2.12 - Public Services

Fire

Development of the project would result in a minor increase in the demand for fire protection services, but would not prevent either Diamond Springs-El Dorado Fire Protection District or CAL FIRE from meeting its response times for the project or its designated service area beyond any deficiencies that already exist. Upon fulfillment of the conditions of approval, impacts would be less than significant.

Police

Police services would continue to be provided by the El Dorado County Sheriff's Department. Because of the size and scope of the project, the demand for additional police protection would be very low. Impacts would be less than significant.

Schools

The construction of three buildings proposed to include retail, office, and fast-food buildings would not result in any permanent population-related increases that would substantially contribute to increased demand on schools that could result in the significant need for new or expanded school facilities. Impacts would be less than significant.

Parks

The construction of three buildings proposed to include retail, office, and fast-food buildings would not result in any permanent, population-related increase that would substantially contribute to increased demand on parks that could result in the significant need for new or expanded facilities. The project also includes the conservation of open space, which would not be impacted by development in the future. Impacts would be less than significant.

Other Public Facilities

The proposed project does not include the development of residential uses. As such, the construction of three buildings proposed to include retail, office, and fast-food buildings would not result in any permanent, population-related increases that would substantially contribute to increased demand on other public facilities, such as libraries, that could in turn result in the significant need for new or expanded facilities. Impacts would be less than significant.

7.2.13 - Recreation

New or Expanded Recreational Facilities

The project is a commercial/open space development and does not include the provision of housing on- or off-site. As such, the proposed project does not include any increase in permanent population that would contribute to increased demand on recreation facilities or contribute to increased use of existing facilities. No impact would occur.

Physical Deterioration of Recreational Facilities

The project is a commercial/open space development and does not include the provision of housing on- or off-site. The project does not include recreational facilities, nor would it require the expansion of existing recreational facilities. No impact would occur.

7.2.14 - Utilities and Service Systems

Wastewater Treatment

The project would connect to existing EID wastewater sewer facilities, which consist of a 6-inch sewer line and lift station located to the north on an adjoining parcel that would be extended to provide sewer service to the project. The project would construct a connection to the existing facilities, located within the Forni Road right-of-way. The project is conditioned to require compliance with the County's California Stormwater Pollution Prevention Plan issued by the State Water Resources Control Board, as well as any applicable requirements of the California Water Quality Control Board. As such, impacts related to wastewater treatment would be less than significant.

Construction of Facilities

The commercial development would be served by EID for water and sewer services. There is an existing 10-inch water line in Forni Road and a 6-inch line at Missouri Flat Road. An existing 6-inch sewer line and lift station located to the north on an adjoining parcel would be extended to provide water and sewer service to the project. The El Dorado Irrigation District Facility Improvement Letter

prepared for the project indicated that the existing infrastructure would have adequate capacity to serve the project. Potential impacts to the creek from extension of the sewer line would be addressed through the USACE Section 404 permitting process. Impacts would be less than significant.

Storm Drainage Facilities

The project would collect stormwater through a series of pipes and convey it to the northerly portion of the site where it will be filtered through a filtering device. No new off-site stormwater facilities would be required. Construction of stormwater infrastructure would be required to abide by all applicable mitigation measures identified for the project. All drainage facilities would be required to be constructed in compliance with standards contained in the County of El Dorado Drainage Manual. As such, impacts would be less than significant.

Water Supply Entitlements

The FIL that was prepared for the project by EID indicated that the existing infrastructure would have adequate capacity to serve the project. Any potential impacts to the creek from the extension of the sewer line would be addressed through the USACE Section 404 permitting process. Impacts would be less than significant.

Wastewater Treatment Capacity

The FIL that was prepared for the project by EID indicated that the existing infrastructure would have adequate capacity to serve the project. Impacts would be less than significant.

Landfill Capacity

Solid waste within El Dorado County is hauled to the El Dorado Material Recovery Facility for sorting. Materials that are not recyclable are trucked to Forward Landfill in Stockton or Kiefer Landfill in Sacramento. Recyclable materials are distributed to a facility in Benicia and green wastes are sent to a processing facility in Sacramento. Pursuant to El Dorado County Environmental Management Solid Waste Division staff, these facilities have sufficient capacity to serve the County. Impacts would be less than significant.

Solid Waste Regulations

County Ordinance No. 4319 requires that new development provide areas for adequate, accessible, and convenient storing, collecting, and loading of solid waste and recyclables. On-site solid waste collection would be handled through the local waste management contractor. The El Dorado County Hazardous Materials and Solid Waste Division recommends a condition of approval that requires that the applicants provide sufficient space for both trash and recycling dumpsters. Adequate space for the three trash enclosures required for the three proposed buildings has been demonstrated on the submitted site plan. As conditioned, impacts would be less significant.

SECTION 8: PERSONS AND ORGANIZATIONS CONSULTED/LIST OF PREPARERS

8.1 - Persons and Organizations Consulted

8.1.1 - Lead Agency

El Dorado County

Community Development Agency—Development Services Division

Senior Planner ..... Rommel Pabalinas

8.2 - List of Preparers

8.2.1 - Lead Agency

El Dorado County

Senior Planner ..... Rommel Pabalinas
Traffic Engineer ..... Natalie Porter

8.2.2 - Lead Consultant

FirstCarbon Solutions

Project Director ..... Mary Bean
Project Manager ..... Janna Waligorski
Senior Air Quality Analyst ..... George Lu
Air Quality Analyst ..... Kimber Johnson
Senior Biologist ..... Brian Mayerle
Noise Analyst ..... Phil Ault
Cultural Resource Analyst ..... Dana DePietro, PhD
Environmental Analyst ..... Yael Marcus
GIS/Graphics ..... John De Martino
Editor/Publications ..... Ed Livingston
Word Processor/Publications ..... Ericka Rodriguez
Reprographics ..... Octavio Perez

8.2.3 - Technical Subconsultants

Kenneth D. Anderson and Associates

Transportation Engineer ..... Jonathan Flecker

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