EL DORADO COUNTY PLANNING SERVICES
2850 FAIRLANE COURT
PLACERVILLE, CA 95667

INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM

Project Title: P17-0002/Diamond Springs Village Apartments

Lead Agency Name and Address: El Dorado County, 2850 Fairlane Court, Placerville, CA 95667

Contact Person: Evan Mattes, Assistant Planner | **Phone Number:** (530) 621-6994

Owner's Name and Address: CoreCare Foundation, 8863 Greenback Lane Suite 324, Orangevale, CA 95662

Applicant's Name and Address: Sergei Oleshko, P.O. Box 2708, Orangevale, CA 95662

Project Engineer's Name and Address: Jerry Beck, 5434 Edgerly Way, Carmichael, CA 95608

Project Location: South side of Black Rice Road approximately 1000 feet west of the intersection with Highway 49 in the Diamond Springs area.

Assessor's Parcel Number: 051-461-59 **Acres:** 10.7

Sections: Sec. 19 & 30 **T:** 10N **R:** 11E

General Plan Designation: Multifamily Residential (MF) & Medium Density Residential (MDR)

Zoning: Multi-Unit Residential (MR) & Residential Estate 5-Acres (RE-5)

Description of Project: The Planned Development would allow for the construction of ten multifamily residential buildings consisting of a total 80 residential units as well as a community building with one on-site managerial unit. All buildings would be built with stucco finishings, stone veneer accents and composite roofs. Buildings are two stories and would range in size from 3,667 square feet to 36,880 square. The cumulative square footage is 78,401 square feet. The project would provide 190 parking spaces of which 65 would be covered. The Community Building would include an office, laundry room, food prep area, community room and an art room. Two play areas are being proposed as part of the project. The project is proposed on a split zoned 10.7 acre site, of which 7.3 acres is zoned Multi-unit Residential (RM), with the remainder 3.4 acres zoned Residential Estate Five-Acres (RE-5). The project would be served by existing public water and wastewater systems. The parcel is accessed from Deuce Drive and Service Drive via Racquet Way, an existing non-county maintained road.

Surrounding Land Uses and Setting:

	Zoning	General Plan	Land Use/Improvements
Site	MR & RE-5	MF & MDR	Vacant
North	R1A & RE-5	MDR	Single-family residences
South	MR	MF	Multi-family residences
East	MR & RE-5	MF & MDR	Single & Multi-family residences
West	MR	MF	Multi-family residences

Briefly describe the environmental setting: The project site is located at approximately 1,750 feet above mean sea level. Primary on-site biological communities include annual grasses, shrubs and oak woodland. A small fragment of riparian habitat exists between Black Rice Road and Deuce Drive. The site is surrounded on all sides by residential parcels. The project site currently sits vacant with access to the site from Deuce Drive via Racquet Way.

Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement)
1. Diamond Springs Fire Protection District: Review and approval of building permit.
2. Transportation Division: Review and enforcement of Conditions of Approval.
3. El Dorado County Surveyor: Review and enforcement of Conditions of Approval.
4. El Dorado County Environmental Management- Review and enforcement of Conditions of Approval.
5. El Dorado County Building Services new construction review.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources	X	Air Quality
X	Biological Resources		Cultural Resources		Geology / Soils
	Greenhouse Gas Emissions		Hazards & Hazardous Materials		Hydrology / Water Quality
	Land Use / Planning		Mineral Resources		Noise
	Population / Housing		Public Services		Recreation
X	Transportation/Traffic		Tribal Cultural Resources		Utilities / Service Systems

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by Mitigation Measures based on the earlier analysis as described in attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION, pursuant to applicable standards; and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or Mitigation Measures that are imposed upon the proposed project, nothing further is required.

Signature: Evan Mattes Date: 5/24/2018

Printed Name: Evan Mattes, Assistant Planner For: El Dorado County

Signature: Michael Nihan Date: 5/24/18

Printed Name: Michael Nihan, Principal Planner For: El Dorado County

PROJECT DESCRIPTION

Introduction

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts resulting from the proposed project. The project would allow the construction of ten multifamily residential buildings consisting of a total of 80 tenant units and one on-site manger unit.

Project Description

This project is a Planned Development to construct ten multifamily residential buildings consisting of a total of 80 residential units and one on-site managerial unit. The Planned Development would allow for the construction of ten multifamily residential buildings consisting of a total 80 residential units as well as a community building with one on-site managerial unit. All buildings would be built with stucco finishings, stone veneer accents and composite roofs. Buildings are two stories and would range in size from 3,667 square feet to 36,880 square. The cumulative square footage is 78,401 square feet. The project would provide 190 parking spaces of which 65 would be covered. The Community Building would include an office, laundry room, food prep area, community room and an art room. Two play areas are being proposed as part of the project. The project is proposed on a split zoned 10.7 acre site, of which 7.3 acres is zoned Multi-unit Residential (RM), with the remainder 3.4 acres zoned Residential Estate Five-Acres (RE-5). The elevation of the project parcel ranges from approximately 1,700 to 1,800 feet above mean sea level. The site contains an undeveloped field, which is covered with annual grasses, shrubs and oak woodland, and is relatively flat. The project would be served through existing public water and sewage systems.

Project Location and Surrounding Land Uses

The project site is located along the southern side of Black Rice Road approximately 1000 feet west of the intersection with Highway 49 in the Diamond Springs area. The site is in the community region of Diamond Springs and is surrounded to the south, east and west by other multi-unit residential housing. Setbacks to the adjoining multi-unit residential developments range from 15’ to 20’. Single-family houses neighbor to the north across Black Rice Road and to the east of the RE-5 zoned portion of the subject property.

Project Characteristics

1. Transportation/Circulation/Parking

Access to the project would be via Deuce Drive and Service Way, via Racquet Way, a privately maintained road. Both Deuce Drive and Service Way are built to a width of 24’ and traverse the property. The project proposes to construct parking stalls along Deuce Drive and Service Road. Both roads would be improved with sidewalks, curb and gutter. Deuce Drive and Service Road connect into Courtside Drive, which provides access to Pearl Place which provides access to Racquet Way and Pleasant Valley Road. A Transportation Impact Study was prepared for Diamond Springs Village Apartments in March of 2017 (Attachment B). The Traffic Impact Study identified mitigation measures to intersections significantly impacted by the project as well as alternative access to alleviate potential impacts.

2. Utilities and Infrastructure

The El Dorado Irrigation District (EID) maintains an 8-inch water main in Black Rice Road and another 8-inch water main traversing the project site. Additionally, a 6-inch gravity sewer line traverses the project site (Attachment C). Currently, the project site is undeveloped and not served by utilities. The project would be required to provide a safe and reliable water source at the time of building permit application, for all future development. Construction of the site would include a network of drainage facilities to address appropriate storm drainage on and off the site. On-site drainage will be treated through infiltration treatment devices for filtering and infiltration (Attachment D). Dry utilities such as power and phone would be extended from neighboring properties.

3. Construction Considerations

Grading would be required for site preparation including surface grading, building and trash enclosure structure foundations, concrete flooring, and overall site surfacing preparation. The extension of existing utilities would require trenching.

Project Schedule and Approvals

This Initial Study is being circulated for public and agency review for a 30-day period. Written comments on the Initial Study should be submitted to the project planner indicated in the Summary section, above. Following the close of the written comment period, the Initial Study will be considered by the Lead Agency in a public meeting and will be certified if it is determined to be in compliance with CEQA. The Lead Agency will also determine whether to approve the project.

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. If the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is a fair argument that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of Mitigation Measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the Mitigation Measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significant.

ENVIRONMENTAL IMPACTS

I. **AESTHETICS.** *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			**X**	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c. Substantially degrade the existing visual character quality of the site and its surroundings?			**X**	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal regulations are applicable to aesthetics in relation to the proposed project.

State Laws, Regulations, and Policies

In 1963, the California State Legislature established the California Scenic Highway Program, a provision of the Streets and Highways Code, to preserve and enhance the natural beauty of California (Caltrans, 2015). The state highway system includes designated scenic highways and those that are eligible for designation as scenic highways.

There are no officially designated state scenic corridors in the vicinity of the project site.

Local Laws, Regulations, and Policies

The County has several standards and ordinances that address issues relating to visual resources. Many of these can be found in the County Zoning Ordinance (Title 130 of the County Code). The Zoning Ordinance consists of descriptions of the zoning districts, including identification of uses allowed by right or requiring a special-use permit and specific development standards that apply in particular districts based on parcel size and land use density. These development standards often involve limits on the allowable size of structures, required setbacks, and design guidelines. Included are requirements for setbacks and allowable exceptions, the location of public utility distribution and transmission lines, architectural supervision of structures facing a state highway, height limitations on structures and fences, outdoor lighting, and wireless communication facilities.

Visual resources are classified as 1) scenic resources or 2) scenic views. Scenic resources include specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually middle ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor.

A list of the county's scenic views and resources is presented in Table 5.3-1 of the El Dorado County General Plan EIR (p. 5.3-3). This list includes areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, forests, or historic structures or districts that are reminiscent of El Dorado County's heritage.

Several highways in El Dorado County have been designated by the California Department of Transportation (Caltrans) as scenic highways or are eligible for such designation. These include U.S. 50 from the eastern limits of the Government Center interchange (Placerville Drive/Forni Road) in Placerville to South Lake Tahoe, all of SR 89 within the county, and those portions of SR 88 along the southern border of the county.

Rivers in El Dorado County include the American, Cosumnes, Rubicon, and Upper Truckee rivers. A large portion of El Dorado County is under the jurisdiction of the USFS, which under the Wild and Scenic Rivers Act may designate rivers or river sections to be Wild and Scenic Rivers. To date, no river sections in El Dorado County have been nominated for or granted Wild and Scenic River status.

Discussion: A substantial adverse effect to Visual Resources would result in the introduction of physical features that are not characteristic of the surrounding development, substantially change the natural landscape, or obstruct an identified public scenic vista.

a. **Scenic Vista or Resource:** The project site is located in a developed area of Diamond Springs surrounded by single family and multifamily residences and non-commercial uses. No scenic vistas, as designated by the county General Plan, are located in the vicinity of the site (El Dorado County, 2003, p. 5.3-3 through 5.3-5). The project site is not adjacent to or visible from a State Scenic Highway. Due to the developed landscape surrounding the property, all proposed units would be in the line-of-site from existing roads and neighboring properties. All new structures would require permits for construction and would comply with the applicable standards of general plan zoning, and building code. Impacts would be less than significant.

b. **Scenic Resources:** The project site is not visible from an officially designated State Scenic Highway or county-designated scenic highway, or any roadway that is part of a corridor protection program (Caltrans, 2013). There are no views of the site from public parks or scenic vistas. There are no trees or historic buildings that have been identified by the County as contributing to exceptional aesthetic value at the project site. There would be no impact.

c. **Visual Character:** The project site is currently undeveloped, characterized by annual grasses, shrubs and oak woodland. A single family dwelling unit could be added to each lot. Since the site is surrounded by multifamily units and single family homes, the proposed project would not affect the visual character of the surrounding area. Impacts would be less than significant.

d. **Light and Glare:** The proposed project result in dwelling units, which could produce minimal new light and glare. All development would be required to comply with County lighting ordinance requirements, including the shielding of lights to avoid potential glare. Impacts would be less than significant.

FINDING: As conditioned and with adherence to El Dorado County Code of Ordinances (County Code), for this Aesthetics category, impacts would be anticipated to be less than significant.

II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by California Department of forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Locally Important Farmland (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			**X**	
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				**X**
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d. Result in the loss of forest land or conversion of forest land to non-forest use?			**X**	
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal regulations are applicable to agricultural and forestry resources in relation to the proposed project.

State Laws, Regulations, and Policies

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP), administered by the California Department of Conservation (CDC), produces maps and statistical data for use in analyzing impacts on California's agricultural resources (CDC 2008). FMMP rates and classifies agricultural land according to soil quality, irrigation status, and other criteria. Important Farmland categories are as follows (CDC 2013a):

> ***Prime Farmland:*** Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields. Prime Farmland must have been used for irrigated agricultural production at some time during the 4 years before the FMMP's mapping date.

Farmland of Statewide Importance: Farmland similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Farmland of Statewide Importance must have been used for irrigated agricultural production at some time during the 4 years before the FMMP's mapping date.

Unique Farmland: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. These lands are usually irrigated but might include non-irrigated orchards or vineyards, as found in some climatic zones. Unique Farmland must have been cropped at some time during the 4 years before the FMMP's mapping date.

Farmland of Local Importance: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) allows local governments to enter into contracts with private landowners for the purpose of preventing conversion of agricultural land to non-agricultural uses (CDC 2013b). In exchange for restricting their property to agricultural or related open space use, landowners who enroll in Williamson Act contracts receive property tax assessments that are substantially lower than the market rate.

Z'berg-Nejedly Forest Practice Act

Logging on private and corporate land in California is regulated by the 1973 Z'berg-Nejedly Forest Practice Act. This Act established the Forest Practice Rules (FPRs) and a politically-appointed Board of Forestry to oversee their implementation. The California Department of Forestry (CALFIRE) works under the direction of the Board of Forestry and is the lead government agency responsible for approving logging plans and for enforcing the FPRs.

Discussion: A substantial adverse effect to Agricultural Resources would occur if:

- There is a conversion of choice agricultural land to nonagricultural use, or impairment of the agricultural productivity of agricultural land;
- The amount of agricultural land in the County is substantially reduced; or
- Agricultural uses are subjected to impacts from adjacent incompatible land uses.

a. **Farmland Mapping and Monitoring Program:** The northern half of the project located north of Deuce Road is identified as Farmland of Local Importance, however the site is not zoned for agricultural use or located within an Agricultural District. The project also does not include a change the current use from agriculture or convert farmland to another land use. Impacts would be less than significant.

b. **Agricultural Uses:** The property is not located within a Williamson Act Contract, nor is it adjacent to lands under a contract. There would be no impact.

c-d. **Loss of Forest land or Conversion of Forest land:** The site is not designated as Timberland Preserve Zone (TPZ) or other forestland according to the General Plan and Zoning Ordinance. The project does propose the removal of oak and pine trees. Impacts would be less than significant.

e. **Conversion of Prime Farmland or Forest Land:** The project is not within an agricultural district or located on forest land and would not convert farmland or forest land to non-agriculture use. There would be no impact.

FINDING: For this Agriculture category, the thresholds of significance have not been exceeded and no impacts would be anticipated to result from the project.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			**X**	
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)?		**X**		
d. Expose sensitive receptors to substantial pollutant concentrations?				**X**
e. Create objectionable odors affecting a substantial number of people?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

The Clean Air Act is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter of aerodynamic radius of 10 micrometers or less (PM10), particulate matter of aerodynamic radius of 2.5 micrometers or less (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO2), ground-level ozone, and lead. Of these criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health.

State Laws, Regulations, and Policies

The California Air Resources Board (CARB) sets standards for criteria pollutants in California that are more stringent than the NAAQS and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The proposed project is located within the Mountain Counties Air Basin, which is comprised of seven air districts: the Northern Sierra Air Quality Management District (AQMD), Placer County Air Pollution Control District (APCD), Amador County APCD, Calaveras County APCD, the Tuolumne County APCD, the Mariposa County APCD, and a portion of the El Dorado County AQMD, which consists of the western portion of El Dorado County. The El Dorado County Air Pollution Control District manages air quality for attainment and permitting purposes within the west slope portion of El Dorado County.

USEPA and CARB regulate various stationary sources, area sources, and mobile sources. USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), known as hazardous air pollutants (HAPs) at the federal level. In addition, USEPA has regulations involving emission criteria for off-road sources such as emergency generators, construction equipment, and vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications.

USEPA and CARB designate regions as “attainment” (within standards) or “nonattainment” (exceeds standards) based on their respective ambient air quality standards. The County is in nonattainment of both federal and state ozone standards and for the state PM10 standard, and is in attainment or unclassified status for other pollutants (California Air Resources Board 2017).

Local Laws, Regulations, and Policies

The El Dorado County Air Quality Management District (EDCAQMD) is responsible for developing and administering programs to reduce air pollution levels below the health-based ambient air quality standards established by the state and federal governments. EDCAQMD is responsible for enforcing district rules, regulating stationary source emissions, approving permits, maintaining emissions inventories, issuing burn permits, administering grant programs, and reviewing air quality-related sections of environmental documents required to comply with CEQA. EDCAQMD regulates air quality through the federal and state Clean Air Acts, district rules, and its permit authority.

EDCAQMD has developed a Guide to Air Quality Assessment (2002) to evaluate project specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. The Guide provides quantitative and qualitative significance criteria for both construction and operational emissions from a project.

A project would have a significant impact on air quality if quantified emissions exceed the following:

- Emissions of ROG and NO_x will result in construction or operation emissions greater than 82lbs/day
- Emissions of PM_{10}, CO, SO_2 and NO_x, as a result of construction or operation emissions, will result in ambient pollutant concentrations in excess of the applicable National or State Ambient Air Quality Standard (AAQS). Special standards for ozone, CO, and visibility apply in the Lake Tahoe Air Basin portion of the County; or
- Emissions of toxic air contaminants cause cancer risk greater than 1 in 1 million (10 in 1 million if best available control technology for toxics is used) or a non-cancer Hazard Index greater than 1. In addition, the project must demonstrate compliance with all applicable District, State and U.S. EPA regulations governing toxic and hazardous emissions.

A project would have a significant impact on air quality if a qualitative analysis indicates:

- The project triggers any of the air quality significance criteria in Appendix G of the CEQA Guidelines.
- The project results in excessive odors, as defined under the Health & Safety Code definition of an air quality nuisance.
- The project results in land use conflicts with sensitive receptors, such as schools, elderly housing, hospitals or clinics, etc.
- The project, as proposed, is not in compliance with all applicable District rules and regulations.
- The project does not comply with U.S. EPA general and transportation "conformity" regulations.

A project would have a cumulatively significant impact if:

- The project requires a change in the land use designation (e.g., general plan amendment or rezone) that increases ROG and NOx emissions compared to the prior approved use, and the increase in emissions exceeds the "project alone" significance levels shown above for ROG or NOx.
- Project CO emissions, if combined with CO emissions from other nearby projects, result in a "hotspot" that violates a state or national AAQS.
- The project is primarily an industrial project and a modeling analysis indicates that the project's impacts would exceed Class III Prevention of Significant Deterioration (PSD) increments (Class II in Lake Tahoe) for PM10, SO2, or NO2; or, the project is primarily a development project, and the emissions of ROG, NOx, or CO exceed the "project alone" significance criteria for those three pollutants noted above.
- The project causes the risk analysis criteria above for "project alone" Toxic Air Contaminants (TACs) to be exceeded when project emissions of TACs are considered in conjunction with TACs from other nearby projects.

For Fugitive dust (PM10), if dust suppression measures will prevent visible emissions beyond the boundaries of the project, further calculations to determine PM emissions are not necessary. All proposed development must comply with District Rule 223-1 Fugitive Dust.

Naturally occurring asbestos (NOA) is also a concern in El Dorado County because it is known to be present in certain soils and can pose a health risk if released into the air. The AQMD has adopted an El Dorado County Naturally Occurring Asbestos Review Area Map that identifies those areas more likely to contain NOA (El Dorado County 2005). All proposed development in a NOA area must comply with District Rule 223-2 Fugitive Dust – Asbestos Hazard Mitigation.

Discussion: According to EDCAQMD's CEQA Guide,

a. **Air Quality Plan:** El Dorado County has adopted the Rules and Regulations of the El Dorado County Air Quality Management District (2000) establishing rules and standards for the reduction of stationary source air pollutants (ROG/VOC, NOx, and O3). The EDC/State Clean Air Act Plan has set a schedule for implementing and funding transportation contract measures to limit mobile source emissions. The project would not conflict with or obstruct implementation of either plan. Any roadway improvements will require an encroachment permit and grading permit and will undergo review to determine if any further actions or approvals are needed, including any measures for sediment control. Any activities associated with future plans for grading and construction would require a Fugitive Dust Mitigation Plan (FDMP) for grading and construction activities. Such a plan would address grading measures and operation of equipment to minimize and reduce the level of defined particulate matter exposure and/or emissions to a less than significant level. Therefore, the potential impacts of the project would be anticipated to be less than significant.

b-c. **Air Quality Standards and Cumulative Impacts:** The project would generate emissions that may contribute to an existing or projected air quality violation during construction, which includes site grading improvements and building construction. CalEEModv2016.3.1 was used to model pollutant emissions for the construction phase of the project. Projects that have individual ROG and NOx construction emissions of 82 lbs per day or a combined ROG and NOx emissions below 164 lbs/per day are considered to be not significant. According to the model, the combined daily construction emissions of ROG and NOx are greater than the combined 164 lbs/day threshold. The project construction emissions during year 2019 are approximately 127 lbs/day and are almost exclusively due to the architectural coating (painting) phase. However, a mitigation measure limiting the Volatile Organic Compounds (VOC) content of all architectural coatings to 150 g/L or less would result in impacts that are less than significant. The Project's ROG and NOx emission estimates, with proposed mitigation measure AIR-1, are below the quantitative significance thresholds and, therefore, the project impacts from ROG and NOx emission are considered less than significant with mitigation. The proposed Project will not change the existing land use designation and will not operate in excess of the ROG and NOx emission threshold of 82 lbs per day with proposed mitigation. Reduction measures shall be imposed as project conditions of approval, which will be applied to constructions plans. Therefore, the proposed project is consistent with the adopted AQAP and therefore potential air quality impacts from ROG and NOx emission are less than cumulatively considerable. Impacts would be less than significant with mitigations incorporated.

Mitigation Measure AIR-1: All architectural coatings used on the proposed project shall have a Volatile Organic Compound (VOC) content that does not exceed 150 g/L. This requirement shall be recorded with the filing of the map. The general contractor or site superintendent shall be responsible for ensuring all subcontractors applying architectural coatings comply with this requirement.

Monitoring Requirement: The mitigation measure shall be noted, in a notice of restriction that shall be recorded on the property and residential construction plans.

Monitoring Responsibility: El Dorado County Development Services Division

d. **Sensitive Receptors:** The CEQA Guidelines (14 CCR 15000) identify sensitive receptors as facilities that house or attract children, the elderly, people with illnesses, or others that are especially sensitive to the effects of air pollutants. Hospitals, schools, and convalescent hospitals are examples of sensitive receptors. No sources of substantial pollutant concentrations would be emitted by the multifamily residences, during construction or following construction. There would be no impact.

e. **Objectionable Odors:** Table 3-1 of the Guide to Air Quality Assessment (AQMD, 2002) does not list the proposed use of the parcels as a use known to create objectionable odors. The requested Planned Development would not generate or produce substantial objectionable odors as it would create buildings for multifamily residential units. Impacts would be less than significant.

FINDING: The proposed project would not affect the implementation of regional air quality regulations or management plans. The proposed project would not be anticipated to cause substantial adverse effects to air quality, nor exceed established significance thresholds for air quality impacts with mitigation.

IV. BIOLOGICAL RESOURCES. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		**X**		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		**X**		
c. 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?		**X**		
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				**X**
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		**X**		
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] Section 1531 *et seq*.; 50 Code of Federal Regulations [CFR] Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the "take" of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC Section 1532). Section 7 of the ESA (16 USC Section 1531 *et seq*.) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which nonfederal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in "take" of endangered or threatened species, subject to specific conditions. A habitat conservation plan (HCP) must accompany an application for an incidental take permit.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Chapter 7, Subchapter II) protects migratory birds. Most actions that result in take, or the permanent or temporary possession of, a migratory bird constitute violations of the MBTA. The MBTA also prohibits destruction of occupied nests. USFWS is responsible for overseeing compliance with the MBTA.

Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), first enacted in 1940, prohibits "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The definition for "Disturb" includes injury to an eagle, a decrease in its productivity, or nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present.

Clean Water Act

Clean Water Act (CWA) section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in the discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

State Laws, Regulations, and Policies

California Fish and Game Code

The California Fish and Game Code includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA). The NPPA (California Fish and Game Code Section 1900-1913) authorizes the Fish and Game Commission to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CESA (California Fish and Game Code Section 2050–2098) prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is state listed as endangered or threatened, or designated as a candidate for such listing. California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

California Fish and Game Code Section 3503, 3513, and 3800 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. In addition, Section 3511, 4700, 5050, and 5515 identify species that are fully protected from all forms of take. Section 3511 lists fully protected birds, Section 5515 lists fully protected fish, Section 4700 lists fully protected mammals, and Section 5050 lists fully protected amphibians.

Streambed Alteration Agreement

Sections 1601 to 1606 of the California Fish and Game Code require that a Streambed Alteration Application be submitted to CDFW for any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Section 1900–1913) prohibits the taking, possessing, or sale of any plants with a state designation of rare, threatened, or endangered (as defined by CDFW). The California Native Plant Society (CNPS) maintains a list of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (CNPS 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

Forest Practice Act

Logging on private and corporate land in California is regulated by the Z'berg-Nejedly Forest Practices Act (FPA), which took effect January 1, 1974. The act established the Forest Practice Rules (FPRs) and a politically-appointed Board of Forestry to oversee their implementation. CALFIRE works under the direction of the Board of Forestry and is the lead government agency responsible for approving logging plans and for enforcing the FPRs. A Timber Harvest Plan (THP) must be prepared by a Registered Professional Forester (RPF) for timber harvest on virtually all non-federal land. The FPA also established the requirement that all non-federal forests cut in the State be regenerated with at least three hundred stems per acre on high site lands, and one hundred fifty trees per acre on low site lands.

Local Laws, Regulations, and Policies

The County General Plan also include policies that contain specific, enforceable requirements and/or restrictions and corresponding performance standards that address potential impacts on special-status plant species or create opportunities for habitat improvement. The El Dorado County General Plan designates the Important Biological Corridor (IBC) (Exhibits 5.12-14, 5.12-5 and 5.12-7, El Dorado County, 2003). Lands located within the overlay district are subject to the following provisions, given that they do not interfere with agricultural practices:

- Increased minimum parcel size;
- Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands;
- Lower thresholds for grading permits;
- Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss;
- Increased riparian corridor and wetland setbacks;
- Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Wildlife);
- Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities;
- Building permits discretionary or some other type of "site review" to ensure that canopy is retained;
- More stringent standards for lot coverage, floor area ratio (FAR), and building height; and
- No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement).

Discussion: A substantial adverse effect on Biological Resources would occur if the implementation of the project would:

- Substantially reduce or diminish habitat for native fish, wildlife or plants;
- Cause a fish or wildlife population to drop below self-sustaining levels;
- Threaten to eliminate a native plant or animal community;
- Reduce the number or restrict the range of a rare or endangered plant or animal;
- Substantially affect a rare or endangered species of animal or plant or the habitat of the species; or
- Interfere substantially with the movement of any resident or migratory fish or wildlife species.

a. **Special Status Species:** A Biological Resources Report (Ecosynthesis, 2012) (Attachment A) was prepared for the project. The project site consists of 10.7 acres, which primarily consists of non-native annual grassland, with minor areas consisting of shrubs and oak woodland. The Biological Resources Report identified potential habitat loss for Nissenan manzanita, Pleasant Valley mariposa lily and Brandegee's clarkia. However, impacts to these species are not anticipated as the occurrence of these species is unlikely and the surrounding development and small size of the project site reduces the biological value. Impacts would be less than significant with mitigation incorporated.

Mitigation Measure BIO-1: If any grading or construction activities occur during the nesting season (March 1 to August 31), a preconstruction survey for the presence of special-status bird species or any nesting bird species shall be conducted by a qualified biologist within 500 feet of proposed construction areas, no more than 30 days prior to construction activities. The survey shall be submitted to Planning Services for review. If active nests are identified in these areas, CDFW and/or USFWS shall be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a 40-foot, fenced buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site.

Monitoring Requirement: The applicant shall conduct all construction activities outside the nesting season or perform a pre-construction survey and the necessary avoidance measures prior to initiation of construction activities. This mitigation measure shall be noted on future grading and residential construction plans. If a pre-construction survey is required, the applicant shall provide evidence of the survey with the Development Services Division to verify prior to issuance of grading permit.

Monitoring Responsibility: El Dorado County Development Services Division.

b-c. **Riparian Habitat and Wetlands:** A wetland delineation (Ecosynthesis, 2012) was prepared for the project under a Preliminary Jurisdictional Determination in August of 2012 in accordance with U.S. Army Corps of Engineers' Wetland Delineation Manual. Three wetlands were identified on the project site, a small mesic meadow, Willow-Oak Riparian Habitat and a tributary within the Willow-Oak Riparian Habitat. The wetland delineation determined that none of the identified wetlands are jurisdictional waters and that no on-site wetland features would be impacted. As there are no waters of the United States on the project site, and no fills or excavations are proposed within the delineation wetlands and channel, impacts would be less than significant with mitigation incorporated.

Mitigation Measure BIO-2: Runoff from impervious surfaces should be routed so that it does not flow directly into wetlands or riparian areas, but is instead treated and/or infiltrated in the buffer zone between construction and the wetland edges. In the case of runoff treatment solely by means of unimproved vegetated filter areas, the buffer zone width shall be at least 50 feet or more, given the compacted nature of the existing soils. With the installation of infiltration trenches or if runoff were collected and routed to treatment basins or vaults, the buffer zone width may be narrower as determined by a qualified professional.

Monitoring Requirement: All grading and construction activities will require compliance with the El Dorado County Design and Improvement Standards Manual and measures as described in the *Biological Resources Report and Wetland Delineation* prepared by EcoSynthesis dated November 19, 2012 (Attachment B). Planning Services shall verify the inclusion of the requirement through the submittal of building and grading permit plans prior to permit issuance.

Monitoring Responsibility: El Dorado County Development Services Division.

d. **Migration Corridors:** Review of the Department of Fish and Wildlife Migratory Deer Herd Maps and General Plan DEIR Exhibit 5.12-7 indicate that the Outside deer herd migration corridor does not extend over the project site. Additionally the El Dorado County General Plan does not identify the project site as an Important Biological Corridor. No impact.

e. **Local Policies:** Local protection of biological resources includes the IBC overlay, oak woodland preservation, rare plants and special-status species, and wetland preservation with the goal to preserve and protect sensitive natural resources within the County. The project is not located in the IBC. The site is covered with oak woodland. Common tree species associated within this habitat type include blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizeni*). According to Chapter 130.39010 of the El Dorado County Zoning Ordinance oak resources impact mitigation is required for any non-exempt action requiring discretionary development entitlements or approvals from El Dorado County. All impacts Heritage Trees, individual valley oak trees, and valley oak woodlands are subject to the mitigation requirements contained within the Oak Resources Management Plan (ORMP). The proposed project includes the removal of individual oak trees. Section 130.39.050.5 allows for the exemption of mitigation fees for Affordable Housing Project based upon the percent of low-income and very low-income affordable housing units. As the project is proposing 100 percent of the units to be made affordable to low-income and very low-income families, 100 percent of the oak tree impacts would be exempted. Exemptions from mitigation do not apply to impacts to individual Valley Oaks (*Quercus lobata*), Valley Oak Woodlands and Heritage Trees (oak trees 36 inches diameter at breast height or greater). The project is proposing impacts to seven valley oaks including three multi-trunk trees with cumulative diameters greater than 10 inches. Impacts would be less than significant with mitigation incorporated.

Mitigation Measure BIO-3: Alteration of on-site individual oak trees and oak tree woodland, or the implementation of on-site work that may affect on-site oak trees, including their canopy or root systems, shall adhere to the oak woodland technical report prepared by Natural Investigations Inc. dated March 17, 2017 (Attachment A) and an updated report prepared by Acorn Arboricultural Services, Inc. dated May 2, 2018 (Attachment D). The plan identifies appropriate oak woodland and individual oak tree preservation measures, and identifies mitigation measures in accordance with the Oak Resources Management Plan (ORMP). In-lieu mitigation fees, in the amount of $11,169.00 shall be submitted to Planning Services prior to issuance of Building and Grading Permits.

Monitoring Requirement: All grading and construction activities will require compliance with the oak woodland preservation measures as described in the Monitoring and Reporting Plan of the *Oak Tree Survey, Preservation, and Replacement Plan for Diamond Springs Village Apartments, Diamond Springs, CA* prepared by Natural Investigations Co. dated April 18, 2017 (Attachment A) and the *Arborist Report Tree Inventory Supplement and Impact Assessment* prepared by Acorn Arboricultural Services Inc. dated May 2, 2018 (Attachment D). The applicant shall submit all in-lieu mitigation fee payments to Planning Services prior to issuance of Building and Grading Permits.

Monitoring Responsibility: El Dorado County Development Services-Planning Services.

f. **Adopted Plans**: No impacts to protected species, habitat, wetlands, or oak trees were identified for this project. This project would not conflict with the provisions of an adopted Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

Finding: No jurisdictional wetlands or riparian areas are present at the project site. There are no special-status plants or wildlife species detected at the project site. This project would be anticipated to have less than significant impact on Biological Resources.

V. CULTURAL RESOURCES. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			**X**	
b. Cause a substantial adverse change in the significance of archaeological resource pursuant to Section 15064.5?			**X**	
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			**X**	
d. Disturb any human remains, including those interred outside of formal cemeteries?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

The National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. The criteria for listing in the NRHP include resources that:

A. Are associated with events that have made a significant contribution to the broad patterns of history (events);
B. Are associated with the lives of persons significant in our past (persons);
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (architecture); or
D. Have yielded or may likely yield information important in prehistory or history (information potential).

State Laws, Regulations, and Policies

California Register of Historical Resources

Public Resources Code Section 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the National Register of Historic Places (NRHP), including properties evaluated under Section 106 of the National Historic Preservation Act. The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

1. Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Are associated with the lives of persons important in our past;
3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
4. Have yielded, or may be likely to yield, information important in prehistory or history.

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

The California Register of Historic Places

The California Register of Historic Places (CRHP) program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act. The criteria for listing in the CRHP include resources that:

A. Are associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
B. Are associated with the lives of persons important to local, California or national history.
C. Embody the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
D. Have yielded, or have the potential to yield, information important to the prehistory or history of the local area, California or the nation.

The State Office of Historic Preservation sponsors the California Historical Resources Information System (CHRIS), a statewide system for managing information on the full range of historical resources identified in California. CHRIS provides an integrated database of site-specific archaeological and historical resources information. The State Office of Historic Preservation also maintains the California Register of Historical Resources (CRHR), which identifies the State's architectural, historical, archeological and cultural resources. The CRHR includes properties listed in or formally determined eligible for the National Register and lists selected California Registered Historical Landmarks.

Public Resources Code (Section 5024.1[B]) states that any agency proposing a project that could potentially impact a resource listed on the CRHR must first notify the State Historic Preservation Officer, and must work with the officer to ensure that the project incorporates "prudent and feasible measures that will eliminate or mitigate the adverse effects."

California Health and Safety Code Section 7050.5 requires that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Section 5097.98 of the California Public Resources Code stipulates that whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The decedents may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation within 24 hours of their notification by the Native American Heritage

Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CEQA and CEQA Guidelines

Section 21083.2 of CEQA requires that the lead agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in CEQA as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.
- Although not specifically inclusive of paleontological resources, these criteria may also help to define "a unique paleontological resource or site."

Measures to avoid, conserve, preserve, or mitigate significant effects on these resources are also provided under CEQA Section 21083.2.

Section 15064.5 of the CEQA Guidelines notes that "a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Substantial adverse changes include physical changes to the historic resource or to its immediate surroundings, such that the significance of the historic resource would be materially impaired. Lead agencies are expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of a historic resource before they approve such projects. Historic resources are those that are:

- listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code Section 5024.1[k]);
- included in a local register of historic resources (Public Resources Code Section 5020.1) or identified as significant in an historic resource survey meeting the requirements of Public Resources Code Section 5024.1(g); or
- determined by a lead agency to be historically significant.

CEQA Guidelines Section 15064.5 also prescribes the processes and procedures found under Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.95 for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the project site. This includes consultation with the appropriate Native American tribes.

CEQA Guidelines Section 15126.4 provides further guidance about minimizing effects to historical resources through the application of mitigation measures. Mitigation measures must be legally binding and fully enforceable.

The lead agency having jurisdiction over a project is also responsible to ensure that paleontological resources are protected in compliance with CEQA and other applicable statutes. Paleontological and historical resource management is also addressed in Public Resources Code Section 5097.5, "Archaeological, Paleontological, and Historical Sites." This statute defines as a misdemeanor any unauthorized disturbance or removal of a fossil site or remains on public land and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources. This statute would apply to any construction or other related project impacts that would occur on state-owned or state-managed lands. The County General Plan contains policies describing specific, enforceable measures to protect cultural resources and the treatment of resources when found.

Discussion: In general, significant impacts are those that diminish the integrity, research potential, or other characteristics that make a historical or cultural resource significant or important. A substantial adverse effect on Cultural Resources would occur if the implementation of the project would:

- Disrupt, alter, or adversely affect a prehistoric or historic archaeological site or property that is historically or culturally significant to a community or ethnic or social group; or a paleontological site except as a part of a scientific study;
- Affect a landmark of cultural/historical importance;
- Conflict with established recreational, educational, religious or scientific uses of the area; or
- Conflict with adopted environmental plans and goals of the community where it is located.

a-c. **Historic or Archeological Resources.** A cultural resources records search was conducted by the North Central Information Center dated February 13, 2017. According to the NCIC, there have been two archaeological studies conducted within a ¼ mile radius of the project area, which have identified one prehistoric resource and four historic resources. Further archival and/or field study by a cultural resource professional was not recommended. Impacts would be less than significant.

d. **Human Remains.** Although no excavation or new construction is proposed for this project, there is some likelihood of human remain discovery during any future construction if additional structures are built. Standard conditions of approval to address accidental discovery of human remains would apply during any grading activities. Impacts will be less than significant.

FINDING: No significant cultural resources have been identified on the project site. Standard conditions of approval would apply in the event of accidental discovery during any future construction. This project would be anticipated to have a less than significant impact within the Cultural Resources category.

VI. GEOLOGY AND SOILS. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				**X**
ii) Strong seismic ground shaking?			**X**	
iii) Seismic-related ground failure, including liquefaction?				**X**
iv) Landslides?				**X**
b. Result in substantial soil erosion or the loss of topsoil?			**X**	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			**X**	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform			**X**	

VI. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
Building Code (1994) creating substantial risks to life or property?				
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk-reduction program to better understand, predict, and mitigate risks associated with seismic events. The following four federal agencies are responsible for coordinating activities under NEHRP: USGS, National Science Foundation (NSF), Federal Emergency Management Agency (FEMA), and National Institute of Standards and Technology (NIST). Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives (NEHRP 2009) are to:

1. Develop effective measures to reduce earthquake hazards;
2. Promote the adoption of earthquake hazard reduction activities by federal, state, and local governments; national building standards and model building code organizations; engineers; architects; building owners; and others who play a role in planning and constructing buildings, bridges, structures, and critical infrastructure or "lifelines";
3. Improve the basic understanding of earthquakes and their effects on people and infrastructure through interdisciplinary research involving engineering; natural sciences; and social, economic, and decision sciences; and
4. Develop and maintain the USGS seismic monitoring system (Advanced National Seismic System); the NSF-funded project aimed at improving materials, designs, and construction techniques (George E. Brown Jr. Network for Earthquake Engineering Simulation); and the global earthquake monitoring network (Global Seismic Network).

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

State Laws, Regulations, and Policies

Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 *et seq*.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist–Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in

and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." Before a project can be permitted, cities and counties are required to have a geologic investigation conducted to demonstrate that the proposed buildings would not be constructed across active faults.

Historical seismic activity and fault and seismic hazards mapping in the project vicinity indicate that the area has relatively low potential for seismic activity (El Dorado County 2003). No active faults have been mapped in the project area, and none of the known faults have been designated as an Alquist-Priolo Earthquake Fault Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist–Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist–Priolo Act. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other seismic hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses not only seismically induced hazards but also expansive soils, settlement, and slope stability.

Mapping and other information generated pursuant to the SHMA is to be made available to local governments for planning and development purposes. The State requires: (1) local governments to incorporate site-specific geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval process; and (2) the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

Title 24 CCR, also known as the California Building Standards Code (CBC), specifies standards for geologic and seismic hazards other than surface faulting. These codes are administered and updated by the California Building Standards Commission. CBC specifies criteria for open excavation, seismic design, and load-bearing capacity directly related to construction in California.

Discussion: A substantial adverse effect on Geologic Resources would occur if the implementation of the project would:

- Allow substantial development of structures or features in areas susceptible to seismically induced hazards such as groundshaking, liquefaction, seiche, and/or slope failure where the risk to people and property resulting from earthquakes could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards;
- Allow substantial development in areas subject to landslides, slope failure, erosion, subsidence, settlement, and/or expansive soils where the risk to people and property resulting from such geologic hazards could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards; or
- Allow substantial grading and construction activities in areas of known soil instability, steep slopes, or shallow depth to bedrock where such activities could result in accelerated erosion and sedimentation or exposure of people, property, and/or wildlife to hazardous conditions (e.g., blasting) that could not be mitigated through engineering and construction measures in accordance with regulations, codes, and professional standards.

a. **Seismic Hazards:**

i) According to the California Department of Conservation Division of Mines and Geology, there are no Alquist-Priolo fault zones within the west slope of El Dorado County (DOC, 2007). However, a fault zone has been identified in the Tahoe Basin and Echo Lakes area. The West Tahoe Fault has a mapped length of 45 km (28 miles). South of Emerald Bay the West Tahoe Fault extends onshore as two parallel strands. In the lake, the fault has clearly defined scarps that offset submarine fans, lake-bottom sediments, and the McKinney Bay slide deposits (DOC, 2016). There is clear evidence that the discussed onshore portion of the West Tahoe Fault is active with multiple events in the Holocene era and poses a surface rupture hazard. However, because of the distance between the project site and these faults, there would be no impact.

ii) The potential for seismic ground shaking in the project area would be considered remote for the reason stated in Section i) above. Any potential impacts due to seismic impacts would be addressed through compliance with the Uniform Building Code. All structures would be built to meet the construction standards of the UBC for the appropriate seismic zone. Impacts would be less than significant.

iii) El Dorado County is considered an area with low potential for seismic activity. There are no landslide, liquefaction, or fault zones (DOC, 2007). There would be no impact.

iv) All grading activities on-site would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. There would be no impact.

b. **Soil Erosion:** For development proposals, all grading activities on-site would comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance including the implementation of pre- and post-construction Best Management Practices (BMPs). Implemented BMPs are required to be consistent with the County's California Stormwater Pollution Prevention Plan (SWPPP) issued by the State Water Resources Control Board to eliminate run-off and erosion and sediment controls. Any grading activities exceeding 250 cubic yards of graded material or grading completed for the purpose of supporting a structure must meet the provisions contained in the County of El Dorado Grading, Erosion, and Sediment Control Ordinance. Any future construction would require review for compliance with the County SWPPP. Therefore, impacts would be less than significant.

c. **Geologic Hazards:** Based on the Seismic Hazards Mapping Program administered by the California Geological Survey, no portion of El Dorado County is located in a Seismic Hazard Zone or those areas prone to liquefaction and earthquake-induced landslides (DOC, 2013). Therefore, El Dorado County is not considered to be at risk from liquefaction hazards. Lateral spreading is typically associated with areas experiencing liquefaction. Because liquefaction hazards are not present in El Dorado County, the county is not at risk for lateral spreading. All grading activities would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Impacts would be less than significant.

d. **Expansive Soils:** Expansive soils are those that greatly increase in volume when they absorb water and shrink when they dry out. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. This movement may result in cracking foundations, distortion of structures, and warping of doors and windows. The central portion of the county has a moderate expansiveness rating while the eastern and western portions have a low rating. Linear extensibility is used to determine the shrink-swell potential of soils. No structures for human occupancy would be constructed as part of the proposed project. Any development would be required to comply with the El Dorado County Grading, Erosion and Sediment Control Ordinance and the development plans for any homes or other structures would be required to implement the Seismic construction standards. Impacts would be less than significant.

e. **Septic Capability:** EID has identified a 6-inch sewer line traversing the project site, with adequate capacity to accommodate the project. This would allow the project access to sewage utilities, precluding the need for septic systems. Impacts to wastewater disposal capacity would be less than significant.

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Background/Science

Cumulative greenhouse gases (GHG) emissions are believed to contribute to an increased greenhouse effect and global climate change, which may result in sea level rise, changes in precipitation, habitat, temperature, wildfires, air pollution levels, and changes in the frequency and intensity of weather-related events. While criteria pollutants and toxic air contaminants are pollutants of regional and local concern (see Section III. Air Quality above); GHG are global pollutants. The primary land-use related GHG are carbon dioxide (CO_2), methane (CH_4) and nitrous oxides (N_2O). The individual pollutant's ability to retain infrared radiation represents its "global warming potential" and is expressed in terms of CO_2 equivalents; therefore CO_2 is the benchmark having a global warming potential of 1. Methane has a global warming potential of 21 and thus has a 21 times greater global warming effect per metric ton of CH_4 than CO_2. Nitrous Oxide has a global warming potential of 310. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., $MTCO_2e/yr$). The three other main GHG are Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. While these compounds have significantly higher global warming potentials (ranging in the thousands), all three typically are not a concern in land-use development projects and are usually only used in specific industrial processes.

GHG Sources

The primary man-made source of CO_2 is the burning of fossil fuels; the two largest sources being coal burning to produce electricity and petroleum burning in combustion engines. The primary sources of man-made CH_4 are natural gas systems losses (during production, processing, storage, transmission and distribution), enteric fermentation (digestion from livestock) and landfill off-gassing. The primary source of man-made N_2O is agricultural soil management (fertilizers), with fossil fuel combustion a very distant second. In El Dorado County, the primary source of GHG is fossil fuel combustion mainly in the transportation sector (estimated at 70% of countywide GHG emissions). A distant second are residential sources (approximately 20%), and commercial/industrial sources are third (approximately 7%). The remaining sources are waste/landfill (approximately 3%) and agricultural (<1%).

Regulatory Setting:

Federal Laws, Regulations, and Policies

At the federal level, USEPA has developed regulations to reduce GHG emissions from motor vehicles and has developed permitting requirements for large stationary emitters of GHGs. On April 1, 2010, USEPA and the National Highway Traffic Safety Administration (NHTSA) established a program to reduce GHG emissions and improve fuel economy standards for new model year 2012-2016 cars and light trucks. On August 9, 2011, USEPA and the NHTSA announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses.

State Laws, Regulations, and Policies

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the *California Climate Solutions Act of 2006* (Stats. 2006, ch. 488) (Health & Safety Code, Section 38500 et seq.). AB 32 requires a statewide GHG emissions reduction to 1990 levels by the year 2020. AB 32 requires the California Air Resources Board (CARB) to implement and enforce the statewide cap. When AB 32 was signed, California's annual GHG emissions were estimated at 600 million metric tons of CO_2 equivalent ($MMTCO_2e$) while 1990 levels were estimated at 427 $MMTCO_2e$. Setting 427 $MMTCO_2e$ as the emissions target for 2020, current (2006) GHG emissions levels must be reduced by 29%. CARB adopted the AB 32 Scoping Plan in December 2008 establishing various actions the state would implement to achieve this reduction (CARB, 2008). The Scoping Plan recommends a community-wide GHG reduction goal for local governments of 15%.

In June 2008, the California Governor's Office of Planning and Research's (OPR) issued a Technical Advisory (OPR, 2008) providing interim guidance regarding a proposed project's GHG emissions and contribution to global climate change. In the absence of adopted local or statewide thresholds, OPR recommends the following approach for analyzing GHG emissions: Identify and quantify the project's GHG emissions, assess the significance of the impact on climate change; and if the impact is found to be significant, identify alternatives and/or Mitigation Measures that would reduce the impact to less than significant levels (CEC, 2006).

Discussion

CEQA does not provide clear direction on addressing climate change. It requires lead agencies identify project GHG emissions impacts and their "significance," but is not clear what constitutes a "significant" impact. As stated above, GHG impacts are inherently cumulative, and since no single project could cause global climate change, the CEQA test is if impacts are "cumulatively considerable." Not all projects emitting GHG contribute significantly to climate change. CEQA authorizes reliance on previously approved plans (i.e., a Climate Action Plan (CAP), etc.) and mitigation programs adequately analyzing and mitigating GHG emissions to a less than significant level. "Tiering" from such a programmatic-level document is the preferred method to address GHG emissions. El Dorado County does not have an adopted CAP or similar program-level document; therefore, the project's GHG emissions must be addressed at the project-level.

Unlike thresholds of significance established for criteria air pollutants in EDCAQMD's *Guide to Air Quality Assessment* (February 2002) ("CEQA Guide"),[1] the District has not adopted GHG emissions thresholds for land use development projects. However, EDCAQMD, in collaboration with the members of the Sacramento Regional GHG Thresholds Committee[2], developed regional GHG threshold levels based on data from each air district, in an effort to provide a uniform scale to measure the significance of land use and stationary source GHG emissions pursuant to CEQA. The thresholds were developed to enable the region to meet the AB32 goal of lowering GHG emissions to 1990 levels by 2020. These GHG thresholds were formally adopted by SMAQMD in October 2014[3]. Projects exceeding these thresholds may have a cumulatively considerable contribution to a significant cumulative environmental impact and be required to mitigate those impacts to a less than significant level. Until the County adopts a Climate Action Plan (CAP) consistent with CEQA Guidelines Section 15183.5, and/or establishes GHG thresholds, EDCAQMD recommends using these thresholds to determine the significance of project-related GHG emissions. The Regional GHG 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 and the Scoping Plan. These thresholds are supported by substantial evidence using data from the Sacramento region including El Dorado County.

These thresholds are summarized below:

Significance Determination Thresholds

[1] EDCAQMD CEQA Guide: http://edcgov.us/Government/AirQualityManagement/Guide_to_Air_Quality_Assessment.aspx
[2] The Sacramento Regional GHG Thresholds Committee is comprised of Sacramento Metro AQMD, El Dorado County AQMD, Placer County APCD, Yolo-Solano AQMD, and Feather River AQMD.
[3] SMAQMD CEQA Guide, Chapter 6: http://airquality.org/ceqa/ceqaguideupdate.shtml

GHG Emission Source Category	Operational Emissions*
Short-Term (Construction) phase	1,100 $MTCO_2e/yr$
Long-Term (Operational) phase	1,100 $MTCO_2e/yr$
Stationary Sources	10,000 $MTCO_2e/yr$

*metric tons of CO_2 equivalents per year

Land development projects with emissions exceeding the applicable threshold must mitigate to or 1,100 $MTCO_2e$ For projects below the threshold, no further GHG analysis is required. The applicant used CalEEModv2016.3.1 to estimate both construction and operational GHG emissions.

a. The project proposes the construction of ten multi-unit residential buildings and one community building, consisting of 80 residential units and one on-site managerial unit. Estimated Greenhouse Gas (GHG) emissions during the construction phase are approximately 424 metric tons of CO2 equivalents per year ($MTCO_2e/yr$) and approximately 845 $MTCO_2e/yr$. Both of these rates are below the Sacramento Regional GHG thresholds for annual construction and operational emissions of GHG of 1,100 $MTCO_2e/yr$. Therefore, the proposed project would have a negligible contribution towards statewide GHG inventories and would have a less than significant impact.

b. Because construction-related emissions would be temporary and below the minimum standard for reporting requirements under AB 32, and estimated ongoing GHG emissions would be less than the 1,100 $MTCO_2e/yr$, the proposed project's GHG emissions would have a negligible cumulative contribution towards statewide and global GHG emissions. The proposed project would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Cumulative GHG emissions impacts are considered to be less than significant. Therefore, the proposed project would have a less than significant impact.

FINDING: The project would result in less than significant impacts from greenhouse gas emissions. For this Greenhouse Gas Emissions category, there would be no significant adverse environmental effect as a result of the project.

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			**X**	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				**X**
e. For a project located within an airport land use plan or, where such a plan has				**X**

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?			**X**	
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			**X**	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			**X**	

Regulatory Setting:

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, and disposal of hazardous wastes; and require health and safety provisions for workers and the public. The major federal, state, and regional agencies enforcing these regulations are USEPA and the Occupational Safety and Health Administration (OSHA); California Department of Toxic Substances Control (DTSC); California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA); California Governor's Office of Emergency Services (Cal OES); and EDCAPCD.

Federal Laws, Regulations, and Policies

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC Section 9601 *et seq.*) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, USEPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (RCRA; 42 USC Section 6901 *et seq.*), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the "cradle-to-grave" regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of.

USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program in addition to California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

Energy Policy Act of 2005

Title XV, Subtitle B of the Energy Policy Act of 2005 (the Underground Storage Tank Compliance Act of 2005) contains amendments to Subtitle I of the Solid Waste Disposal Act, the original legislation that created the Underground Storage Tank (UST) Program. As defined by law, a UST is "any one or combination of tanks, including pipes connected thereto, that is used for the storage of hazardous substances and that is substantially or totally beneath the surface of the ground." In cooperation with USEPA, SWRCB oversees the UST Program. The intent is to protect public health and safety and the environment from releases of petroleum and other hazardous substances from tanks. The four primary program elements include leak prevention (implemented by Certified Unified Program Agencies [CUPAs], described in more detail below), cleanup of leaking tanks, enforcement of UST requirements, and tank integrity testing.

Spill Prevention, Control, and Countermeasure Rule

USEPA's Spill Prevention, Control, and Countermeasure (SPCC) Rule (40 CFR, Part 112) apply to facilities with a single above-ground storage tank (AST) with a storage capacity greater than 660 gallons, or multiple tanks with a combined capacity greater than 1,320 gallons. The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans.

Occupational Safety and Health Administration

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

Federal Communications Commission Requirements

There is no federally mandated radio frequency (RF) exposure standard; however, pursuant to the Telecommunications Act of 1996 (47 USC Section 224), the Federal Communications Commission (FCC) established guidelines for dealing with RF exposure, as presented below. The exposure limits are specified in 47 CFR Section 1.1310 in terms of frequency, field strength, power density, and averaging time. Facilities and transmitters licensed and authorized by FCC must either comply with these limits or an applicant must file an environmental assessment (EA) with FCC to evaluate whether the proposed facilities could result in a significant environmental effect.

FCC has established two sets of RF radiation exposure limits—Occupational/Controlled and General Population/Uncontrolled. The less-restrictive Occupational/Controlled limit applies only when a person (worker) is exposed as a consequence of his or her employment and is "fully aware of the potential exposure and can exercise control over his or her exposure," otherwise the General Population limit applies (47 CFR Section 1.1310).

The FCC exposure limits generally apply to all FCC-licensed facilities (47 CFR Section 1.1307[b][1]). Unless exemptions apply, as a condition of obtaining a license to transmit, applicants must certify that they comply with FCC environmental rules, including those that are designed to prevent exposing persons to radiation above FCC RF limits (47 CFR Section1.1307[b]). Licensees at co-located sites (e.g., towers supporting multiple antennas, including antennas under separate ownerships) must take the necessary actions to bring the accessible areas that exceed the FCC exposure limits into compliance. This is a shared responsibility of all licensees whose transmission power density levels account for 5.0 or more percent of the applicable FCC exposure limits (47CFR 1.1307[b][3]).

Code of Federal Regulations (14 CFR) Part 77

14 CFR Part 77.9 is designed to promote air safety and the efficient use of navigable airspace. Implementation of the code is administered by the Federal Aviation Administration (FAA). If an organization plans to sponsor any construction or alterations that might affect navigable airspace, a Notice of Proposed Construction or Alteration (FAA Form 7460-1) must be filed. The code provides specific guidance regarding FAA notification requirements.

State Laws, Regulations, and Policies

Safe Drinking Water and Toxic Enforcement Act of 1986 – Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65, protects the state's drinking water sources from contamination with chemicals known to cause cancer, birth defects, or other reproductive harm. Proposition 65 also requires businesses to inform the public of exposure to such chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. In accordance with Proposition 65, the California Governor's Office publishes, at least annually, a list of such chemicals. OEHHA, an agency under the California Environmental Protection Agency (CalEPA), is the lead agency for implementation of the Proposition 65 program. Proposition 65 is enforced through the California Attorney General's Office; however, district and city attorneys and any individual acting in the public interest may also file a lawsuit against a business alleged to be in violation of Proposition 65 regulations.

The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other state agencies set the standards for their programs, while local governments (CUPAs) implement the standards. For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans;
- California accidental release prevention plans or federal risk management plans;
- The operation of USTs and ASTs;
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;
- Proposition 65 reporting; and
- Emergency response.

Hazardous Materials Business Plans

Hazardous materials business plans are required for businesses that handle hazardous materials in quantities greater than or equal to 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet (cf) of compressed gas, or extremely hazardous substances above the threshold planning quantity (40 CFR, Part 355, Appendix A) (Cal OES, 2015). Business plans are required to include an inventory of the hazardous materials used/stored by the business, a site map, an emergency plan, and a training program for employees (Cal OES, 2015). In addition, business plan information is provided electronically to a statewide information management system, verified by the applicable CUPA, and transmitted to agencies responsible for the protection of public health and safety (i.e., local fire department, hazardous material response team, and local environmental regulatory groups) (Cal OES, 2015).

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans.

Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers must also make material safety data sheets available to employees and document employee information and training programs. In addition, Cal/OSHA has established maximum permissible RF radiation exposure limits for workers (Title 8 CCR Section 5085[b]), and requires warning signs where RF radiation might exceed the specified limits (Title 8 CCR Section 5085 [c]).

California Accidental Release Prevention

The purpose of the California Accidental Release Prevention (CalARP) program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. In accordance with this program, businesses that handle more than a threshold quantity of regulated substance are required to develop a risk management plan (RMP). This RMP must provide a detailed analysis of potential risk factors and associated mitigation measures that can be implemented to reduce accident potential. CUPAs implement the CalARP program through review of RMPs, facility inspections, and public access to information that is not confidential or a trade secret.

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the CALFIRE administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Public Resources Code Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

California Highway Patrol

CHP, along with Caltrans, enforce and monitor hazardous materials and waste transportation laws and regulations in California. These agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP.

Local Laws, Regulations, and Policies

A map of the fuel loading in the County (General Plan Figure HS-1) shows the fire hazard severity classifications of the SRAs in El Dorado County, as established by CDF. The classification system provides three classes of fire hazards: Moderate, High, and Very High. Fire Hazard Ordinance (Chapter 8.08) requires defensible space as described by the State Public Resources Code, including the incorporation and maintenance of a 30-foot fire break or vegetation fuel clearance around structures in fire hazard zones. The County's requirements on emergency access, signing and numbering, and emergency water are more stringent than those required by state law (Patton 2002). The Fire Hazard Ordinance also establishes limits on campfires, fireworks, smoking, and incinerators for all discretionary and ministerial developments.

Discussion: A substantial adverse effect due to Hazards or Hazardous Materials would occur if implementation of the project would:

- Expose people and property to hazards associated with the use, storage, transport, and disposal of hazardous materials where the risk of such exposure could not be reduced through implementation of Federal, State, and local laws and regulations;
- Expose people and property to risks associated with wildland fires where such risks could not be reduced through implementation of proper fuel management techniques, buffers and landscape setbacks, structural design features, and emergency access; or
- Expose people to safety hazards as a result of former on-site mining operations.

a-b. **Hazardous Materials:** The project would not involve the routine transportation, use, or disposal of hazardous materials such as construction materials, paints, fuels, landscaping materials, and household cleaning supplies. Future housing units may produce small amounts of household cleaners or other hazardous materials on a small scale. The impact would be less than significant.

c. **Hazardous Materials near Schools:** The project is not located near a school. There would be no impact.

d. **Hazardous Sites:** The project site is not included on a list of or near any hazardous materials sites pursuant to Government Code section 65962.5 (DTSC, 2015). There would be no impact.

e-f. **Aircraft Hazards, Private Airstrips:** As shown on the El Dorado County Zoning Map, the project is not located within an Airport Safety District combining zone or near a public airport or private airstrip. There would be no impact.

g. **Emergency Plan:** The project was reviewed by the Diamond Springs Fire Protection District, Transportation Division, and California Department of Forestry and Fire Protection (CALFIRE) for circulation. The proposed project would not impair implementation of any emergency response plan or emergency evacuation plan. As conditioned, all improvements will be built to the satisfaction of the Fire District and/or CALFIRE. Impacts would be less than significant.

h. **Wildfire Hazards:** The project site is in an area of moderate fire hazard for wildland fire pursuant to Figure 5.8-4 of the 2004 General Plan Draft EIR. Diamond Springs Fire and CALFIRE provided comments and conditions of approval, which are to be incorporated into the permit approvals. Implementation of the fire district standards would reduce the impacts of wildland fire to a less than significant level.

FINDING: The proposed project would not expose the area to hazards relating to the use, storage, transport, or disposal of hazardous materials. For this Hazards and Hazardous Materials category, impacts would be less than significant.

IX. HYDROLOGY AND WATER QUALITY. Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			**X**	
a. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			**X**	

IX. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or -off-site?			**X**	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			**X**	
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			**X**	
f. Otherwise substantially degrade water quality?			**X**	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				**X**
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				**X**
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				**X**
j. Inundation by seiche, tsunami, or mudflow?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The key sections pertaining to water quality regulation for the Proposed Project are CWA Section 303 and Section 402.

Section 303(d) — Listing of Impaired Water Bodies

Under CWA Section 303(d), states are required to identify "impaired water bodies" (those not meeting established water quality standards), identify the pollutants causing the impairment, establish priority rankings for waters on the list, and develop a schedule for the development of control plans to improve water quality. USEPA then approves the State's recommended list of impaired waters or adds and/or removes waterbodies.

Section 402—NPDES Permits for Stormwater Discharge

CWA Section 402 regulates construction-related stormwater discharges to surface waters through the NPDES, which is officially administered by USEPA. In California, USEPA has delegated its authority to the State Water Resources Control Board (SWRCB), which, in turn, delegates implementation responsibility to the nine RWQCBs, as discussed below in reference to the Porter-Cologne Water Quality Control Act.

The NPDES program provides for both general (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits. General Permit for Construction Activities: Most construction projects that disturb 1.0 or more acre of land are required to obtain coverage under SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). The general permit requires that the applicant file a public notice of intent to discharge stormwater and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). SWPPP must include a site map and a description of the proposed construction activities, demonstrate compliance with relevant local ordinances and regulations, and present a list of Best Management Practices (BMPs) that will be implemented to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Permittees are further required to monitor construction activities and report compliance to ensure that BMPs are correctly implemented and are effective in controlling the discharge of construction-related pollutants.

Municipal Stormwater Permitting Program

SWRCB regulates stormwater discharges from municipal separate storm sewer systems (MS4s) through its Municipal Storm Water Permitting Program (SWRCB, 2013). Permits are issued under two phases depending on the size of the urbanized area/municipality. Phase I MS4 permits are issued for medium (population between 100,000 and 250,000 people) and large (population of 250,000 or more people) municipalities, and are often issued to a group of co-permittees within a metropolitan area. Phase I permits have been issued since 1990. Beginning in 2003, SWRCB began issuing Phase II MS4 permits for smaller municipalities (population less than 100,000).

El Dorado County is covered under two SWRCB Regional Boards. The West Slope Phase II Municipal Separate Storm Sewer Systems (MS4) NPDES Permit is administered by the Central Valley Regional Water Quality Control Board (RWQCB) (Region Five). The Lake Tahoe Phase I MS4 NPDES Permit is administered by the Lahontan RWQCB (Region Six). The current West Slope MS4 NPDES Permit was adopted by the SWRCB on February 5, 2013. The Permit became effective on July 1, 2013 for a term of five years and focuses on the enhancement of surface water quality within high priority urbanized areas. The current Lake Tahoe MS4 NPDES Permit was adopted and took effect on December 6, 2011 for a term of five years. The Permit incorporated the Lake Tahoe Total Maximum Daily Load (TMDL) and the Lake Clarity Crediting Program (LCCP) to account for the reduction of fine sediment particles and nutrients discharged to Lake Tahoe.

On May 19, 2015 the El Dorado County Board of Supervisors formally adopted revisions to the Storm Water Quality Ordinance (Ordinance 4992). Previously applicable only to the Lake Tahoe Basin, the ordinance establishes legal authority for the entire unincorporated portion of the County. The purpose of the ordinance is to 1) protect health, safety, and general welfare, 2) enhance and protect the quality of Waters of the State by reducing pollutants in storm water discharges to the maximum extent practicable and controlling non-storm water discharges to the storm drain system, and 3) cause the use of Best Management Practices to reduce the adverse effects of polluted runoff discharges on Waters of the State.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities complying with FEMA regulations that limit development in floodplains. The NFIP regulations permit development within special flood hazard zones provided that residential structures are raised above the base flood elevation of a 100-year flood event. Non-residential structures are required either to provide flood proofing construction techniques for that portion of structures below the 100-year flood elevation or to elevate above the 100-year flood elevation. The regulations also apply to substantial improvements of existing structures.

State Laws, Regulations, and Policies

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (known as the Porter–Cologne Act), passed in 1969, dovetails with the CWA (see discussion of the CWA above). It established the SWRCB and divided the state into nine regions, each overseen by an RWQCB. SWRCB is the primary State agency responsible for protecting the quality of the state's surface water and groundwater supplies; however, much of the SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA Sections 401, 402, and 303[d]. In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter–Cologne Act, basin plans must be updated every 3 years.

Discussion: A substantial adverse effect on Hydrology and Water Quality would occur if the implementation of the project would:

- Expose residents to flood hazards by being located within the 100-year floodplain as defined by the Federal Emergency Management Agency;
- Cause substantial change in the rate and amount of surface runoff leaving the project site ultimately causing a substantial change in the amount of water in a stream, river or other waterway;
- Substantially interfere with groundwater recharge;
- Cause degradation of water quality (temperature, dissolved oxygen, turbidity and/or other typical stormwater pollutants) in the project area; or
- Cause degradation of groundwater quality in the vicinity of the project site.

a. **Water Quality Standards:** No waste discharge will occur as part of this project. Any future road improvement activities will require an encroachment permit and will undergo review to determine if any further actions or approvals are needed, including any measures for soil and sediment control in compliance with the County SWPPP. Erosion control would be required as part of building or grading permit. Stormwater runoff from potential development would contain water quality protection features in accordance with a potential National Pollutant Discharge Elimination System (NPDES) stormwater permit, as deemed applicable. The project would not be anticipated to violate water quality standards. Impacts would be less than significant.

b. **Groundwater Supplies:** The geology of the Western Slope portion of El Dorado County is principally hard, crystalline, igneous, or metamorphic rock overlain with a thin mantle of sediment or soil. Groundwater in this region is found in fractures, joints, cracks, and fault zones within the bedrock mass. These discrete fracture areas are typically vertical in orientation rather than horizontal as in sedimentary or alluvial aquifers. Recharge is predominantly through rainfall infiltrating into the fractures. Movement of this groundwater is very limited due to the lack of porosity in the bedrock. Wells are typically drilled to depths ranging from 80 to 300 feet in depth. There is no evidence that the project will substantially reduce or alter the quantity of groundwater in the vicinity, or materially interfere with groundwater recharge in the area of the proposed project. The project would be served by the El Dorado Irrigation District, using connections that are already in available in the project area. The project is not anticipated to affect potential groundwater supplies above pre-project levels. Impacts would be less than significant.

c-f. **Drainage Patterns:** The site is currently vacant. A grading permit through Development Services would be required to address grading, erosion and sediment control for any future construction. Construction activities would be required to adhere to the El Dorado County Grading, Erosion Control and Sediment Ordinance. This includes the use of Best Management Practices (BMPs) to minimize degradation of water quality during construction. Impacts would be less than significant.

g-j. **Flood-related Hazards:** The project site is not located within any mapped 100-year flood areas and would not result in the construction of any structures that would impede or redirect flood flows (FEMA, 2008). No dams which would result in potential hazards related to dam failures are located in the project area. The risk of exposure to seiche, tsunami, or mudflows would be remote. There would be no impact.

FINDING: The proposed project would be required to address any potential erosion and sediment control. No significant hydrological impacts are expected with the development of the project either directly or indirectly. For this hydrology category, impacts are anticipated to be less than significant.

X. LAND USE PLANNING. *Would the project:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Physically divide an established community?				**X**
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				**X**
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Regulatory Setting:

California State law requires that each City and County adopt a general plan "for the physical development of the City and any land outside its boundaries which bears relation to its planning." Typically, a general plan is designed to address the issues facing the City or County for the next 15-20 years. The general plan expresses the community's development goals and incorporates public policies relative to the distribution of future public and private land uses. The El Dorado County General Plan was adopted in 2004. The 2013-2021 Housing Element was adopted in 2013.

Discussion: A substantial adverse effect on Land Use would occur if the implementation of the project would:

- Result in the conversion of Prime Farmland as defined by the State Department of Conservation;
- Result in conversion of land that either contains choice soils or which the County Agricultural Commission has identified as suitable for sustained grazing, provided that such lands were not assigned urban or other nonagricultural use in the Land Use Map;
- Result in conversion of undeveloped open space to more intensive land uses;
- Result in a use substantially incompatible with the existing surrounding land uses; or
- Conflict with adopted environmental plans, policies, and goals of the community.

a. **Established Community:** The project is located within the Diamond Springs Region. The project is surrounded by multifamily residential and single family residential developments. The project would not conflict with the existing land use pattern in the area or physically divide an established community. There would be no impact.

b. **Land Use Consistency:** The parcel has a split land use designation of Multifamily Residential (MFR) and Medium Density Residential (MDR) and a zoning designation of Multi-unit Residential-Planned Development (RM-PD) and Residential Estate Five-Acres-Planned Development (RE-5). The project is located within the MFR and RM-PD portion of the lot. The MFR land use designation establishes those areas suitable for high-density, single family and multifamily design concepts, with a minimum allowable density of five dwelling units per acre, with a maximum density of 24 dwelling units per acre. As a result of project approval, the parcels would have a density of 11 units per acre. The proposed project would be consistent with the policies and objectives of the General Plan. There would be no impact.

c. **Habitat Conservation Plan:** The project site is not within the boundaries of an adopted Natural Community Conservation Plan or any other conservation plan. As such, the proposed project would not conflict with an adopted conservation plan. There would be no impact.

FINDING: The proposed use of the land would be consistent with the Zoning Ordinance and General Plan. There would be no impact to land use goals or standards resulting from the project.

XI. MINERAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to mineral resources and the Proposed Project.

State Laws, Regulations, and Policies

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Mining and Geology Board identify, map, and classify aggregate resources throughout California that contain regionally significant mineral resources. Designations of land areas are assigned by CDC and California Geological Survey following analysis of geologic reports and maps, field investigations, and using information about the locations of active sand and gravel mining operations. Local jurisdictions are required to enact planning procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans.

The California Mineral Land Classification System represents the relationship between knowledge of mineral deposits and their economic characteristics (grade and size). The nomenclature used with the California Mineral Land Classification System is important in communicating mineral potential information in activities such as mineral land classification, and usage of these terms are incorporated into the criteria developed for assigning mineral resource zones. Lands classified MRZ-2 are areas that contain identified mineral resources. Areas classified as MRZ-2a or MRZ-2b (referred to hereafter as MRZ-2) are considered important mineral resource areas.

Local Laws, Regulations, and Policies

El Dorado County in general is considered a mining region capable of producing a wide variety of mineral resources. Metallic mineral deposits, including gold, are considered the most significant extractive mineral resources. Exhibit 5.9-6 shows the MRZ-2 areas within the county based on designated Mineral Resource (-MR) overlay areas. The -MR overlay areas are based on mineral resource mapping published in the mineral land classification reports referenced above. The majority of the county's important mineral resource deposits are concentrated in the western third of the county.

According to General Plan Policy 2.2.2.7, before authorizing any land uses within the -MR overlay zone that will threaten the potential to extract minerals in the affected area, the County shall prepare a statement specifying its reasons for considering approval of the proposed land use and shall provide for public and agency notice of such a statement consistent with the requirements of Public Resources Code section 2762. Furthermore, before finally approving any such proposed land use, the County shall balance the mineral values of the threatened mineral resource area against the economic, social, or other values associated with the proposed alternative land uses. Where the affected minerals are of regional significance, the County shall consider the importance of these minerals to their market region as a whole and not just their importance to the County.

Where the affected minerals are of Statewide significance, the County shall consider the importance of these minerals to the State and Nation as a whole. The County may approve the alternative land use if it determines that the benefits of such uses outweigh the potential or certain loss of the affected mineral resources in the affected regional, Statewide, or national market.

Discussion: A substantial adverse effect on Mineral Resources would occur if the implementation of the project would:

- Result in obstruction of access to, and extraction of mineral resources classified MRZ-2x, or result in land use compatibility conflicts with mineral extraction operations.

a-b. **Mineral Resources.** The project site has not been delineated in the El Dorado County General Plan as a locally important mineral resource recovery site (2003, Exhibits 5.9-6 and 5.9-7). Review of the California Department of Conservation Geologic Map data showed that the project site is not within a mineral resource zone district. There would be no impact.

FINDING: No impacts to mineral resources are expected either directly or indirectly. For this mineral resources category, there would be no impacts.

XII.NOISE. *Would the project result in:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact

XII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			**X**	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise level?			**X**	
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?			**X**	

Regulatory Setting:

No federal or state laws, regulations, or policies for construction-related noise and vibration that apply to the Proposed Project. However, the Federal Transit Administration (FTA) Guidelines for Construction Vibration in Transit Noise and Vibration Impact Assessment state that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA Leq and 100 dBA Leq should be used for residential and commercial/industrial areas, respectively (FTA 2006).

For construction vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.12 inches per second (in/sec) PPV for buildings susceptible to vibration damage (FTA 2006).

Discussion: A substantial adverse effect due to Noise would occur if the implementation of the project would:

- Result in short-term construction noise that creates noise exposures to surrounding noise sensitive land uses in excess of 60dBA CNEL;
- Result in long-term operational noise that creates noise exposures in excess of 60 dBA CNEL at the adjoining property line of a noise sensitive land use and the background noise level is increased by 3dBA, or more; or
- Results in noise levels inconsistent with the performance standards contained in Table 6-1 and Table 6-2 in the El Dorado County General Plan.

TABLE 6-2
NOISE LEVEL PERFORMANCE PROTECTION STANDARDS
FOR NOISE SENSITIVE LAND USES
AFFECTED BY NON-TRANSPORTATION* SOURCES

Noise Level Descriptor	Daytime 7 a.m. - 7 p.m.		Evening 7 p.m. - 10 p.m.		Night 10 p.m. - 7 a.m.	
	Community	Rural	Community	Rural	Community	Rural
Hourly L_{eq}, dB	55	50	50	45	45	40
Maximum level, dB	70	60	60	55	55	**50**

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.

In Community areas the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100' away from the residence. The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

*Note: For the purposes of the Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Control of noise from facilities of regulated public facilities is preempted by California Public Utilities Commission (CPUC) regulations. All other noise sources are subject to local regulations. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, schools, hospitals, commercial land uses, other outdoor land use, etc.

a. **Noise Exposures:** The proposed project will not expose people to noise levels in excess of standards established in the General Plan or Zoning Ordinance. The road improvements and construction of the new multifamily-family units would require the use of trucks and minor fill and grading, which may result in short-term noise impacts to surrounding neighbors. These activities require an encroachment permit and would be restricted to construction hours per the General Plan. The project is not expected to generate noise levels exceeding the performance standards contained within Chapter 6 of the 2004 General Plan. The noise associated with the project would be less than significant.

b. **Groundborne Shaking:** Residential construction may generate short-term ground borne vibration or shaking events during project construction. Impacts are anticipated to be less than significant.

c. **Permanent Noise Increases:** The project would construct 10 multifamily residential buildings and one community building. The long term noise associated with these additional buildings would not be expected to exceed the noise standards contained in the General Plan. The impacts would be considered less than significant.

d. **Short Term Noise:** The project would construct 10 multifamily residential buildings and one community building. The construction noise resulting from that development, as well as the minor filling and grading, would result in short-term noise impacts. These activities require construction permits including grading, building, and an encroachment permit, which would be restricted to construction hours. All construction and grading operations would be required to comply with the noise performance standards contained in the General Plan. Impacts would be less than significant.

e-f. **Aircraft Noise:** The project is not located near any airports or airstrips. No impact.

FINDING: As conditioned, and with adherence to County Code, no significant direct or indirect impacts to noise levels are expected either directly or indirectly. For this Noise category, the thresholds of significance would not be exceeded.

XIII. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (i.e., by proposing new homes and businesses) or indirectly (i.e., through extension of roads or other infrastructure)?			**X**	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

Regulatory Setting:

No federal or state laws, regulations, or policies apply to population and housing and the proposed project.

Discussion: A substantial adverse effect on Population and Housing would occur if the implementation of the project would:

- Create substantial growth or concentration in population;
- Create a more substantial imbalance in the County's current jobs to housing ratio; or
- Conflict with adopted goals and policies set forth in applicable planning documents.

a. **Population Growth:** The proposed project would not induce growth directly or indirectly by providing infrastructure that would create development beyond what is currently anticipated in the General Plan. The proposed project would construct 10 multifamily residential buildings and one community building, resulting in a total of 80 residential units and one on-site managerial unit. Population could increase by up to 186.3 persons as a result of the planned development. The proposed project would not induce growth in the area that was not previously anticipated when the General Plan Multifamily Residential land use designation was adopted. The Multifamily Residential allows for a maximum density of 24 units per acre. If the parcel were to be developed to its maximum multifamily potential a maximum of 175 residential units would be allowed with a population increase of 403 persons. The project proposes significantly less than this. Therefore, impacts would be less than significant.

b-c. **Housing Displacement and Replacement:** The project would result in the construction of 80 residential units and one on-site managerial unit. There are no existing houses on the property. No existing housing stock would be displaced by the proposed project. There would be no impact.

FINDING: The project would not displace housing. There would be no potential for a significant impact due to substantial growth either directly or indirectly. For this Population and Housing category, the thresholds of significance would not be anticipated to be exceeded.

XIV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Fire protection?			**X**	
b. Police protection?			**X**	
c. Schools?			**X**	
d. Parks?			**X**	
e. Other government services?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

California Fire Code

The California Fire Code (Title 24 CCR, Part 9) establishes minimum requirements to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of CCR contains requirements for fire safety during construction and demolition.

Discussion: A substantial adverse effect on Public Services would occur if the implementation of the project would:

- Substantially increase or expand the demand for fire protection and emergency medical services without increasing staffing and equipment to meet the Department's/District's goal of 1.5 firefighters per 1,000 residents and 2 firefighters per 1,000 residents, respectively;
- Substantially increase or expand the demand for public law enforcement protection without increasing staffing and equipment to maintain the Sheriff's Department goal of one sworn officer per 1,000 residents;
- Substantially increase the public school student population exceeding current school capacity without also including provisions to adequately accommodate the increased demand in services;
- Place a demand for library services in excess of available resources;
- Substantially increase the local population without dedicating a minimum of 5 acres of developed parklands for every 1,000 residents; or
- Be inconsistent with County adopted goals, objectives or policies.

a. **Fire Protection:** The Diamond Springs Fire Protection District provides fire protection to the site. The Fire District specified road design features for fire engine access, which were incorporated into the project design. Impacts would be less than significant.

b. **Police Protection:** Police services would continue to be provided by the El Dorado County Sheriff's Department. If approved as proposed, the project would create 80 residential units and one on-site managerial units. The planned development may result in a small increase in calls for service, but would not be anticipated to significantly impact the department any more than was anticipated by the General Plan for lands designated for Multifamily Residential uses. The planned development would not be anticipated to significantly impact current Sheriff's response times to the project area as well. The impacts would be less than significant.

c-e. **Schools:** Elementary and middle school students are served by the Mother Lode Union School District. High school students are served by the El Dorado Union High School District. The project has the potential to generate 10.9 additional students. Neither school district responded with concerns about having the available capacity to handle the potential additional students. Fees for schools would be collected at the time of building permit issuance. The impacts would be less than significant.

d. **Parks.** The planned development would add an additional 80 residential units plus on-site one managerial unit and would create a slight increase in the population in the County as a result. The additional units would not trigger a significant impact that would require the project to develop new park facilities. Any potential residential units would not substantially increase the local population and therefore not substantially increase the use of parks and recreational facilities. Impacts would be less than significant.

e. **Government Services.** There are no services that would be significantly impacted as a result of the project. Impacts would be less than significant.

FINDING: The project would not result in a significant increase of public services to the project. Increased demand to services would be addressed through the payment of established impact fees. For this Public Services category, impacts would be less than significant.

XV. RECREATION.	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			**X**	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			**X**	

Regulatory Setting:

National Trails System

The National Trails System Act of 1968 authorized The National Trails System (NTS) in order to provide additional outdoor recreation opportunities and to promote the preservation of access to the outdoor areas and historic resources of the nation. The Appalachian and Pacific Crest National Scenic Trails were the first two components, and the System has grown to include 20 national trails.

The National Trails System includes four classes of trails:

1. National Scenic Trails (NST) provide outdoor recreation and the conservation and enjoyment of significant

scenic, historic, natural, or cultural qualities. The Pacific Coast Trail falls under this category. The PCT passes through the Desolation Wilderness area along the western plan area boundary.

2. National Historic Trails (NHT) follow travel routes of national historic significance. The National Park Service has designated two National Historic Trail (NHT) alignments that pass through El Dorado County, the California National Historic Trail and the Pony Express National Historic Trail. The California Historic Trail is a route of approximately 5,700 miles including multiple routes and cutoffs, extending from Independence and Saint Joseph, Missouri, and Council Bluffs, Iowa, to various points in California and Oregon. The Pony Express NHT commemorates the route used to relay mail via horseback from Missouri to California before the advent of the telegraph.
3. National Recreation Trails (NRT) are in, or reasonably accessible to, urban areas on federal, state, or private lands. In El Dorado County there are 5 NRTs.

State Laws, Regulations, and Policies

The California Parklands Act

The California Parklands Act of 1980 (Public Resources Code Section 5096.141-5096.143) recognizes the public interest for the state to acquire, develop, and restore areas for recreation and to aid local governments to do the same. The California Parklands Act also identifies the necessity of local agencies to exercise vigilance to see that the parks, recreation areas, and recreational facilities they now have are not lost to other uses.

The California state legislature approved the California Recreational Trail Act of 1974 (Public Resources Code Section 2070-5077.8) requiring that the Department of Parks and Recreation prepare a comprehensive plan for California trails. The California Recreational Trails Plan is produced for all California agencies and recreation providers that manage trails. The Plan includes information on the benefits of trails, how to acquire funding, effective stewardship, and how to encourage cooperation among different trail users.

The 1975 Quimby Act (California Government Code Section 66477) requires residential subdivision developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The Quimby Act gave authority for passage of land dedication ordinances to cities and counties for parkland dedication or in-lieu fees paid to the local jurisdiction. Quimby exactions must be roughly proportional and closely tied (nexus) to a project's impacts as identified through traffic studies required by CEQA. The exactions only apply to the acquisition of new parkland; they do not apply to the physical development of new park facilities or associated operations and maintenance costs.

The County implements the Quimby Act through §16.12.090 of the County Code. The County Code sets standards for the acquisition of land for parks and recreational purposes, or payments of fees in lieu thereof, on any land subdivision. Other projects, such as ministerial residential or commercial development, could contribute to the demand for park and recreation facilities without providing land or funding for such facilities.

Local Laws, Regulations, and Policies

The 2004 El Dorado County General Plan Parks and Recreation Element establishes goals and policies that address needs for the provision and maintenance of parks and recreation facilities in the county, with a focus on providing recreational opportunities and facilities on a regional scale, securing adequate funding sources, and increasing tourism and recreation-based businesses. The Recreation Element describes the need for 1.5 acres of regional parkland, 1.5 acres of community parkland, and 2 acres of neighborhood parkland per 1,000 residents. Another 95 acres of park land are needed to meet the General Plan guidelines.

Discussion: A substantial adverse effect on Recreational Resources would occur if the implementation of the project would:

- Substantially increase the local population without dedicating a minimum of 5 acres of developed parklands for every 1,000 residents; or

- Substantially increase the use of neighborhood or regional parks in the area such that substantial physical deterioration of the facility would occur.

a-b. **Parks and Recreational Services.** The planned development project would allow for the construction of 80 multifamily residential units plus one on-site managerial unit, which would not increase the local population substantially. Two small playgrounds and an art room are proposed as part of the project. The project would not substantially increase the use of parks and recreational facilities. Impacts would be less than significant.

FINDING: No significant impacts to open space or park facilities would result as part of the project. For this Recreation category, impacts would be less than significant.

XVI. TRANSPORTATION/TRAFFIC. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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?		**X**		
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?		**X**		
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?				**X**
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	
e. Result in inadequate emergency access?			**X**	
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?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to transportation/traffic and the Proposed Project.

State Laws, Regulations, and Policies

Caltrans manages the state highway system, including ramp terminal intersections. This state agency is also responsible for highway, bridge, and rail transportation planning, construction, and maintenance on the state

highway system. Caltrans typically establishes a Concept Level of Service (LOS) for each facility in its long-range planning documents. The Concept LOS is considered to be the minimum acceptable LOS for the typical weekday peak hour. The documents establish LOS E as the Concept LOS for both US 50 and SR 49.

Local Laws, Regulations, and Policies

The Transportation and Circulation element of the County General Plan, 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. Level of Service is defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council). There are some roadway segments that are excepted from these standards and are allowed to operate at LOS F, although none of these are located in the Lake Tahoe Basin. According to Policy TC-Xe, "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 two percent increase in traffic during a.m., p.m. peak hour, or daily
B. The addition of 100 or more daily trips, or
C. The addition of 10 or more trips during the a.m. or p.m. peak hour.

Discussion: The Transportation and Circulation Policies contained in the County General Plan establish a framework for review of thresholds of significance and identification of potential impacts of new development on the County's road system. These policies are enforced by the application of the Transportation Impact Study (TIS) Guidelines, the County Design and Improvements Standards Manual, and the County Encroachment Ordinance, with review of individual development projects by the Transportation and Long Range Planning Divisions of the Community Development Agency. A substantial adverse effect to traffic would occur if the implementation of the project would:

- Result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system;
- Generate traffic volumes which cause violations of adopted level of service standards (project and cumulative); or
- Result in or worsen Level of Service (LOS) F traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county as a result of a residential development project of 5 or more units.

a-b. **Traffic Increases and Levels of Service Standards:** The project has prepared a transportation impact study by Fehr & Peers dated March 2017 (Attachment B). The transportation impact study identifies that the project would triggers General Plan Policy TC-Xf as the project significantly worsen the Level of Service (LOS) for the Pleasant Valley Road/Racquet Way intersection. The Pleasant Valley Road/Racquet Way intersection currently operates at a LOS F during AM and PM peak hours. The transportation impact study identified a cumulative impact to Missouri Flat Road/China Garden Road. The project shall pay the County's Traffic Impact Mitigation Fees. The Cumulative (2035) analysis includes planned roadway improvements, as well as growth consistent with the 2004 General Plan and with approved and reasonably foreseeable projects within the study area. As noted, this intersection operates at unacceptable LOS F in the Cumulative (2035) scenario without the project, which includes other foreseeable, but unapproved projects. Therefore, the project is only responsible for its proportional share of the proposed mitigation under Cumulative (2035) conditions. Since the impact is identified under the Cumulative (2035) scenario, the timing of the improvement is a function of the rate of population and employment growth. The County's 20-Year Capital Improvement Program (CIP) identifies approximately $35.3 million for Traffic Signal and Intersection Operational Improvements. This intersection should be programmed for improvement as part of the CIP.

The project is considered to significantly worsen the traffic conditions of Racquet Way/Pleasant Valley Road intersection as the project would add more than 10 trips to each intersection during the PM peak hours. Mitigation is required to bring project impacts to less than a significant level.

Mitigation Measure TR-1: Regarding the impact to Pleasant Valley Road/Racquet Way the project shall provide a public road connection to Diamond Road, by way of Black Rice Road, and maintain side street stop control at the Diamond Road/Black Rice Road/ Lime Kiln Road intersection.

Monitoring Requirement: All grading and construction activities will require compliance with the El Dorado County Design and Improvement Standards Manual and measures as described in the *Diamond Springs Village Apartments Transportation Impact Study* prepared by Fehr & Peers dated March, 2017 (Attachment B). Planning Services shall verify the inclusion of the requirement prior to the issuance of grading and building permits.

Monitoring Responsibility: Community Development Services-Transportation Division.

c. **Air Traffic:** The site is not located adjacent to an airport or within an Airport Safety District. The creation of 10 multifamily residential buildings and one community building would not result in a change in air traffic patterns or create an air traffic hazard. There would be no impact.

d. **Design Hazards:** The project is not anticipated to create significant traffic hazards. Circulation currently exists on site via Deuce Drive and Service Drive. The proposed internal road encroachments would be constructed in accordance to County Standards as to the standards of turning ratio and speed design. Roads shall be improved with sidewalks. The impact would be less than significant.

e. **Emergency Access:** Access to the parcels would from Courtside Drive, an existing, county-maintained road. The project was reviewed by the Transportation Division, Diamond Springs FPD, and CALFIRE to ensure that adequate access would be provided to meet Fire Safe standards and conform to the County Design Improvement Standards Manual. With the inclusion of the Transportation Division, Fire District, and CALFIRE conditions, impacts would be less than significant.

f. **Alternative Transportation.** The project will generate an increase in demand for pedestrian and bicycle facilities. The project will connect and integrate with existing and planned pedestrian facilities adjacent to the project as conditioned by the El Dorado County CDA.

The planned development will generate an increased demand in transit, but at level consistent with historic population growth rates in El Dorado County. The project is served by the Diamond Springs Line (Route 30/35) and a bus stop is located within 500 feet of the project. Impacts would be less than significant.

FINDING: The project would not exceed the thresholds for traffic identified within the General Plan. For this Transportation/Traffic category, the thresholds of significance would not be exceeded and impacts would be less than significant with mitigation measures incorporated.

XVII. TRIBAL CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074?			X	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to Tribal Cultural Resources (TCRs) and the Proposed Project.

State Laws, Regulations, and Policies

Assembly Bill (AB) 52

AB 52, which was approved in September 2014 and effective on July 1, 2015, requires that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. The bill, chaptered in CEQA Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment.

Defined in Section 21074(a) of the Public Resources Code, TCRs are:

1. Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:
    a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

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

TCRs are further defined under Section 21074 as follows:

b. A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
c. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a TCR if it conforms to the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TRCs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

Discussion:

In general, significant impacts are those that diminish the integrity, research potential, or other characteristics that make a TCR significant or important. To be considered a TCR, a resource must be either: (1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or: (2) a resource that the lead agency chooses, in its discretion, to treat as a TCR and meets the criteria for listing in the state register of historic resources pursuant to the criteria set forth in Public Resources Code Section 5024.1(c). A substantial adverse change to a TCR would occur if the implementation of the project would:

- Disrupt, alter, or adversely affect a TCR such that the significance of the resource would be materially impaired

a. Tribal Cultural Resources. The United Auburn Indian Community of the Auburn Rancheria (UAIC), the Wilton Rancheria, the Washoe Tribe of Nevada and California, the Ione Band of Miwok Indians, the Nashville-El Dorado Miwok, the T'si-Akim Maidu, and the Shingle Springs Band of Miwok Indians were notified of the proposed project and given access to all project documents on April 10, 2017, via certified mail. No other tribes had requested to be notified of proposed projects for consultation in the project area at the time. In response to a request from the UAIC, dated May 3, 2017, the Cultural Resources Search for the project was sent to the tribe via email. Additional comments are adequately addressed by Condition of Approval 11. No other requests for further information or formal consultation were received for this project. Pursuant to the Records Search prepared by the North Central Information Center (2017), the geographic area of the project site is not known to contain any resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or considered significant by a California Native American tribe. The impact would be less than significant.

FINDING: No significant TCRs are known to exist on the project site. As a result, the proposed project would not cause a substantial adverse change to a TCR and any impact would be less than significant.

XVIII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				**X**
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				**X**
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			**X**	
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			**X**	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			**X**	

XVIII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
g. Comply with federal, state, and local statutes and regulations related to solid waste?			**X**	

Regulatory Setting:

Federal Laws, Regulations, and Policies

Energy Policy Act of 2005

The Energy Policy Act of 2005, intended to reduce reliance on fossil fuels, provides loan guarantees or tax credits for entities that develop or use fuel-efficient and/or energy efficient technologies (USEPA, 2014). The act also increases the amount of biofuel that must be mixed with gasoline sold in the United States (USEPA, 2014).

State Laws, Regulations, and Policies

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code, Division 30) requires all California cities and counties to implement programs to reduce, recycle, and compost wastes by at least 50 percent by 2000 (Public Resources Code Section 41780). The state, acting through the California Integrated Waste Management Board (CIWMB), determines compliance with this mandate. Per-capita disposal rates are used to determine whether a jurisdiction's efforts are meeting the intent of the act.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act of 1991 (Public Resources Code Sections 42900-42911) requires that all development projects applying for building permits include adequate, accessible areas for collecting and loading recyclable materials.

California Integrated Energy Policy

Senate Bill 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report for the governor and legislature every 2 years (CEC 2015a). The report analyzes data and provides policy recommendations on trends and issues concerning electricity and natural gas, transportation, energy efficiency, renewable energy, and public interest energy research (CEC 2015a). The 2014 Draft Integrated Energy Policy Report Update includes policy recommendations, such as increasing investments in electric vehicle charging infrastructure at workplaces, multi-unit dwellings, and public sites (CEC 2015b).

Title 24–Building Energy Efficiency Standards

Title 24 Building Energy Efficiency Standards of the California Building Code are intended to ensure that building construction, system design, and installation achieve energy efficiency and preserve outdoor and indoor environmental quality (CEC 2012). The standards are updated on an approximately 3-year cycle. The 2013 standards went into effect on July 1, 2014.

Urban Water Management Planning Act

California Water Code Sections 10610 *et seq.* requires that all public water systems providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet per year (AFY), prepare an urban water management plan (UWMP).

Other Standards and Guidelines

Leadership in Energy & Environmental Design

Leadership in Energy & Environmental Design (LEED) is a green building certification program, operated by the U.S. Green Building Council (USGBC) that recognizes energy efficient and/or environmentally friendly (green) components of building design (USGBC, 2015). To receive LEED certification, a building project must satisfy prerequisites and earn points related to different aspects of green building and environmental design (USGBC, 2015). The four levels of LEED certification are related to the number of points a project earns: (1) certified (40–49 points), (2) silver (50–59 points), (3) gold (60–79 points), and (4) platinum (80+ points) (USGBC, 2015). Points or credits may be obtained for various criteria, such as indoor and outdoor water use reduction, and construction and demolition (C&D) waste management planning. Indoor water use reduction entails reducing consumption of building fixtures and fittings by at least 20% from the calculated baseline and requires all newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling to be WaterSense labeled (USGBC, 2014). Outdoor water use reduction may be achieved by showing that the landscape does not require a permanent irrigation system beyond a maximum 2.0-year establishment period, or by reducing the project's landscape water requirement by at least 30% from the calculated baseline for the site's peak watering month (USGBC, 2014). C&D waste management points may be obtained by diverting at least 50% of C&D material and three material streams, or generating less than 2.5 pounds of construction waste per square foot of the building's floor area (USGBC, 2014).

Discussion: A substantial adverse effect on Utilities and Service Systems would occur if the implementation of the project would:

- Breach published national, state, or local standards relating to solid waste or litter control;
- Substantially increase the demand for potable water in excess of available supplies or distribution capacity without also including provisions to adequately accommodate the increased demand, or is unable to provide an adequate on-site water supply, including treatment, storage and distribution;
- Substantially increase the demand for the public collection, treatment, and disposal of wastewater without also including provisions to adequately accommodate the increased demand, or is unable to provide for adequate on-site wastewater system; or
- Result in demand for expansion of power or telecommunications service facilities without also including provisions to adequately accommodate the increased or expanded demand.

a-b. **Wastewater & New Facilities**: Public water and sewer service for the subject property would be provided by the El Dorado Irrigation District (EID) through a 12-inch water line and a 6-inch gravity sewer line traversing the subject parcel. There are no anticipated wastewater treatment or facility impacts. There would be no impact.

c. **New Stormwater Facilities:** Any possible drainage facilities needed for any future construction would be built in conformance with the County of El Dorado Drainage Manual, as determined by Development Services standards, during the grading and building permit processes. The impact would be less than significant.

d. **Sufficient Water Supply:** The project would be served by an existing residential potable water line traversing the project site. The El Dorado Irrigation District (EID) indicated that sufficient water supply exists for this use. No further water supply is anticipated to be needed related to the project (Attachment C). Therefore, impacts would be less than significant.

e. **Adequate Wastewater Capacity:** The project would be served by the existing sewer line. EID has identified that this sewer line currently has adequate capacity for this project (Attachment C). Project impacts would be less than significant.

f-g. **Solid Waste Disposal and Requirements:** El Dorado Disposal distributes municipal solid waste to Forward Landfill in Stockton and Kiefer Landfill in Sacramento. Pursuant to El Dorado County Environmental Management Solid Waste Division staff, both facilities have sufficient capacity to serve the County. Recyclable materials are distributed to a facility in Benicia and green wastes are sent to a processing facility in Sacramento. County Ordinance No. 4319 requires that new development provide areas for adequate, accessible, and convenient storing, collecting and loading of solid waste and recyclables. This project does not propose to add any activities that would generate additional solid waste, and any future housing units would generate minimal amounts of solid waste for disposal. Project impacts would be less than significant.

FINDING: No significant utility and service system impacts would be expected with the project, either directly or indirectly. For this Utilities and Service Systems category, the thresholds of significance would not be exceeded.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE. *Does the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		**X**		
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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)?			**X**	
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			**X**	

Discussion

a. No substantial evidence contained in the project record has been found that would indicate that this project would have the potential to significantly degrade the quality of the environment. As conditioned or mitigated, and with adherence to County permit requirements, this project would not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of California history or pre-history. Any impacts from the project would be less than significant due to the design of the project, mitigation measures incorporated and required standards that would be implemented or with the building permit processes and/or any required project specific improvements on the property.

b. Cumulative impacts are defined in Section 15355 of the California Environmental Quality Act (CEQA) Guidelines as *two or more individual effects, which when considered together, would be considerable or which would compound or increase other environmental impacts.*

The project would not involve development or changes in land use that would result in an excessive increase in population growth. Impacts due to increased demand for public services associated with the project would be offset by the payment of fees as required by service providers to extend the necessary infrastructure services. The project would not be anticipated to contribute substantially to increased traffic in the area and the project would not require an increase in the wastewater treatment capacity of the County. Due to the small size of the proposed infill project, types of activities proposed, and site-specific environmental conditions, which have been disclosed in the Project Description and analyzed in Items I through XIX, there would be no significant impacts anticipated related to agriculture resources, air quality, biological resources, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, traffic/transportation, or utilities/service systems that would combine with similar effects such that the project's contribution would be cumulatively considerable. For these issue areas, either no impacts, or less than significant impacts would be anticipated.

As outlined and discussed in this document, as conditioned and with compliance with County Codes, this project would be anticipated to have a less than significant project-related environmental effect which would cause substantial adverse effects on human beings, either directly or indirectly. Based on the analysis in this study, it has been determined that the project would have less than significant cumulative impacts.

c. Based on the discussion contained in this document, no potentially significant impacts to human beings are anticipated to occur with respect to potential project impacts. The project would not include any physical changes to the site, and any future development or physical changes would require review and permitting through the County. Adherence to these standard conditions would be expected to reduce potential impacts to a less than significant level.

FINDINGS: It has been determined that the proposed project would not result in significant environmental impacts. The project would not exceed applicable environmental standards, nor significantly contribute to cumulative environmental impacts.

Attachments:

Attachment A: Tree Survey, Preservation & Replacement Plan

Attachment B: Diamond Springs Village Apartments Transportation Impact Study

Attachment C: El Dorado Irrigation District Facilities Improvement Letter

Attachment D: Acorn Arboricultural Services, Inc. Oak Tree Update and Mitigation Fee

SUPPORTING INFORMATION SOURCE LIST

CAPCOA Guide (August 2010): http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-QuantificationReport-9-14-Final.pdf

California Air Resources Board (CARB). (2008). *Climate Change Scoping Plan.* Available at: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf

California Attorney General's Office. (2010). Addressing Climate Change at the Project Level. Available at: http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf

California Department of Conservation (CDC). (2008). *Farmland Mapping and Monitoring Program: El Dorado County Important Farmland 2008*. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/eld08.pdf.

California Department of Conservation (CDC). (2013a). Important Farmland Categories webpage. Available online at: www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/ map_categories.aspx.

California Department of Conservation (CDC). (2013b). The Land Conservation Act. Available online at: www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx.

California Department of Toxic Substances Control (DTSC). (2015). *DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List)*. Retrieved April 15, 2015 from http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm.

California Energy Commission. (2006). *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, *Staff Final Report*. Publication CEC-600-2006-013-SF.

California Department of Transportation (Caltrans). (2015). Scenic Highway Program FAQs: Caltrans Landscape Architecture Program. Retrieved February 27, 2015 from www.dot.ca.gov/hq/ LandArch/scenic/faq.htm.

California Department of Transportation (Caltrans). (2013). *California Scenic Highway Program, Officially Designated State Scenic Highways*. Retrieved April 8, 2015 from http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm.

California Geological Survey. (2007). Alquist-Priolo Earthquake Fault Zone Maps. Retrieved April 15, 2015 from http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm.

California Geological Survey. (2013). Seismic Hazards Zonation Program. Retrieved April 15, 2015 from http://www.conservation.ca.gov/cgs/shzp/Pages/affected.aspx.

California Code of Regulations. *Guidelines for Implementation of the California Environmental Quality Act.* Title 14, Section 15000, et seq. 14 CCR 15000

California Office of Emergency Services. 2015. Business Plan/EPCRA 312. Available online at: www.caloes.ca.gov/for-businesses-organizations/plan-prepare/hazardousmaterials/hazmat-business-plan.

El Dorado County. (2003). *El Dorado County General Plan Draft Environmental Impact Report*. State Clearinghouse No. 2001082030. Placerville, CA: El Dorado County Planning Services.

El Dorado County. (2004, July 19). *El Dorado County General Plan: A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief*. Placerville, CA: El Dorado County Planning Services.

El Dorado County. (2005, July 21). Asbestos Review Areas, Western Slope, El Dorado County, California. Available at: < http://www.edcgov.us/Government/AirQualityManagement/Asbestos.aspx>.

El Dorado County Air Quality Management District (AQMD). (2000). *Rules and Regulations of the El Dorado County Air Quality Management District*. Retrieved April 15, 2015 from http://www.arb.ca.gov/DRDB/ED/CURHTML/R101.HTM.

El Dorado County Air Quality Management District (AQMD). (2002). *Guide to Air Quality Assessment: Determining the Significance of Air Quality Impacts Under the California Environmental Quality Act*. Retrieved from http://www.edcgov.us/Government/AirQualityManagement/Guide_to_Air_Quality_Assessment.aspx.

El Dorado County Geographic Information System (GIS) Data. Placerville, CA: Esri ArcGIS. Available: El Dorado County controlled access data GISDATA\LIBRARIES.

El Dorado County Transportation Commission. (2012). *El Dorado County Airport Land Use Compatibility Plan*. Retrieved from http://www.edctc.org/2/Airports.html.

Federal Emergency Management Agency (FEMA). (2008). FEMA Map Service Center, Current FEMA Issued Flood Maps: El Dorado County, California, unincorporated area, no. 06017C1025E. Available at: http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=94926033&IFIT=1.

Governor's Office of Planning and Research (OPR). (2008, June 19). *Technical advisory: CEQA and climate change: Addressing climate change through California Environmental Quality Act Review*. Available at: Sacramento, CA. http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf.

Sacramento Metropolitan Air Quality Management District (SMAQMD). (2010). Construction GHG Emissions Reductions. Available at: http://airquality.org/ceqa/cequguideupdate/Ch6FinalConstructionGHGReductions.pdf

State Water Resources Control Board (SWRCB). (2013). Storm Water Program, Municipal Program. Available online at: www.waterboards.ca.gov/water_issues/programs/stormwater/municipal.shtml.

National Earthquake Hazards Reduction Program (NEHRP). (2009). Background and History. Available online at: www.nehrp.gov/about/history.htm.

San Luis Obispo County Air Pollution Control District (SLOAPCD). (2012, April). A Guide for Assessing The Air Quality Impacts For Projects Subject To CEQA Review. Available at http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v1.pdf.

United States Department of Agriculture (USDA) Soil Conservation Service and Soil Service. (1974). *Soil Survey of El Dorado Area, California*. Retrieved April 10, 2015 from http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/el_doradoCA1974/EDA.pdf

U.S. Environmental Protection Agency. (2014). Summary of the Energy Policy Act. Available online at: www2.epa.gov/laws-regulations/summary-energy-policy-act.

U.S. Environmental Protection Agency. (2015). The Green Book Nonattainment Areas for Criteria Pollutants. Available online at: www.epa.gov/airquality/greenbook.

U.S. Green Building Council (USGBC). (2014). LEED v4 for Building Design and Construction Addenda. Updated October 1, 2014. Available online at: www.usgbc.org/resources/leed-v4-building-design-and-construction-redline-current-version.

U.S. Green Building Council (USGBC). (2015). LEED Overview. Available online at: www.usgbc.org/leed.

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March 17, 2017

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OAK TREE SURVEY, PRESERVATION, AND REPLACEMENT PLAN FOR DIAMOND SPRINGS VILLAGE APARTMENTS, DIAMOND SPRINGS, CA.

Introduction and Methods

The County of El Dorado (County) required a Tree Survey, Preservation, and Replacement Plan for the proposed development of the Diamond Springs Village Apartments (APN 051-461-59), Diamond Springs, California (Property). The project consists of 11 new buildings for multi-family residences and community center, private driveways and parking lots, and associated grading and land clearing (see Exhibits). The project area is approximately 10.7 acres.

This Tree Survey, Preservation, and Replacement Plan followed the County's Biological Resources Study and Important Habitat Mitigation Program Guidelines (Guidelines). I performed the canopy survey in my capacity as a certified arborist (Int'l Society of Arboriculture license #WE-6725A) on March 11, 2017. Arborist survey methods followed standards of the International Society of Arboriculture (ISA) and American National Standards Institute, Inc. The following texts were consulted for floral identification, as needed: Pavlik (1991), Stuart and Sawyer (2001), Lanner (2002), Baldwin et al. (2012), and University of California at Berkeley (2016a,b).

Tree width was measured using a girth tape, according to the Guidelines: "*The measurement of the diameter of the tree in inches, specifically four (4) feet six (6) inches above natural grade on the uphill side of the tree. In the case of trees with multiple trunks, the diameter of all stems (trunks) at breast height shall be combined to calculate the diameter at breast height of the tree*."

Recent aerial photographs of the Property were groundtruthed during the site visit to determine which canopy shapes and colors corresponded to species of oak trees (genus *Quercus*), versus other types of vegetation. The canopy cover was measured using geographical system software (ArcGIS 10.5, ESRI, Inc.) by heads-up digitizing ortho-rectified aerial photography, guided by annotations made in the field. ArcGIS was used to calculate total acreage of the oak canopy and any project impacts where architectural drawings were provided.

Requirements

INTERIM INTERPRETIVE GUIDELINES FOR EL DORADO COUNTY GENERAL PLAN POLICY 7.4.4.4 (OPTION A) ADOPTED NOVEMBER 9, 2006, AMENDED OCTOBER 12, 2007

Policy 7.4.4.4
For all new development projects (not including agricultural cultivation and actions pursuant to an approved Fire Safe Plan necessary to protect existing structures, both of which are exempt from this policy) that would result in soil disturbance on parcels that (1) are over an acre and have at least 1 percent total canopy cover or (2) are less than an acre and have at least 10 percent total canopy cover by woodlands habitats as defined in this General Plan and determined from base line aerial photography or by site survey performed by a qualified biologist or licensed arborist, the County shall

require one of two mitigation options: (1) The project applicant shall adhere to the tree canopy retention and replacement standards described below; ~~or (2) the project applicant shall contribute to the County's Integrated Natural Resources Management Plan (INRMP) conservation fund described in Policy 7.4.2.8.~~

Option A
The County shall apply the following tree canopy retention standards:

Percent Existing Canopy Cover	Canopy Cover to be Retained
80–100	60% of existing canopy
60–79	70% of existing canopy
40–59	80% of existing canopy
20–39	85% of existing canopy
10-19	90% of existing canopy
1-9 for parcels > 1 acre	90% of existing canopy

- *Under Option A, the project applicant shall also replace woodland habitat removed at 1:1 ratio.*
- *Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Program as described in Policy 7.4.2.8.*
- *Woodland replacement shall be based on a formula, developed by the County, that accounts for the number of trees and acreage affected.*

Note: For purposes of implementing these guidelines, "tree canopy" retention shall mean oak tree canopy retention and replacement of "woodland habitat" shall mean replacement of oak canopy.

Option B
Not Available Under Current Law

1:1 Woodland Replacement (Replacement Land Area/Replacement Tree/Replacement Acorn-Density Ratio)
Replacement of removed tree canopy shall be at a 200 trees (saplings or one gallon trees) per acre density or as recommended by a qualified professional. Replacement is subject to intensive to moderate management[1] and 10 to 15 years of monitoring, respectively. The survival rate shall be 90 percent as specified in the approved monitoring plan for the project, prepared by a qualified professional. Acorns may be used instead of saplings or one-gallon trees. If acorns are used, they shall be planted at a 3:1 ratio as determined by the tree replacement formula[2]. The replacement is as follows:

- *Replacement replanting from saplings or one-gallon trees, that are locally sourced, shall follow this formula for ratios: (Replacement Area in acres) x 200 trees per acre = the total number of replacement trees to be replanted*
- *Replacement replanting by acorn shall be from locally-sourced acorns (acorns gathered locally). The replacement ratio by acorn replanting shall be obtained by the following formula: (Replacement Area in acres) x (200 trees per acre) x (3 acorns per tree) = the total number of acorns to be replanted*

[1] Management intensity assumes that 10 years after planting 1 year old saplings that trees that have been nurtured with high management intensity will be on average 2 inches DBH with 90 percent survival; moderate management intensity will

result in trees that are on average 1.5 inches DBH with 85 percent survival. See Standiford et al. 2002.

[2]McCreary DD. 2001. Regenerating rangeland oaks in California. Berkeley (CA): University of California, Agriculture and Natural Resources. Communication Services Publication #21601. 62 pp.

OAK WOODLAND HABITAT RESOURCES

The Property is dominated by annual grassland habitats. Remnants of mixed oak-conifer woodlands and a small riparian corridor and associated wetlands are interspersed within the grasslands. Ruderal vegetation exists along roadways. Two oak species are present: interior live oak (*Quercus wislizeni*) and valley oak (*Quercus lobata*). Blue oaks (*Quercus douglasii*) may be present, but no there are no leaves on oak trees that are available to aid identification. Other tree species noted were gray pine (*Pinus sabiniana*), willow (*Salix*), ornamental pines and fruit trees (*Prunus*). Only one oak tree was detected that exceeded 36 inches DBH: Tree #78 (see Exhibits).

Based upon groundtruthing and geographical information system analysis of ortho-rectified aerial photography, approximately 0.84 acres of the 10.7-acre Property is covered with oak tree (*Quercus* spp.) canopy (see Exhibits). The calculation of the 10.7-acre Study Area's overall pre-project oak canopy cover percentage is thus 8%. Approximately 0.2 acre of additional tree canopy is present, but consists of non-oak species, primarily gray pine. The total tree canopy on the Property is thus 0.8 + 0.3 acre = 1.1 acres. The percentage of the total tree canopy that contains oak canopy is approximately 73% (= 0.8 / 1.1 x 100). The percentage of oak species in the canopy is greater than the 10% threshold to define it as oak woodland; thus the woodland is an oak woodland as defined by County regulations.

IMPACT ASSESSMENT

The Property is subject to Canopy Retention and Replacement because the Property is greater than 1 acre and it contains more than 1 percent oak canopy cover. An impact assessment was performed using the supplied architectural drawings (see Exhibits).

Approximately 0.297 acres of oak canopy would need to be removed for the construction of the project (see Exhibits). Exact areal impact could be measured by ground survey, if necessary. The impacted canopy constitutes 35% of the total oak canopy (= 0.297 acres / 0.844 acres x 100). Thus, 65% of the oak canopy of the Property is being retained.

Because the pre-project oak tree canopy on the Property is between 1 and 9%, the tree canopy retention standard is 90%. Thus, the retention standard has not been met because less than 90% of the total oak canopy is proposed to be retained: 65% of the oak canopy is retained.

The remnant of oak woodland on the Property is not part of a larger habitat corridor. The Property is surrounded residential development and roads. The oaks proposed to be removed do not significantly affect the nearest habitat corridor or its continuity.

Mitigation

For this proposed development, 0.168 acres of oak canopy would need to be removed. Under Option A (the only option currently available), the project applicant must replace woodland habitat removed at a 1:1 ratio. Thus, 0.168 acres of land must be preserved. The proposed preserve area is shown in the Exhibits.

According to the Guidelines, 200 oak trees must be planted in the preserve area for every acre of oak woodland removed. For this proposed development, the tree planting requirement is to plant 34 oak trees (= 200 trees/acre x 0.168 acre). Replacement replantings must be acorns or saplings or one-gallon trees that are locally sourced.

Safeguarding Trees During and After Construction

General tree protection guidelines during and after construction are detailed in the Appendix and also in the County's Guidelines.

Revegetation and Restoration Plan

The property owner will follow the Guidelines' Replacement Provision 7.a, On-site Replacement Tree Planting, which states:

> "*On-Site Replacement Tree Planting. The replacement requirement is calculated as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. Replacement trees are to be planted on-site to the satisfaction of the Development Services Director. The size of the designated replacement area shall equal at a minimum the total area of the oak canopy cover proposed to be removed. An agreement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement trees planted. Maintenance and monitoring shall be required for a minimum of 10 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner*."

Designated Replacement Area
The designated 0.168-acre replacement area is identified in the Exhibits.

Site Preparation
The site must be cleared of weeds and other competing vegetation. The soil should be loosened and amended with new compost and/or topsoil as needed. The site should be protected from browsing by herbivores (e.g. deer, cattle) by erection of a durable fence.

Irrigation
The site will be irrigated on a regular basis using the property's water supply, extended to feed a dripline irrigation system. Alternatively, deep waterings may be achieved via a garden house. A sprinkler system will never be used. No irrigation will occur in the rainy season, unless there is prolonged drought. During the dry season, the saplings shall receive deep waterings no less than once a month and no more than once a week, unless weather conditions are unusual. Waterings must saturate the soil 30 inches deep.

Plant Installation
The replacement trees should be oak saplings at least a 1-gallon pot size. The replacement trees must be interior live oak, obtained from local site transplantations or from a nursery that carries stock

sourced from oak trees in the vicinity of the Property, or at least from the same County.

Oak trees must be planted at least 20 feet apart from all other trees. A berm of soil must be created around each tree with approximately a 3-foot radius to capture rain from surface runoff or to hold water from supplied water. Trees should be mulched within this bermed area. Trees must be appropriately staked if support is necessary. Any staking should be removed after 1 year to prevent girdling or weakened stems from forming.

Trees shall be planted according to ANSI Standards for Tree Care Operations (A300 Series; ANSI, 2012a). The hole should be excavated to the depth of the tree container and three times as wide as the container. The sapling's root collar should be at ground level. A tree mat or mulch (e.g. shredded bark) will be placed around the sapling to suppress weed growth and moisture loss from the soil. Great care must be employed when planting oak seedlings to prevent transplant shock and root injury (McCreary 1989; Kraetsch 2001).

Plant Establishment Period

Saplings should be inspected on a regular basis. Planting area maintenance includes the inspection of the shelters, and regular weed control around the trees. Weeds are to be re-cleared to a radius of 3 feet from the tree.

Replacement trees must be protected from drought stress by installation of a drip irrigation system or at the least, supplemental watering within the bermed area of each replacement tree or associative planting. Periodic deep waterings, rather than frequent shallow waterings, are required for proper tree root establishment. Watering must be sufficient to wet the soil within the bermed area to a depth of 30 inches, and without causing soil erosion. Replacement trees must be protected from herbivory by installation of deer/cattle exclusion devices, such as caging with metal t-posts and hardware fencing in at least a 3-foot radius away from the tree trunk. Replacement trees must be protected from fire damage by maintaining a defensible area by clearing away, trimming, or otherwise suppressing tall grasses and weeds. Regular mulching is recommended to facilitate fire protection and reduce watering requirements. Fertilization, pesticide, chemical applications are recommended only as needed and as indicated by a certified arborist.

Under the County's long term maintenance and preservation agreement, the planting sites must be maintained and monitored for a minimum of 10 years for planted trees.

Should the tree (or acorn) survival drop below the minimum required replacement density during the monitoring period, the property owner shall re-plant as needed to maintain the replacement number of trees (in this case, 96).

MONITORING AND REPORTING PLAN

Existing Lot (Ministerial) Reporting Requirements

Applicants with existing lots, using on-site replacement mitigation, may choose to use a simplified monitoring and reporting process, detailed below. The replacement plantings shall be nurtured using techniques consistent with the most current version of the University of California Davis publication "*How to Grow California Oaks*." Replanting may be supervised by a qualified professional (arborist, forester, or biologist) or by a specialist such as a master gardener or landscape architect.

> Simplified Monitoring and Reporting Process for Existing Lots Utilizing On-site Replacement Mitigation:

A. The monitoring period shall be ten years (15 for acorns).
B. The applicant shall self-monitor their replantings annually.
C. The applicant shall report, in writing, to the County at year ten on the condition of the trees and number of failures.
D. If the failure rate of the replacement plantings exceeds 10 percent of the replanted trees, then replanting of those trees that have not survived is required at the conclusion of the 10 year (or 15 years for acorns) monitoring period. Evidence of replanting shall be provided to the County. No further monitoring shall then be required.
E. The monitoring requirements shall be placed into a standard "Notice of Restriction" or similar County approved document and recorded on the title of the subject property. Once the 10 year (or 15 year) monitoring period has been successfully completed, the County shall record a release of the Notice of Restriction.

FINDINGS

The oak woodlands on the Property function do not function as part of a larger habitat corridor because the Property is bound on 3 sides by apartment complexes which do not allow any movement of wildlife. The oaks proposed to be removed do not significantly affect any habitat corridor or its continuity.

As implemented, the proposed project, with County-required mitigation and incorporation of Best Management Practices, would minimize impacts "sufficient to protect" the affected woodland habitat resource as required by the El Dorado County General Plan and by CEQA.

With implementation of the required compensatory mitigation for loss of oak woodlands, the development action will have a less than significant adverse effect upon the environment.

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this Arborist Report and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.

Signed:  Dated: March 17, 2017

REPORT AUTHOR

G. O. Graening, PhD, MSE

Dr. G. O. Graening is a consulting arborist certified by the International Society of Arboriculture (Certification # WE-6725A) since 2003. Certification may be verified on the Internet at the ISA website (http://www.isa-arbor.com/certification/verifyCredential/index.aspx). Dr. Graening also holds a Ph.D. in Biology and a Master of Science degree in Biological and Agricultural Engineering. Dr. Graening has 14 years of experience in environmental assessment and research, including the performance of numerous arborist surveys, appraisals, and design of tree mitigation plans.

REFERENCES

American National Standards Institute, Inc. 2006. American National Standard for Tree Care Operations: Tree, Shrub and Other Woody Plant Maintenance - Standard Practices. Washington, D.C. (Available electronically at http://webstore.ansi.org/ansidocstore/default.asp).

- ANSI A300 (Part 1)-2001: Tree Care Operations - Tree, Shrub and Other Woody Plant Maintenance - Standard Practices (revision and redesignation of ANSI A300-1995).
- ANSI A300 (Part 2)-1998: Fertilization.
- ANSI A300 (Part 3)-2000: Tree Support Systems (a. Cabling, Bracing, and Guying).
- ANSI A300 (Part 4)-2002: Lightning Protection Systems.
- ANSI A300 (Part 5)-2005: Management of Trees and Shrubs During Site Planning, Site Development, and Construction. Published by Tree Care Industry Association, Inc., Manchester, New Hampshire.
- ANSI A300 (Part 6)-2005: Transplanting.
- ANSI A300 (Part 7)-2006: Integrated Vegetation Management and Electric Utility Rights-of-Way.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T. J. Rosatti, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition, thoroughly revised and expanded. University of California Press, Berkeley, California. 1,600 pp.

Lanner, R. M. 2002. Conifers of California. Cachuma Press, Los Olivos, California. 274 pp.

Matheny, N.P., and J. R. Clark. 1998. Trees and development: a technical guide to preservation of trees during land development. International Society of Arboriculture, Champaign, Illinois. 183 pp.

McCreary, D.D. 1989. How to grow California Oaks. University of California Agriculture and Natural Resources Communication Services Publication.

McCreary, D.D. 2001. Regenerating Rangeland Oaks in California. University of California Agriculture and Natural Resources Communication Services Publication Number 21601. 62 pp.

Pavlik, B. M., P. C. Muick, S. G. Johnson, and M. Popper.1991. Oaks of California. Cachuma Press and the California Oak Foundation. Los Olivos, California. 184 pp.

Standiford, R.B., D. McCreary, W. Frost. 2002. Modeling the effectiveness of tree planting to mitigate habitat loss in blue oak woodlands. in: Proceedings of the Fifth Symposium on Oak Woodland: Oaks in California's Changing Landscape, October 22-25, 2001, San Diego, CA. USDA Forest Service General Technical Report PSW-GTR-184. pp. 591-600.

Stuart, J. D., and J. O. Sawyer. 2001. Trees and Shrubs of California. California Natural History Guides. University of California Press, Berkeley, California. 467 pp.

University of California at Berkeley. 2015a. Jepson Online Interchange for California Floristics. Jepson Flora Project, University Herbarium and Jepson Herbarium, University of California at Berkeley. Internet database available http://ucjeps.berkeley.edu/interchange.html.

University of California at Berkeley. 2015b. CalPhotos. Biodiversity Sciences Technology Group, University of California at Berkeley. Internet database available at http://calphotos.berkeley.edu/.

Natural Investigations Company

Tree Inventory

Tag #	Scientific Name or Common Name	DBH inches	Comment / Condition (healthy unless otherwise noted)
78	*Quercus lobata*	47	oak hybrid?
79	*Quercus lobata*	4	
80	*Quercus lobata*	4,2,1,1,1	
81	*Quercus lobata*	5	
82a	*Quercus lobata*	5	
b	*Quercus wislizeni*	5,4	
83a	*Quercus lobata*	3,2,2	
b	*Quercus lobata*	2,1	
c	*Quercus lobata*	2,1	
84	*Quercus wislizeni*	1,2,3,3,2,1	
85	*Quercus wislizeni*	7,3,5,6	
86a	*Quercus lobata*	5,9,1	
b	*Quercus lobata*	3	
c	*Quercus lobata*	3	
d	*Quercus lobata*	5,1	
87a	*Quercus wislizeni*	9,3	
b	*Quercus lobata*	3	
88	*Quercus wislizeni*	7,6,1,6,3,2	
89a	*Quercus lobata*	6	
b	*Quercus lobata*	2,3	
90a	*Quercus wislizeni*	5,2,1	
b	*Quercus lobata*	5	
c	*Quercus lobata*	9	
d	*Quercus lobata*	7	
e	*Quercus wislizeni*	4	
f	*Quercus wislizeni*	4,1	
91a	*Quercus lobata*	2	
b	*Quercus wislizeni*	1,1,1	
c	*Quercus wislizeni*	3	
92a	*Quercus lobata*	1	
b	*Quercus wislizeni*	1,1,1,1,1,1,1	
c	*Quercus lobata*	2,2	
d	*Quercus lobata*	2,1	
e	*Quercus lobata*	2	
93	*Quercus wislizeni*	2,3,2,1	
94a	*Quercus lobata*	3,3	
b	*Quercus wislizeni*	1,1,1	
c	*Quercus lobata*	2,3	
95a	*Quercus lobata*	5,3	

Tag #	Scientific Name or Common Name	DBH inches	Comment / Condition (healthy unless otherwise noted)
b	*Quercus lobata*	3	
96a	*Quercus lobata*	4,4,1	
b	*Quercus wislizeni*	3,4,4,5,5	
97a	*Quercus lobata*	6,5,4	
b	*Quercus wislizeni*	2,2,2,1	
c	*Quercus wislizeni*	5,2,2	
98	*Quercus wislizeni*	tmtc	
99a	*Quercus lobata*	7	
b	*Quercus wislizeni*	9,2	
100a	*Quercus wislizeni*	4,5,4,1	
100b	*Quercus wislizeni*	6,1	
c	*Quercus lobata*	3	
d	*Quercus wislizeni*	2,1,1	
e	*Quercus wislizeni*	1,2,3	
101	*Quercus wislizeni*	1,1,1,2,2,3,2,2,1	
102a	*Quercus wislizeni*	8,7,3,4	
b	*Quercus wislizeni*	3,2,2,2,1	
	skip in tag sequence		
420a	*Quercus douglasii*	9,5	
b	*Quercus douglasii*	6,4	
421	*Quercus douglasii*	6,6	
422a	*Quercus douglasii*	11	
b	*Quercus wislizeni*	1,2,2	
423	*Quercus wislizeni*	tmtc	
424	*Quercus douglasii*	6	
425	*Quercus wislizeni*	5,4,3,2	
426	*Quercus douglasii*	6	
427a	*Quercus wislizeni*	6,3,4,7	
b	*Quercus lobata*	4	
428a	*Quercus lobata*	8,1,5	
b	*Quercus wislizeni*	3,1	
c	*Quercus lobata*	2	
429a	*Quercus wislizeni*	3,4,2,1,3	
b	*Quercus wislizeni*	1,2,2	
c	*Quercus lobata*	2	
d	*Quercus wislizeni*	2,1	
e	*Quercus lobata*	3	
430	*Quercus lobata*	5	

EXHIBITS

Exhibit 1
Project Description / Drawings

DIAMOND SPRINGS VILLAGE APARTMENTS

CONCEPTUAL SITE PLAN

A PORTION OF THE SOUTH 1/2 OF SECTION 19 AND THE NORTH 1/2 OF SECTION 30, T.10 N., R.11 E., M.D.M.
DIAMOND SPRINGS, EL DORADO COUNTY, CALIFORNIA
MARCH, 2017 SCALE: 1" = 50'

PARKING:

NO. UNITS	TYPE	RESIDENT	GUEST	REQUIRED
20	1-BDRM	30	5	35
40	2-BDRM	80	10	90
20	3-BDRM	40	5	45
	OFFICE/ MANGR			4
80				174

SPACES PROVIDED:	
STANDARD	174
COMPACT	4
HANDICAP	12
TOTAL PROVIDED:	190

AREA CALCULATIONS

AREA	SQFT
CONDITIONED	78,401
PORCH/PATIO	5,859
STORAGE	3,624
LAUNDRY	170
COMMON AREA	12,294

KEYNOTES	
1	12" DEEP, 96" WIDE, 60" HIGH SIGN
2	(E) 6' REDWOOD FENCE TO REMAIN
3	PROPOSED 6' REDWOOD FENCE
4	15' x 25' STORAGE SHED

VICINITY MAP
NO SCALE

LEGEND:

(8) 1 - BEDROOM UNITS PER BLDG
(2) BUILDINGS
(16) UNITS

(8) 2 - BEDROOM UNITS PER BLDG
(5) BUILDINGS
(40) UNITS

(8) 3 - BEDROOM UNITS PER BLDG
(2) BUILDINGS
(16) UNITS

(4) 1 - BEDROOM UNITS PER BLDG
(4) 3 - BEDROOM UNITS PER BLDG
(1) BUILDINGS
(8) UNITS

TOTAL: 80 APARTMENT UNITS

PROJECT INFORMATION:

OWNER / APPLICANT:
CORECARE FOUNDATION
8863 GREENBACK LN, STE 324
ORANGEVALE, CA 95662
(916)949-8882
CONTACT PERSON: SERGEI OLESHKO

PLANNING & ENGINEERING:
SCO PLANNING & ENGINEERING, INC.
140 LITTON DRIVE, SUITE 240
GRASS VALLEY, CA 95945
530-272-5841
CONTACT PERSON: MARTIN D. WOOD, P.L.S.

ARCHITECT:
JERALD A. BECK, ARCHITECT
CA LIC C11902
916-223-5152

ASSESSOR'S PARCEL:
051-461-59

LAND AREA:
10.72 ACRES

ZONING:
R2 & RE-5 WITH PD OVERLAY

GENERAL PLAN DESIGNATION:
MDR - MEDIUM DENSITY RESIDENTIAL
MFR - MULTI-FAMILY RESIDENTIAL

FIRE PROTECTION:
EL DORADO COUNTY FIRE DISTRICT

WATER:
EL DORADO IRRIGATION DISTRICT

ELECTRICAL & GAS UTILITIES:
PACIFIC GAS & ELECTRIC

TELEPHONE:
AT&T

SEWAGE DISPOSAL:
EL DORADO IRRIGATION DISTRICT

SCHOOL DISTRICT:
EL DORADO UNION

DESIGNED: JB
DRAWN: AM
PROJ. NO: 201214
DWG: SEE DAY STAMP
DATE: SEE DAY STAMP

NO.	REVISIONS	DATE

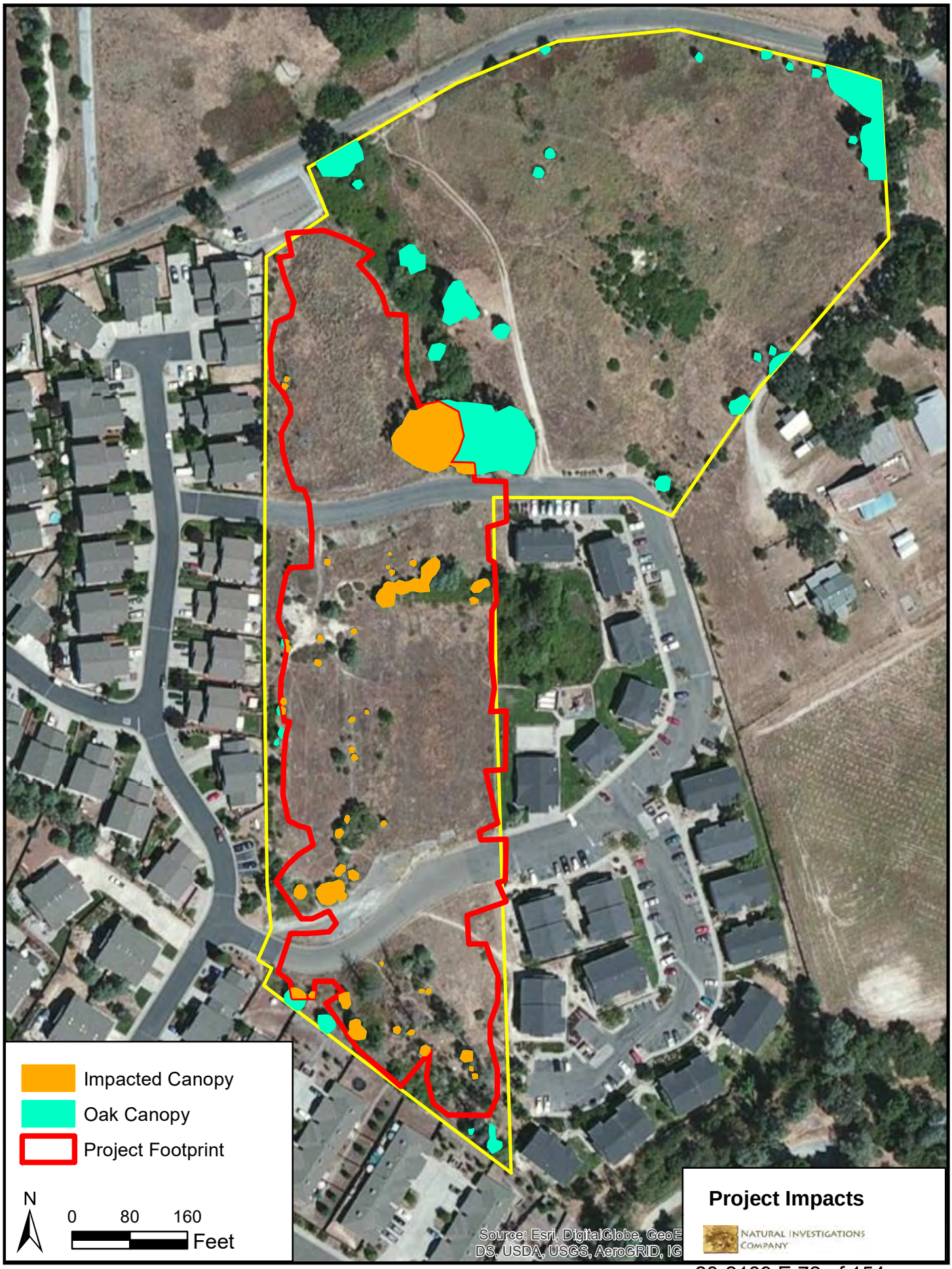
DIAMOND SPRINGS VILLAGE APARTMENTS
CONCEPTUAL SITE PLAN
EL DORADO COUNTY CALIFORNIA

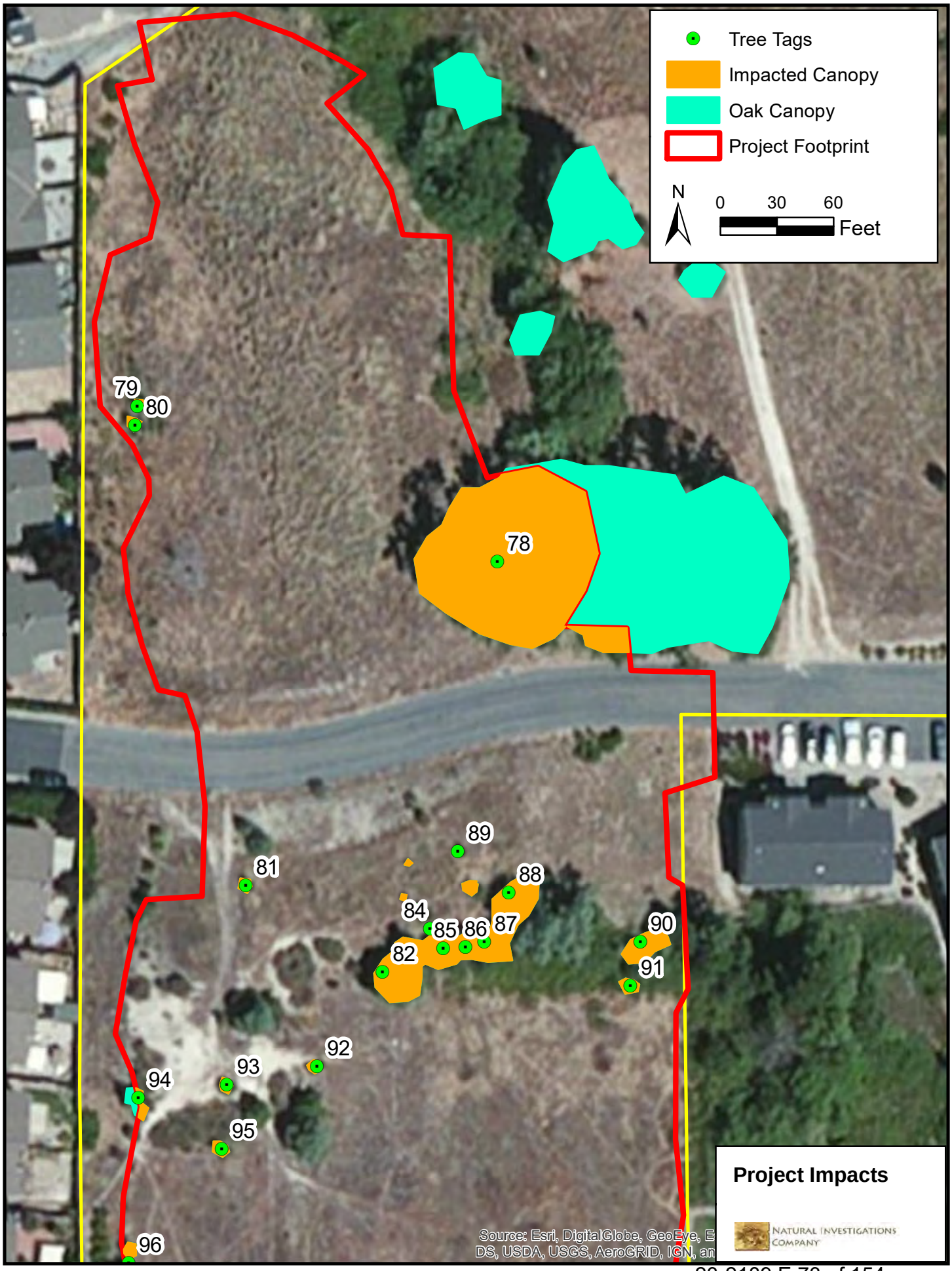
1 OF 2

Exhibit 2
Mapped Oak Canopy


Oak Canopy Map
Oak Canopy
N
0
80
160
Feet
Source: Esri, DigitalGlobe, GeoEye, Earthsta
DS, USDA, USGS, AeroGRID, IGN, and the
Natural Investigations Company

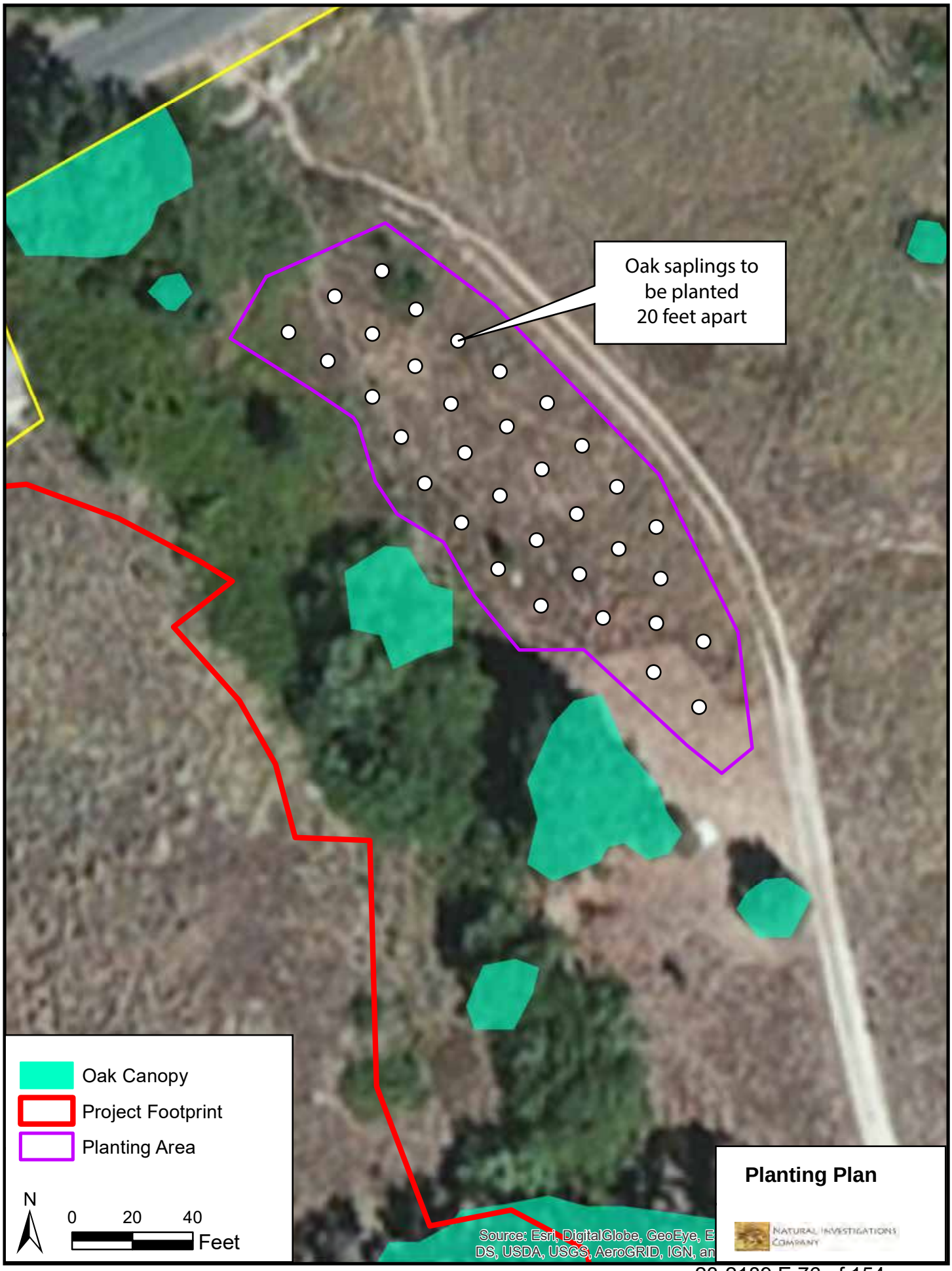
Exhibit 3 & 4
Diagram of Project Impacts to Oak Canopy


Impacted Canopy
Oak Canopy
Project Footprint
N
0
80
160
Feet
Source: Esri, DigitalGlobe, GeoE
DS, USDA, USGS, AeroGRID, IG
Project Impacts
NATURAL INVESTIGATIONS COMPANY


Tree Tags
Impacted Canopy
Oak Canopy
Project Footprint
N
0
30
60
Feet
79
80
78
89
81
88
84
85
86
87
90
82
91
92
93
94
95
96
Project Impacts
Natural Investigations Company
Source: Esri, DigitalGlobe, GeoEye, E
DS, USDA, USGS, AeroGRID, IGN, an


96
97
98
99
430
429
101
102
428
427
100
420
421
423
422
426
425
424
Tree Tags
Impacted Canopy
Oak Canopy
Project Footprint
N
0
30
60
Feet
Source: Esri, DigitalGlobe, GeoEye, E
DS, USDA, USGS, AeroGRID, IGN, an
Project Impacts
NATURAL INVESTIGATIONS COMPANY

Exhibit 5
Diagram of Planting Area


Oak saplings to be planted 20 feet apart
Oak Canopy
Project Footprint
Planting Area
N
0
20
40
Feet
Source: Esri, DigitalGlobe, GeoEye, E
DS, USDA, USGS, AeroGRID, IGN, an
Planting Plan
Natural Investigations Company

Appendix

Tree Avoidance and Impact Mitigation Measures

Pre-Construction Phase

Fencing and Other Tree Protection Zone Barriers

The limits of all tree protection zones shall be staked in the field; normally this is defined as the drip line of the tree canopy or a minimum circular area defined by a 20-foot radius around the trunk of the tree. Tree protection zone barriers shall be installed prior to site work. Tree protection zones shall be delineated and protected with fencing, consisting of, at the minimum, metal t-post stakes and orange plastic fencing. Where construction materials such as fill dirt may encroach, silt fencing or plywood shoring should be placed as well. Erosion control devices such as silt fencing, debris basins, and water diversion structures should be installed to prevent siltation or erosion within tree protection zones. Construction limit fencing should be erected that restricts access to protected areas and tree protection devices shall be installed where required over tree roots, branches, and/or tree trunks.

Proper Tree Removal and Pruning

Trees to be removed or pruned shall be removed by a qualified tree care professional such that trees to be preserved are not affected. Trees to be removed shall be felled away from tree protection zones. Brush and limbs shall be chipped and placed as mulch in tree protection zones to a depth of 6 inches (but leaving the trunk clear of mulch). Removal or reduction of major structural limbs should be done only as required for actual equipment clearance or safety. In some cases, it may be possible to tie back branches to provide temporary clearance without pruning limbs. If limbs must be removed, cuts should be made perpendicular to the branch, to limit the size of the cut face. The branch bark collar should be preserved (i.e., no “flush cuts”), and cuts should be made in such a way as to prevent the tearing of bark from the tree. All tree pruning and tree felling is to be performed in accordance with American National Standards Institute (ANSI) Standards for Tree Care Operations (A300 Series)(ANSI, 2006a) and safety standards in ANSI Z133.1 (ANSI, 2006b).

Trunk Protection

Where construction equipment must enter tree protection zones, tree trunks and scaffold limbs should be protected from mechanical damage. Wrap trunk and all exposed scaffold limbs with plastic fencing to a thickness of 2 inches with orange plastic construction fencing, or protect vulnerable areas by strapping boards (2x4 inch dimension) to the main upright stem(s) of the trees where possible injury could occur. Trunk protection may also be provided by strapping from one to four straw bales around the base of the tree. The bales are placed on end. The Project Arborist should direct the placement of protection devices.

Root Protection

The purpose of root protection is to protect roots from compaction or suffocation. If temporary haul or access roads must pass over the root area of trees (or tree protection zones), a road bed of 6 inches of mulch or gravel should be created to reduce soil compaction. This road bed material should be replenished as necessary to maintain a depth of 6 inches. The preferred method for excavation in tree protection zones is by hand digging or with the use of an “air spade” (a method of removing soil from around tree roots by the use of air pressure to minimize root damage). Exposure of roots to air should be minimized; backfill excavation as soon as possible to rebury roots.

Construction Phase

Proper Root Cutting

Where root cutting is unavoidable, hand cutting is preferred. The bank is cut back an additional 6 inches

around the root. Cuts should be made cleanly with a sharp saw or pruning tool. The cut should be made at right angles to the root so that the wound is no larger than necessary. When practical, cut roots back to a branching lateral root. Perform all grading and trenching within tree protection zones by hand or with small equipment to minimize root damage. All root cutting should be performed in accordance with the ANSI A300 Series guidelines)(ANSI, 2006a) and safety standards in ANSI Z133.1 (ANSI, 2006b). Exposure of roots to air should be minimized; backfill excavation as soon as possible to rebury roots. If the trench must remain open, the exposed roots and bank should be covered with 4 layers of burlap or other acceptable material and an outer layer of geotextile fabric. The burlap is used to a depth of 3 feet.

Other Construction Best Management Practices

During construction, the Contractor should maintain all fences and tree protection devices and refrain from causing or permitting any activity within tree protection zones including, but not limited to, the storage of equipment, supplies, excavation materials, disposal of fuels, solvents, or chemicals, or causing the disturbance of any soils or vegetation within protected areas. Trees impacted by construction activities should be deeply watered once a week during periods of hot, dry weather. Spray tree crowns with water periodically to reduce dust accumulation on the leaves. Each irrigation should wet the soil within the tree protection zone to a depth of 30 inches. This activity should be coordinated with site watering as a dust palliative required by the Storm Water Pollution Prevention Plan. When installing replacement concrete adjacent to the root zone of a tree, use a plastic vapor barrier behind the concrete to prohibit leaching of lime into the soil. "Natural" or pre-construction grade should be maintained for as great a distance from the trunk of each tree as construction permits. At no time during or after construction should soil be in contact with the trunk of the tree above natural grade. It is important that the tree protection zone not be subjected to flooding incidental to the construction work. Topsoil should be replaced as the final fill within the trenching corridor. Reseeding (including “hydroseeding” for erosion control) should consist only of mixtures of native grasses and wildflowers.

Post-construction Phase

A certified arborist should conduct an inspection of the finished Project areas for delayed impacts to tree health and vigor, and to survey for tree structural stability and hazards. The arborist can prescribe health mitigation treatments based upon the site conditions and level of adverse impact suffered. Possible treatments are listed below:

- supplemental mulching, irrigation, and fertilization should be performed for trees with significant root or crown loss;
- mulching with tree protection zones to rebuild soil structure lost to soil compaction;
- compost and compost tea to supply nutrients and micronutrients;
- a sugar-water solution (30 g of sugar / liter of water) may be used immediately after root cutting, applied at the rate of one liter per square meter of soil surface area;
- soil and leaf tissue analysis to determine nutrient deficiencies before the addition of fertilizer;
- bark wounds should be treated, and broken limbs or roots should be cleanly pruned;
- any fill placed upon the tree root crown should be removed by hand shovel; and
- weakened or diseased trees may need to be removed.

Diamond Springs Village Apartments

March 2017

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Attachment B

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INTRODUCTION

REPORT OVERVIEW

This study presents the results of a transportation impact analysis completed for the Diamond Springs Village Apartments project (project) in Diamond Springs, California, which is an unincorporated area of El Dorado County (County).

The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performend in accordance with the El Dorado County Community Development Agency's *Traffic Impact Study Guidelines* (November 2014), and the scope of work developed in collaboration with County staff and Caltrans.

The remaining sections of this report document the proposed project, analysis methodolgies, impacts and mitigations.

PROJECT DESCRIPTION

The proposed project would construct 80 affordable apartment units and one supervisory unit located south of Black Rice Lane, north of Pearl Place, east of Courtside Drive, and west of Deuce Drive/Service Drive. The project site is surrounded primarily by multi-family residential (Diamond Terrace Apartments) and rural single-family residential. Access to the proposed project would be provided via Racquet Way and Pearl Place, which intersect Pleasant Valley Road south of the project site. Racquet Way and Pearl Place will provide primary emergency vehicle access to the proposed project. The project is consistent with the adopted General Plan. The project site is shown on Figure 1.

REGULATORY SETTING

Existing transportation polices, laws, and regulations that would apply to the proposed project are summarized below. This information provides a context for the impact discussion related to the project's consistency with applicable regulatory conditions.

STATE

CALIFORNIA DEPARTMENT OF TRANSPORTATION

The California Department of Transportation (Caltrans) is responsible for operating and maintaining the State highway system. In the project vicinity, US 50 falls under Caltrans' jurisdiction. Caltrans provides administrative support for transportation programming decisions made by the California Transportation Commission (CTC) for state funding programs. The State Transportation Improvement Program (STIP) is a multi-year capital improvement program that sets priorities and funds transportation projects envisioned in long-range transportation plans.

In June 2014, Caltrans approved a *Transportation Concept Report and Corridor System Management Plan (TCR/CSMP) for United States Route 50*. Caltrans prepares a TCR/CSMP, which is a long-range (20-year) planning document, for each state highway. The purpose of each TCR/CSMP is to identify existing route conditions and future needs and to communicate the vision for the development of each route during a 20-year planning horizon. Caltrans has established LOS E as the 'concept LOS' consistent with the El Dorado County General Plan LOS policy. Since LOS E is identified as the concept LOS no further degradation of service from existing "E" is acceptable. The Concept LOS is a generalized LOS for large study segments used by Caltrans that reflect the minimum level of service or quality of operations acceptable for each route segment.

According to the *Guide for the Preparation of Traffic Impact Studies* (Caltrans, December 2002), the existing LOS should be maintained if a freeway facility is currently operating at an unacceptable LOS (e.g., LOS F). A project impact is said to occur if the project degrades LOS from an acceptable to unacceptable level. A project impact may also occur when the addition of project trips exacerbates existing LOS F conditions and leads to a perceptible increase in density on freeway mainline segments or ramp junctions, or a perceptible increase in service volumes in a weaving area. In addition, a project impact is said to occur when the addition of project trips causes a queue on the off-ramp approach to a ramp terminal intersection to extend beyond its storage area and onto the freeway mainline.

LOCAL

SACRAMENTO AREA COUNCIL OF GOVERNMENTS

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento Region. Its members include the counties of Sacramento, El Dorado, Placer, Sutter, Yolo, and Yuba, as well as 22 cities. SACOG provides transportation planning and funding for the region, and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, SACOG assists in planning for transit, bicycle networks, clean air, and airport land uses.

The *Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) *for 2035* (SACOG 2012) is a federally mandated long-range fiscally constrained transportation plan for the six-county area. Most of this area is designated a federal non-attainment area for ozone, indicating that the transportation system is required to meet stringent air quality emissions budgets to reduce pollutant levels that contribute to ozone formation. To receive federal funding, transportation projects nominated by cities, counties, and agencies must be consistent with the MTP/SCS.

The *2013/16 Metropolitan Transportation Improvement Program* (MTIP) is a list of transportation projects and programs to be funded and implemented over the next 3 years. SACOG submits this document to Caltrans and amends the program on a quarterly cycle. Only projects listed in the MTP/SCS may be included in the MTIP.

EL DORADO COUNTY TRANSPORTATION COMMISSION (EDCTC)

The EDCTC is the Regional Transportation Planning Agency (RTPA) for El Dorado County, except for the portion of the County within the Tahoe Basin, which is under the jurisdiction of the Tahoe Regional Planning Agency (TRPA).

One of the fundamental responsibilities which results from RTPA designation is the preparation of the County's Regional Transportation Plan. The *El Dorado County Regional Transportation Plan 2010 – 2030 (RTP)* is designed to be a blueprint for the systematic development of a balanced, comprehensive, multi-modal transportation system. The EDCTC submits the RTP to SACOG for inclusion in the MTP/SCS process.

The *El Dorado County Bicycle Transportation Plan - 2010 Update* provides a blueprint for the development of a bicycle transportation system on the western slope of El Dorado County. The plan updates the currently adopted *El Dorado County Bicycle Master Plan*, which was adopted in January 2005.

In May 2013, The EDCTC completed the *El Dorado Hills Community Transit Needs Assessment and US 50 Corridor Operations Plan* (Plan), which explores how the recent growth and projected development impact the need for transit services, and identifies the most appropriate type and level of service needed given the demand. The Plan represents a recommendation from the Western El Dorado County 2008 Short-Range Transit Plan to study and consider improved transit service in the El Dorado Hills area.

In August 2008, The EDCTC adopted the *Coordinated Public Transit – Human Services Transportation Plan,* which is intended to improve mobility of individuals who are disabled, elderly, or of low-income status. The plan focuses on identifying needs specific to those population groups and identifying strategies to meet their needs.

COUNTY OF EL DORADO

The County of El Dorado provides for the mobility of people and goods within Diamond Springs, which is an unincorporated area of the County.

The Transportation and Circulation Element of the El Dorado County General Plan (amended January 2009) outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following goals and their associated policies are relevant 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. (The LOS policy specific to this project is described in Section 4.2.)
- GOAL TC-2: To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment.
- GOAL TC-3: To reduce travel demand on the County's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities.
- 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.
- GOAL TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.

The El Dorado County Community Development Agency's *Transportation Impact Study Guidelines* set forth the protocols and procedures for conducting transportation analysis in the County (El Dorado County,

2014), including the identification of the study area. All of the study intersections for the proposed project are within the County's jurisdiction. This traffic analysis is consistent with the County-established methods at the commencement of the project.

The project is subject to Measure E, which was adopted June 6, 2016 and became official on July 29, 2016. Because the project is an affordable workforce multi-family housing project, it is not subject to certain provisions of Measure E. Specifically, the 10-year impact analysis is not required for the following reasons:

- TC-Xf requires a ten-year traffic impact review for tentative maps with five or more parcels. This project is not a subdivision application with five or more parcels.
- The second paragraph in TC-Xf states "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 condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element." This project is conditioned to construct all road improvements necessary to maintain or attain Level of Service standards.
- State law requires Housing Elements to "address and where appropriate and legally possible, remove governmental constraints to the maintenance, improvement, and development of housing" (Government Code Section 65583[c][3]). This project is an affordable workforce multifamily housing project.
- General Plan Implementation Measure HO-2013-13 states, "…identify additional opportunities to further streamline the procedures for affordable housing projects while maintaining adequate levels of public review." (Government Code Section 65583 and 65920 et seq.; General Plan Policies HO-1.3, HO-1.7, HO-1.16, HO-1.18)
- General Plan Implementation Measure HO-2013-14 states, "…assist developers in addressing barriers to infill development." (General Plan Policy HO-1.5)
- General Plan Implementation Measure LU-Q states, "Promote Infill Development: The program shall be linked to land-use, housing, air quality, transportation and circulation strategies that support development within existing communities, reduce vehicle miles traveled, increase energy efficiency, and encourage the development of affordable housing." (General Plan Objective 2.1.4, Policy 2.4.1.5)

EL DORADO COUNTY TRANSIT AUTHORITY

El Dorado County Transit Authority (EDCTA) operates El Dorado Transit, which provides public transit service within the project area. Diamond Springs is currently served by El Dorado Transit Dial-A-Ride services, Commuter Service, and the Diamond Springs Route.

METHOD OF ANALYSIS

ANALYSIS PROCEDURES

Intersections and roadways were selected for analysis based on coordination with the El Dorado County Community Development Agency, Long Range Planning staff and Caltrans, and based on the expected distribution of project trips and review of the El Dorado County Community Development Agency's *Transportation Impact Study Guidelines*.

Each study roadway facility was analyzed using the concept of Level of Service (LOS). LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents long delays and a facility that is operating at or near its functional capacity.

INTERSECTIONS

Traffic operations at the study intersections were analyzed using procedures and methodologies contained in the Transportation Research Board's *Highway Capacity Manual (HCM) 2010*. These methodologies were applied using the Synchro software package (Version 8), developed by Trafficware. Table 1 displays the delay range associated with each LOS category for signalized and unsignalized intersections based on the *HCM*.

The HCM methodology determines the LOS at signalized intersections by comparing the average control delay (i.e., delay resulting from initial deceleration, queue move-up time, time actually stopped, and final acceleration) per vehicle at the intersection to the established thresholds. The LOS for traffic signal controlled and all-way stop controlled intersections is based on the average control delay for the entire intersection. For side street stop controlled intersections, the LOS is evaluated separately for each individual movement with delay reported for the critical (i.e., worst case) turning movement.

TABLE 1 INTERSECTION LOS CRITERIA			
Level of Service	**Description**	**Average Control Delay (seconds per vehicle)**	
		Signalized Intersections[1]	**Unsignalized Intersections[2]**
A	Represents free flow. Individual users are virtually unaffected by others in the traffic stream.	≤ 10	≤ 10
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.	> 10 to 20	> 10 to 15
C	Stable flow, but the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	> 20 to 35	> 15 to 25
D	Represents high-density, but stable flow.	> 35 to 55	> 25 to 35
E	Represents operating conditions at or near the capacity level.	> 55 to 80	> 35 to 50
F	Represents forced or breakdown flow.	> 80	> 50

Sources:
[1] *Highway Capacity Manual 2010*, Chapter 18, Signalized Intersections
[2] *Highway Capacity Manual 2010*, Chapter 19, Two Way Stop Controlled Intersections
Highway Capacity Manual 2010, Chapter 20, All Way Stop Controlled Intersections

The following procedures and assumptions were applied for the analysis of existing and cumulative conditions:

- Roadway geometric data were gathered using field observations.
- Peak hour traffic volumes were entered according to the peak hour of each intersection.
- The peak hour factor (PHF) was calculated based on traffic counts and applied by intersection.
- The counted pedestrian and bicycle volumes were used.
- Heavy vehicle percentages were based on traffic counts and applied by movement with a minimum of 2 percent per movement per peak hour.
- Signal phasing and timings were based on existing signal timing sheets provided by El Dorado County.
- Speeds for the model network were based on the posted speed limit.
- A PHF of 0.92 or the existing PHF for each intersection (whichever is greater) was used for cumulative conditions.
- The existing heavy vehicle percentages were maintained for cumulative conditions.
- The existing pedestrian and bicycle volumes were maintained for cumulative conditions.
- The 2015 CIP projects were assumed to be in place for cumulative conditions.
- Traffic signal timings were optimized to serve future traffic volumes for cumulative conditions.

ROADWAY SEGMENTS

Roadway segment LOS was determined by comparing peak hour traffic volumes for the study roadway segments to the LOS capacity thresholds in Table 2. The LOS capacity thresholds, provided in the El Dorado County Community Development Agency's *Transportation Impact Study Guidelines*, November 2014, were calculated based on the methodology contained in the *HCM 2010*.

TABLE 2 PEAK HOUR ROADWAY SEGMENT LOS CRITERIA

Code	Functional Class Codes	HCM 2010 Planning Level Volumes				
		A	B	C	D	E
2A	Two-Lane Arterial	-	-	850	1,540	1,650
4AU	Four-Lane Arterial, Undivided	-	-	1,760	3,070	3,130
4AD	Four-Lane Arterial, Divided	-	-	1,850	3,220	3,290

Notes: Arterial LOS based on *HCM 2010*, Exhibit 16-14, K-factor of 0.09, posted speed 45 mph
Volumes are for both directions unless noted.
Source: *Transportation Impact Study Guidelines*, El Dorado County Community Development Agency, November 2014

THRESHOLDS OF SIGNIFICANCE

In accordance with the California Environmental Quality Act (CEQA), the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. Informed by the CEQA Statute and Guidelines, specifically Appendix G of the CEQA Guidelines, criteria have been established for this analysis to determine whether or not the project would have a significant impact on transportation and circulation.

The intent of CEQA Guidelines Section 15064 is for the responsible agency to establish the thresholds in the context of their specific values towards environmental resources or impacts. Therefore, the standards of significance in this analysis are based on the framework presented in CEQA Guidelines Appendix G and the current practice of the appropriate regulatory agencies. For most areas related to transportation and circulation, policies from the *2004 El Dorado County General Plan* (amended January 2009) and the El Dorado County Department of Transportation's 2008 *Traffic Impact Study Protocols and Procedures* were used. Implementation of the project would have a potentially significant impact on transportation and circulation if it causes any of the following outcomes:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness (MOEs) 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. The following specific MOEs, which have been generated by the regulatory agencies, are applicable to this project.

- General Plan Circulation Policy TC-Xd provides Level of Service standards for County-maintained roads and state highways as follows[1]:
  - 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 as applicable shall not exceed the ratio specified in that table.
    - Missouri Flat Road – Mother Lode Drive to China Garden Road: Max. v/c = 1.20
    - Pleasant Valley Road – El Dorado Road to SR 49: Max. v/c = 1.28
  - If a project causes the peak hour level of service or volume/capacity ratio on a county road or state highway that would otherwise meet the County standards (without the project) to exceed the LOS threshold, then the impact shall be considered significant.
  - If any county road or state highway fails to meet the above listed county standards for peak hour level of service or volume/capacity ratios under existing conditions, and the project will "worsen" conditions on the road or highway, then the impact shall be considered significant. The term "significantly worsen" is defined for the purpose of the paragraph according to General Plan Policy TC-Xe as follows:
    A. A two (2) percent increase in traffic during the AM peak hour, PM 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 AM peak hour or the PM peak hour.

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

[1] *El Dorado County Department of Transportation's Traffic Impact Study Protocols and Procedures*

- The County has published the following issues and General Plan goals as relevant to traffic impact study assessments. The project may trigger a potentially significant impact if it's in conflict with any of the following:
    - Access to Public Transit Services consistent with General Plan Circulation Element Goal TC-2: "To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment."
    - Transportation System Management consistent with General Plan Circulation Element Goal TC-3: "To reduce travel demand on the County's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities."
    - Non-Motorized Transportation consistent with General Plan Circulation Element 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."

- Conflict with adopted policies, plans, or programs regarding the delivery of goods and services.

EXISTING SETTING

STUDY AREA

Based on coordination with the El Dorado County Community Development Agency (Long Range Planning) staff, the expected distribution of project trips, and review of the El Dorado County *Traffic Impact Study Guidelines,* the following study intersections and roadways were selected for analysis during the AM and PM peak hours. Figure 1 identifies the study area.

The following lists both existing intersections and future intersections (applicable only to the Cumulative Conditions analysis).

Intersections:

1. Pleasant Valley Road/Racquet Way
2. Pleasant Valley Road/Pearl Place
3. Pleasant Valley Road (SR 49)/Diamond Road (SR 49)
4. Pleasant Valley Road (SR 49)/China Garden Road
5. Pleasant Valley Road (SR 49)/Missouri Flat Road
6. Missouri Flat Road /China Garden Road
7. Missouri Flat Road /Golden Center Drive
8. Diamond Road/Lime Kiln Road/Black Rice Road
9. Missouri Flat Road/Diamond Springs Parkway (future intersection)
10. Throwita Way/Diamond Springs Parkway (future intersection, cumulative analysis only)
11. Diamond Road (SR 49)/Diamond Springs Parkway (future intersection, cumulative analysis only)
12. Missouri Flat Road/Forni Road
13. Missouri Flat Road/Mother Lode Drive
14. Missouri Flat Road/US 50 EB Ramps
15. Missouri Flat Road/US 50 WB Ramps
16. Missouri Flat Road/Plaza Drive

Roadway Segments:

1. Missouri Flat Road – US 50 to Golden Center Drive
2. Missouri Flat Road – Golden Center Drive to Pleasant Valley Road (SR 49)
3. Pleasant Valley Road (SR 49) – SR 49 (West) to Missouri Flat Road

4. Pleasant Valley Road (SR 49) – Missouri Flat Road to Diamond Road (SR 49)
5. Pleasant Valley Road (SR 49) – Diamond Road (SR 49) to Canyon Valley Road
6. Pleasant Valley Road (SR 49) – Canyon Valley Road to Big Cut Road
7. Diamond Road (SR 49) – Pleasant Valley Road to Lime Kiln Road/Diamond Springs Parkway
8. Diamond Road (SR 49) – Lime Kiln Road/Diamond Springs Parkway to Bradley Drive
9. China Garden Road – Missouri Flat Road to Pleasant Valley Road (SR 49)
10. Diamond Springs Parkway –Missouri Flat Road to Diamond Road (SR 49)

ROADWAY NETWORK

The characteristics of the roadway system near the project are described below. Where applicable, the roadway designation given in the *2004 El Dorado County General Plan* (amended January 2009) is provided.

Pleasant Valley Road (State Route 49) is a two-lane, east-west roadway that intersects Mother Lode Drive to the west and Sly Park Road to the east. Pleasant Valley Road is identified in the El Dorado County General Plan as a Major 2-Lane Road and shares a route with State Route (SR) 49 from Golden Chain Highway to Diamond Road. The posted speed limit on Pleasant Valley Road within the project area ranges from 25 to 45 mph.

Missouri Flat Road generally runs northwest-southeast between Green Valley Road (north of US Highway 50) and Pleasant Valley Road. Missouri Flat Road has two lanes for the majority of its route (and is identified as a Major 2-Lane Road in the El Dorado County General Plan), but widens to four lanes across US 50 to Golden Center Drive to the south (and is identified as a 4-Lane Divided Road in the El Dorado County General Plan). The posted speed limit of Missouri Flat is 45 mph in the project area.

Diamond Road (SR 49) is a two-lane, north-south roadway that is identified as a Major 2-Lane Road in the El Dorado County General Plan. Diamond Road shares a route with SR 49 for its entire length from Sacramento Street to Pleasant Valley Road. The posted speed limit on Diamond Road ranges from 40 to 50 mph near the project.

China Garden Road is identified as a 2-Lane Regional Road in the El Dorado County General Plan. China Garden Road connects Missouri Flat Road to Pleasant Valley Road east of Missouri Flat Road and north of Pleasant Valley Road. The posted speed limit on China Garden Road is 35 mph.

Diamond Springs Parkway is a planned four-lane divided roadway that will connect Missouri Flat Road north of China Garden Road to Diamond Road (SR 49) north of Lime Kiln Road. The roadway will include

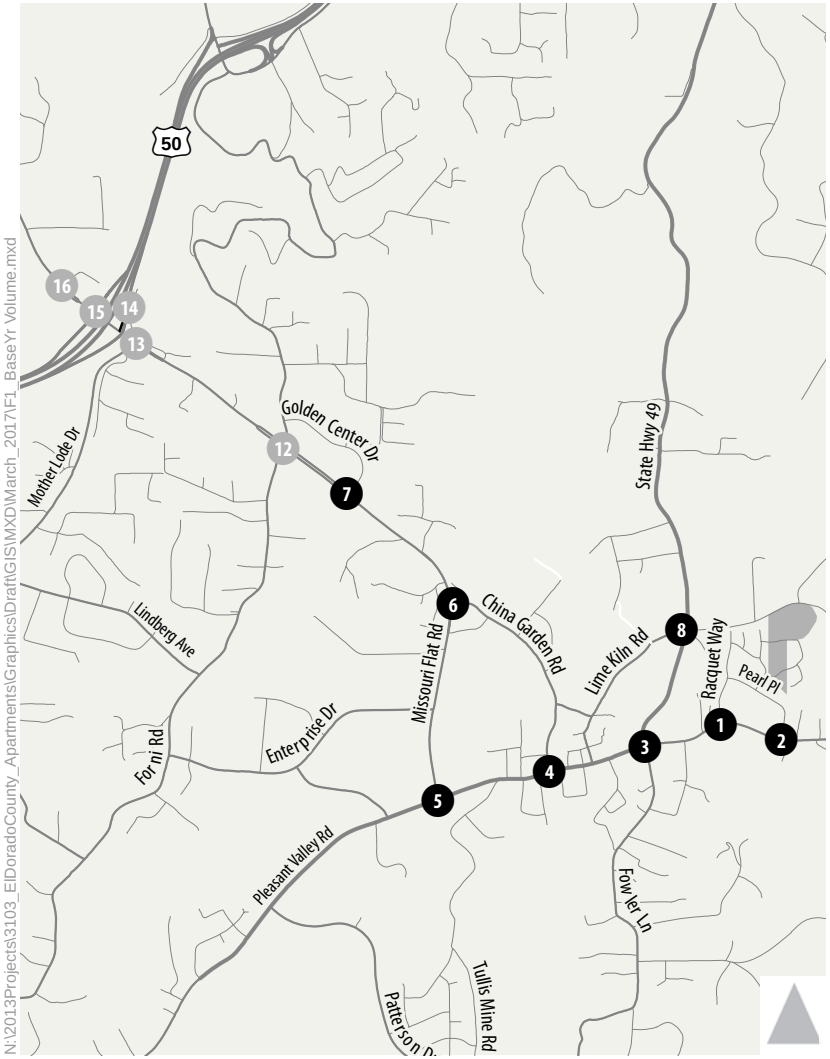
bicycle and pedestrian access with sidewalks and Class II bike lanes. Three bus turnouts will also be included along the new roadway.

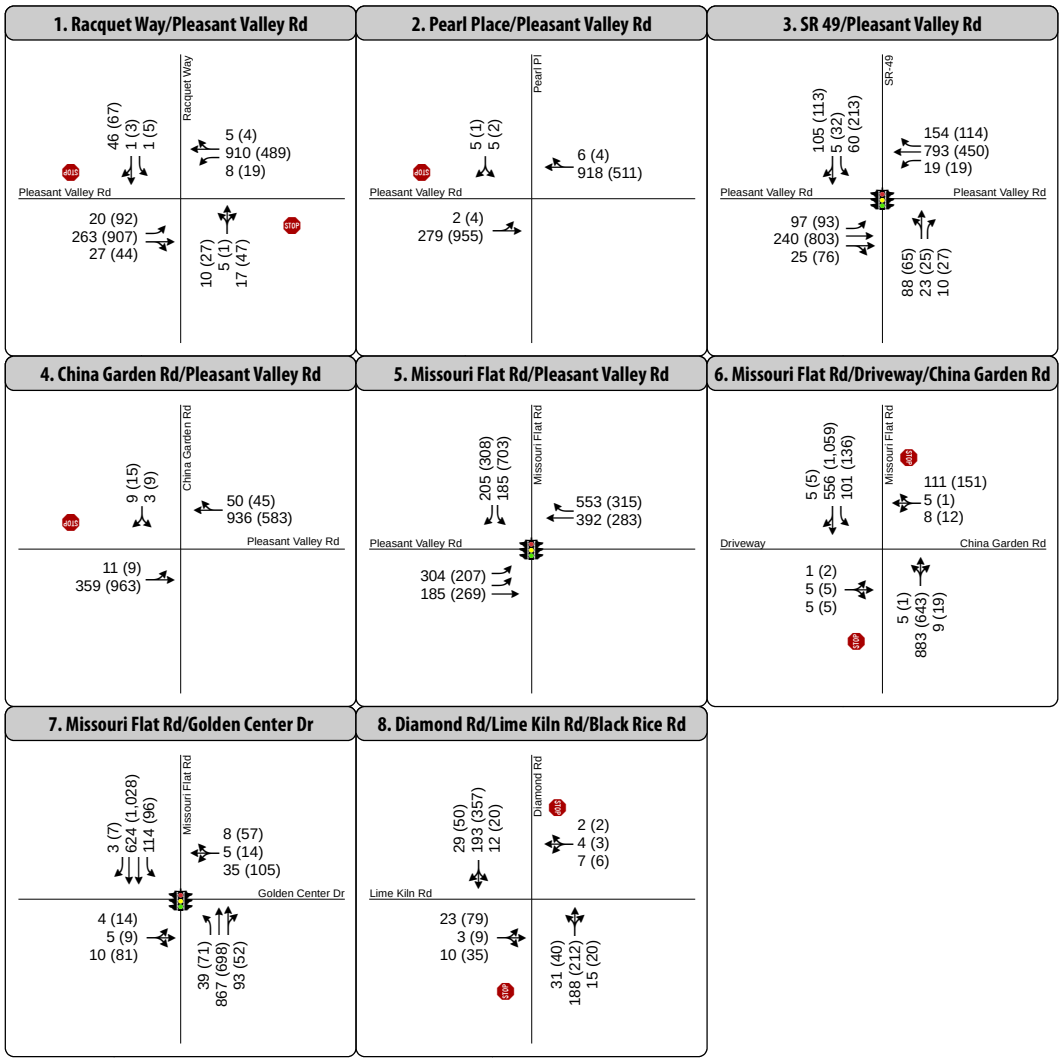
EXISTING CONDITIONS PEAK HOUR TRAFFIC VOLUMES

AM peak period (7 AM to 9 AM) and PM peak period (4 PM to 6 PM) intersection turning movement counts were collected to determine the existing traffic operations of the study facilities. Traffic counts were collected at the study intersections on the following dates:

1. Pleasant Valley Road/Racquet Way – July 30, 2014
2. Pleasant Valley Road/Pearl Place – July 14, 2015
3. Pleasant Valley Road (SR 49)/Diamond Road (SR 49) – May 5, 2015 and July 14, 2015
4. Pleasant Valley Road (SR 49)/China Garden Road – September 26, 2012
5. Pleasant Valley Road (SR 49)/Missouri Flat Road – May 5, 2015
6. Missouri Flat Road /China Garden Road – May 5, 2015
7. Missouri Flat Road /Golden Center Drive – May 5, 2015

Traffic counts at some of the study intersections were collected during the summer (July). In order to scale these traffic volumes to reflect non-summer conditions, traffic counts were collected at the Pleasant Valley Road (SR 49)/Diamond Road (SR 49) intersection in May and July in order to create a factor and adjust the volumes. The existing traffic volumes were balanced between intersections where appropriate to account for any differences associated with counts being collected on different days. The AM peak hour of the study intersections is generally between 7:15 AM and 8:15 AM. The PM peak hour of the study intersections is generally between 4:30 PM and 5:30 PM. Figure 1 shows the peak hour traffic volumes, lane configurations and traffic controls at each of the study intersections.





1 Study Intersection

12 Study Intersection shown in Figure 1B

Project Site

Turn Lane

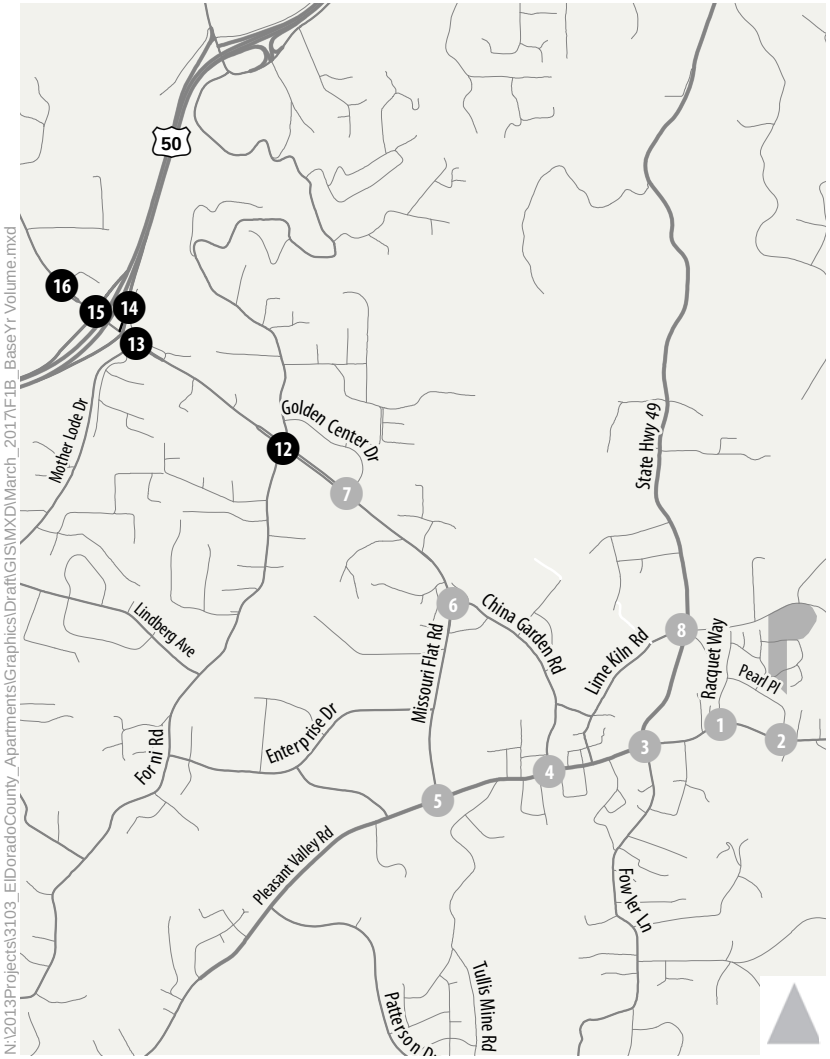
AM (PM) Peak Hour Traffic Volume

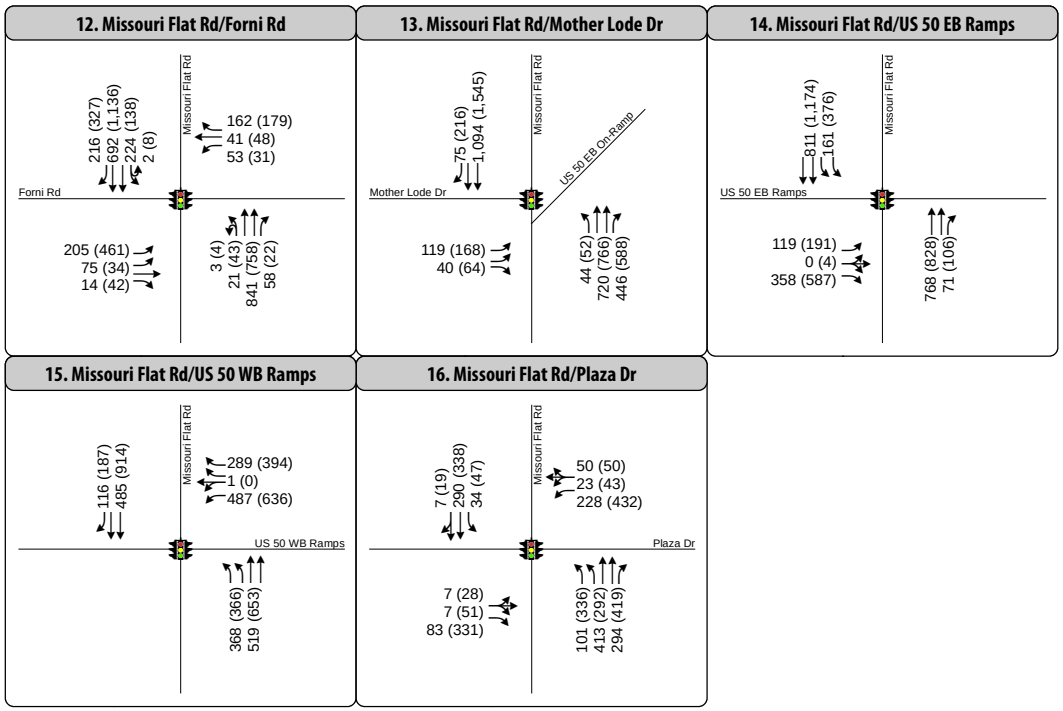
Traffic Signal

Stop Sign

Figure 1A

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions





10 Study Intersection

1 Study Intersection shown in Figure 1

Project Site

Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Figure 1B

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions

EXISTING CONDITIONS PEAK HOUR VEHICLE LEVEL OF SERVICE

INTERSECTIONS

Table 3 summarizes existing conditions AM and PM peak hour LOS for the study intersections. The LOS of a facility is a qualitative measure used to describe operating conditions. LOS ranges from A (best), which represents short delays, to LOS F (worst), which represents long delays and a facility that is operating at or near its functional capacity. Detailed LOS analysis sheets are contained in Appendix A. See Table 1 for a definition of LOS as it relates to intersection delay. As shown in Table 3, the Pleasant Valley Road/Racquet Way and Missouri Flat Road/China Garden Road intersections operate at LOS F during the PM peak hour. The remaining study intersections operate at LOS E or better during the AM and PM peak hours.

TABLE 3 PEAK HOUR INTERSECTION LEVEL OF SERVICE – EXISTING CONDITIONS

Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS	Delay[1]	LOS
1. Pleasant Valley Road/Racquet Way	SSSC	39	E	**191**	**F**
2. Pleasant Valley Road/Pearl Place	SSSC	24	C	28	D
3. Pleasant Valley Road (SR 49)/Diamond Road (SR 49)	Signal	22	C	16	B
4. Pleasant Valley Road (SR 49)/China Garden Road	SSSC	23	C	25	D
5. Pleasant Valley Road (SR 49)/Missouri Flat Road	Signal	12	B	41	D
6. Missouri Flat Road/China Garden Road	SSSC	49	E	**108**	**F**
7. Missouri Flat Road/Golden Center Drive	Signal	10	B	14	B
8. Diamond Road/Lime Kiln Road/ Black Rice Road	SSSC	7	A	17	B
12. Missouri Flat Road/Forni Road	Signal	23	C	29	C
13. Missouri Flat Road/Mother Lode Drive	Signal	10	B	12	B
14. Missouri Flat Road/US 50 EB Ramps	Signal	19	B	28	C
15. Missouri Flat Road/US 50 WB Ramps	Signal	26	C	28	C
16. Missouri Flat Road/Plaza Drive	Signal	17	B	25	C

Notes: SSSC = side street stop control, AWSC = all way stop control, N/A = Not Applicable (future intersection)
[1] For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.
Bold text indicates LOS worse than established threshold.
Source: Fehr & Peers, 2015

ROADWAY SEGMENTS

Table 4 summarizes existing conditions AM and PM peak hour LOS for the study roadway segments. All of the study roadway segments operate at acceptable levels (LOS E or better) during the AM and PM peak hours. Detailed LOS analysis sheets are provided in Appendix A. See Table 2 for a definition of LOS as it relates to roadway segments.

TABLE 4 PEAK HOUR ROADWAY SEGMENT LEVEL OF SERVICE – EXISTING CONDITIONS

Roadway Segment	Classification	AM Peak Hour			PM Peak Hour		
		Peak Hour Volume[1]	LOS	v/c Ratio[2]	Peak Hour Volume[1]	LOS	v/c Ratio[2]
Missouri Flat Road – Golden Center Drive to US 50	4AU	1,650	C[3]	0.53	1,900	D	0.61
Missouri Flat Road – Pleasant Valley Road (SR 49) to Golden Center Dr	2A	1,290	D	0.78	1,540	D	0.93
Pleasant Valley Road (SR 49) – Missouri Flat Road to SR 49 (West)	2A	1,090	D	0.66	1,070	D	0.65
Pleasant Valley Road (SR 49) – Diamond Road (SR 49) to Missouri Flat Rd	2A	1,320	D	0.80	1,570	E	0.95
Pleasant Valley Road (SR 49) – Canyon Valley Road to Diamond Road (SR 49)	2A	1,200	D	0.73	1,280	D	0.78
Pleasant Valley Road (SR 49) – Big Cut Road to Canyon Valley Road	2A	1,070	D	0.65	1,100	D	0.67
Diamond Road (SR 49) – Pleasant Valley Road to Happy Lane	2A	450	C[3]	0.27	930	D	0.56
Diamond Road (SR 49) – Diamond Springs Parkway to Bradley Drive	2A	570	C[3]	0.35	790	C[3]	0.48
China Garden Road – Missouri Flat Road to China Garden Court	2A	240	C[3]	0.15	330	C[3]	0.20
Diamond Springs Parkway – Throwita Way to Missouri Flat Road	NA	NA	NA	NA	NA	NA	NA

Notes: 4AU = Four-Lane Arterial, Undivided, 2A = Two-Lane Arterial, NA = Not Applicable (future roadway)
[1] Two-way peak hour traffic volume
[2] v/c = volume-to-capacity
[3] LOS at this location is C or better
Source: Fehr & Peers, 2015

PEDESTRIAN CIRCULATION

Pedestrian facilities are limited near the project, with sporadic sections of sidewalk Pearl Place and Diamond Road (SR 49). There are a small number of very short segments of sidewalk on Pleasant Valley Road (SR 49) between China Garden Road and Diamond Road (SR 49). A short segment of sidewalk also exists on the west side of Missouri Flat Road north of Pleasant Valley Road adjacent to the Missouri Flat Storage Depot.

BICYCLE CIRCULATION

Bicycle facilities are classified into three categories:

- Class I Bicycle Path – Off-street bike paths within exclusive right-of-way; usually shared with pedestrians
- Class II Bicycle Lane – Striped on-road bike lanes adjacent to the outside travel lane on preferred corridors for biking
- Class III Bicycle Route – Shared on-road facility, usually delineated by signage and pavement markings

In the study area, according to the *El Dorado Bicycle Transportation Plan, 2010 Update (El Dorado County Transportation Commission)* and field observations, the following major bikeway facilities are present within the study area:

- Class II bicycle lanes on Missouri Flat Road between Plaza Drive and Golden Center Drive.
- Class I bicycle path (El Dorado Trail) between Missouri Flat Road Diamond Road. The trail connects to the east side of Missouri Flat Road and extends northeast to Forni Road near the El Dorado County Jail in Placerville, California.

Class II bicycle lanes are planned (where they do not currently exist) for Pleasant Valley Road, Diamond Road, Missouri Flat Road, and the future Diamond Springs Parkway.

TRANSIT

Transit service in El Dorado County is provided by the El Dorado County Transit Authority (El Dorado Transit), which offers local fixed route, regional commuter route, dial-a-ride, and paratransit service. There are seven local fixed routes, four of which have stops on Missouri Flat Road and/or Pleasant Valley Road.

The Diamond Springs route runs from Folsom Lake College – El Dorado Center north of US 50, along Missouri Flat Road, to Pleasant Valley Road. The Diamond Springs route travels along Pleasant Valley Road between Oriental Street and Pearl Place. Weekday service is provided from 7:00 AM to 6:48 PM with one hour headways. The project is served by the Diamond Springs Line (Routh 30/35) and a bus stop is located within 500 feet of the project.

The Placerville route runs from the Missouri Flat Transfer Station to the Gold Country Inn in Placerville. Weekday service is provided from 7:00 AM to 7:00 PM with one hour headways.

The 50 Express route is a commuter route that runs from the Missouri Flat Transfer Station to the Folsom Iron Point light rail station. Weekday service is provided from 6:00 AM to 7:00 PM with one hour headways.

The Sacramento Commuter provides 11 morning trips and 11 afternoon trips between El Dorado County and downtown Sacramento. Weekday service is provided in the morning from 5:00 AM to 10:30 AM and in the afternoon from 2:00 PM to 6:30 PM.

EXISTING PLUS PROJECT CONDITIONS

TRIP GENERATION

Trip generation estimates were calculated based on methodologies and trip generation equations presented in the Institute of Transportation Engineers' *Trip Generation Manual*, 9th Edition. Table 5 shows the AM and PM peak hour trip generation estimates for the proposed project. As shown in the table, the project will generate 43 AM peak hour trips and 62 PM peak hour trips.

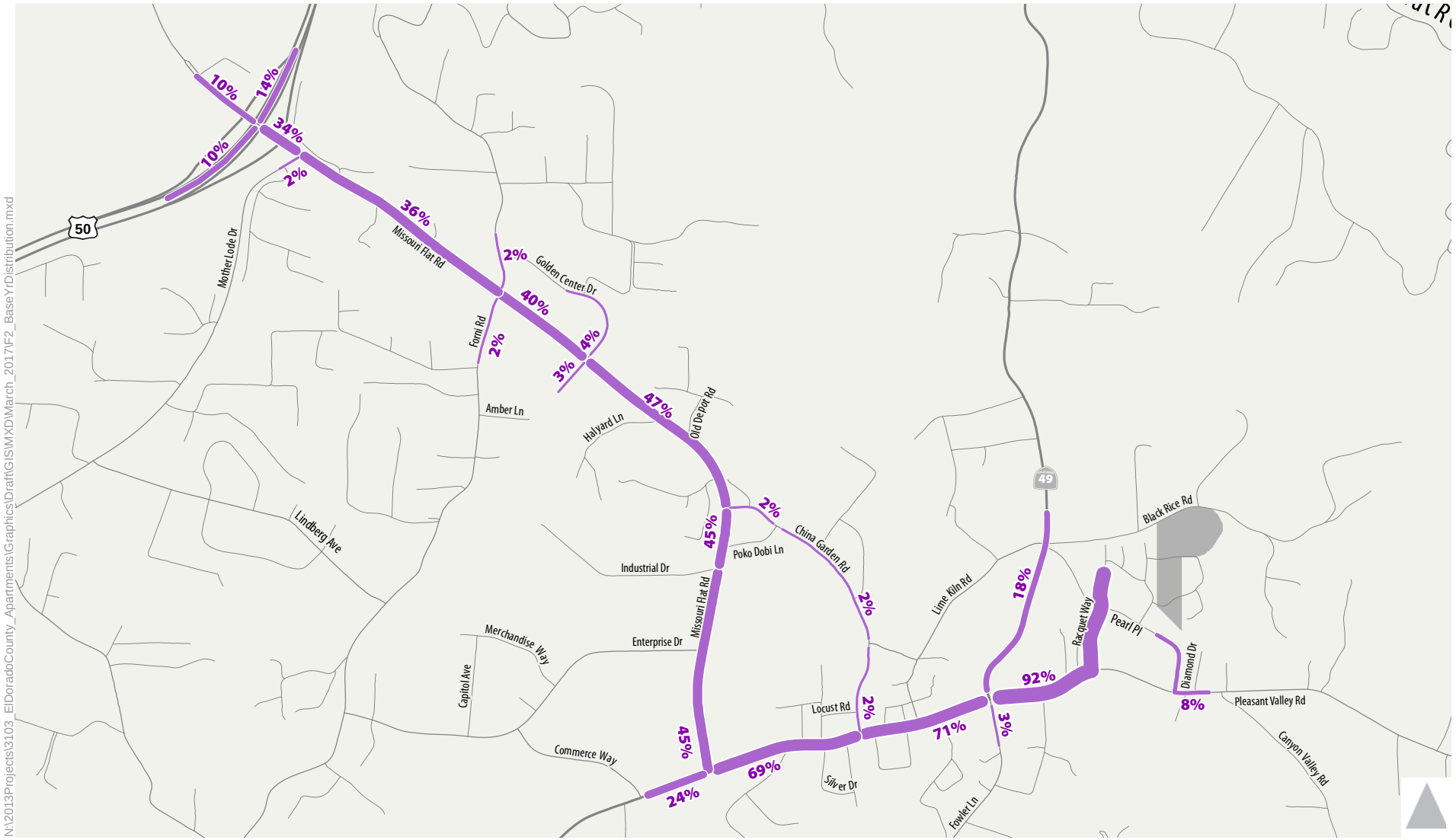
TABLE 5 PROJECT TRIP GENERATION

Land Use	Quantity	AM Trips[1]			PM Trips[2]		
		Total	In	Out	Total	In	Out
Apartment (220)	81	43	9	34	62	40	22

Notes: [1] AM trips calculated based on T=0.49(X)+3.73 (with 20% entering and 80% exiting). PM trips calculated based on T=0.55(X)+17.65 (with 65% entering and 35% exiting).
Source: Fehr & Peers, 2015

TRIP DISTRIBUTION AND ASSIGNMENT

The expected distribution of project trips was developed using the El Dorado County travel demand model. A select zone analysis of the project traffic analysis zone (TAZ) was performed to determine how vehicles travelling to and from the proposed project would interact with nearby land uses and use the surrounding roadway network. Figure 2 shows the existing conditions project trip distribution for the project. As shown in the figure, approximately 40 percent of the project trips will travel north on Missouri Flat Road, 8 percent will travel east on Pleasant Valley Road (SR 49), 24 percent will travel west on Pleasant Valley Road (SR 49), 18 percent travel north on Diamond Road (SR 49), and 10 percent will remain on the local roads within Diamond Springs. Figure 3 shows the corresponding AM and PM peak hour intersection turning movement forecasts for Existing Plus Project conditions.

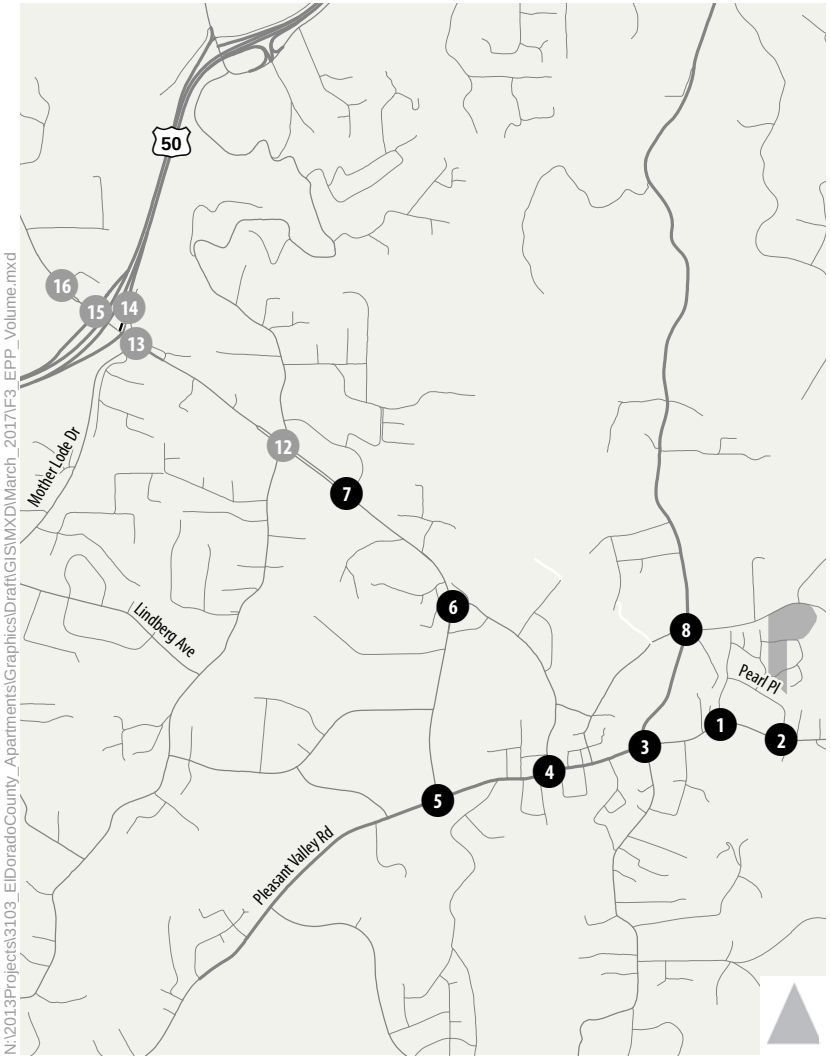


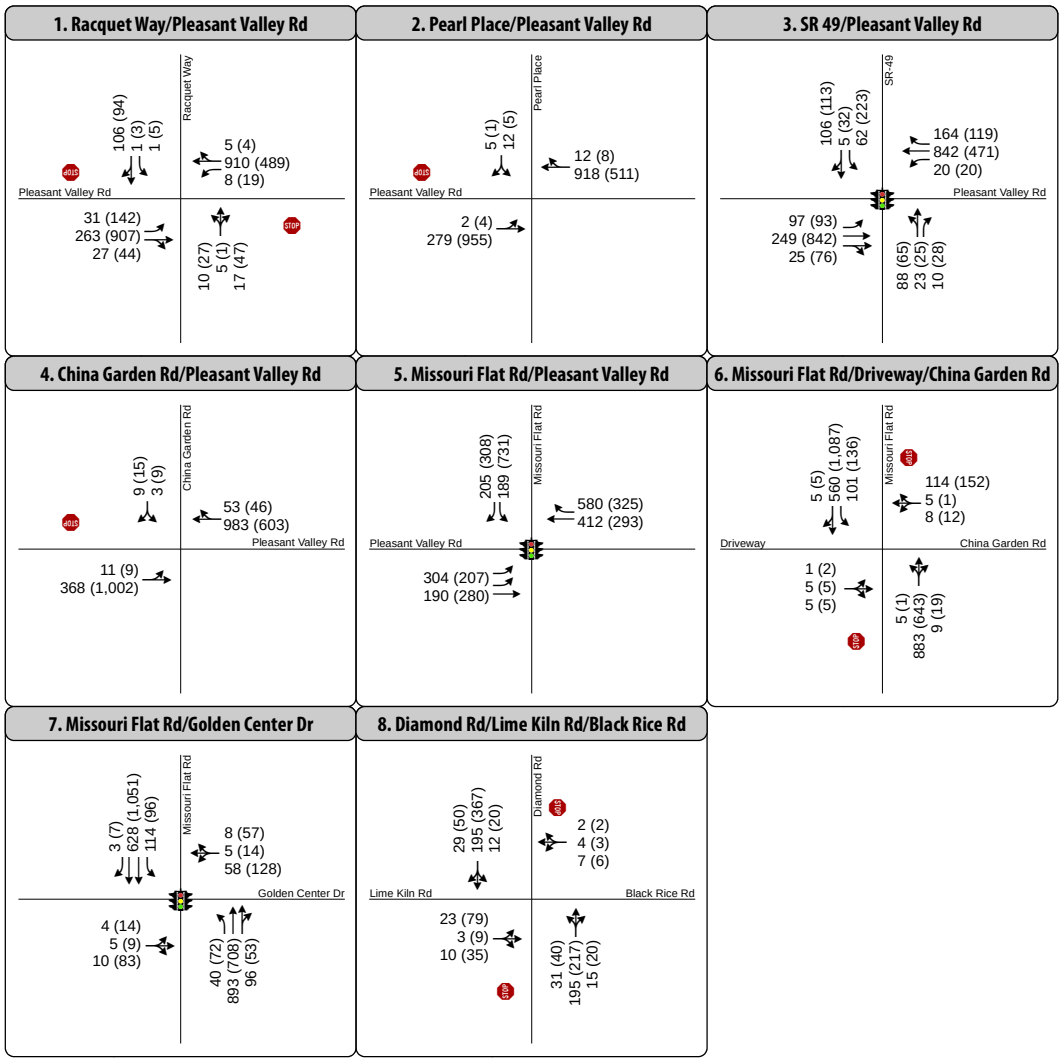
21% Trip Distribution

Project Site

Figure 2

Peak Hour Trip Distribution - Existing Conditions





1 Study Intersection

12 Study Intersection shown in Figure 3B

Project Site

Turn Lane

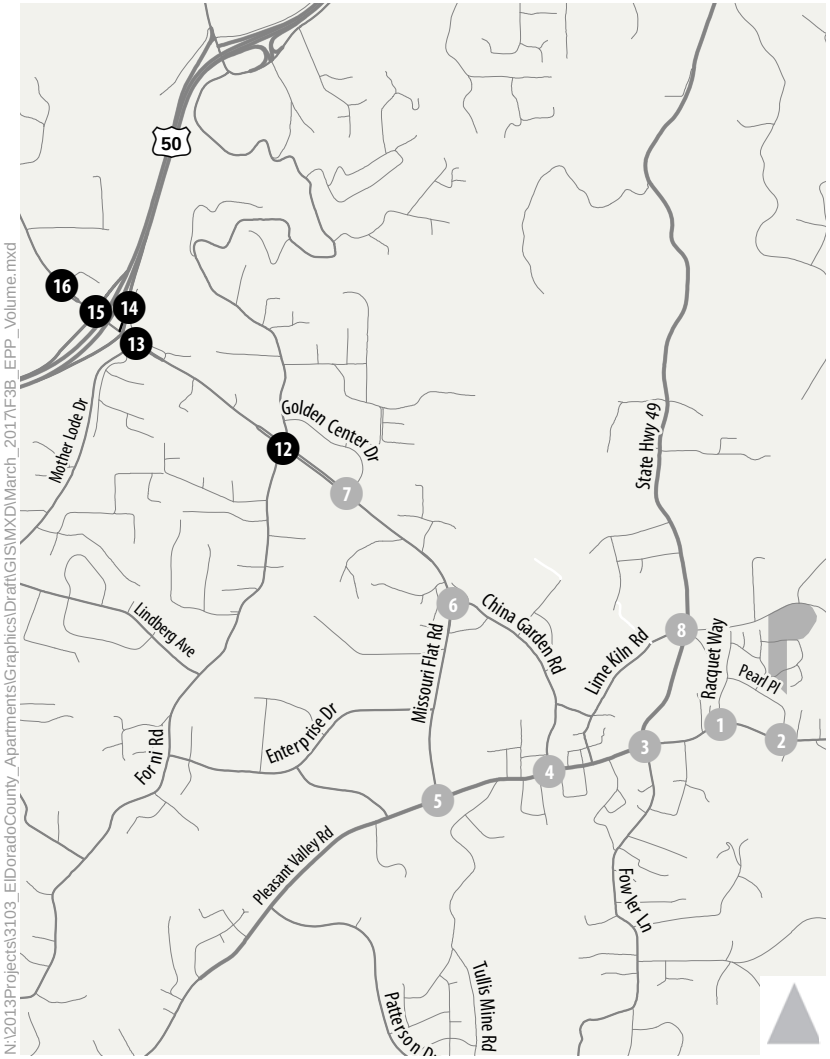
AM (PM) Peak Hour Traffic Volume

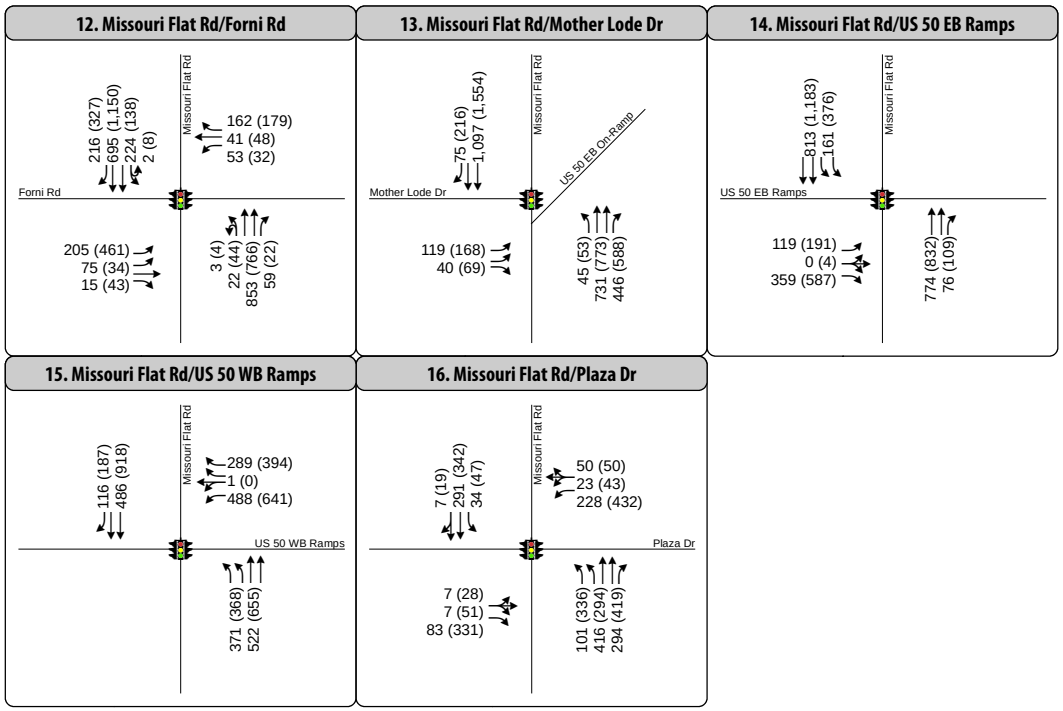
Traffic Signal

Stop Sign

Figure 3A

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions





12 Study Intersection

1 Study Intersection shown in Figure 3

Project Site

Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Figure 3B

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions

PEAK HOUR VEHICLE LEVEL OF SERVICE

Project generated traffic volumes were added to the existing traffic volumes at the study intersections and roadway segments for the existing plus project conditions analysis.

INTERSECTIONS

Analysis results, which are presented in Table 6, indicate that most study intersections will operate acceptably, except for the side street stop controlled Pleasant Valley Road/Racquet Way and Missouri Flat Road/China Garden Road intersections, which will operate at LOS F during the PM peak hour. Traffic generated by the project will result in potential impacts at the following locations:

- Pleasant Valley Road/Racquet Way (intersection 1) – This intersection operates at LOS F without the project. The project adds more than 100 seconds of delay to the side street approach during the PM peak hour. According to established significance criteria, the project is projected to "worsen" conditions, since it would add more than 10 trips and increase the overall intersection volume by more than 2 percent during the PM peak hour.
- Missouri Flat Road/China Garden Road (intersection 6) – This location operates at LOS F without the project. The project will increase delay at the intersection by 3 seconds during the PM peak hour. Based on established significance criteria, the project is projected to "worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour.

TABLE 6 PEAK HOUR INTERSECTION LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Intersection	Control	Existing				Existing Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1. Pleasant Valley Road/Racquet Way	SSSC	39	E	**191**	**F**	41	E	***>300***	***F***
2. Pleasant Valley Road/Pearl Place	SSSC	24	C	28	D	26	D	33	D
3. Pleasant Valley Road (SR 49)/Diamond Road (SR 49)	Signal	22	C	16	B	24	C	17	B
4. Pleasant Valley Road (SR 49)/China Garden Road	SSSC	23	C	25	D	24	C	27	D
5. Pleasant Valley Road (SR 49)/Missouri Flat Road	Signal	12	B	41	D	12	B	50	D
6. Missouri Flat Road/China Garden Road	SSSC	49	E	**108**	**F**	49	E	***111***	***F***
7. Missouri Flat Road/Golden Center Drive	Signal	10	B	14	B	12	B	16	B
8. Diamond Road/Lime Kiln Road/ Black Rice Road	SSSC	13	B	22	C	13	B	23	C
12. Missouri Flat Road/Forni Road	Signal	23	C	29	C	21	C	26	C
13. Missouri Flat Road/Mother Lode Drive	Signal	10	B	12	B	10	B	12	B
14. Missouri Flat Road/US 50 EB Ramps	Signal	19	B	28	C	19	B	28	C
15. Missouri Flat Road/US 50 WB Ramps	Signal	26	C	28	C	27	B	29	C
16. Missouri Flat Road/Plaza Drive	Signal	17	B	25	C	17	B	25	C

Notes: SSSC = side street stop control, AWSC = all way stop control, N/A = Not Applicable (future intersection)
[1] For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.
Source: Fehr & Peers, 2015

VEHICLE QUEUING

Table 7 shows the average maximum queue length for selected movements in the project area under existing plus project conditions.

TABLE 7 AVERAGE MAXIMUM QUEUE LENGTH – EXISTING PLUS PROJECT CONDITIONS

Intersection	Movement	Storage Length [feet]	PM Peak Hour
12. Missouri Flat Road/Forni Road	EB LT	200	**400**
	EB TH	>1,000	550
	EB RT	160	**200**
	NB LT	240	**350**
	NB TH	1,025	575
	NB RT	160	**250**
	WB LT	200	125
	WB TH	>1,000	175
	WB RT	200	**250**
	SB LT	300	**400**
	SB TH	2,315	1,325
	SB RT	160	**250**
13. Missouri Flat Road/Mother Lode Drive	NB TH	2,315	500
14. Missouri Flat Road/US 50 EB Ramps	EB LT	1,150	900
	EB RT	550	**775**
	NB TH	175	**225**
	NB RT	80	**200**
	SB LT	140	**250**
	SB TH	450	**500**
15. Missouri Flat Road/US 50 WB Ramps	NB LT	140	**250**
	NB TH	450	400
	WB LT/TH	1,475	975
	WB RT	1,475	775
	SB TH	450	**500**
	SB RT	380	**450**

Notes: **Bold and underline** font indicate a queue that exceeds the storage length.

Source: Fehr & Peers, 2015

ROADWAY SEGMENTS

Analysis results, which are presented in Table 8, indicate that all study roadway segments will operate acceptably during the AM and PM peak hours.

TABLE 8 PEAK HOUR ROADWAY SEGMENT LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Roadway Segment	Classification	Existing						Existing Plus Project					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		Vol[1]	LOS	v/c[2]	Vol[1]	LOS	v/c[2]	Vol[1]	LOS	v/c[2]	Vol[1]	LOS	v/c[2]
Missouri Flat Road – Golden Center Drive to US 50	4AU	1,650	C[3]	0.53	1,900	D	0.61	1,675	C[3]	0.54	1,934	D	0.62
Missouri Flat Road – Pleasant Valley Road (SR 49) to Golden Center Dr	2A	1,290	D	0.78	1,540	D	0.93	1,318	D	0.80	1,578	E	0.96
Pleasant Valley Road (SR 49) – Missouri Flat Road to SR 49 (West)	2A	1,090	D	0.66	1,070	D	0.65	1,105	D	0.67	1,090	D	0.66
Pleasant Valley Road (SR 49) – Diamond Road (SR 49) to Missouri Flat Rd	2A	1,320	D	0.80	1,570	E	0.95	1,364	D	0.83	1,629	E	0.99
Pleasant Valley Road (SR 49) – Canyon Valley Road to Diamond Road (SR 49)	2A	1,200	D	0.73	1,280	D	0.78	1,205	D	0.73	1,287	D	0.78
Pleasant Valley Road (SR 49) – Big Cut Road to Canyon Valley Road	2A	1,070	D	0.65	1,100	D	0.67	1,075	D	0.65	1,107	D	0.67
Diamond Road (SR 49) – Pleasant Valley Road to Happy Lane	2A	450	C[3]	0.27	930	D	0.56	461	C[3]	0.28	945	D	0.57
Diamond Road (SR 49) – Diamond Springs Parkway to Bradley Drive	2A	570	C[3]	0.35	790	C[3]	0.48	581	C[3]	0.35	805	C[3]	0.49
China Garden Road – Missouri Flat Road to China Garden Court	2A	240	C[3]	0.15	330	C[3]	0.20	241	C[3]	0.15	332	C[3]	0.20
Diamond Springs Parkway – Throwita Way to Missouri Flat Road	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: 4AU = Four-Lane Arterial, Undivided, 2A = Two-Lane Arterial, NA = Not Applicable (future roadway)
[1] Two-way peak hour traffic volume
[2] v/c = volume-to-capacity ratio
[3] LOS at this location is C or better
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.
Source: Fehr & Peers, 2015

CUMULATIVE CONDITIONS

This section presents the development and analysis of cumulative conditions.

TRAVEL DEMAND FORECASTS

For this project, a modified version of the El Dorado County Travel Demand Forecasting Model (EDC-CAT_7525_090514) was used to develop traffic volume forecasts in the study area. The base year model validation for study area roadways was documented in a technical report for the Diamond Springs and El Dorado Area Mobility and Livable Community Plan (Fehr & Peers, February 2014), and is presented again below. As is standard practice with large area travel demand models, a thorough model review was completed and the model was refined to ensure that it produced reasonable results in the study area.

The following refinements were implemented in the study area:

- Added roadway network detail
- Updated land use to reflect existing commercial (i.e., retail and office) employment along the Missouri Flat Road corridor (i.e., near the US 50 interchange). Employment calculated was based on measured building area, existing land uses, and industry employment yields for retail and office land use, resulting in the addition of about 510 employees.
- Updated network attributes in the study area to reflect existing conditions (e.g. verified roadway network speeds, number of lanes on the roadway, and roadway capacities to reflect existing conditions)
- Updated the future year roadway network in the study area to reflect the County's Capital Improvement Program (2015 CIP)

Specific information related to the model's performance is described below.

BASE YEAR MODEL VALIDATION

Before any model can be applied for use in a major specific plan application, it must first be evaluated to determine how the model performs relative to validation targets identified by Caltrans, the Federal Highways Administration (FHWA), and the California Transportation Commission (CTC). These targets were developed to ensure that a model is developed such that it can accurately forecast existing conditions based on land use and roadway network information, which improves the model's ability to accurately forecast

future conditions. The state-of-the-practice is to use a valid base year model when developing defensible forecasts for changes in the roadway network and/or changes in proposed land use.

Static Validation

The first step of any model validation is to ensure that the model generally produces similar results to existing counts. Please note that, since the model is being used to generate AM peak hour and PM peak hour forecasts, the model must be valid at our study facilities for both time periods.

Key metrics for model validation guidelines are described below:

- The volume-to-count ratio is computed by dividing the volume assigned by the model and the actual traffic count for individual roadways (or intersections). The volume-to-count ratio should be less than 10%.
- The deviation is the difference between the model volume and the actual count divided by the actual count. Caltrans provides guidance on the maximum allowable deviation by facility type (e.g. lower-volume roadways can have a higher deviation than higher-volume roadways). 75% of the study facilities should be within the maximum allowable deviation.
- The correlation coefficient estimates the correlation between the actual traffic counts and the estimated traffic volumes from the model. The correlation coefficient should be greater than 0.88.
- The percent Root Mean Square Error (RMSE) is the square root of the model volume minus the actual count squared divided by the number of counts. It is a measure similar to standard deviation in that it assesses the accuracy of the entire model. The RMSE should be less than 40%.

The model validation statistics are summarized in Table 9. As shown in Table 9, the model satisfies the identified model validation targets in the study area. As such, the model is deemed appropriate for use in this assessment.

TABLE 9 TRAVEL DEMAND FORECASTING MODEL SUBAREA STATIC VALIDATION		
Metric	**Model Performance**	**Performance Target**
AM Peak Hour		
Model/Count Ratio	0.97	Between 0.90 and 1.10
Percent Within Caltrans Maximum Deviation	95%	> 75%
Percent Root Mean Square Error	20%	< 40%
Correlation Coefficient	0.97	> 0.88
PM Peak Hour		
Model/Count Ratio	1.00	Between 0.90 and 1.10
Percent Within Caltrans Maximum Deviation	92%	> 75%
Percent Root Mean Square Error	21%	< 40%
Correlation Coefficient	0.96	> 0.88
Source: Fehr & Peers, 2015		

Dynamic Validation

Dynamic validation evaluates how a travel demand forecasting model responds to changes to model inputs. For this project, the El Dorado County travel demand model was used to develop forecasts for the study area (i.e., roadways and intersections) in response to planned population and employment growth and planned transportation improvements. Therefore, the dynamic validation focused on reviewing how the traffic model responded (i.e., in direction and magnitude) to changes to roadway network and land use inputs. The model responded in the correct direction and expected magnitude as inputs were changed. As such, the model is deemed appropriate for use in this assessment.

FUTURE YEAR MODELING ASSUMPTIONS

All modifications incorporated into the validated Base Year model were incorporated into the future year (2035) travel demand forecasting model. Additionally, as previously mentioned, the model was also updated to include only the County's 2015 CIP.

As described above, the validated El Dorado County model was used to develop AM and PM peak hour forecasts for Cumulative No Project conditions, which corresponds to a 2035 horizon year that accounts for planned (and funded) roadway improvements, land use growth consistent with the 2004 General Plan, and with approved and reasonably foreseeable projects in the study area (based on coordination with the Missouri Flat Area Master Plan Circulation and Financing Plan Phase II), including the following:

- Crossings at El Dorado
- Social Security Administration Office
- Public Safety Facility
- Diamond Dorado Retail Center
- Creekside Plaza
- New Placerville Courthouse
- Piedmont Oaks

Consistent with accepted travel demand forecasting practice, model error was corrected using the methodologies identified in the National Cooperative Highway Research Program Report 255 (Transportation Research Board, 1982) using the "difference method" (e.g., add model predicted growth to existing volumes) for roadway segments and intersections.

Under cumulative conditions, the future Diamond Springs Parkway is expected to be constructed; therefore, the project trip distribution will change. Project trips were added to the study intersection using the trip distribution show on Figure 4. As shown in the figure, the overall distribution will remain the same, however approximately 19 percent of trips will use Diamond Springs Parkway rather than Pleasant Valley Road to travel north on Missouri Flat Road. Figures 5A and 5B present AM and PM peak hour traffic volume forecasts under Cumulative conditions.

PEAK HOUR VEHICLE LEVEL OF SERVICE

INTERSECTIONS

Table 10 summarizes the AM and PM peak hour intersection operations under cumulative plus project conditions. The analysis results indicate that three study intersections will operate acceptably during the AM peak hour and four study intersections will operate acceptably during the PM peak hour. Traffic generated by the project will result in potential impacts at the following locations:

- Pleasant Valley Road/Racquet Way (Intersection 1) – This intersection will operate at LOS F under cumulative plus project conditions during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips and increase the overall intersection volume by more than 2 percent during the AM and PM peak hours.
- Pleasant Valley Road /Pearl Place (Intersection 2) – This intersection will operate at LOS F under cumulative plus project conditions during the AM and PM peak hours. According to established

significance criteria, the project is not projected to "significantly worsen" conditions, since it would add less than 10 trips during the AM and PM peak hours.

- Missouri Flat Road/China Garden Road (Intersection 6) – This intersection will operate at LOS F under cumulative plus project conditions during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips during the PM peak hour.
- Missouri Flat Road/Forni Road (Intersection 12) – This intersection will operate at LOS F under cumulative plus project conditions during the PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips during the PM peak hour.
- Missouri Flat Road/Plaza Drive (Intersection 16) – This intersection will operate at LOS F under cumulative plus project conditions during the PM peak hours. According to established significance criteria, the project is not projected to "significantly worsen" conditions, since it would add less than 10 trips during the PM peak hour.

TABLE 10 PEAK HOUR INTERSECTION LEVEL OF SERVICE – CUMULATIVE CONDITIONS

Intersection	Control	Cumulative Plus Project			
		AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS	Delay[1]	LOS
1. Pleasant Valley Road/Racquet Way	SSSC	***>300***	***F***	***>300***	***F***
2. Pleasant Valley Road/Pearl Place	SSSC	***100***	***F***	***104***	***F***
3. Pleasant Valley Road (SR 49)/Diamond Road (SR 49)	Signal	74	E	35	D
4. Pleasant Valley Road (SR 49)/China Garden Road	SSSC	26	D	21	C
5. Missouri Flat Road /Pleasant Valley Road (SR 49)	Signal	15	B	22	C
6. Missouri Flat Road /China Garden Road	SSSC	***53***	***F***	E	48
7. Missouri Flat Road /Golden Center Drive	Signal	20	C	29	C
8. Diamond Road (SR 49)/Lime Kiln Road/Black Rice Road	SSSC	7	A	11	B
9. Missouri Flat Road /Diamond Springs Parkway	Signal	23	C	29	C
10. Diamond Springs Pkwy/Throwita Way	Signal	18	B	23	C
11. Diamond Road (SR 49)/Diamond Springs Parkway	Signal	24	C	35	C
12. Missouri Flat Road /Forni Road	Signal	40	D	***112***	***F***
13. Missouri Flat Road /Mother Lode Drive	Signal	15	B	31	C
14. Missouri Flat Road /US 50 EB Ramps	Signal	22	C	50	D

TABLE 10 PEAK HOUR INTERSECTION LEVEL OF SERVICE – CUMULATIVE CONDITIONS					
Intersection	**Control**	**Cumulative Plus Project**			
		AM Peak Hour		**PM Peak Hour**	
		Delay[1]	**LOS**	**Delay[1]**	**LOS**
15. Missouri Flat Road /US 50 WB Ramps	Signal	21	C	72	E
16. Missouri Flat Road /Plaza Drive	Signal	16	B	***166***	***F***

Notes: SSSC = side street stop control, AWSC = all way stop control
[1] For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.
Source: Fehr & Peers, 2015

VEHICLE QUEUING

Table 11 shows the average maximum queue length for selected movements in the project area under cumulative plus project conditions.

TABLE 11 AVERAGE MAXIMUM QUEUE LENGTH – CUMULATIVE PLUS PROJECT CONDITIONS			
Intersection	**Movement**	**Storage Length [feet]**	**PM Peak Hour**
15. Missouri Flat Road/US 50 WB Ramps	NB LT	140	**250**
	NB TH	450	425
	WB LT	1,475	825
	WB RT	1,475	870
	SB TH	450	**500**
	SB RT	380	**450**
14. Missouri Flat Road/US 50 EB Ramps	EB LT	1,150	500
	EB RT	550	**750**
	NB TH	175	**200**
	NB RT	80	**175**
	SB LT	140	**250**
	SB TH	450	**500**
13. Missouri Flat Road/Mother Lode Drive	NB TH	2,315	525
12. Missouri Flat Road/Forni Road	EB LT	200	**400**
	EB TH	>1,000	800
	EB RT	160	**200**
	NB LT	240	**350**

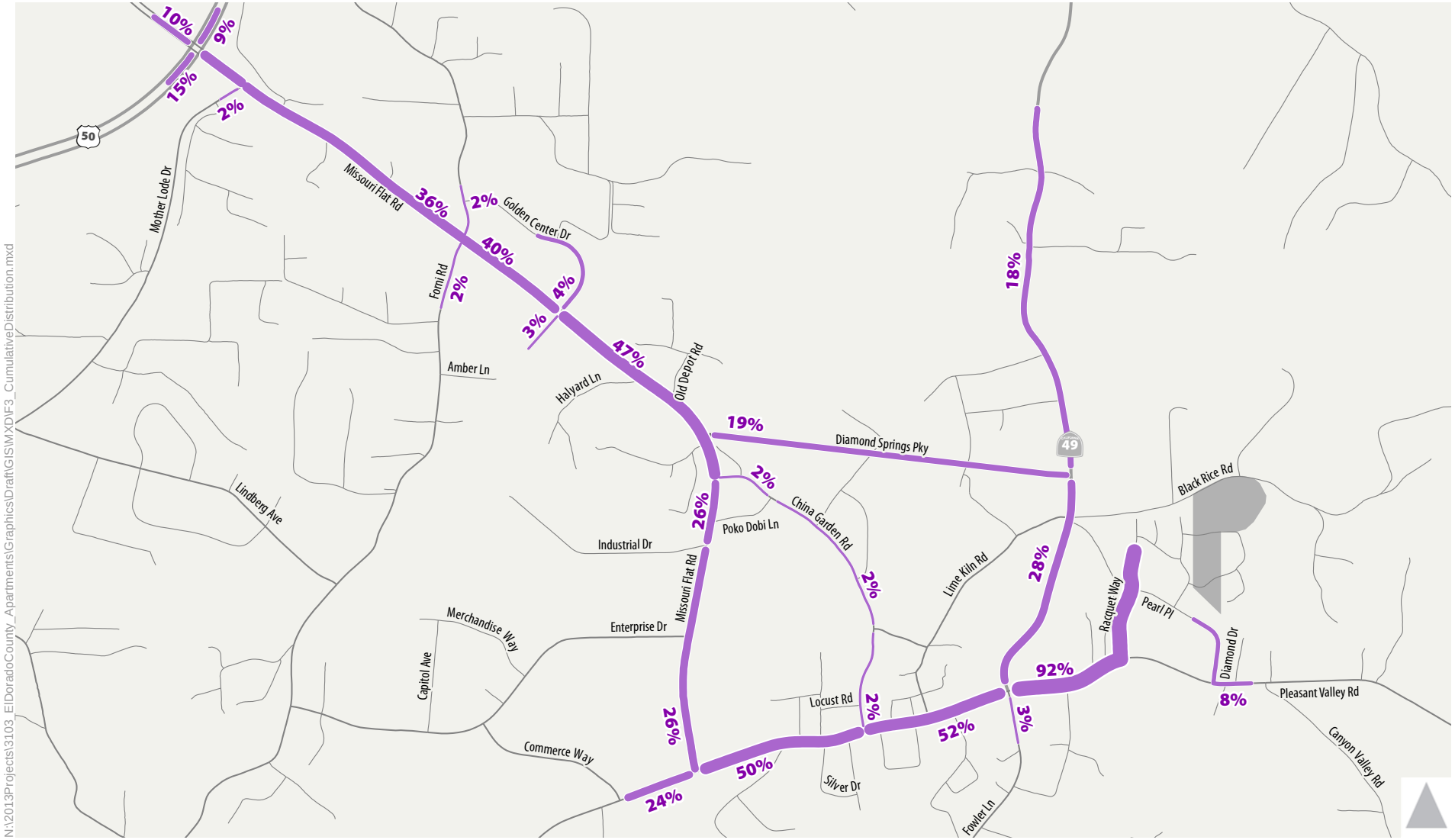
TABLE 11 AVERAGE MAXIMUM QUEUE LENGTH – CUMULATIVE PLUS PROJECT CONDITIONS

Intersection	Movement	Storage Length [feet]	PM Peak Hour
	NB TH	1,025	600
	NB RT	160	**250**
	WB LT	200	125
	WB TH	>1,000	175
	WB RT	200	**250**
	SB LT	300	**400**
	SB TH	2,315	**2,375**
	SB RT	160	**250**
9. Missouri Flat Road/Diamond Springs Parkway	EB LT	275	**325**
	EB TH	1,400	425
	EB RT	350	**425**
	NB LT	800	350
	NB TH/RT	315	225
	WB LT	430	175
	WB TH	2,250	275
	WB RT	180	100
	SB LT/TH/RT	200	100
10. Diamond Road (SR 49)/Diamond Springs Parkway	EB LT	375	375
	EB TH	1,000	150
	EB RT	1,000	450
	NB LT	750	250
	NB TH/RT	750	350
	WB LT/TH	820	200
	WB RT	150	50
	SB LT	150	**250**
	SB TH	600	600
	SB RT	150	**250**

Notes: **Bold and underline** font indicate a queue that exceeds the storage length.
Source: Fehr & Peers, 2015

ROADWAY SEGMENTS

Analysis results, which are presented in Table 12, indicate that most study roadway segments will operate acceptably during the AM and PM peak hours except for the segment of Missouri Flat Road from Diamond Springs Parkway to US 50, which will operate at LOS F (at the LOS E/LOSF threshold).

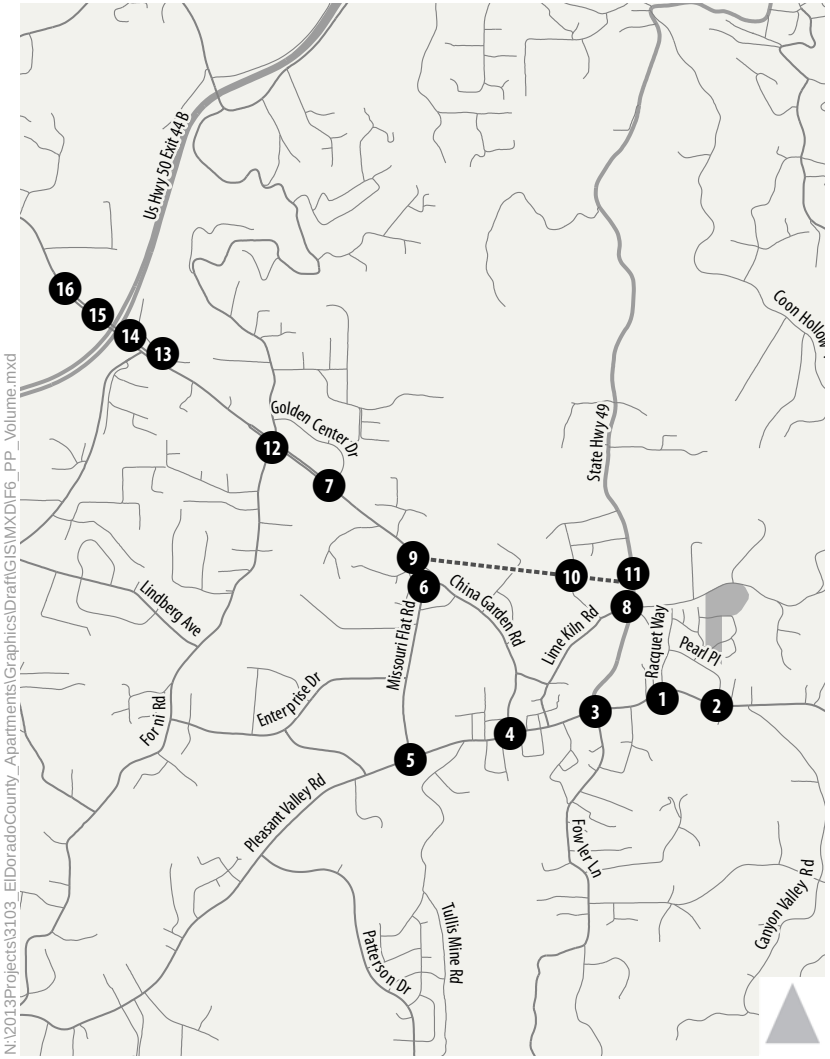


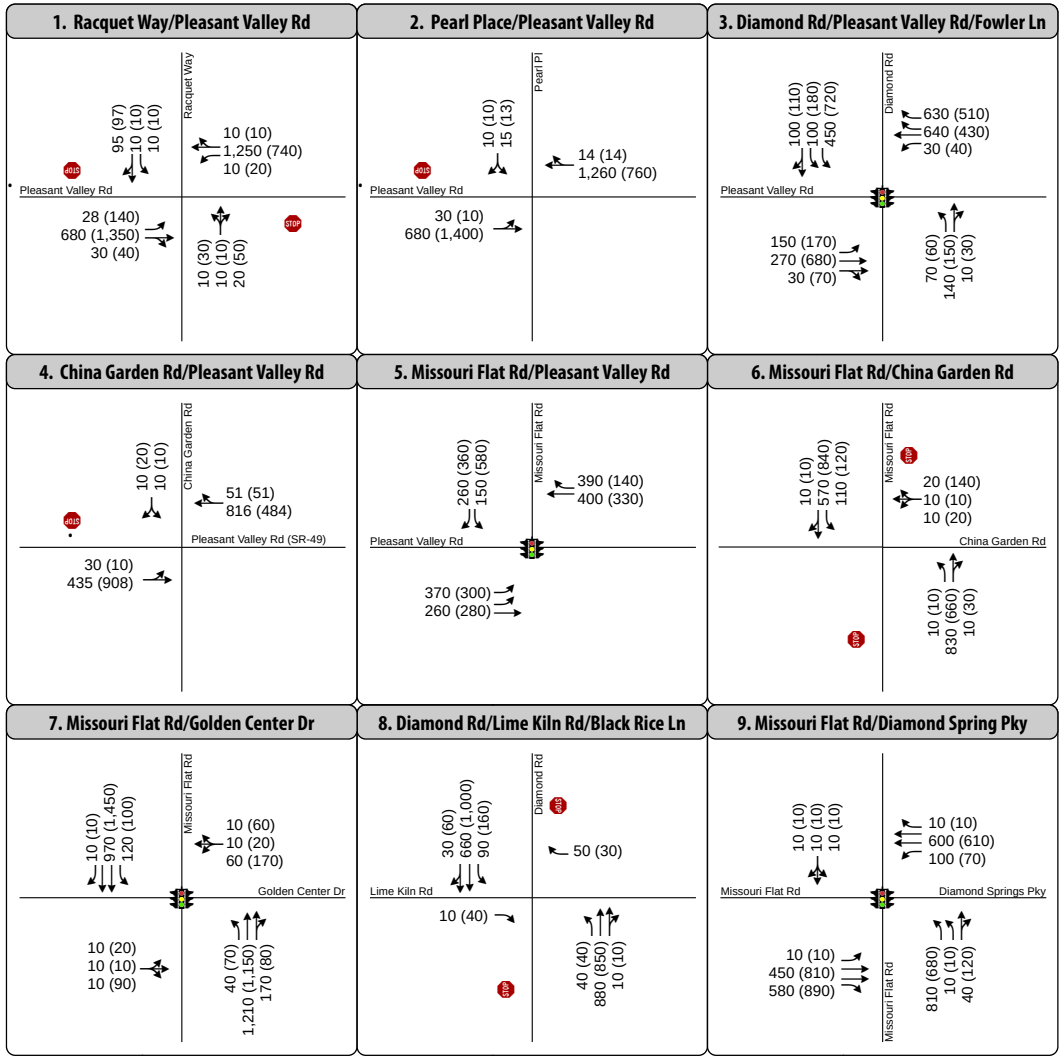
21% Trip Distribution

Project Site

Figure 4

Peak Hour Trip Distribution - Cumulative Conditions

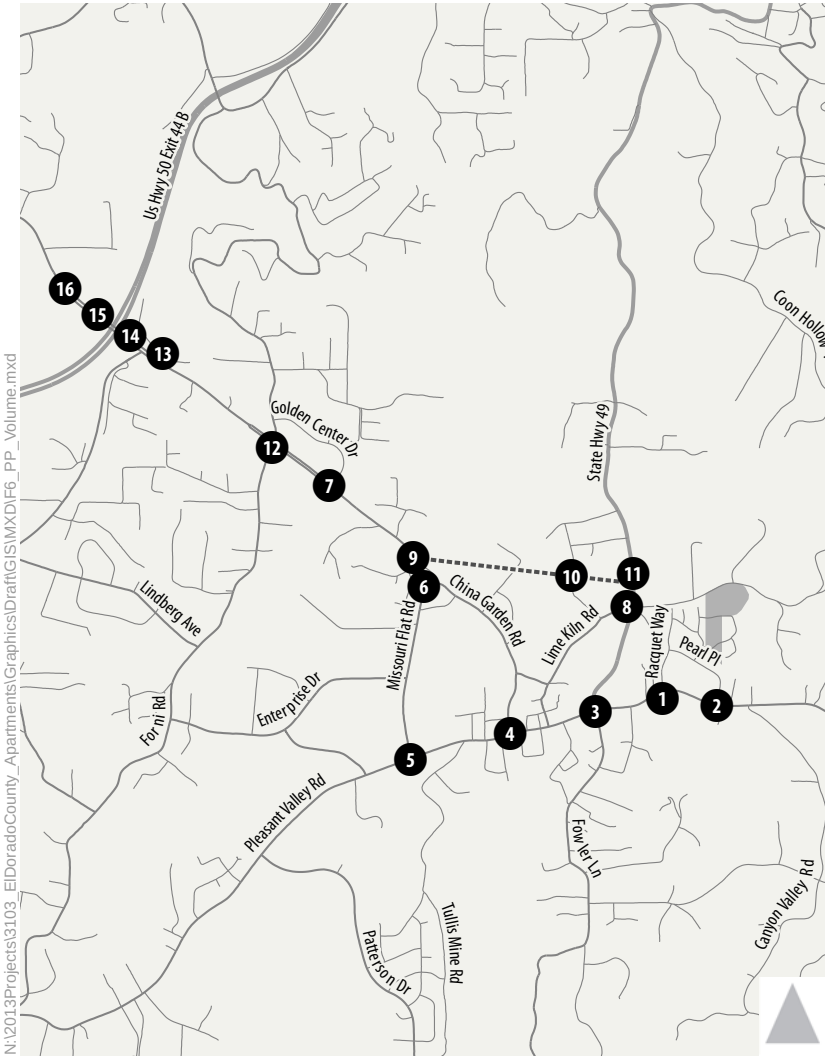


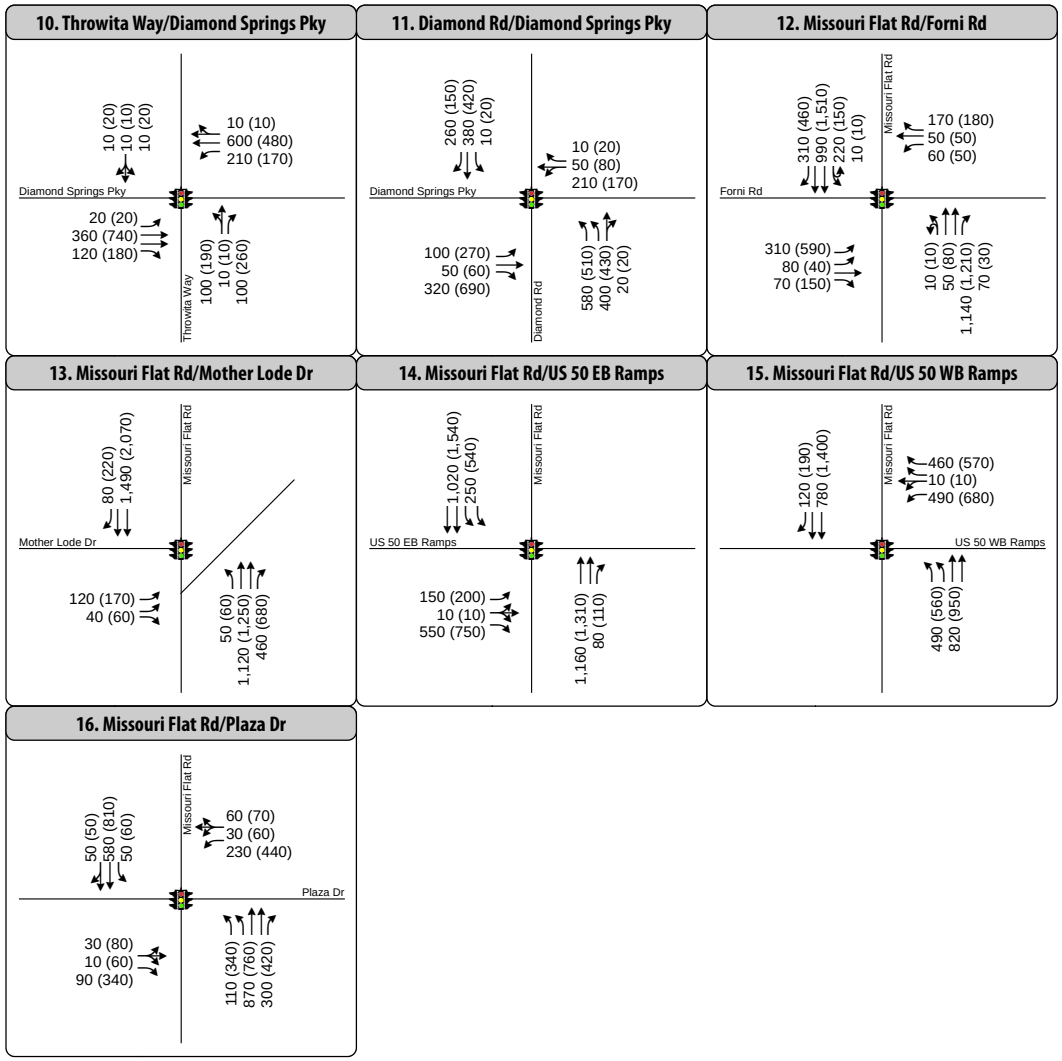


Study Intersection
Planned Roadway
Project Site
Turn Lane
AM (PM) Peak Hour Traffic Volume
Traffic Signal
Stop Sign

Figure 5A

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Plus Project





Study Intersection
Planned Roadway
Project Site
Turn Lane
AM (PM) Peak Hour Traffic Volume
Traffic Signal
Stop Sign

Figure 5B

Peak Hour Traffic Volumes and Lane Configurations - Cumulative Plus Project

TABLE 12 PEAK HOUR ROADWAY SEGMENT LEVEL OF SERVICE – CUMULATIVE CONDITIONS

Roadway Segment	Classification	Cumulative Plus Project					
		AM Peak Hour			PM Peak Hour		
		Vol[1]	LOS	v/c[2]	Vol[1]	LOS	v/c[2]
Missouri Flat Road – Diamond Springs Parkway to US 50[4]	4AD	2,650	D	0.81	3,300	***F***	***1.00***
Missouri Flat Road – Pleasant Valley Road (SR 49) to Diamond Springs Parkway	3A	1,540	B	0.62	1,770	C	0.72
Pleasant Valley Road (SR 49) – Missouri Flat Road to SR 49 (West)	2A	1,290	C	0.78	1,270	C	0.77
Pleasant Valley Road (SR 49) – Diamond Road (SR 49) to Missouri Flat Road	2A	1,260	C	0.76	1,520	D	0.92
Pleasant Valley Road (SR 49) – Canyon Valley Road to Diamond Road (SR 49)	2A	1,375	D	0.83	1,507	D	0.91
Pleasant Valley Road (SR 49) – Big Cut Road to Canyon Valley Road	2A	1,255	D	0.76	1,337	D	0.81
Diamond Road (SR 49) – Pleasant Valley Road to Happy Lane	4AD	1,570	C[3]	0.48	1,840	C[3]	0.56
Diamond Road (SR 49) – Diamond Springs Parkway to Bradley Drive	2A	1,160	D	0.70	1,310	D	0.79
China Garden Road – Missouri Flat Road to China Garden Court	2A	160	C[3]	0.10	320	C[3]	0.19
Diamond Springs Parkway – Throwita Way to Missouri Flat Road	4AD	1,210	C[3]	0.37	1,630	C[3]	0.50

Notes: 4AU = Four-Lane Arterial, Undivided, 2A = Two-Lane Arterial
[1] Two-way peak hour traffic volume
[2] v/c = volume-to-capacity ratio
[3] LOS at this location is C or better
[4] Average of roadway segments between Mother Lode Drive and Forni Road, Forni Road to Gold Center Drive, and Gold Center Drive to Diamond Springs Parkway.
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.
Source: Fehr & Peers, 2015

IMPACT STATEMENTS AND MITIGATION MEASURES

Project impacts were determined by comparing conditions with the project to conditions without the project in accordance with the established significance criteria presented in the Thresholds of Significance section.

EXISTING PLUS PROJECT

Existing plus project conditions analysis results, presented in Tables 6 and 8, indicate that the addition of the project would exacerbate unacceptable operations at two intersections. The following discusses these impacts and associated mitigations. Table 13 summarizes the AM and PM peak hour intersection operations under existing plus project conditions with proposed mitigation.

INTERSECTIONS

Impacts

Impact 1 - Pleasant Valley Road/Racquet Way (Intersection 1) – This intersection operates at LOS F without the project during the PM peak hour. The project adds more than 100 seconds of delay to the side street approach during the PM peak hour. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour. **This is a significant impact.**

Impact 2 - Missouri Flat Road/China Garden Road (Intersection 6) – This location operates at LOS F without the project the PM peak hour. The project will increase delay at the intersection by 3 seconds during the PM peak hour. Based on established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour. **This is a significant impact.**

Mitigation

Mitigation 1 - Pleasant Valley Road/Racquet Way (Intersection 1) – Implement one of the following improvements:

- Install traffic signal control at the Pleasant Valley Road/Racquet Way intersection. With traffic signal control, the intersection would operate acceptably at LOS B or better operation during the AM and PM peak hours.

The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for

improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available.

Appropriate mitigation, as determined by the CDA, would include payment of traffic impact mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement or fee credit for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others. The project's proportional share of traffic entering the intersection is about 4.5 percent.

OR

- Provide a public road connection to Diamond Road, by way of Black Rice Road, and maintain side street stop control at the Diamond Road/Black rice Road/Lime Kiln Road intersection.

With either of these improvements, this impact would be **less than significant**.

Mitigation 2 - Missouri Flat Road/China Garden Road (Intersection 6) – Implement one of the following improvements:

- Install traffic signal control at the Missouri Flat Road/China Garden Road intersection. With traffic signal control, the intersection would operate acceptably at LOS C or better operation during the AM and PM peak hours.

The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available.

Appropriate mitigation, as determined by the CDA, would include payment of traffic impact mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement or fee credit for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others. The project's proportional share of traffic entering the intersection is about 1.5 percent.

OR

- Restrict access on the eastbound and westbound approaches to left-in, right-in/right-out only

With either of these improvements, this impact would be **less than significant**.

TABLE 13 PEAK HOUR INTERSECTION LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS WITH MITIGATIONS

Intersection	Control	Existing				Existing Plus Project				Existing Plus Project with Mitigations			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1. Pleasant Valley Road/Racquet Way	SSSC	39	E	**191**	**F**	41	E	***>300***	***F***	14	B	16	B
6. Missouri Flat Road/China Garden Road (Mitigation – Right-in/Right-out only)	SSSC	49	E	**108**	**F**	49	E	***111***	***F***	23	C	21	C

Notes: SSSC = side street stop control, AWSC = all way stop control, N/A = Not Applicable (future intersection)

[1] For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

Source: Fehr & Peers, 2015

CUMULATIVE PLUS PROJECT

Cumulative plus project conditions analysis results, presented in Tables 10 and 12, indicate that the addition of the project would exacerbate unacceptable operations at two intersections. The following discusses these impacts and associated mitigations. Table 14 summarizes the AM and PM peak hour intersection operations under cumulative plus project conditions with proposed mitigation.

INTERSECTIONS

Impacts

Impact 3 - Pleasant Valley Road/Racquet Way (Intersection 1) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 4 - Missouri Flat Road/China Garden Road (Intersection 6) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 5 - Missouri Flat Road/Forni Road (Intersection 12) – This intersection will operate at LOS F without the project during the PM peak hour. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. However, the County's General Plan allows this section of Missouri Flat Road to operate at LOS F up to a v/c ratio of 1.20. The two-way PM peak hour volume for Missouri Flat Road (Mother Lode Drive to Diamond Springs Parkway) is 3,300 vehicles per hour. The peak-hour roadway capacity for a four-lane divided arterial is 3,740 vehicles per hour (El Dorado County General Plan EIR, Table 5.4-1). The resulting v/c ratio is 0.88. As a result, this is not a project impact. **This is a less than significant impact.**

Mitigation

Mitigation 3 - Pleasant Valley Road/Racquet Way (Intersection 1) – Implement one of the following improvements:

- Install traffic signal control at the Pleasant Valley Road/Racquet Way intersection. With traffic signal control, the intersection would operate acceptably at LOS C and LOS D operation during the AM and PM peak hours, respectively.

The Cumulative analysis includes planned roadway improvements, growth consistent with the 2004 General Plan, and with approved and reasonably foreseeable projects within the study area. This is found to be an impact in the cumulative scenario without the project, which includes other foreseeable but unapproved projects. Therefore, the project is responsible for its proportional share of the proposed mitigation under cumulative conditions. Since the impact is identified under the cumulative scenario, the timing of the improvement is a function of the rate of population and employment growth. The County's traffic impact mitigation fee program provides a mechanism for collecting fair share contributions for improvements in the 2015 CIP.

The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available.

Appropriate mitigation, as determined by the CDA, would include payment of traffic impact mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement or fee credit for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others. The project's proportional share of traffic entering the intersection is about 3.0 percent.

OR

- Provide a public road connection to Diamond Road, by way of Black Rice Road, and maintain side street stop control at the Diamond Road/Black rice Road/Lime Kiln Road intersection.

With either of these improvements, this impact would be **less than significant**.

Mitigation 4 - Missouri Flat Road/China Garden Road (Intersection 6) – Implementation of one of the following improvements:

- Install traffic signal control at the Missouri Flat Road/China Garden Road intersection. With traffic signal control, the intersection would operate acceptably at LOS C or better during the AM and PM peak hours.

The Cumulative analysis includes planned roadway improvements, growth consistent with the 2004 General Plan, and with approved and reasonably foreseeable projects within the study area. This is found to be an impact in the cumulative scenario without the project, which includes other foreseeable but unapproved projects. Therefore, the project is responsible for its proportional share of the proposed mitigation under

cumulative conditions. Since the impact is identified under the cumulative scenario, the timing of the improvement is a function of the rate of population and employment growth. The County's traffic impact mitigation fee program provides a mechanism for collecting fair share contributions for improvements in the 2015 CIP.

The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available.

Therefore, appropriate mitigation, as determined by the CDA, would include payment of traffic impact mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement or fee credit for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others. The project's proportional share of traffic entering the intersection is about 1.0 percent.

OR

- Restrict access on the eastbound and westbound approaches to left-in, right-in/right-out only. This is the County's preferred mitigation.

With either of these improvements, this impact would be **less than significant**.

BICYCLE AND PEDESTRIAN CIRCULATION

Implementation of the proposed project will increase demand for pedestrian and bicycle facilities. The project will connect and integrate with existing and planned facilities adjacent to the project as conditioned by the El Dorado County CDA. Therefore, the proposed project will not conflict with adopted policies, plans, or programs related to bicycle and pedestrian facilities, or otherwise decrease the performance or safety of such facilities. **This is a less than significant impact.**

TRANSIT

Implementation of the proposed project will increase demand transit, but at a level consistent with historic population growth rates in El Dorado County. Consequently, the growth in transit demand would not likely exceed the ability to serve this ridership growth through existing funding sources for transit that are tied to population growth. The project is served by the Diamond Springs Line (Routh 30/35) and a bus stop is located within 500 feet of the project. **This is a less than significant impact.**

TABLE 14 PEAK HOUR INTERSECTION LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATIONS

Intersection	Control	Cumulative Plus Project				Cumulative Plus Project with Mitigations			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1. Pleasant Valley Road/Racquet Way (Mitigation – Traffic Signal Control)	SSSC / Signal	***>300***	***F***	***>300***	***F***	5	A	19	B
6. Missouri Flat Road/China Garden Road (Mitigation – Restricted Access)	SSSC / Signal	***F 53***	***F***	E	48	13	B	21	C

Notes: SSSC = side street stop control, AWSC = all way stop control, N/A = Not Applicable (future intersection)

[1] For signalized and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for the overall intersection. For unsignalized (side street stop controlled) intersections, average intersection delay is reported in seconds per vehicle for the overall intersection (worst movement). All results are rounded to the nearest second.

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

Source: Fehr & Peers, 2015

OTHER CONSIDERATIONS

PEAK HOUR TRAFFIC SIGNAL WARRANT EVALUATION

An evaluation of the need for traffic signal installation was conducted using the peak hour traffic signal warrant methodologies from the California Manual on Uniform Traffic Control Devices, January 2012. The peak hour traffic signal warrant was evaluated for the following existing stop-controlled intersections:

- Pleasant Valley Road/Racquet Way
- Pleasant Valley Road/Pearl Place
- Missouri Flat Road/China Garden Road

Tables 15 displays the results of the peak hour volume warrant for existing plus project and cumulative plus project conditions, respectively. The Pleasant Valley Road/Racquet Way and the Missouri Flat Road/China Garden Road intersections would satisfy the peak hour warrant based on AM and PM peak hour traffic volumes.

TABLE 15 PEAK HOUR SIGNAL WARRANT EXISTING PLUS PROJECT AND CUMULATIVE PLUS PROJECT CONDITIONS				
Intersection	**Existing Plus Project**		**Cumulative Plus Project**	
	AM	**PM**	**AM**	**PM**
1. Pleasant Valley Road / Racquet Way	Yes	Yes	Yes	Yes
1. Pleasant Valley Road / Pearl Place	No	No	No	No
6. Missouri Flat Road / China Garden Road	Yes	Yes	No	Yes
Source: Fehr & Peers, 2015				

COLLISION HISTORY REVIEW

A review of the County of El Dorado Transportation Division Annual Accident Location Study (2015) was conducted to identify if any study facilities were identified as high accident rate facilities warranting possible investigation. The 2015 Annual Accident Location Study identified Forni Road near Missouri Flat Road for future review for possible improvement by signing and/or delineation. For the three-year period from January 1, 2013 to December 31, 2015, seven collisions were reported on this portion of Forni Road. One of the seven collisions resulted in an injury with three of the seven collisions being broadside collisions. The section of Forni Road has an accident rate of 1.00 accidents per million entering vehicles. The County applies a benchmark as 1.00 accidents per million entering vehicles as the acceptable rate for single sites to select sites for additional action. The project is estimated to add about one trip to the facility during the AM and PM peak hours.

PARKING

The proposed project is providing 190 parking spaces, including 174 standard spaces, four compact spaces, and 12 accessible space. The project is required to provide 174 spaces. Therefore, the project is providing adequate parking.

SITE ACCESS

The project will access two existing roadways, Deuce Drive and Service Drive. Sight distance at the project access points to these roadways is adequate.

APPENDIX A: INTERSECTION AND ROADWAY COUNTS AND EXISTING CONDITIONS TECHNICAL CALCULATIONS

APPENDIX B: EXISTING PLUS PROJECT TECHNICAL CALCULATIONS

APPENDIX C: CUMULATIVE NO PROJECT TECHNICAL CALCULATIONS

APPENDIX D: CUMULATIVE PLUS PROJECT TECHNICAL CALCULATIONS

APPENDIX E: MITIGATION TECHNICAL CALCULATIONS

APPENDIX F: SIGNAL WARRANT ANALYSIS

El Dorado Irrigation District

Letter No.: EEO2017-0401

March 21, 2017

VIA FIRST-CLASS MAIL

Sergei Oleshko
Core Care Foundation
8863 Greenback Lane, Ste 324
Orangevale, CA 95662

Subject: Facility Improvement Letter (FIL), Diamond Springs Village Apartments
Assessor's Parcel No. 051-461-59 (Diamond Springs)

Dear Mr. Oleshko:

This letter is in response to your request dated February 13, 2017 and is valid for a period of three years. If facility improvement plans for your project are not submitted to El Dorado Irrigation District (EID or District) within three years of the date of this letter, a new Facility Improvement Letter will be required.

Design drawings for your project must be in conformance with the District's *Water, Sewer and Recycled Water Design and Construction Standards*.

This proposed project is an 81-unit multifamily apartment complex on 10.7 acres. Water service, sewer service, private fire service and fire hydrants are requested. The property is within the District boundary.

This letter is not a commitment to serve, but does address the location and approximate capacity of existing facilities that may be available to serve your project.

Water Supply
As of January 1, 2016, there were 12,537 equivalent dwelling units (EDUs) of water supply available in the Western/Eastern Water Supply Region. Your project as proposed on this date would require approximately 60 EDUs of water supply.

Water Facilities
An 8-inch water line exists in Black Rice Road and 8-inch water lines are also located on the parcel to be developed (see enclosed System Map). The Diamond Springs/El Dorado Fire Protection District has determined that the minimum fire flow for this project is 1,500 GPM for a 2-hour duration while maintaining a 20-psi residual pressure. According to the District's hydraulic model, the existing system can deliver the required fire flow. In order to provide this fire flow and receive service, you must construct a water line extension connecting to the previously identified water facilities. The hydraulic grade line for the existing water distribution facilities is 2,080 feet above mean sea level at static conditions and 2,029 feet above mean sea level during fire flow and maximum day demands.

Attachment C

The flow predicted above was developed using a computer model and is not an actual field flow test.

Sewer Facilities
There is a 6-inch sewer line traversing the property to be developed. This sewer line has adequate capacity at this time. In order to receive service from this line, an extension of facilities of adequate size must be constructed. Your project as proposed on this date would require approximately 56 EDUs of sewer service.

Easement Requirements
Proposed and existing water lines, sewer lines and related facilities must be located within an easement accessible by conventional maintenance vehicles. When the water lines or sewer lines are within streets, they shall be located within the paved section of the roadway. No structures will be permitted within the easements of any existing or proposed facilities. The District must have unobstructed access to these easements at all times, and generally does not allow water or sewer facilities along lot lines.

Easements for any new District facilities constructed by this project must be granted to the District prior to District approval of water and or sewer improvement plans, whether onsite or offsite. In addition, due to either nonexistent or prescriptive easements for some older facilities, any existing onsite District facilities that will remain in place after the development of this property must also have an easement granted to the District.

Environmental
The County is the lead agency for environmental review of this project per Section 15051 of the California Environmental Quality Act Guidelines (CEQA). The County's environmental document should include a review of both offsite and onsite water and sewer facilities that may be constructed by this project. You may be requested to submit a copy of the County's environmental document to the District if your project involves significant off-site facilities. If the County's environmental document does not address all water and sewer facilities and they are not exempt from environmental review, a supplemental environmental document will be required. This document would be prepared by a consultant. It could require several months to prepare and you would be responsible for its cost.

Summary
Service to this proposed development is contingent upon the following:

- The availability of uncommitted water supplies at the time service is requested;
- Approval of the County's environmental document by the District (if requested);
- Executed grant documents for all required easements;
- Approval of an extension of facilities application by the District;
- Approval of facility improvement plans by the District;
- Construction by the developer of all onsite and offsite proposed water and sewer facilities.
- Acceptance of these facilities by the District; and
- Payment of all District connection costs.

2890 Mosquito Road, Placerville CA, 95667 (530) 622-4513

Services shall be provided in accordance with El Dorado Irrigation District Board Policies and Administrative Regulations, as amended from time-to-time. As they relate to conditions of and fees for extension of service, District Administrative Regulations will apply as of the date of a fully executed Extension of Facilities Agreement.

If you have any questions, please contact Marc Mackay at (530) 642-4135.

Sincerely,

Michael J. Brink, P.E.
Supervising Civil Engineer

MB/MM:at

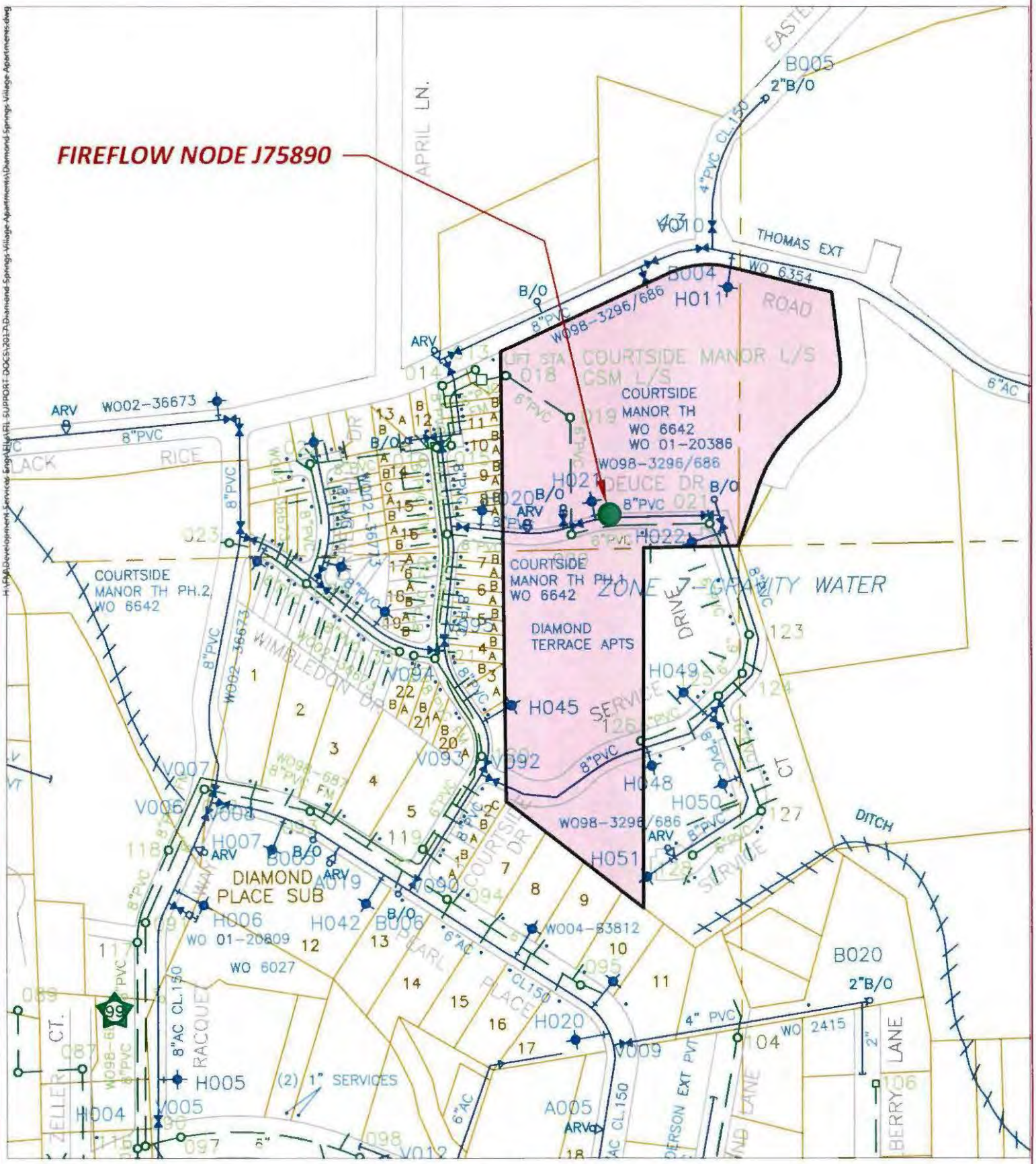
Enclosures: System Map

cc w/ System Map:

Kenneth Earle – Deputy Chief / Fire Marshal
Diamond Springs / El Dorado Fire Department
Via email - kearle@diamondfire.org

Roger Trout, Director
El Dorado County Development Services Department
Via email - roger.trout@edcgov.us

7890 Mosquito Road, Placerville CA, 95667 (530) 622-4513



El Dorado Irrigation District
System Map

DATE: March 20, 2017

WARNING: For schematic purposes only. Exact pipe location must be field verified.

Diamond Springs Village Apartments

WATERLINE

SEWERLINE

Scale: 1" = 250'

APN: 051-461-59

SYS. No.: 121-3

ARBORIST REPORT
TREE INVENTORY SUPPLEMENT
and
IMPACT ASSESSMENT

DIAMOND SPRINGS VILLAGE APARTMENTS PROJECT SITE
6035 Service Drive, Diamond Springs
County of El Dorado, California

Prepared for:

Sergei Oleshko
CoreCare Foundation
8863 Greenback Lane, Suite 324
Orangevale, California 95662

Prepared by:

Edwin E. Stirtz
International Society of Arboriculture
Certified Arborist WE-0510A
ISA Tree Risk Assessment Qualified
Member, American Society of Consulting Arborists

Acorn Arboricultural Services, Inc.
P.O. Box 401
Roseville, California 95678

May 2, 2018

Attachment D

TABLE OF CONTENTS

COPYRIGHT STATEMENT

This consultant's report, dated May 2, 2018, is for the exclusive and confidential use of CoreCare Foundation concerning potential development of the Diamond Springs Village Apartments Project Site, located at 6035 Service Drive, in Diamond Springs, California. Any use of this report, the accompanying appendices, or portions thereof, other than for project review and approval by appropriate governmental authorities, shall be subject to and require the written permission of Acorn Arboricultural Services. Unauthorized modification, distribution and/or use of this report, including the data or portions thereof contained within the accompanying appendices, is strictly prohibited.

QUALIFICATION STATEMENT

Acorn Arboricultural Services, Inc. is a fully insured, Roseville-based arboriculture consulting firm founded by its Principal, Jay Bate. Edwin E. Stirtz is an ISA Certified Arborist and a member of the American Society of Consulting Arborists and International Society of Arboriculture. Mr. Stirtz possesses in excess of 30 years of experience in horticulture and arboriculture, both maintenance and construction, and has spent the last 23 years as a consulting and preservation specialist in the Sacramento and surrounding regions.

INTRODUCTION

Acorn Arboricultural Services is pleased to present this Arborist Report, Tree Inventory Supplement and Impact assessment for the trees located within and/or overhanging the Diamond Springs Village Apartments Project Site, located at 6035 Service Drive in Diamond Springs, California. This Arborist Report, Tree Inventory Supplement, and Impact Assessment has been prepared for the CoreCare Foundation in an effort to provide a guide to aid in the development of this site. The Tree Inventory Supplement documents tree data obtained by Edwin E. Stirtz, ISA Certified Arborist WE-0510A, at the time of field reconnaissance and inventory efforts on May 1, 2018 for trees located on Black Rice Road. An Oak Tree Survey, Preservation & Replacement Plan prepared by Natural Investigations Company and dated April 2017 was provided to evaluate for comparison to The County of El Dorado's revised Oak Resource Management Plan (ORMP) and Oak Resource Conservation Ordinance (ORCO), which was adopted on October 24, 2017. The Natural Investigations Replacement Plan was prepared prior to the implementation of the new ordinance and Core Care Foundation has requested a review of the Replacement Plan for consistency with the revised ordinance and how the revised ORMP/ORCO may impact it.

SCOPE OF INVENTORY EFFORT

A tree inventory was performed on the project site in April 2017. This report documents data collected on additional trees along Black Rice Road (between Wimbledon Drive and Highway 49. Oak trees along this section 5 inches (10 inches for multi-stem trees) or more measured at 54 inches above ground level (diameter at standard height/DSH) were included in the inventory effort. Non-oak trees were noted on the Tree Inventory Field Exhibit, but not tagged or inventoried. There are various small trees (<5 inches) and shrubs along this section which were not tagged or included within this inventory.

METHODOLOGY

During field reconnaissance and inventory efforts on May 1, 2018, Edwin E. Stirtz of Acorn Arboricultural Services conducted a visual review from ground level of the trees within and/or overhanging Black Rice Road. The proposed improvements to this area include widening the road from 20 feet to 24 feet and adding a 6-foot wide sidewalk along the south side of this road. The trees which met the defined criteria were identified in the field by affixing pre-stamped, round, aluminum number tags to the tree trunks. The tree numbers utilized in this report and accompanying Tree Inventory Supplement correspond to the tree tags which were affixed to the trees in the field, and those tree numbers or grouping of numbers have been digitized on an aerial Tree Inventory Field Exhibit to document the trees general locations.

At the time of field identification and inventory efforts specific data was gathered for each tagged tree including the tree's species, diameter measured at breast height ("DBH") and dripline radius ("DLR"). Utilizing this data the tree's overall structural condition and vigor were separately assessed ranging from "excellent"[1] to "poor" based upon the observed characteristics noted within the tree and the Arborist's best professional judgment. Ratings are subjective and are dependent upon both the structure and vigor of the tree. The vigor rating considers factors such as foliage size, color and density; the amount of deadwood within the canopy; bud viability; evidence of reaction growth; and the presence or evidence of stress, disease, nutrient deficiency and insect infestation. The structural rating reflects the root crown/collar, trunk and branch configurations; canopy balance; the presence of included bark, weak crotches and other structural defects and decay and the potential for structural failure. Finally, notable characteristics were documented and recommendations on a tree-by-tree basis were made which logically followed the observed characteristics noted within the trees at the time of the field inventory effort. These recommendations and maintenance specifications are based on the typical requirements for the age and species of each tree as well as the condition of the tree in terms of a normal shape and structure for the species.

SUMMARY OF INVENTORY EFFORT

Field reconnaissance and inventory efforts found 11 trees measuring 5 inches in diameter and larger measured at breast height within and/or overhanging the proposed project area. Composition of the 11 inventoried trees includes the following species and accompanying aggregate diameter inches:

SPECIES DIVERSIFICATION			
Interior Live Oak	=	9 trees	(158 aggregate diameter inches)
Blue Oak	=	2 tree	(49 aggregate diameter inches)
TOTAL	**=**	**11 trees**	**(207 aggregate diameter inches)**

[1] It is rare that a tree qualifies in an "excellent" category, and it should be noted that there were no trees observed within the project area which fell within the criteria of an "excellent" or "good" rating. A complete description of the definitions and ratings utilized in this report and accompany inventory summary are found on pages 8-9.

Recommended Removals

At this time, one individual tree has been recommended for removal from the proposed project area due to the nature and extent of defects, compromised health, and/or structural instability noted at the time of field inventory efforts. For reference, the tree which has been recommended for removal due to the severity of noted defects, compromised health, and/or structural instability is highlighted in green within the accompanying Tree Inventory Summary and briefly summarized as follows:

TREE #	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)	CONDITIONAL ASSESSMENT		PRIORITY
						STRUCTURE	VIGOR	
774	Interior Live Oak	*(Quercus wislizeni)*	13,14	27	16	Poor	Poor	1

It is important to note that under the revised ORMP/ORCO, only Valley Oaks *(Quercus lobata)* need to be mitigated for this project type. Therefore, the removal recommended above does not require mitigation. There may be other inventoried trees along Black Rice Road that require removal to implement the proposed widening and improvements. Since none of the trees in the Supplemental Tree Inventory are Valley Oaks, none should require mitigation should they need to be removed. This statement does not apply to the original Tree Inventory performed in April 2017 where Valley Oaks were inventoried.

REVIEW OF NATURAL INVESTIGATIONS REPLACEMENT PLAN (DATED APRIL 18, 2017)

An Oak Tree Survey, Preservation and Replacement Plan prepared by Natural Investigations Co. dated April 18, 2017 concluded that the project site is "…dominated by annual grassland habitats. Remnants of mixed oak-conifer woodlands and a small riparian corridor and associated wetlands are interspersed within the grasslands." It also concluded that "The percentage of oak species in the canopy is greater than the 10% threshold to define it as oak woodland; thus the woodland is an oak woodland as defined by County regulations."

The author stated that "the Property is subject to Canopy Retention and Replacement because the Property is greater than 1 acre and it contains more than 1 percent oak canopy cover." The calculated area of oak canopy to be removed was 0.110 acres, approximately 10% of the total oak canopy. The 90% retention standard was met.

The revision to the El Dorado County Oak Resource Management Plan (ORMP) and Oak Resource Conservation Ordinance (ORCO; adopted October 24, 2017) does not change the original impact assessment. Since the canopy impacts are to Valley Oak trees the mitigation requirement of 22 new oak trees is still mandated by the ordinance.

ADDITIONAL COMMENTS ON ARBORIST'S REPORT (DATED APRIL 18, 2017)

The report correctly states that Tree 78 is a Heritage tree (as defined by the ORMP/ORCO). The current condition of this tree is summarized below:

TREE #	COMMON NAME	SPECIES	TOTAL DBH (inches)	DLR (feet)	CONDITIONAL ASSESSMENT					
					ROOT CROWN	TRUNK	LIMBS	FOLIAGE	STRUCTURE	VIGOR
78	Valley Oak	*(Quercus lobata)*	46	50	Fair	Poor	Poor to fair	Dormant	Poor	Fair

Should the tree be retained, we recommend that additional examination of the tree take place prior to development. This should include an aerial inspection, decay inspection, and root crown inspection. Trees in this condition may be suited for intensive preservation efforts such as cabling, canopy reduction, and cleaning. Risk to humans may be mitigated by restricting access under it. Should the client decide to remove this tree, it meets the El Dorado County ORMP/ORCO criteria of "dead, dying or diseased" and should be exempt from mitigation requirements.

All recommendations are based on the current, applicable American National Standards Institute Standards (ANSI) for tree care activities (ANSI A300 (Part 1) – 2017) and all work performed under these specifications shall comply with the ANSI A300 standards and the International Society of Arboriculture Best Management Practices for pruning. All tree maintenance activities shall comply with ANSI Z133-2012 Safety requirements for Arboricultural Operations.

SUMMARY

No new mitigation required for Black Rice Road widening. No change in previous mitigation for on-site Oak Woodland/Individual Oak Impacts, 22 trees (based on 0.110 ac impact per Natural Investigations) which = $3,366.00 ($153 per/inch) or $911 using the acreage replacement calculation.

COMMENTS AND ARBORISTS' DISCLAIMER

The County of El Dorado regulates the removal of "protected trees" and prior to any tree removal it should be determined which if any trees proposed for removal require a tree permit which may then be obtained from the County.

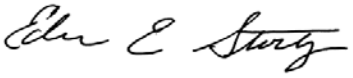
Please bear in mind that implementation of the recommendations provided within this report will help to reduce risk associated with trees however, implementation of any

recommendations should not be viewed as a guarantee or warranty against the trees' ultimate demise and/or failure in the future. Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of the trees and ***attempt to reduce the risk of living near trees***. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Individuals who choose to live in treed areas accept a certain level of risk from unpredictable tree related hazards such as toppling in storms and limbs falling that may damage property at some time in the future. Since trees are living organisms their structure and vigor constantly change over time, and they are not immune to changes in site conditions or seasonal variations in the weather. Further, conditions are often hidden within the tree and/or below ground. Arborists and other tree care professionals cannot guarantee that a tree will be healthy and/or safe under all circumstances or for a specific period of time. Likewise remedial treatments cannot be guaranteed. Trees can be managed but they cannot be controlled. To develop land and live near trees is to accept some degree of risk and the only way to eliminate all risk associated with trees would be to eliminate all of the trees. Acorn Arboricultural Services cannot predict acts of nature including, without limitation, storms of sufficient strength which can even take down a tree with a structurally sound and vigorous appearance.

Finally, the trees included in the Diamond Springs Village Apartments Project Site should be regularly monitored on an annual basis as well as after significant storm events. As trees age, the likelihood of failure of branches or entire trees increases and occasional pruning, fertilization, mulch, pest management, replanting and/or irrigation may be required and annual inspections can often identify these items prior to a significant Therefore, ***the future management plan must include an annual inspection*** by a qualified ISA Certified Arborist to keep abreast of the trees' changing condition(s) and to assess the trees' ongoing structural integrity and potential for hazard in a developed environment.

Thank you for allowing Acorn Arboricultural Services to assist you with this tree inventory and maintenance specification. Please feel free to give me a call if you have any questions or require additional information and/or clarification.

Sincerely,



Edwin E. Stirtz
International Society of Arboriculture
Certified Arborist WE-0510A
ISA Tree Risk Assessment Qualified
Member, American Society of Consulting Arborists

ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.

3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.

4. The consultant shall not be required to give a deposition and/or attend court by reason of this report unless subsequent contractual arrangements are made for in advance, including payment of an additional fee for such services according to our standard fee schedule, adjusted yearly, and terms of the subsequent contract of engagement.

5. Loss or alteration of any part of this report invalidates the entire report. Ownership of any documents produced passes to the Client only when all fess have been paid.

6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant.

7. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed written or verbal consent of the consultant, particularly as to value conclusions, identity of the consultant, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant as stated in his qualifications.

8. This report and any values expressed herein represent the opinion of the consultant and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

9. Sketches, diagrams, graphs, drawings and photographs within this report are intended as visual aids and are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of information generated by other consultants is for coordination and ease of

reference. Inclusion of such information does not constitute a representation by the consultant as to the sufficiency or accuracy of the information.

10. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without laboratory analysis, dissection, excavation, probing or coring, unless otherwise stated.

11. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

12. This report is based on the observations and opinions of Edwin E. Stirtz, and does not provide guarantees regarding the future performance, health, vigor, structural stability or safety of the plants described herein. Neither this author nor Acorn Arboricultural Services has assumed any responsibility for liability associated with the trees on or adjacent to this Project Site, their future demise and/or any damage which may result therefrom.

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13. The information contained within this report is true to the best of the author's knowledge and experience as of the date it was prepared; however, certain conditions may exist which only a comprehensive, scientific, investigation might reveal which should be performed by other consulting professionals.

14. The legal description, dimensions, and areas herein are assumed to be correct. No responsibility is assumed for matters that are legal in nature.

15. Any changes to an established tree's environment can cause its decline, death and/or structural failure.

DEFINITIONS

Tree Number:	Corresponds to aluminum tag attached to the tree.
Species Identification:	Scientific and common species name.
Diameter ("DSH"):	This is the trunk diameter measured at standard height (industry standard 4.5 feet above ground level).
Dripline radius ("DLR"):	A radius equal to the horizontal distance from the trunk of the tree to the end of the farthest most branch tip prior to any cutting. When depicted on a map, the dripline will appear as an irregularly shaped circle that follows the contour of the tree's branches as seen from overhead.
Protected Zone:	A circle equal to the largest radius of a protected tree's dripline plus 1 foot.
Root Crown:	Assessment of the root crown/collar area located at the base of the trunk of the tree at soil level.
Trunk:	Assessment of the tree's main trunk from ground level generally to the point of the primary crotch structure.
Limbs:	Assessment of both smaller and larger branching, generally from primary crotch structure to branch tips.
Foliage:	Tree's leaves.
Overall Condition:	Describes overall condition of the tree in terms of structure and vigor.
Recommendation:	Pre-development recommendations based upon observed characteristics noted at the time of the field inventory effort.
Obscured:	Occasionally some portion of the tree may be obscured from visual inspection due to the presence of dense vegetation which, during the course of inspection for the arborist report, prevented a complete evaluation of the tree. In these cases, if the tree is to be retained on site the vegetation should be removed to allow for a complete assessment of the tree prior to making final decisions regarding the suitability for retention.

TREE CONDITION RATING CRITERIA

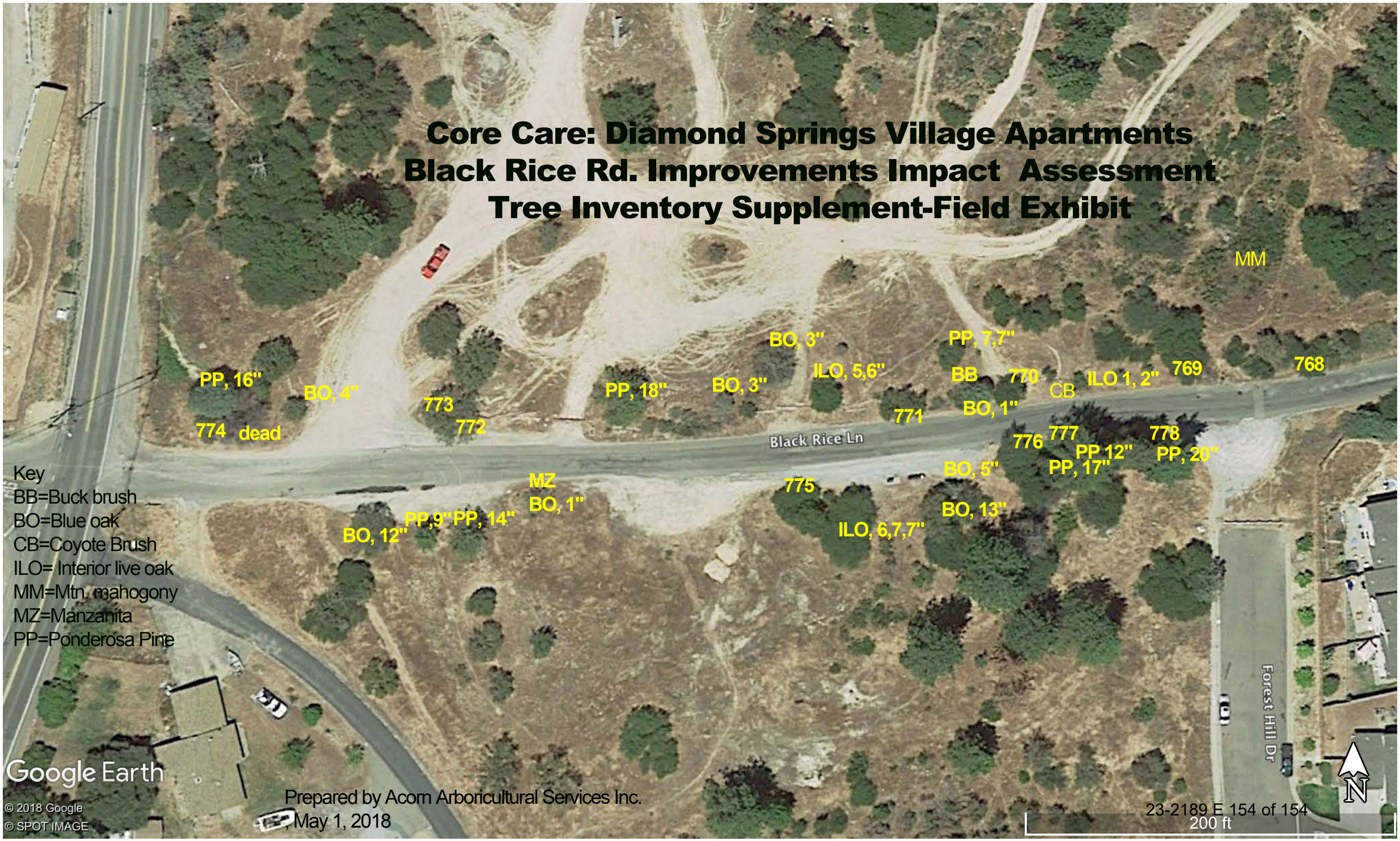
RATING TERM	ROOT CROWN	TRUNK	LIMBS	FOLIAGE	STRUCTURE	VIGOR
Good	No apparent injuries, decay, cavities or evidence of hollowing; no anchoring roots exposed; no indications of infestation or disease	No apparent injuries, decay, cavities or evidence of hollowing; no codominant attachments or multiple trunk attachments are observed; no indications of infestation or disease	No apparent injuries, decay, cavities or evidence of hollowing; below average amount of dead limbs or twigs; no major limb failures or included bark; callus growth is vigorous	Leaf size, color and density are typical for the species; buds are normal in size, viable, abundant and uniform throughout the canopy; annual seasonal growth increments are average or above average; no insect or disease infestations/ infections evident	No apparent structural defects; no weak crotches; no excessively weighted branches and no significant cavities or decay	Tree appears healthy and has little or no significant deadwood; foliage is normal and healthy
Fair	Small to moderate injuries, decay, cavities or hollowing may be evident but are not currently affecting the overall structure; some evidence of infestation or disease may be present but is not currently affecting the tree's structure	Small to moderate injuries, decay, cavities or hollowing may be evident; codominant branching or multiple trunk attachments or minor bark inclusion may be observed; some infestation or disease may be present but not currently affecting the tree's structure	Small to moderate injuries, decay or cavities may be present; average or above average dead limbs or twigs may be present; some limb failures or bark inclusion observed; callus growth is average	Leaf size, color and density are typical or slightly below typical for the species; buds are normal or slightly sparse with potentially varied viability, abundance and distribution throughout the canopy; annual seasonal growth increments are average or slightly below average; minor insect or disease infestation/infection may be present	Minor structural problems such as weak crotches, minor wounds and/or cavities or moderate amount of excessive weight; non-critical structural defects which can be mitigated through pruning, cabling or bracing	Tree appears stressed or partially damaged; minimal vegetative growth since previous season; moderate amount of deadwood, abnormal foliage and minor lesions or cambium dieback
Poor	Moderate to severe injuries, decay, cavities or hollowing may be evident and are affecting the overall structure; presence of infestation or disease may be significant and affecting the tree's structure	Moderate to severe injuries, decay, cavities or hollowing may be evident and are affecting the tree's structure; presence of infestation or disease may be significant and affecting the tree's structure	Severe injuries, decay or cavities may be present; major deadwood, twig dieback, limb failures or bark inclusion observed; callus growth is below average	Leaf size, color and density are obviously abnormal; buds are obviously abnormal or absent; annual seasonal growth is well below average for the species; insect or disease problems may be severe	Obvious major structural problems which cannot be corrected with mitigation; potential for major limb, trunk or root system failure is high; significant decay or dieback may be present	Tree health is declining; no new vegetative growth; large amounts of deadwood; foliage is severely abnormal

The ratings "good to fair" and "fair to poor" are used to describe trees that fall between the described major categories and have elements of both

Tree Inventory Supplement
Core Care Foundation
Diamond Springs Village Apartments
Co. of El Dorado, CA

TREE #	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH INCHES	DLR (feet)	CONDITIONAL ASSESSMENT						NOTABLE CHARACTERISTICS	MAINTENANCE RECOMMENDATIONS
						RT CR	TRUNK	LIMBS	FOLIAGE	STRUCTURE	VIGOR		
768	Interior Live Oak	*(Quercus wislizeni)*	5,6,7	18	12	Poor-fair	Poor-fair	Poor-fair	Fair	Poor-fair	Fair	Callousing basal trunk cavity, partial stem fail	None at this time
769	Interior Live Oak	*(Quercus wislizeni)*	8,8	16	13	Poor-fair	Poor-fair	Fair	Fair	Poor-fair	Fair	Forks 1' above grade w/ weak attachments.	None at this time
770	Interior Live Oak	*(Quercus wislizeni)*	4,4,6	14	7	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood	None at this time
771	Interior Live Oak	*(Quercus wislizeni)*	3,4,5,6,7	27	10	Poor-fair	Poor-fair	Fair	Fair	Poor-fair	Fair	Weak attachements; one-sided to the South	None at this time
772	Blue Oak	*(Quercus douglasii)*	5,6,7,7	25	12	Poor-fair	Poor-fair	Poor-fair	Fair	Poor	Fair	Callousing basal trunk wounds, moderate dec	None at this time
773	Blue Oak	*(Quercus douglasii)*	3,5,4,6,6	24	15	Poor-fair	Poor-fair	Poor-fair	Fair	Poor-fair	Fair	Fork at grade to 1' above grade. Out of balan	None at this time
774	Interior Live Oak	*(Quercus wislizeni)*	13,14	27	16	Poor-fair	Poor-fair	Poor-fair	Poor	Poor	Poor	85% dead	***Recommend removal due to nature and extent of noted defects.***
775	Interior Live Oak	*(Quercus wislizeni)*	7,7,12	26	12	Poor-fair	Poor-fair	Fair	Fair	Poor-fair	Fair	Minor decay on S side; weak attachments, sli	None at this time
776	Interior Live Oak	*(Quercus wislizeni)*		11	13	Fair	Fair	Fair	Fair	Fair	Fair		None at this time
777	Interior Live Oak	*(Quercus wislizeni)*	6,6	12	17	Poor-fair	poor	Poor-fair	Fair	Fair	Fair		None at this time
778	Interior Live Oak	*(Quercus wislizeni)*		7	12	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood	None at this time

TOTAL INVENTORIED TREES = 11 trees (207 aggregate diameter inches)
TOTAL RECOMMENDED REMOVALS = 1 tree (27 aggregate diameter inches)


Core Care: Diamond Springs Village Apartments
Black Rice Rd. Improvements Impact Assessment
Tree Inventory Supplement-Field Exhibit
MM
PP, 16"
BO, 4"
774 dead
773
772
PP, 18"
BO, 3"
BO, 3"
ILO, 5,6"
PP, 7,7"
BB
770
CB
ILO 1, 2"
769
768
771
BO, 1"
Black Rice Ln
776
777
778
PP 12"
PP, 20"
PP, 17"
BO, 5"
MZ
BO, 1"
775
BO, 13"
PP,9"
PP, 14"
BO, 12"
ILO, 6,7,7"
Key
BB=Buck brush
BO=Blue oak
CB=Coyote Brush
ILO= Interior live oak
MM=Mtn. mahogony
MZ=Manzanita
PP=Ponderosa Pine
Forest Hill Dr
N
Google Earth
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May 1, 2018
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200 ft