NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Notice is hereby given that, as Lead Agency, the City of Roseville, Development Services Department, Planning Division has prepared an Initial Study leading to a Mitigated Negative Declaration for the project referenced below. This Mitigated Negative Declaration is available for public review and comment.

Project Title/File#: INFILL PCL 239 - The Villages At Kit Carson; PL18-0063

Project Location: 1612-1618 Kit Carson Way, Roseville, Placer County, CA; APNs: 048-350-015, 016, 018, and 021

Project Owner: J. William Roach 2012 Revocable Trust

Project Applicant: Chris Coulter, 3eDevelopments LLC

Project Planner: Charity Gold, Associate Planner

Project Description: The project consists of the construction 10 attached residences each consisting of two single-family dwellings, for a total of 20 single-family units. Ten of the residences (five buildings) will front on to Kit Carson Way and the other ten residences (five buildings) will front toward the adjacent open space. All 20 dwellings will be accessed from a proposed cul-de-sac. The project includes a General Plan Amendment to change the land use designation from Business Professional (BP) to Medium Density Residential (MDR), a Rezone from Single Family Residential (R1) to Single Family Small Lot (RS), a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit.

Document Review and Availability: The public review and comment period begins on November 27, 2018 and ends on December 17, 2018. The Mitigated Negative Declaration may be reviewed during normal business hours (8:00 am to 5:00 pm) at the Planning Division offices, located at 311 Vernon Street. It may also be viewed online at https://www.roseville.ca.us/cms/One.aspx?portalId=7964922&pageId=8774505

Written comments on the adequacy of the Mitigated Negative Declaration may be submitted to Charity Gold, Planning Division, 311 Vernon Street, Roseville, CA 95678, and must be received no later than 5:00 pm on December 17, 2018.

This project will be scheduled for a public hearing before the City's Planning Commission and City Council. At the City Council hearing, the City Council will consider the Mitigated Negative Declaration and associated project entitlements. The dates and times of these public hearings is not know at this time. Separate notices will be published when these hearings are scheduled.

Dated: 11/26/18

Greg Bitter
Planning Manager

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT – PLANNING DIVISION
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

MITIGATED NEGATIVE DECLARATION

Project Title/File Number:	INFILL PCL 239 - The Villages At Kit Carson; PL18-0063
Project Location:	1612-1618 Kit Carson Way, Roseville, Placer County, CA; APNs: 048-350-015, 016, 018, and 021
Project Applicant:	Chris Coulter, 3eDevelopments LLC; (916) 746-0133; 8297 Tail Race Dr., Roseville, CA 95747
Property Owner:	J. William Roach 2012 Revocable Trust; 340 White Swans Crossing, Brentwood, TN 37027
Lead Agency Contact Person:	Charity Gold, Associate Planner - City of Roseville; (916) 774-5247
Date:	November 26, 2018

Project Description:

The project consists of the construction 10 attached residences each consisting of two single-family dwellings, for a total of 20 single-family units. Ten of the residences (five buildings) will front on to Kit Carson Way and the other ten residences (five buildings) will front toward the adjacent open space. All 20 dwellings will be accessed from a proposed cul-de-sac. The project includes a General Plan Amendment to change the land use designation from Business Professional (BP) to Medium Density Residential (MDR), a Rezone from Single Family Residential (R1) to Single Family Small Lot (RS), a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit.

DECLARATION

The Planning Manager has determined that the above project will not have significant effects on the environment and therefore does not require preparation of an Environmental Impact Report. The determination is based on the attached initial study and the following findings:

A. *The project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species, reduce the number or restrict the range of rare or endangered plants or animals or eliminate important examples of the major periods of California history or prehistory.*
B. *The project will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.*
C. *The project will not have impacts, which are individually limited, but cumulatively considerable.*
D. *The project will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.*
E. *No substantial evidence exists that the project may have a significant effect on the environment.*
F. *The project incorporates all applicable mitigation measures identified in the attached initial study.*
G. *This Mitigated Negative Declaration reflects the independent judgment of the lead agency.*

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT–PLANNING DIVISION

311 Vernon St, Roseville, CA 95678 (916) 774-5276

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

Project Title/File Number:	INFILL PCL 239 - The Villages At Kit Carson in the City of Roseville / PL18-0063
Project Location:	1612-1618 Kit Carson Way, Roseville, Placer County, CA; APNs: 048-350-015, 016, 018, and 021
Project Description:	The project consists of the construction 10 attached residences each consisting of two single-family dwellings, for a total of 20 single-family units. Ten of the residences (five buildings) will front on to Kit Carson Way and the other ten residences (five buildings) will front toward the adjacent open space. All 20 dwellings will be accessed from a proposed cul-de-sac. The project includes a General Plan Amendment to change the land use designation from Business Professional (BP) to Medium Density Residential (MDR), a Rezone from Single Family Residential (R1) to Single Family Small Lot (RS), a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit.
Project Applicant:	Chris Coulter, 3eDevelopments LLC
Property Owner:	J. William Roach 2012 Revocable Trust
Lead Agency Contact:	Charity Gold, Associate Planner, (916) 774-5276

This initial study has been prepared to identify and assess the anticipated environmental impacts of the above described project. The document relies on site-specific studies prepared to address in detail the effects or impacts associated with the project. Where documents were submitted by consultants working for the applicant, City staff reviewed such documents in order to determine whether, based on their own professional judgment and expertise, staff found such documents to be credible and persuasive. Staff has only relied on documents that reflect their independent judgment, and has not accepted at face value representations made by consultants for the applicant.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA), (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to prepare an Environmental Impact Report (EIR). If the agency finds no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, a negative declaration shall be prepared. If in the course of analysis, the agency recognizes that the project may have a significant impact on the environment, but that by incorporating specific mitigation measures to which the applicant agrees, the impact will be reduced to a less than significant effect, a mitigated negative declaration shall be prepared.

Table of Contents

Project Description **3**

City of Roseville Mitigation Ordinances, Guidelines, and Standards **4**

Other Environmental Documents Relied Upon **5**

Explanation of Initial Study Checklist **6**

Initial Study Checklist

I. Aesthetics **7**
II. Agricultural & Forestry Resources **8**
III. Air Quality **9**
IV. Biological Resources **12**
V. Cultural Resources **20**
VI. Geology and Soils **21**
VII. Greenhouse Gases **23**
VIII. Hazards and Hazardous Materials **25**
IX. Hydrology and Water Quality **28**
X. Land Use and Planning **31**
XI. Mineral Resources **32**
XII. Noise **33**
XIII. Population and Housing **35**
XIV. Public Services **36**
XV. Recreation **37**
XVI. Transportation / Traffic **38**
XVII. Tribal Cultural Resources **40**
XVIII. Utilities and Service Systems **42**
XIX. Mandatory Findings of Significance **44**

Environmental Determination **46**

Attachments **46**

PROJECT DESCRIPTION

Project Location

The project site is located at 1612-1618 Kit Carson Way, on the southeast corner of the intersection of Kit Carson Way and Santa Clara Drive (Figure 1). The site is located in the eastern portion of the City of Roseville, south of Douglas Boulevard and east of Highway 80 within the City's Infill Area. The site is zoned Single Family Residential (R1) and Two Family Residential (R2) and has a Business Professional (BP) General Plan designation. The subject property is undeveloped and surrounded by existing residential uses to the west and south, business professional and apartment uses to the north, and an open space corridor to the east. See Table1 for the land use designations and uses of the subject and surrounding properties.

Figure 1: Project Location

Table 1: Site and Vicinity Land Use Designations

Location	Zoning	General Plan Land Use	Actual Use of Property
Site	R1 and R2	BP	Four Vacant Single-Family Parcels
North	BP/R3	BP/HDR-17.4	Office/Apartments
South	R2	LDR-4.6	Residential
East	FW	OS/FP	Open Space/Cirby Creek Tributary
West	R2	LDR-4.6	Residential

Environmental Setting

The project involves five parcels located at the southeast corner of the intersection of Kit Carson Way and Santa Clara Drive. The site is currently undeveloped and surrounded by existing residential and office uses. The parcel adjacent to the project's eastern boundary contains drainage that flows south to Cirby Creek. This drainage corridor is offsite and within a parcel designated as open space. The drainage corridor consists of vegetation typical of riparian habitat adjacent to waterways, including native oak tree species. Although the drainage corridor and floodway are offsite, the riparian vegetation, including native oak trees, extends onto the subject property. The corridor remains in a natural condition and has not been developed with pedestrian amenities such as paths and trails. Additionally, there is one prominent blue oak tree located within the interior of the property adjacent to Kit Carson Way.

The project site is within walking distance to public transportation, with existing commercial uses and a network of pedestrian and bicycle facilities nearby. The project is considered an infill site, as the majority of the area around the site has been developed. Adjacent uses include single-family, duplex, and apartment uses as well as office uses.

Proposed Project

The project consists of the construction 10 attached residences each consisting of two single-family dwellings, for a total of 20 single-family units. Ten of the residences (five buildings) will front on to Kit Carson Way and the other ten residences (five buildings) will front toward the adjacent open space. Vehicle access to all 20 dwellings will be from a proposed cul-de-sac. The project includes a General Plan Amendment to change the land use designation from BP to MDR, a Rezone from Single Family R1and R2 to Single Family Small Lot (RS), a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit

CITY OF ROSEVILLE MITIGATION ORDINANCES, GUIDELINES, AND STANDARDS

For projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, CEQA Guidelines section 15183(f)allows a lead agency to rely on previously adopted development policies or standards as mitigation for the environmental effects, when the standards have been adopted by the City, with findings based on substantial evidence, that the policies or standards will substantially mitigate environmental effects, unless substantial new information shows otherwise (CEQA Guidelines §15183(f)). The City of Roseville adopted CEQA Implementing Procedures (Implementing Procedures) which are consistent with this CEQA Guidelines section. The current version of the Implementing Procedures were adopted in April 2008, along with Findings of Fact, as Resolution 08-172. The below regulations and ordinances were found to provide uniform mitigating policies and standards, and are applicable to development projects. The City's Mitigating Policies and Standards are referenced, where applicable, in the Initial Study Checklist.:

- City of Roseville 2035 General Plan

- City of Roseville Zoning Ordinance (RMC Title 19)
- City of Roseville Improvement Standards (Resolution 02-37)
- City of Roseville Construction Standards (Resolution 01-208)
- Subdivision Ordinance (RMC Title 18)
- Noise Regulation (RMC Ch.9.24)
- Flood Damage Prevention Ordinance (RMC Ch.9.80)
- Drainage Fees (Dry Creek [RMC Ch.4.49] and Pleasant Grove Creek [RMC Ch.4.48])
- West Placer Stormwater Quality Design Manual (Resolution 16-152)
- Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch. 14.20)
- Traffic Mitigation Fee (RMC Ch.4.44)
- Highway 65 Joint Powers Authority Improvement Fee (Resolution 2008-02)
- South Placer Regional Transportation Authority Transportation and Air Quality Mitigation Fee (Resolution 09-05)
- Tree Preservation Ordinance (RMC Ch.19.66)
- Community Design Guidelines (Resolution 95-347)
- Specific Plan Design Guidelines:
    - Development Guidelines Del Webb Specific Plan (Resolution 96-330)
    - Landscape Design Guidelines for North Central Roseville Specific Plan (Resolution 90-170)
    - North Roseville Specific Plan and Design Guidelines (Resolution 00-432)
    - Northeast Roseville Specific Plan (Olympus Pointe) Signage Guidelines (Resolution 89-42)
    - North Roseville Area Design Guidelines (Resolution 92-226)
    - Northeast Roseville Specific Plan Landscape Design Guidelines (Resolution 87-31)
    - Southeast Roseville Specific Plan Landscape Design Guidelines (Resolution 88-51)
    - Stoneridge Specific Plan and Design Guidelines (Resolution 98-53)
    - Highland Reserve North Specific Plan and Design Guidelines (Resolution 97-128)
    - West Roseville Specific Plan and Design Guidelines (Resolution 04-40)
    - Sierra Vista Specific Plan and Design Guidelines (Resolution 12-217)
    - Creekview Specific Plan and Design Guidelines (Resolution 12-320)
    - Amoruso Ranch Specific Plan and Design Guidelines (Resolution 16-273)

OTHER ENVIRONMENTAL DOCUMENTS RELIED UPON

- Amoruso Ranch Specific Plan Final Environmental Impact Report

Pursuant to CEQA Guidelines Section 15183, any project which is consistent with the development densities established by zoning, a Community Plan, or a General Plan for which an EIR was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The Amoruso Ranch Specific Plan EIR updated the City's General Plan to 2035, and updated Citywide analyses of traffic, water supply, water treatment, wastewater treatment, and waste disposal. The proposed project is inconsistent with the adopted land use designations examined within the environmental documents listed above, and thus this Initial Study focuses on effects particular to the specific project site, impacts which were not analyzed within the EIR, and impacts which

may require revisiting due to substantial new information. When applicable, the topical sections within the Initial Study update the findings within the environmental documents listed above. The analysis, supporting technical materials, and findings of the environmental document are incorporated by reference, and are available for review at the Civic Center, 311 Vernon Street, Roseville, CA.

EXPLANATION OF INITIAL STUDY CHECKLIST

The California Environmental Quality Act (CEQA) Guidelines recommend that lead agencies use an Initial Study Checklist to determine potential impacts of the proposed project on the physical environment. The Initial Study Checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by this project. This section of the Initial Study incorporates a portion of Appendix G Environmental Checklist Form, contained in the CEQA Guidelines. Within each topical section (e.g. Air Quality) a description of the setting is provided, followed by the checklist responses, thresholds used, and finally a discussion of each checklist answer.

There are four (4) possible answers to the Environmental Impacts Checklist on the following pages. Each possible answer is explained below:

1) A “Potentially Significant Impact” is appropriate if there is enough relevant information and reasonable inferences from the information that a fair argument based on substantial evidence can be made to support a conclusion that a substantial, or potentially substantial, adverse change may occur to any of the physical conditions within the area affected by the project. When one or more “Potentially significant Impact” entries are made, an EIR is required.

2) A “Less Than Significant With Mitigation” answer is appropriate when the lead agency incorporates mitigation measures to reduce an impact from “Potentially Significant” to “Less than Significant.” For example, floodwater impacts could be reduced from a potentially-significant level to a less-than-significant level by relocating a building to an area outside of the floodway. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level. Mitigation measures are identified as MM followed by a number.

3) A “Less Than significant Impact” answer is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant, or the application of development policies and standards to the project will reduce the impact(s) to a less-than-significant level. For instance, the application of the City’s Improvement Standards reduces potential erosion impacts to a less-than-significant level.

4) A “No Impact” answer is appropriate where it can be demonstrated that the impact does not have the potential to adversely affect the environment. For instance, a project in the center of an urbanized area with no agricultural lands on or adjacent to the project area clearly would not have an adverse effect on agricultural resources or operations. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources cited in the Initial Study. Where a “No Impact” answer is adequately supported by the information sources cited in the Initial Study, further narrative explanation is not required. A “No Impact” answer is explained when it is based on project-specific factors as well as generous standards.

All answers must take account of the whole action involved, including off- and on-site, indirect, direct, construction, and operation impacts, except as provided for under State CEQA Guidelines.

INITIAL STUDY CHECKLIST

I. Aesthetics

The site is surrounded by existing residential and business professional uses. The area surrounding the site is almost completely built out with the subject property one of only a few undeveloped parcels within the vicinity. The site is within the older Infill area of the City which is characterized by pre-1980's urban development. The project will introduce 20 new residential units to an area planned for four residential units. The units are generally consistent with the existing development within the vicinity and the greater Infill areal.

The site is located adjacent to the western side of an open space corridor containing a tributary of Cirby Creek. The corridor is intended to preserve existing drainage patterns, and is not developed for pedestrian or recreational use.

Would the project:

Environmental Issue	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 or 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	

Thresholds of Significance and Regulatory Setting:

The significance of an environmental impact cannot always be determined through the use of a specific, quantifiable threshold. CEQA Guidelines Section 15064(b) affirms this by the statement "an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." This is particularly true of aesthetic impacts. As an example, a proposed parking lot in a dense urban center would have markedly different visual effects than a parking lot in an open space area. For the purpose of this study, the significance thresholds are as stated in CEQA Guidelines Appendix G, as shown in a–d of the checklist below. The Findings of the Implementing Procedures indicate that compliance with the Zoning Ordinance (e.g. building height, setbacks, etc), Subdivision Ordinance (RMC Ch. 18), Community Design Guidelines (Resolution 95-347), and applicable Specific Plan Policies and/or Specific Plan Design Guidelines will prevent significant impacts in urban settings as it relates to items a, b, and c, below.

Discussion of Checklist Answers:

a–b) There are no designated or eligible scenic vistas or scenic highways within or adjacent to the City of Roseville.

c) The project site is in an urban setting, and as a result lacks any prominent or high-quality natural features which could be negatively impacted by development. The City of Roseville has adopted Community Design Guidelines (CDG) for the purpose of creating building and community designs which are a visual asset to the community. The CDG includes guidelines for building design, site design and landscape design, which will result in a project that enhances the existing urban visual environment. Accordingly, the aesthetic impacts of the project are less than significant.

d) The project involves nighttime lighting to provide for the security and safety of project users. However, the project is already located within an urbanized setting with many existing lighting sources. Lighting is conditioned to comply with City standards (i.e. CDG) to limit the height of light standards and to require cut-off lenses and glare shields to minimize light and glare impacts. The project will not create a new source of substantial light. None of the project elements are highly reflective, and thus the project will not contribute to an increased source of glare.

II. Agricultural & Forestry Resources

The State Department of Conservation oversees the Farmland Mapping and Monitoring Program, which was established to document the location, quality, and quantity of agricultural lands, and the conversion of those lands over time. The primary land use classifications on the maps generated through this program are: Urban and Built Up Land, Grazing Land, Farmland of Local Importance, Unique Farmland, Farmland of Statewide Importance, and Prime Farmland. According to the current California Department of Conservation Placer County Important Farmland Map (2012), the majority of the City of Roseville is designated as Urban and Built Up Land and most of the open space areas of the City are designated as Grazing Land. There are a few areas designated as Farmland of Local Importance and two small areas designated as Unique Farmland located on the western side of the City along Baseline Road. The current Williamson Act Contract map (2013/2014) produced by the Department of Conservation shows that there are no Williamson Act contracts within the City, and only one (on PFE Road) that is adjacent to the City. None of the land within the City is considered forest land by the Board of Forestry and Fire Protection.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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

Thresholds of Significance and Regulatory Setting:

Unique Farmland, Farmland of Statewide Importance, and Prime Farmland are called out as protected farmland categories within CEQA Guidelines Appendix G. Neither the City nor the State has adopted quantified significance thresholds related to impacts to protected farmland categories or to agricultural and forestry resources. For the purpose of this study, the significance thresholds are as stated in CEQA Guidelines Appendix G, as shown in a–e of the checklist above.

Discussion of Checklist Answers:

a–e) The project site is not used for agricultural purposes, does not include agricultural zoning, is not within or adjacent to one of the areas of the City designated as a protected farmland category on the Placer County Important Farmland map, is not within or adjacent to land within a Williamson Act Contract, and is not considered forest land. Given the foregoing, the proposed project will have no impact on agricultural resources.

III. Air Quality

The City of Roseville, along with the south Placer County area, is located in the Sacramento Valley Air Basin (SVAB). The SVAB is within the Sacramento Federal Ozone Non-Attainment Area. Under the Clean Air Act, Placer County has been designated a "serious non-attainment" area for the federal 8-hour ozone standard, “non-attainment” for the state ozone standard, and a "non-attainment" area for the federal and state PM_{10} standard (particulate matter less than 10 microns in diameter). Within Placer County, the Placer County Air Pollution Control District (PCAPCD) is responsible for ensuring that emission standards are not violated. Would the project:

Environmental Issue	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 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

Thresholds of Significance and Regulatory Setting:

In responding to checklist items a, b, and d, project-related air emissions would have a significant effect if they would result in concentrations that either violate an ambient air quality standard or contribute to an existing air quality violation. To assist in making this determination, the PCAPCD adopted thresholds of significance, which were developed by considering both the health-based ambient air quality standards and the attainment strategies outlined in the State Implementation Plan. The PCAPCD-recommended significance threshold for reactive organic gases (ROG), nitrogen oxides (NO_x) is 82 pounds daily during construction and 55 pounds daily during operation, and for particulate matter (PM) is 82 pounds per day during both construction and operation. For all other constituents, significance is determined based on the concentration-based limits in the Federal and State Ambient Air Quality Standards. Toxic Air Contaminants (TAC) are also of public health concern, but no thresholds or standards are provided because they are considered to have no safe level of exposure. Analysis of TAC is based on the *Air Quality and Land Use Handbook – A Community Health Perspective (*April 2005, California Air Resources Board), which lists TAC sources and recommended buffer distances from sensitive uses. For checklist item c, the PCAPCD's *CEQA Air Quality Handbook* (*Handbook*) recommends that the same thresholds used for the project analysis be used for the cumulative impact analysis.

With regard to checklist item e, there are no quantified significance thresholds for exposure to objectionable odors. Significance is determined after taking into account multiple factors, including screening distances from odor sources (as found in the PCAPCD CEQA Handbook), the direction and frequency of prevailing winds, the time of day when odors are present, and the nature and intensity of the odor source.

Discussion of Checklist Answers:

a–b) Analyses are not included for sulfur dioxide, lead, and other constituents because there are no mass emission thresholds; these are concentration-based limits in the Federal and State Ambient Air Quality Standards which require substantial, point-source emissions (e.g. refineries, concrete plants, etc) before exceedance will occur, and the SVAB is in attainment for these constituents. Likewise, carbon monoxide is not analyzed because the SVAB is in attainment for this constituent, and it requires high localized concentrations (called carbon monoxide "hot spots") before the ambient air quality standard would be exceeded. "Hot spots" are typically associated with heavy traffic congestion occurring at high-volume roadway intersections. The Amoruso Ranch EIR analysis of Citywide traffic indicated that 198 out of 226 signalized intersections would operate at level of service C or better—that is, they will not experience heavy traffic congestion. It further indicated that analyses of existing CO concentrations at the most congested intersections in Roseville show that CO levels are well below federal and state ambient air quality standards. The discussions below focus on emissions of ROG**,** NO_x, or PM**.** A project-level analysis has been prepared to determine whether the project will, on a singular level, exceed the established thresholds.

Construction activities as well as operation of the site will result in emissions of criteria pollutants for which the area is in non-attainment. Consistent with PCAPCD's published guidance, the project's construction and operational emissions (NO_X, ROG, and PM) were quantified using the California Emissions Estimator Model (CalEEMod) (Attachment 1: Air Quality Impact and Greenhouse Gas Analysis, The Villages at Kit Carson Way, April 2018). The CalEEMod was run using the model defaults as well as project specific information such as land use and density. The PCAPCD rules 202, 218, 228, and Regulation 3 were accounted for in the modeling. The results are detailed in Table 2 below. The modeled emissions for the project do not exceed PCAPCD's construction and operational thresholds of significance.

The proposed project would not exceed the applicable thresholds of significance for air pollutant emissions during construction or operation. The project would not conflict with or obstruct implementation of the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (which is the SIP) or contribute substantially to the PCAPCD's nonattainment status for ozone. In addition, because the proposed project would not produce substantial emissions of criteria air pollutants, CO, or TACs, adjacent residents would not be exposed to significant levels of pollutant concentrations during construction or operation. Impacts are less than significant.

Table 2: CalEEMod Results

Pollutant	Project Emissions (lbs/day)	Significance Threshold (lbs/day)	Exceeds Threshold?
Construction Emissions			
ROG	4.44	82	No
NO_x	24.32	82	No
PM_{10}	7.71	82	No
Operational Emissions			
ROG	31.44	55	No
NO_x	2.25	55	No
PM_{10}	6.03	82	No

c) As described in section a–b, the project will not contribute significant project-level criteria air pollutant emissions. Consistent with the analysis methodology outlined in the Significance Thresholds and Regulatory Setting section, cumulative impacts are less than significant.

d) As described in section a–b, the project will not result in any new significant impacts related to criteria pollutants. With regard to TAC, there are hundreds of constituents which are considered toxic, but they are typically generated by stationary sources like gas stations, facilities using solvents, and heavy industrial operations. The proposed project is not a TAC-generating use, nor is it within the specified buffer area of a TAC-generating use, as established in the *Air Quality and Land Use Handbook – A Community Health Perspective*. Impacts are less than significant.

e) Diesel fumes from construction equipment and delivery trucks are often found to be objectionable; however, construction is temporary and diesel emissions are minimal and regulated. Typical urban projects such as residences and retail businesses generally do not result in substantial objectionable odors when operated in compliance with City Ordinances (e.g. proper trash disposal and storage). The Project is a typical urban development that lacks any characteristics that would cause the generation of substantial unpleasant odors. Thus, construction and operation of the proposed project would not result in the creation of objectionable odors affecting a substantial number of people. A review of the project surroundings indicates that there are no substantial odor-generating uses near the project site; the project location meets the recommended screening distances from odor-generators provided by the PCAPCD. Impacts related to odors are less than significant.

IV. Biological Resources

The project site is one of only a few undeveloped infill sites within the vicinity surrounded by existing residential and business professional uses. The site is vegetated with native and non-native grasses and is located adjacent to a tributary Cirby Creek along the project's eastern boundary. The interface between the project site and the open space parcel containing the tributary is vegetated with numerous native oak trees. Although the tributary is located entirely offsite, some of the riparian vegetation and a portion of the 100-year floodplain are located on

the subject property. There is one prominent native blue oak tree within the interior of the property on the western side.

The topography of the site is gently undulating with a mound at the location of the blue oak tree that is about five feet above grade and various depressions from vehicular use throughout the site. On the eastern boundary the grade drops sharply about 10-15 feet toward the Cirby Creek tributary.

Would the project:

Environmental Issue	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 Game 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 or regulations or by the California Department of Fish and Wildlife 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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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

Thresholds of Significance and Regulatory Setting:

There is no ironclad definition of significance as it relates to biological resources. Thus, the significance of impacts to biological resources is defined by the use of expert judgment supported by facts, and relies on the policies, codes, and regulations adopted by the City and by regulatory agencies which relate to biological resources (as cited and described in the Discussion of Checklist Answers section). Thresholds for assessing the significance of environmental impacts are based on the CEQA Guidelines checklist items a–f, above. Consistent with CEQA Guidelines Section 15065, a project may have a significant effect on the environment if:

> The project has the potential to substantially 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; [or] substantially reduce the number or restrict the range of an endangered, rare or threatened species . . .

Various agencies regulate impacts to the habitats and animals addressed by the CEQA Guidelines checklist. These include the United States Fish and Wildlife Service, National Oceanic and Atmospheric Administration–Fisheries, United States Army Corps of Engineers, Central Valley Regional Water Quality Control Board, and California Department of Fish and Wildlife. The primary regulations affecting biological resources are described in the sections below.

Checklist item a addresses impacts to special status species. A “special status” species is one which has been identified as having relative scarcity and/or declining populations. Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as species of special concern. Also included are those species considered to be “fully protected” by the California Department of Fish and Wildlife (California Fish and Wildlife), those granted “special animal” status for tracking and monitoring purposes, and those plant species considered to be rare, threatened, or endangered

in California by the California Native Plant Society (CNPS). The primary regulatory protections for special status species are within the Federal Endangered Species Act, California Endangered Species Act, California Fish and Game Code, and the Federal Migratory Bird Treaty Act.

Checklist item b addresses all "sensitive natural communities" that may be affected by local, state, or federal regulations/policies while checklist item c focuses specifically on one type of such a community: federally-protected wetlands. Focusing first on wetlands, there are two questions to be posed in examining wet habitats: the first is whether the wetted area meets the technical definition of a wetland, making it subject to checklist item b, and the second is whether the wetland is subject to federal jurisdiction, making it subject to checklist item c. The 1987 Army Corps Wetlands Delineation Manual is used to determine whether an area meets the technical criteria for a wetland. A delineation verification by the Army Corps verifies the size and condition of the wetlands and other waters in question, and determines the extent of government jurisdiction as it relates to Section 404 of the Federal Clean Water Act and Section 401 of the State Clean Water Act.

The Clean Water Act protects all "navigable waters", which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of covered waters; and wetlands adjacent to covered waters, including tributaries. Non-navigable waters are called isolated wetlands, and are not subject to either the Federal or State Clean Water Act. Thus, isolated wetlands are not subject to federal wetland protection regulations. However, in addition to the Clean Water Act, the State also has jurisdiction over impacts to surface waters through the Porter-Cologne Water Quality Control Act (Porter-Cologne), which <u>does not</u> require that waters be "navigable". For this reason, isolated wetlands are regulated by the State of California pursuant to Porter-Cologne. The City of Roseville General Plan also provides protection for wetlands, including isolated wetlands, pursuant to the General Plan Open Space and Conservation Element. Federal, State and City regulations/policies all seek to achieve no net loss of wetland acreage, values, or function.

Aside from wetlands, checklist item b also addresses other "sensitive natural communities," which includes any habitats protected by local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The City of Roseville General Plan Open Space and Conservation Element includes policies for the protection of riparian areas (streamside habitat) and floodplain areas; these are Vegetation and Wildlife section Policies 2 and 3. Policy 4 also directs preservation of additional area around stream corridors and floodplain if there is sensitive woodland, grassland, or other habitat which could be made part of a contiguous open space area. Other than wetlands, which were already discussed, US Fish and Wildlife and California Department of Fish and Wildlife habitat protections generally result from species protections, and are thus addressed via checklist item a.

For checklist item d, there are no regulations specific to the protection of migratory corridors. This item is addressed by an analysis of the habitats present in the vicinity and analyzing the probable effects on access to those habitats which will result from a project.

The City of Roseville Tree Preservation ordinance (RMC Ch.19.66) requires protection of native oak trees, and compensation for oak tree removal. The Findings of the Implementing Procedures indicate that compliance with the City of Roseville Tree Preservation ordinance (RMC Ch.19.66) will prevent significant impacts related to loss of native oak trees, referenced by item e, above.

Regarding checklist item f, there are no adopted Habitat Conservation Plans within the City of Roseville.

Discussion of Checklist Answers:

a) The project site is located within the Citrus Heights, CA United States Geological society (USGS) 7.5 minute quadrangle. A search of the California Natural Diversity Data Base (CNDDB) using the Citrus Heights, Folsom, Buffalo Creek, Carmichael, Pleasant Grove, Rio Linda, Sacramento East, Roseville, and Rocklin

quadrangles (12/19/17) identified the special status plant wildlife species with known occurrences within the region. Many of the identified special status species are associated with habitat types that are not present on the site and no suitable special status plant habitat exits on the site. Only those species known to be present and those that are associated with habitat on and adjacent to the site are discussed further.

Onsite native oak trees as well as the trees and stream in the adjacent open space corridor provide suitable habitat for the following special status species: western pond turtle, pallid bat, silver-haired bat, white-tailed kite, Cooper's hawk, song sparrow, and purple martin. The site is located adjacent to an open space corridor containing a tributary of Cirby Creek. The bank adjacent to the creek contains riparian habitat typical of streams and creeks. The vegetation within the riparian habitat includes native oak trees protected by the City's Tree Preservation ordinance. Direct impacts to those trees are discussed below. The species and onsite habitat are described in Table 3 below.

Table 3: Special Status Species Summary

Special-Status Species	Regulatory Status	Habitat Potential
western pond turtle *Emys marmorata*	California Species of Concern	The adjacent riparian habitat, including the stream provide potential habitat. There is one CNDDB occurrence within five miles of the Project Site.
Cooper's hawk *Accipiter cooperii*	California Species of Concern	The oak trees on the site and within the riparian corridor provide nesting habitat for this species. While there are no CNDDB occurrences documented within five miles, staff has observed the species in the project area.
purple martin *Progne subis*	California Species of Concern	The oak trees on the site and within the riparian corridor provide nesting habitat for this species. There is one CNDDB occurrence documented within five miles of the Project Site.
song sparrow *Melospiza melodia*	California Species of Concern	The oak trees on the site and within the riparian corridor provide nesting habitat for this species. There are no CNDDB occurrences documented within five miles of the Project Site.
white-tailed kite *Elanus leucurus*	California Fully Protected	The oak trees on the site and within the riparian corridor provide nesting habitat for this species. There are two CNDDB occurrences within five miles of the Project Site.
pallid bat *Antrozous pallidus*	California Species of Concern	The oak trees on the site and within the riparian corridor provide nesting habitat for this species. There is one CNDDB occurrence is within five miles of the Project Site.
silver haired bat *Lasionycteris noctivagans*	California Special Animal	The oak trees on the site and within the riparian corridor provide nesting habitat for this species. There is one CNDDB occurrence is within five miles of the Project Site.

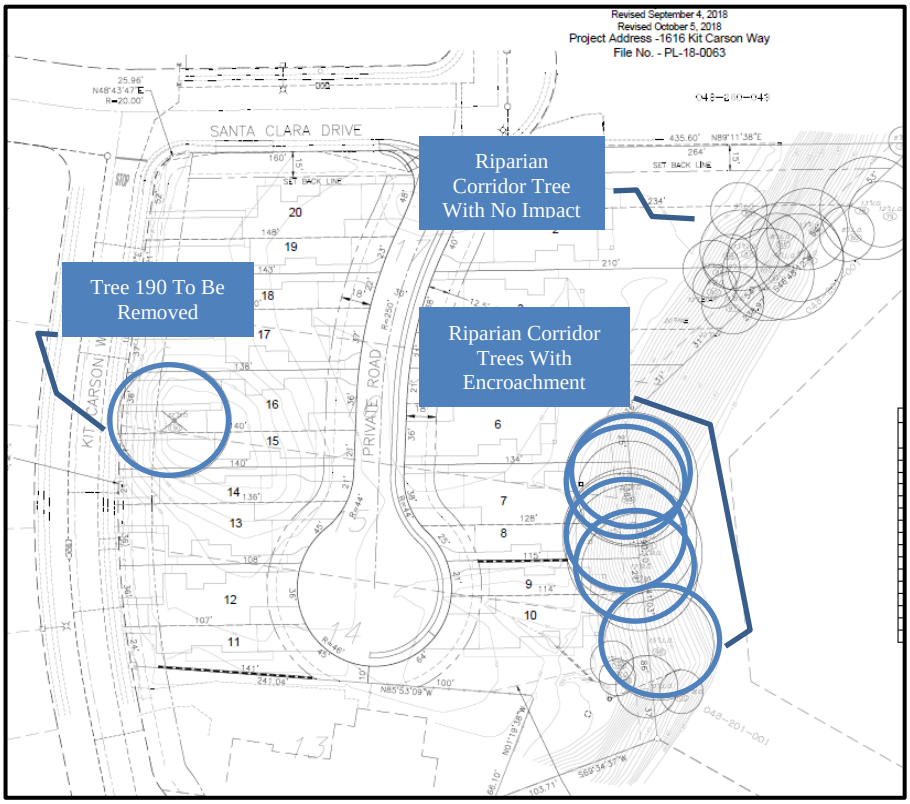
The project will result in the removal of onsite oak trees which provide habitat as described in Table 3, and construction activities have potential to disrupt offsite nesting species. A pre-construction nesting survey, **Mitigation Measure BIO-1**, is required in order to ensure that nesting birds are not harmed during construction. Ground disturbing activities shall not occur during the active nesting season, if it is necessary to conduct such activities during the nesting season, pre-construction surveys and mitigation as described in **Mitigation Measure BIO-1**, would be required. Compliance with Mitigation Measure BIO-1 will ensure that potential impacts to nesting birds are less than significant. **Mitigation Measures BIO-2 and BIO-3** require pre-construction surveys for the non-bird species listed above. If these species are identified on the site the applicant is directed to cease

all construction activities, contact the City, and to apply the appropriate measures. With implementation of these measures impacts to special status species are less than significant.

b) The property is located on the western boundary of an open space corridor, which contains riparian habitat adjacent to a tributary of Cirby Creek; however, the project is located upslope from the tributary and its associated riparian habitat. Construction of the building pads and associated decks/patios will require trenching within the protected zones of trees within the riparian habitat (discussed below), however no ground disturbance will occur within the open space corridor. No direct impacts to riparian habitat or other sensitive communities is anticipated. The project is required to implement the best management practices as outlined in the City's Stormwater BMP Guidance Manual. Application of the BMP will prevent runoff during project construction. Additionally, **Mitigation Measure BIO-4**, which requires exclusion fencing around the perimeter of the riparian habitat will ensure that impacts are less than significant.

c) No wetland features are present on the subject property; however, the subject property is adjacent to an open space corridor containing a tributary of Cirby Creek. Implementation of the project does not require alteration of this tributary as all improvements will be contained within the site and BMPs are included to prevent runoff on to adjacent properties. Mitigation Measure BIO-5, requiring exclusion fencing around the riparian habitat, will ensure that all construction and staging activities remain onsite. Impacts are less than significant.

Figure 2: Protected Tree Locations



d) The City includes an interconnected network of open space corridors and preserves located throughout the City, to ensure that the movement of wildlife is not substantially impeded as the City develops. The development of the project site will not negatively impact these existing and planned open space corridors, nor is the project site located in an area that has been designated by the City, United States Fish and Wildlife, or California Department of Fish and Wildlife as vital or important for the movement of wildlife or the use of native wildlife nursery sites.

e) An arborist report was prepared for the site by Sierra Nevada Arborists, January 2018 (Attachment 2). The report identified all protected trees located within or overhanging the project site. In total 27 protected oak trees were identified with a total of 379 aggregate diameter inches. Of the 27 trees identified, one will be removed to facilitate development and six will be affected by excavation for retaining wall footings and deck piers. Although those trees will not be removed, encroachment into the protected zone of these trees is considered a regulated activity subject to issuance of a tree permit. The locations of the affected trees are shown on Figure 2.

In order to evaluate the project's impacts on these trees, the arborist reviewed the site plans and estimated the amount of protected zone encroachment that is expected to occur. The anticipated encroachment for each tree

is detailed in Table 4. The encroachment percentage represents the direct impact to the tree's roots given the footprint of the retaining wall footings and/or deck piers and compliance with the City's Tree Ordinance as conditioned through a tree permit. The proposed encroachment is considered minimal and will not result in subsequent decline of the trees or create a public safety hazard.

Additionally, one native blue oak tree will be removed to allow pad grading on Lots 14, 15, 16, and 17. As required by the Tree Preservation Ordinance, the applicant is requesting a Tree Permit to allow encroachment into the protected zone of these trees and to allow removal of tree 190 to facilitate pad grading. If approved, the Tree Permit would contain measures to compensate for oak tree encroachment and removal. Any deviation from the approved permit would require a Tree Permit Modification, which would require approval by the City. Consistency with the requirements of the Tree Permit will ensure that impacts are less than significant.

Table 4: Trees Impacted by Project Development

Tree Number	Common Name	Diameter at Breast Height	Canopy Radius	Location	Impact
92	blue oak	45	37	**Lot 7:** Riparian area adjacent to open space corridor.	**Maximum 5%** 2.3% encroachment from excavation for retaining wall footings and deck piers.
93	blue oak	20	27	**Lot 7:** Riparian area adjacent to open space corridor.	**Maximum 5%** 0.9% encroachment from excavation for retaining wall footings and deck piers.
94	blue oak	24	35	**Lots 7, 8, 9:** Riparian area adjacent to open space corridor.	**Maximum 10%** 7% encroachment from excavation for retaining wall footings and deck piers.
95	blue oak	27	44	**Lots 7, 8, 9:** Riparian area adjacent to open space corridor.	**Maximum 10%** 5.8% encroachment from excavation for retaining wall footings and deck piers.
96	blue oak	22	36	**Lots 7, 8, 9, 10:** Riparian area adjacent to open space corridor.	**Maximum 12%** 8% encroachment from excavation for retaining wall footings and deck piers.
97	blue oak	12	31	**Lots 8, 9, 10:** Riparian area adjacent to open space corridor.	**Maximum 5%** 4.2% encroachment from excavation for retaining wall footings and deck piers.
190	blue oak	32	30	**Lots 14, 15, 16, 17:** Adjacent to Kit Carson Way	**100%** Removal to facilitate pad grading.

f) There are no Habitat Conservation Plans; Natural Community Conservation Plans; or other approved local, regional, or state habitat conservation plans that apply to the project site.

MM BIO-1 Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, including Nuttall's woodpecker, loggerhead shrike, yellow-billed magpie, oak titmouse, grasshopper sparrow, song sparrow, purple martin, and white-tailed kite have the potential

to nest within the trees within the riparian woodland and within the annual grassland. Ground-disturbing activities and/or vegetation clearing operations, including pruning or removal of trees and shrubs, shall be completed between September 1 to February 14, if feasible. If ground-disturbing activities and/or vegetation removal begins during the nesting season (February 15 to August 31), the developer shall have a qualified biologist conduct a pre-construction survey for active nests within 300 feet of the Project Site. The pre-construction survey will be conducted within 14 days prior to commencement of ground-disturbing activities and/or vegetation removal. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity or vegetation removal. If the pre-construction survey shows that there is no evidence of active nests, no additional measures are required. If construction does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional pre-construction survey shall be required.

If any active nests are located within the vicinity of the proposed project the qualified biologist shall delineate an appropriate buffer zone, subject to approval of City Planning and in consultation with any other appropriate agencies, with construction tape or pin flags and maintain the buffer zone until the end of the breeding season or the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests. If active nests are found onsite, a qualified biologist shall monitor nests weekly during construction to ensure activities are not causing nesting disturbance.

MM BIO-2 Within 14 days prior to the start of ground disturbance, the developer shall have a qualified biologist conduct a pre-construction survey for western pond turtles. Ground disturbance includes any grading and excavation activities and any work associated with work adjacent to Cirby Creek. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days and the site still contains undisturbed habitat, a new survey shall be required. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity. If no western pond turtles are found, no additional measures are required.

If western pond turtles are found, all on-site work shall cease and the applicant shall submit a mitigation plan for review and approval by City Planning, in consultation with the California Department of Fish and Wildlife. The plan shall document all proposed measures, including avoidance, minimization, exclusion, relocation, the presence of a biological monitor, or other measures, and include a plan to monitor mitigation success. Work on the site shall not resume until the mitigation plan is approved and appropriate measures have been implemented.

MM BIO-3 The trees within the riparian woodland provide roosting habitat for special-status bats. The developer shall have a qualified biologist perform onsite pre-construction surveys for special-status bat species within 14 days prior to the start of ground disturbance and tree removal. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity or tree removal. If no bats are observed, then no additional measures are required. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days and the site still contains undisturbed habitat, a supplemental survey is required.

If bats are found, all on-site work shall cease and the applicant shall submit a mitigation plan for review and approval by City Planning, in consultation with the California Department of Fish and Wildlife. The plan shall document all proposed measures, including avoidance, minimization, exclusion, relocation, the presence of a biological monitor, or other measures, and include a plan to monitor mitigation success. Work on the site shall not resume until the mitigation plan is approved and appropriate measures have been implemented. If the bat is roosting in a tree anticipated for removal, then that tree shall not be removed until a qualified biologist has determined that the tree is no longer occupied by the bat.

MM BIO-4 Prior to commencement of ground disturbing activities, a qualified biologist shall mark the boundaries of onsite riparian habitat and the contractor shall install exclusion fencing around these boundaries to exclude construction equipment and personnel. The fencing shall be inspected and approved by City Planning

prior to ground-disturbing activities. The exclusion area shall be maintained until ground-disturbing activities are completed and soil within the adjacent area is stabilized.

V. Cultural Resources

As described within the Open Space and Conservation Element of the City of Roseville General Plan, the Roseville region was within the territory of the Nisenan (also Southern Maidu or Valley Maidu). Two large permanent Nisenan habitation sites have been identified and protected within the City's open space (in Maidu Park). Numerous smaller cultural resources, such as midden deposits and bedrock mortars, have also been recorded in the City. The gold rush which began in 1848 marked another settlement period, and evidence of Roseville's ranching and mining past are still found today. Historic features include rock walls, ditches, low terraces, and other remnants of settlement and activity. A majority of documented sites within the City are located in areas designated for open space uses.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of an historic resource as defined in Section 15064.5?			X	
b) Cause a substantial adverse change in the significance of an 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 dedicated cemeteries?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts to cultural resources is based directly on the CEQA Guidelines checklist items a–d listed above. The Archaeological, Historic, and Cultural Resources section of the City of Roseville General Plan also directs the proper evaluation of and, when feasible, protection of significant resources (Policies 1 and 2). There are also various federal and State regulations regarding the treatment and protection of cultural resources, including the National Historic Preservation Act and the Antiquities Act (which regulate items of significance in history), Section 7050.5 of the California Health and Safety Code, Section 5097.9 of the California Public Resources Code (which regulates the treatment of human remains) and Section 21073 et seq. of the California Public Resources Code (regarding Tribal Cultural Resources). The CEQA Guidelines also contains specific sections, other than the checklist items, related to the treatment of effects on historic resources.

The CEQA Guidelines contains specific sections, other than the checklist items, related to the treatment of effects on historic and archeological resources. Pursuant to the CEQA Guidelines, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2 (a), (b), and (c)). A *historical resource* is a resource listed, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR) (Section 21084.1); a resource included in a local register of historical resources (Section 15064.5(a)(2)); or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5 (a)(3)). Public Resources Code Section 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the CRHR.

Discussion of Checklist Answers:

a–c) No cultural or paleontological resources are known to exist on the project site; however, standard mitigation measures, as detailed in the Tribal Cultural Resources section below, apply which are designed to reduce impacts to cultural resources, should any be found on the site. The measures require an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. With mitigation, project impacts are less than significant.

VI. Geology and Soils

As described in the Safety Element of the City of Roseville General Plan, there are three inactive faults (Volcano Hill, Linda Creek, and an unnamed fault) in the vicinity, but there are no known active seismic faults within Placer County. The last seismic event recorded in the South Placer area occurred in 1908, and is estimated to have been at least a 4.0 on the Richter Scale. Due to the geographic location and soil characteristics within the City, the General Plan indicates that soil liquefaction, landslides, and subsidence are not a significant risk in the area.

Would the project:

Environmental Issue	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:			X	
i) Ruptures 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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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 in a geological 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 Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to geology and soils is based directly on the CEQA Guidelines checklist items a–e listed above. Regulations applicable to this topic include the Alquist-Priolo Act, which addresses earthquake safety in building permits, and the Seismic Hazards Mapping Act, which requires the state to gather and publish data on the location and risk of seismic faults.

The Findings of the Implementing Procedures indicate that compliance with the Flood Damage Prevention Ordinance (RMC Ch.9.80) and Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to checklist item b. The Ordinance and standards include permit requirements for construction and development in erosion-prone areas and ensure that grading activities will not result in significant soil erosion or loss of topsoil. The use of septic tanks or alternative waste systems is not permitted in the City of Roseville, and therefore no analysis of criterion e is necessary.

Discussion of Checklist Answers:

a) The project will not expose people or structures to potential substantial adverse effects involving seismic shaking, ground failure or landslides.

i–iii) According to United States Geological Service mapping and literature, active faults are largely considered to be those which have had movement within the last 10,000 years (within the Holocene or Historic time periods)[1] and there are no major active faults in Placer County. The California Geological Survey has prepared a map of the state which shows the earthquake shaking potential of areas throughout California based primarily on an area's distance from known active faults. The map shows that the City lies in a relatively low-intensity ground-shaking zone. Commercial, institutional, and residential buildings as well as all related infrastructure are required, in conformance with Chapter 16, *Structural Design Requirements*, Division IV, *Earthquake Design* of the California Building Code, to lessen the exposure to potentially damaging vibrations through seismic-resistant design. In compliance with the Code, all structures in the Project area would be well-built to withstand ground shaking from possible earthquakes in the region; impacts are less than significant.

iv) Landslides typically occur where soils on steep slopes become saturated or where natural or manmade conditions have taken away supporting structures and vegetation. The existing and proposed slopes of the project site are not steep enough to present a hazard during development or upon completion of the project. In addition, measures would be incorporated during construction to shore minor slopes and prevent potential earth movement. Therefore, impacts associated with landslides are less than significant.

b) Grading activities will result in the disruption, displacement, compaction and over-covering of soils associated with site preparation (grading and trenching for utilities). Grading activities for the project will be limited to the project site. Grading activities require a grading permit from the Engineering Division. The grading permit is reviewed for compliance with the City's Improvement Standards, including the provision of proper drainage, appropriate dust control, and erosion control measures. Grading and erosion control measures will be incorporated into the required grading plans and improvement plans. Therefore, the impacts associated with disruption, displacement, and compaction of soils associated with the project are less than significant.

c, d) A review of the Natural Resources Conservation Service Soil Survey for Placer County, accessed via the Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/), indicates that the soils on the site are andregg coarse sandy loam and cometa-fiddyment complex, which are not listed as geologically unstable or sensitive.

VII. Greenhouse Gases

Greenhouse gases trap heat in the earth's atmosphere. The principal greenhouse gases (GHGs) that enter the atmosphere because of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. As explained by the United States Environmental Protection Agency[2], global average temperature has increased by more than 1.5 degrees Fahrenheit since the late 1800s, and most of the warming of the past half century has been caused by human emissions. The City has taken proactive steps to reduce greenhouse gas emissions, which include the introduction of General Plan policies to reduce emissions, changes to City operations, and climate action initiatives.

[1] United States Geological Survey, http://earthquake.usgs.gov/learn/glossary/?term=active%20fault, Accessed January 2016
[2] http://www3.epa.gov/climatechange/science/overview.html, Accessed January 2016

Would the project:

Environmental Issue	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	

Thresholds of Significance and Regulatory Setting:

In Assembly Bill 32 (the California Global Warming Solutions Act), signed by Governor Schwarzenegger of California in September 2006, the legislature found that climate change resulting from global warming was a threat to California, and directed that "the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases . . .". The target established in AB 32 was to reduce emissions to 1990 levels by the year 2020. CARB subsequently prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008. The Scoping Plan provides the outline for actions to reduce California's GHG emissions. CARB's updated August 2011 Scoping Plan calculated a reduction needed of 21.7% from future "Business As Usual" (BAU) conditions in the year 2020. The current Scoping Plan (adopted May 2014) indicates that statewide emissions of GHG in 1990 amounted to 431 million metric tons, and that the 2020 "Business As Usual" (BAU) scenario is estimated as 509[3] million metric tons, which would require a reduction of 15.3% from 2020 BAU. In addition to this, Senate Bill 32 was signed by the Governor on September 8, 2016, to establish a reduction target of 40 percent below 1990 levels by 2030. The Air Resources Board is currently updating the Scoping Plan to reflect this target.

The Placer County Air Pollution Control District (PCAPCD) recommends that thresholds of significance for GHG be related to AB 32 reduction goals, and has adopted thresholds of significance which take into account the 2030 reduction target. The thresholds include a de minimis and a bright-line maximum threshold. Any project emitting less than 1,100 metric tons of carbon dioxide equivalents per year (MT CO_2e/yr) during construction or operation results in less than significant impacts. The PCAPCD considers any project with emissions greater than the bright-line cap of 10,000 MT CO_2e/yr to have significant impacts. For projects exceeding the de minimum threshold but below the bright-line threshold, comparison to the appropriate efficiency threshold is recommended. The significance thresholds are shown in Table 5 below.

[3] Includes Pavely and Renewables Portfolio Standard reduction

Table 5: GHG Significance Thresholds

Bright-line Threshold 10,000 MT CO_2e/yr			
Residential Efficiency (MT CO_2e/capita[1])		Non-Residential Efficiency (MT CO_2e/ksf[2])	
Urban	Rural	Urban	Rural
4.5	5.5	26.5	27.3
De Minimis Threshold 1,100 MT CO_2e/yr			

1. Per Capita = per person
2. Per ksf = per 1,000 square feet of building

Discussion of Checklist Answers:

a–b) Buildout of the project would contribute to increases of GHG emissions that area associated with global climate change during construction and operation. As detailed in Attachment 1, CalEEMod (version 2016.3.2) was used to model the project's construction related and operations related GHG emissions (CO_2e). Construction related GHG emissions occur at one point in time and are, therefore, not typically expected to significantly contribute to climate change. Climate change is a cumulative effect that occurs over time, and emissions increase on a year-to-year basis due to increases in developed area and other factors. However, the proposed project's construction related GHG has been estimated and compared to the PCAPCD thresholds. The project's maximum construction related emissions is 247.10 MT CO_2e in the most active construction year. The project's construction related emissions are below the de minimis threshold of 1,100 MT CO_2e.

The PCAPCD's CEQA Air Quality Handbook contains a screening table used to determine if a residential project will exceed the long-term operational GHG emissions significance threshold (Table 2-6: Corresponding Size of a Project for De Minimis Level of 1,100 MT CO2e/yr). According to the screening table projects that consist of 71 single-family homes or less are considered to have a less-than-significant impact related to long-term operational GHG emissions. The project proposes 20 single-family units, which is well below the published threshold of significance. Thus, project-generated GHG emissions would not conflict with, and are consistent with, the State goals listed in AB32 and policies and regulation adopted by the California Air Resources Board pursuant to AB32. This impact is considered less than significant.

VIII. Hazards and Hazardous Materials

There are no listed hazardous sites within the project vicinity and the proposed use does not involve the use of hazardous materials. Asbestos and lead, which can be present in older buildings, are not onsite as the site is currently vacant.

Would the project:

Environmental Issue	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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment though 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 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?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to hazardous materials is based directly on the CEQA Guidelines checklist items a–h listed above. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency, or if it has characteristics defined as hazardous by such an agency. The determination of significance based on the above criteria depends on the probable frequency and severity of consequences to people who might be exposed to the health hazard, and the degree to which Project design or existing regulations would reduce the frequency of or severity of exposure. As an example, products commonly used for household cleaning are classified as hazardous when transported in large quantities, but one would not conclude that the presence of small quantities of household cleaners at a home would pose a risk to a school located within ¼-mile.

Many federal and State agencies regulate hazards and hazardous substances, including the United States Environmental Protection Agency (US EPA), California Department of Toxic Substances Control (DTSC), Central Valley Regional Water Quality Control Board (Regional Water Board), and the California Occupational Safety and Health Administration (CalOSHA). The state has been granted primacy (primary responsibility for oversight) by the US EPA to administer and enforce hazardous waste management programs. State regulations also have detailed planning and management requirements to ensure that hazardous materials are handled, stored, and disposed of properly to reduce human health risks. California regulations pertaining to hazardous waste management are published in the California Code of Regulations (see 8 CCR, 22 CCR, and 23 CCR).

The project is not within an airport land use plan, within two miles of a public or public use airport and there are also no private airstrips in the vicinity of the project areas. Therefore, no further discussion is provided for items e and f.

Discussion of Checklist Answers:

a, b) Standard construction activities would require the use of hazardous materials such as fuels, oils, lubricants, glues, paints and paint thinners, soaps, bleach, and solvents. These are common household and commercial materials routinely used by both businesses and average members of the public. The materials only pose a hazard if they are improperly used, stored, or transported either through upset conditions (e.g. a vehicle accident) or mishandling. In addition to construction use, the operational project would result in the use of common hazardous materials as well, including bleach, solvents, and herbicides. Regulations pertaining to the transport of materials are codified in 49 Code of Federal Regulations 171–180, and transport regulations are enforced and monitored by the California Department of Transportation and by the California Highway Patrol. Specifications for storage on a construction site are contained in various regulations and codes, including the California Code of Regulations, the Uniform Fire Code, and the California Health and Safety Code. These same codes require that all hazardous materials be used and stored in the manner specified on the material packaging. Existing regulations and programs are sufficient to ensure that potential impacts as a result of the use or storage of hazardous materials are reduced to less than significant levels.

c) See response to Items (a) and (b) above. While development of the site will result in the use, handling, and transport of materials deemed to be hazardous, the materials in question are commonly used in both residential and commercial applications, and include materials such as bleach and herbicides. The project will not result in the use of any acutely hazardous materials, substances, or waste.

d) The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5[4]; therefore, no impact will occur.

g) This project is located within an area currently receiving City emergency services and development of the site has been anticipated and incorporated into emergency response plans. The project will cause a less than significant impact to the City's Emergency Response or Management Plans. Furthermore, the project will be required to comply with all local, State and federal requirements for the handling of hazardous materials, which will ensure less-than-significant impacts. These will require the following programs:

- A Risk Management and Prevention Program (RMPP) is required of uses that handle toxic and/or hazardous materials in quantities regulated by the California Health and Safety Code and/or the City.

- Businesses that handle toxic or hazardous materials are required to complete a Hazardous Materials Management Program (HMMP) pursuant to local, State, or federal requirements.

h) The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility. The project site is in an urban area, and therefore would not expose people to any risk from wildland fire. There would be no impact with regard to this criterion.

IX. Hydrology and Water Quality

As described in the Open Space and Conservation Element of the City of Roseville General Plan, the City is located within the Pleasant Grove Creek Basin and the Dry Creek Basin. Pleasant Grove Creek and its tributaries drain most of the western and central areas of the City and Dry Creek and its tributaries drain the remainder of the City. Most major stream areas in the City are located within designated open space.

Would the project:

Environmental Issue	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	

[4] http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) 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	
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 water?			X	
f) Otherwise substantially degrade water quality?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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 seiches, tsunami, or mudflow?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to hydrology and water quality is based directly on the CEQA Guidelines checklist items a–j listed above. For checklist item a, the Findings of the Implementing Procedures indicate that compliance with the City of Roseville Design/Construction Standards (Resolution 07-107), Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch. 14.20), and Stormwater Quality Design Manual (Resolution 16-152) will prevent significant impacts. The standards require preparation of an erosion and sediment control plan for construction activities and includes designs to control pollutants within post-construction urban water runoff. Likewise, it is indicated that the Drainage Fees for the Dry Creek and Pleasant Grove Watersheds (RMC Ch.4.48) and City of Roseville Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to item e. The ordinance and standards require the collection of drainage fees to fund improvements that mitigate potential flooding impacts, and require the design of a water drainage system that will adequately convey anticipated stormwater flows. Finally, it is indicated that compliance with the Flood Damage Prevention Ordinance (RMC Ch. 9.80) will prevent significant impacts related to items g, h, and i. The Ordinance includes standard requirements for all new construction, including regulation of development with the potential to impede or redirect flood flows, and prohibits development within flood hazard areas. Impacts from tsunamis and seiches were screened out of the analysis (item j) given the fact that the project is not located near a water body or other feature that would pose a risk of such an event.

Discussion of Checklist Answers:

a,c,d, f) The project will involve the disturbance of on-site soils and the construction of impervious surfaces, such as asphalt paving and buildings. Disturbing the soil can allow sediment to be mobilized by rain or wind, and cause displacement into waterways. To address this and other issues, the developer is required to receive approval of a grading permit and/or improvement plants prior to the start of construction. The permit or plans are required to incorporate mitigation measures for dust and erosion control. In addition, the City has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the Central Valley

Regional Water Quality Control Board which requires the City to reduce pollutants in stormwater to the maximum extent practicable. The City does this, in part, by means of the City's 2016 Design/Construction Standards, which require preparation and implementation of a Stormwater Pollution Prevention Plan. All permanent stormwater quality control measures must be designed to comply with the City's Manual for Stormwater Quality Control Standards for New Development, the City's 2016 Design/Construction Standards, Urban Stormwater Quality Management and Discharge Control Ordinance, and Stormwater Quality Design Manual. For these reasons, impacts related to water quality are less than significant.

b) The project does not involve the installation of groundwater wells. The City maintains wells to supplement surface water supplies during multiple dry years, but the effect of groundwater extraction on the aquifer was addressed in the Water Supply Assessment of the Amoruso Ranch Specific Plan EIR, which included a Citywide water analysis. The proposed project is consistent with the General Plan land use designation, and is thus consistent with the citywide Water Supply Assessment. Project impacts related to groundwater extraction are less than significant.

g, h) According to the City's floodplain data, the project is not located within the City's Regulatory Floodplain. As a result, implementation of the proposed project would not place housing or any structures within an area at risk of flood flows. There would be no impact with regard to these criteria.

i) Folsom Dam, which is located approximately 10 miles southeast of the project site, is the closet dam to the project site. While portions of the City could be subject to flooding in the event of failure or damage of Folsom Dam, the project site is not located in an area that would be subject to inundation due to dam failure. Therefore, there would be no impact.

j) Because the proposed project is located within an area of flat topography and is not within a floodplain, there is no risk of debris flow or mudflow. There would be no impact with regard to this criterion.

X. Land Use and Planning

The project site has a General Plan Designation of BP (Business Professional) and is zoned R1 (Residential). The area surrounding the site is generally residential; however, to the east the site is separated from the residential use by an open space corridor, and to the north the site is bound by business professional uses. There are op

Would the project:

Environmental Issue	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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to land use is based directly on the CEQA Guidelines checklist items a–c listed above. Consistency with applicable City General Plan policies, Improvement Standards, and design standards is already required and part of the City's processing of permits and plans, so these requirements do not appear as mitigation measures.

Discussion of Checklist Answers:

a) The project area has been master planned for development, including adequate roads, pedestrian paths, and bicycle paths to provide connections within the community. The project will not physically divide an established community.

b) The project includes a request to amend the General Plan and rezone the site to facilitate medium density residential development. The site is currently zoned for residential uses at a lower density than is currently proposed. The proposed density is consistent with the medium density and high density residential development within the vicinity of the project. The resulting residential development will be consistent with the existing neighborhood and does not conflict with policies or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Impacts are less than significant.

c) There are no Habitat Conservation Plans or Natural Community Conservation Plans covering the project site; therefore, no impact would occur.

XI. Mineral Resources

The Surface Mining and Reclamation Act (SMARA) of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ's) based on the known or inferred mineral resource potential of that land. The California Division of Mines and Geology (CDMG) was historically responsible for the classification and designation of areas containing—or potentially containing—significant mineral resources, though that responsibility now lies with the California Geological Survey (CGS). CDMG published Open File Report 95-10, which provides the mineral classification map for Placer County. A detailed evaluation of mineral resources has not been conducted within the City limits, but MRZ's have been identified. There are four broad MRZ categories (MRZ-1 through MRZ-4), and only MRZ-2 represents an area of known significant mineral resources. The City of Roseville General Plan EIR included Exhibit 4.1-3, depicting the location of MRZ's in the City limits. There is only one small MRZ-2 designation area, located at the far eastern edge of the City.

Would the project:

Environmental Issue	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

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to mineral resources is based directly on the CEQA Guidelines checklist items a and b listed above.

Discussion of Checklist Answers:

a–b) The project site is not in the area of the City known to include any mineral resources that would be of local, regional, or statewide importance; therefore, the project has no impacts on mineral resources.

XII. Noise

The project site is located adjacent to Kit Carson Way and Santa Clara Drive. Neither of these roadways is identified as a transportation noise source in the Noise Element of the City's General Plan. The site is approximately 2,600 feet east of Highway 80, which is considered a transportation noise source. In the General Plan, the project site is identified as being within the future 2035 60 dB Ldn contour line of Highway 80.

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exposer 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 ground borne vibration of ground borne noise levels?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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 levels?				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

Thresholds of Significance and Regulatory Setting:

Standards for transportation noise and non-transportation noise affecting existing or proposed land uses are established within the City of Roseville General Plan Noise Element Table IX-1 and IX-3, and these standards are used as the thresholds to determine the significance of impacts related to items a and c. The significance of other noise impacts is based directly on the CEQA Guidelines checklist items b, and d–f listed above. The Findings of the Implementing Procedures indicate that compliance with the City Noise Regulation (RMC Ch. 9.24) will prevent significant non-transportation noise as it relates to items a, b, and c. The Ordinance establishes noise exposure standards that protect noise-sensitive receptors from a variety of noise sources, including non-transportation/fixed noise, amplified sound, industrial noise, and events on public property. The project is not within an airport land use plan, within two miles of a public or public use airport and there are also no private airstrips in the vicinity of the project area. Therefore, items e and f have been ruled out from further analysis.

Discussion of Checklist Answers:

a,b) As shown in Table IX-1, the standard for residential outdoor activity areas is 60 dB Ldn, or 75 dB Ldn when interior noise levels are met and reduction measures have been applied while the standard for interior noise levels is 45 dB Ldn. The project is an infill project in an area that is mostly built out with residential and business professional uses. The adjacent roadways and uses are not considered to be noise sources; however, the General Plan identifies the project site as being within the future 2035 60 dB Ldn noise contour of Highway 80. The active outdoor areas of the proposed units are designed as enclosed courtyards. The courtyard design is expected to shield users from existing and future transportation noise. Furthermore, development within the

60 dB Ldn is considered consistent with General Plan policies. The use of standard construction practices, results in an exterior to interior noise level reduction of 25 dB. Applying this reduction results in an anticipated future interior noise level of 35 dB Ldn. Both the interior and exterior noise levels on the project site are within the applicable standards. The project will not expose people to noise levels in excess of City standards, and impacts are less than significant.

c,d) Surrounding uses may experience short-term increases in groundborne vibration, groundborne noise, and airborne noise levels during construction. However, these increases would only occur for a short period of time. When conducted during daytime hours, construction activities are exempt from Noise Ordinance standards, but the standards do apply to construction occurring during nighttime hours. While the noise generated may be a minor nuisance, the City Noise Regulation standards are designed to ensure that impacts are not unduly intrusive. Compliance with standards will ensure that this impact is less than significant.

XIII. Population and Housing

The project site is located within the City's Infill area, is zoned for residential uses, and has a land use designation of BP. The City of Roseville General Plan Table II-4 identifies the total number of residential units and population anticipated as a result of buildout of the City, and the Specific Plan likewise includes unit allocations and population projections for the Plan Area. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, though 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

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to population and housing is based directly on the CEQA Guidelines checklist items a–c listed above.

Discussion of Checklist Answers:

a) The CEQA Guidelines identify several ways in which a project could have growth-inducing impacts (Public Resources Code Section 15126.2), either directly or indirectly. Growth-inducement may be the result of fostering economic growth, fostering population growth, providing new housing, or removing barriers to growth. Growth inducement may be detrimental, beneficial, or of no impact or significance under CEQA. An impact is only deemed to occur when it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be shown that the growth will significantly affect the environment in some other way.

The project will add additional residential units, which were not contemplated in the City's General Plan. While the project will result in some level of growth, the City's has existing capacity and infrastructure to accommodate the increase. The project will not result in additional infrastructure that will lead to additional growth and the project will not negatively affect the City's ability to provide public services. Therefore, impacts related to growth inducement are less than significant.

b, c) The project site is currently vacant and no housing exists on the project site. There would be no impact with respect to these criteria.

XIV. Public Services

Fire protection, police protection, park services, and library services are provided by the City. The project is located within the Roseville Elementary School District and the Roseville Joint Union High School District. 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 government 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 following public services:

Environmental Issue	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 public facilities?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to public services is based directly on the CEQA Guidelines checklist items a–e listed above. The project is located within the City's Infill area, which is largely built out. The EIR for the City's General Plan addressed the level of public services which would be needed to serve the planned growth within the City. In addition, the project has been routed to the various public service agencies, both internal and external, to ensure that the project meets the agencies' design standards (where applicable) and to provide an opportunity to recommend appropriate conditions of approval.

Discussion of Checklist Answers:

a) Existing City codes and regulations require adequate water pressure in the water lines, and construction must comply with the Uniform Fire and Building Codes used by the City of Roseville. Additionally, the applicant is required to pay a fire service construction tax, which is used for purchasing capital facilities for the Fire

Department. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

b) Sales taxes and property taxes resulting from the development will add revenue to the General Fund, which serves to fund police services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

c) The applicant for this project is required to pay school impact fees at a rate determined by the local school districts. School fees will be collected prior to the issuance of building permits, consistent with City requirements. School sites have already been designated as part of the Specific Plan process. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

d) The developer will be required to pay fees into a Community Facilities District, which provides funding for park services. Future park and recreation sites and facilities have already been identified as part of the Specific Plan process. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

e) The City charges fees to end-users for other services, such as garbage and green waste collection, in order to fund those services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

XV. Recreation

The project is located approximately 3,000 feet west of Maidu Regional Park and approximately 1,900 feet north of an open space corridor containing a multi-use trail. No other neighborhood parks are within the vicinity of the project. Note any existing parks or other recreation facilities in the area.

Would the project:

Environmental Issue	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 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

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to recreation services is based directly on the CEQA Guidelines checklist items a–b listed above.

Discussion of Checklist Answers:

a) The project could result in a minor increase in the use of the existing parks within the vicinity, but not beyond the facilities anticipated usage. The minor increase would not result in a physical deterioration of the nearby facilities. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts

b) No additional facilities are required as a result of this project. The project will not cause any unforeseen or new impacts related to the construction or expansion of recreational facilities.

XVI. Transportation/Traffic

The project is located in the Sierra Gardens neighborhood within the City's Infill area. The subject property has frontage on both Kit Carson Way and Santa Clara Drive. The frontages of both of these roadways have been constructed as part of previous development in the area. Both of these roadways are two lane collectors. Santa Clara Drive connects directly to Douglas Boulevard, a six-lane arterial, approximately 740 feet north of the subject property. The residential units will be accessed from a proposed private cul-de-sac off Santa Clara Drive.

Would the project:

Environmental Issue	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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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(s) (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 supporting public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

Thresholds of Significance and Regulatory Setting:

The significance of checklist items c–f are based directly on the CEQA Guidelines checklist descriptions. For checklist items a and b, the Circulation Element of the General Plan establishes Level of Service C or better as an acceptable operating condition at all signalized intersections during a.m. and p.m. peak hours. Exceptions to this policy may be made by the City Council, but a minimum of 70% of all signalized intersections should maintain LOS C. The Findings of the Implementing Procedures indicate that compliance with the Traffic Mitigation Fee (RMC Ch. 4.44) will fund roadway projects and improvements necessary to maintain the City's Level of Service standards for projects consistent with the General Plan and related Specific Plan. An existing plus project conditions (short-term) traffic impact study may be required for projects with unique trip generation or distribution characteristics, in areas of local traffic constraints, or to study the proposed project access. A cumulative plus project conditions (long-term) study is required if a project is inconsistent with the General Plan or Specific Plan and would generate more than 50 pm peak-hour trips. The guidelines for traffic study preparation are found in the City of Roseville Design and Construction Standards–Section 4.

The project site is not located within an airport planning area or within any height restriction area established around an airport for the purpose of protecting navigable airspace. Consequently, impacts to changes in air traffic patterns (checklist item c) were screened out of the analysis.

Impacts with regard to items d and e are assessed based on the expert judgment of the City Engineer and City Fire Department, as based upon facts and consistency with the City's Design and Construction Standards.

Discussion of Checklist Answers:

a,b) A trip generation estimate was prepared for the project by City Engineering staff. The will result in 10 pm peak-hour trips. Although the applicant requests a General Plan Amendment to change the land use designation

from Business Professional to Medium Density Residential, the project will not generate more than 50 pm peak-hour trips; therefore, no traffic study is required. The project is consistent with the Circulation Element of the General Plan and impacts are less than significant.

d,e) The project has been reviewed by the City Engineering and City Fire Department staff, and has been found to be consistent with the City's Design Standards. Furthermore, standard conditions of approval added to all City project require compliance with Fire Codes and other design standards. Compliance with existing regulations ensure that impacts are less than significant.

f) The City of Roseville has adopted a Pedestrian Master Plan, Bicycle Master Plan, and Short-Range Transit Plan. The project was reviewed for consistency with these documents. The surrounding pedestrian, transit, and bicycle facilities have been already been constructed and the project will not decrease the performance or safety of those facilities. The project is consistent with these plans, impacts are less than significant.

XVII. Tribal Cultural Resources

As described within the Open Space and Conservation Element of the City of Roseville General Plan, the Roseville region was within the territory of the Nisenan (also Southern Maidu or Valley Maidu). Two large permanent Nisenan habitation sites have been identified and protected within the City's open space (in Maidu Park). Numerous smaller cultural resources, such as midden deposits and bedrock mortars, have also been recorded in the City. A majority of documented sites within the City are located in areas designated for open space uses.

Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) 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)?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) 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 Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Thresholds of Significance and Regulatory Setting:

In addition to archeological resources, tribal cultural resources are also given particular treatment. Tribal cultural resources are defined in Public Resources Code Section 21074, as either 1) a site, feature, place, geographically-defined cultural landscape, sacred place, or object with cultural value to a California Native American Tribe, that is listed or eligible for listing on the California Register or Historical Resources, or on a local register of historical resources or as 2) a resource determined by the lead agency, supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code section 5024.1(c), and considering the significance of the resource to a California Native American Tribe.

Discussion of Checklist Answers:

a) The General Plan EIR included historic and cultural resources study, which included research on whether any listed or eligible sites had been documented in the project area. No such sites were found. However, standard mitigation measures apply which are designed to reduce impacts to any previously undiscovered resources, should any be found on-site. The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the General Plan EIR; project-specific impacts are less than significant.

b) Notice of the proposed project was mailed to tribes which had requested such notice pursuant to AB 52. A request for consultation was received from the United Auburn Indian Community (UAIC). On June 13 2018 City staff met on the site with the tribe's archeologist, no resources were identified. On July 18, 2018, the UAIC concluded consultation with a recommendation that standard mitigation measures be made a requirement of the project. These measures are designed to reduce impacts to resources, should any be found on-site and require an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the General Plan EIR; project-specific impacts are less than significant.

MM CUL-1 - A minimum of seven days prior to beginning earthwork or other soil disturbance activities, the applicant shall notify the CEQA lead agency representative of the proposed earthwork start-date, in order to provide the CEQA lead agency representative with time to contact the United Auburn Indian Community (UAIC). A UAIC tribal representative shall be invited to the project's pre-construction meeting. The tribal representative

may provide the consultant and construction worker tribal cultural resources awareness brochure which includes relevant information regarding sensitive tribal cultural resources including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations; and also describes appropriate avoidance and minimization measures for resources that have the potential to be located on the project site. The brochure outlines what to do and whom to contact if any potential archaeological resources or artifacts are encountered and underscores the requirement for confidentiality and culturally-appropriate treatment of any find-of-significance to Native Americans and behaviors, consistent with Native American Tribal values.

XVIII. Utilities and Service Systems

The project is located within the City's Infill area, which is largely built out. There are existing utilities such as water, sewer, and storm drain lines within Kit Carson Way and Santa Clara Drive. Development on the site will require new connections to these facilities.

Would the project:

Environmental Issue	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 storm water 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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to utilities and service systems is based directly on the CEQA Guidelines checklist items a–g listed above.

Discussion of Checklist Answers:

a,e) The proposed project would be served by the Dry Creek Wastewater Treatment Plant (DCWWTP). The Central Valley Regional Water Quality Control Board (RWQCB) regulates water quality and quantity of effluent discharged from the City's wastewater treatment facilities. The DCWWTP has the capacity to treat 18 million gallons per day (mgd) and is currently treating 8.9[5] mgd. The volume of wastewater generated by the proposed project could be accommodated by the facility; the proposed project will not contribute to an exceedance of applicable wastewater treatment requirements. The impact would be less than significant.

b,c) Minor additional infrastructure will be constructed within the project site to tie the project into the major systems, but these facilities will be constructed in locations where site development is already occurring as part of the overall project; there are no additional substantial impacts specific or particular to the minor infrastructure improvements.

In terms of overall treatment capacity, sewage treatment was discussed in section a, above. An expansion of sewage treatment facilities is not required.

Domestic water in the City of Roseville is treated at the City's Water Treatment Plant on Barton Road. The City's water treatment plant currently has a treatment capacity of 100 mgd, though due to pipe sizes a slightly smaller total capacity of 96.1 mgd can be conveyed to the plant for treatment. The Amoruso Ranch Specific Plan Water Supply Assessment (AR WSA, Appendix E of the Amoruso Ranch FEIR), dated May 2016, analyzed water demand at City buildout. The analysis indicates that peak treatment demand will be approximately 115 mgd, which is insufficient to serve the treatment plant has insufficient capacity to serve peak demand at City buildout.

[5] Dave Samuelson, City of Roseville Environmental Utilities, Personal communication, July 6, 2016.

However, the additional water demand will be provided through contracts with other water suppliers, such as the Placer County Water Agency and the San Juan Water District, rather than through a treatment plant expansion. The project is consistent with existing land use designations and will not require an expansion of water treatment capacity.

d) The City of Roseville 2015 Urban Water Management Plan (UWMP), adopted May 2016, estimates water demand and supply for the City through the year 2040, based on existing land use designations and population projections. In addition, the AR WSA estimates water demand and supply for ultimate General Plan buildout. The UWMP indicates that existing water supply sources are sufficient to meet all near term needs, estimating an annual water demand of 45,475 acre-feet per year (AFY) by the year 2020 and existing surface and recycled water supplies in the amount of 70,421 AFY. The AR WSA estimates a Citywide buildout demand of 64,370 AFY when including recycled water, and of 59,657 AFY of potable water. The AR WSA indicates that surface water supply is sufficient to meet demand during normal rainfall years, but is insufficient during single- and multiple-dry years. However, the City's UWMP establishes mandatory water conservation measures and the use of groundwater to offset reductions in surface water supplies. Both the UWMP and AR WSA indicate that these measures, in combination with additional purchased water sources, will ensure that supply meets projected demand.

The applicant proposes a General Plan amendment to change the land use designation on the subject property from BP to MDR, which will add residential units to the site that were not assumed in the UWMP or the AR WSA. The applicant submitted a memorandum comparing the project's proposed water usage to the City's planned water usage (Attachment 3). In order to estimate the water use in each scenario, a water demand factor was applied to each use. The water demand factor for the existing BP designation is 2,598 gallons per day per acre (GPD/ac) resulting in an annual demand of 7.2 acre feet per year (AF/yr). The water demand factor for the proposed MDR designation is 430 GPD/unit resulting in an annual demand of 9.6 AF/yr. Assuming compliance with the City's Water Efficient Landscape Ordinance results in a reduction of 2,422 GPD bringing the proposed annual usage to 6.9 AF/yr, which is 0.3 AF/yr less than the City's planned usage for the site. Sufficient water supplies are available to serve the project from existing sources and no new or expanded entitlements needed. Impacts are less than significant.

f, g) The Western Placer Waste Management Authority is the regional agency handling recycling and waste disposal for Roseville and surrounding areas. The regional waste facilities include a Material Recovery Facility (MRF) and the Western Regional Sanitary Landfill (WRSL). Currently, the WRSL is permitted to accept up to 1,900 tons of municipal solid waste per day. According to the solid waste analysis of the Amoruso Ranch Specific Plan FEIR, under current projected development conditions the WRSL has a projected lifespan extending through 2058. There is sufficient existing capacity to serve the proposed project. Though the project will contribute incrementally to an eventual need to find other means of waste disposal, this impact has already been disclosed and mitigation applied as part of each Specific Plan the City has approved, including the most recent Amoruso Ranch Specific Plan. All residences and business in the City pay fees for solid waste collection, a portion of which is collected to fund eventual solid waste disposal expansion. The project will not result in any new impacts associated with major infrastructure. Environmental Utilities staff has reviewed the project for consistency with policies, codes, and regulations related to waste disposal services and has found that the project design is in compliance.

XIX. Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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, substantially reduce the number or restrict the range of an endangered, threatened or rare species, or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts which 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) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Significance Criteria and Regulatory Setting:

The significance of impacts related to mandatory findings of significance is based directly on the CEQA Guidelines checklist items a–c listed above.

Discussion of Checklist Answers:

a–c) Long term environmental goals are not impacted by the proposed project. The cumulative impacts do not deviate beyond what was contemplated in the Specific Plan EIR, and mitigation measures have already been incorporated via the Specific Plan EIR. With implementation of the City's Mitigating Ordinances, Guidelines, and Standards and best management practices, mitigation measures described in this chapter, and permit conditions, the proposed project will not have a significant impact on the habitat of any plant or animal species. Based on the foregoing, the proposed project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of any wildlife species, or create adverse effects on human beings.

ENVIRONMENTAL DETERMINATION:

In reviewing the site specific information provided for this project and acting as Lead Agency, the City of Roseville, Development Services Department, Planning Division has analyzed the potential environmental impacts created by this project and determined that with mitigation the impacts are less than significant. As demonstrated in the initial study checklist, there are no "project specific significant effects which are peculiar to the project or site" that cannot be reduced to less than significant effects through mitigation (CEQA Section 15183) and therefore an EIR ***is not*** *required. Therefore,* ***on the basis of the foregoing initial study:***

[**X**] I find that the proposed project COULD, but with mitigation agreed to by the applicant, clearly will not have a significant effect on the environment and a *MITIGATED NEGATIVE DECLARATION* has been prepared.

Initial Study Prepared by:

Charity Gold 11/26/2018

Charity Gold, Associate Planner
City of Roseville, Development Services – Planning Division

Attachments:

1. Air Quality Impact and Greenhouse Gas Analysis
2. Sierra Nevada Arborists, January 2018
3. Water Memorandum
4. Mitigation Monitoring Plan

Air Quality Impact and Greenhouse Gas Analysis

The Villages at Kit Carson Way

Prepared for:

3EDEVELOPMENTS

APRIL 2018

Prepared by:

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Introduction

This Air Quality Impact and Greenhouse Gas Analysis identifies and analyzes the potential environmental impacts from The Villages at Kit Carson Way (proposed project), related to air quality and greenhouse gas (GHG) emissions. The information and analysis in this document is organized in accordance with the checklist in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that should be applied to the project are prescribed. All modeling results are included as an Appendix to this document.

Project Summary

The project site consists of four parcels, each with an associated address: 1612, 1614,1616, and 1618 Kit Carson Way and Accessor's Parcel Numbers (APNs) 048-350-015, 016, 018, and 021, respectively, which make up a total of approximately 2.45 acres. The proposed project would include the construction of 20 single family townhomes, each on their own parcels, located at the southeast corner of Kit Carson Way and Santa Clara Drive in Roseville, California (see Figure 1, Regional Project Location). The project site is designated as Business Professional and is zoned as Single Family Residential. The site is currently vacant with dry grasses, shrubbery, and a few existing on-site trees. The site is surrounded by single-family residential development to the east, south, and west, various commercial uses to the north, and a ravine immediately east of the site (see Figure 2, Project Vicinity Map).

Furthermore, due to the project location, the following site features are inherent in the proposed project design:

- Within walking distance to public transportation;
- Existing network of pedestrian and bicycle connections;
- Near major transportation routes (i.e., Interstate 80 [I-80] and State Route 65);
- Near residential developments; and
- Near existing commercial uses, including retail and restaurants.

Sources

1. California Air Pollution Control Officers Association. *Quantifying Greenhouse Gas Mitigation Measures*. August 2010.
2. California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
3. California Air Resources Board. *Ambient Air Quality Standards*. Available at: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. May 04, 2016.
4. California Air Resources Board. *First Update to the Climate Change Scoping Plan*. May 15, 2014.
5. California Air Resources Board. *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Docume*n*t*. August 19, 2011.
6. ENVIRON International Corporation and the California Air Districts. *California Emissions Estimator Model User's Guide Version 2013.2*. July 2013.

Figure 1
Regional Project Location

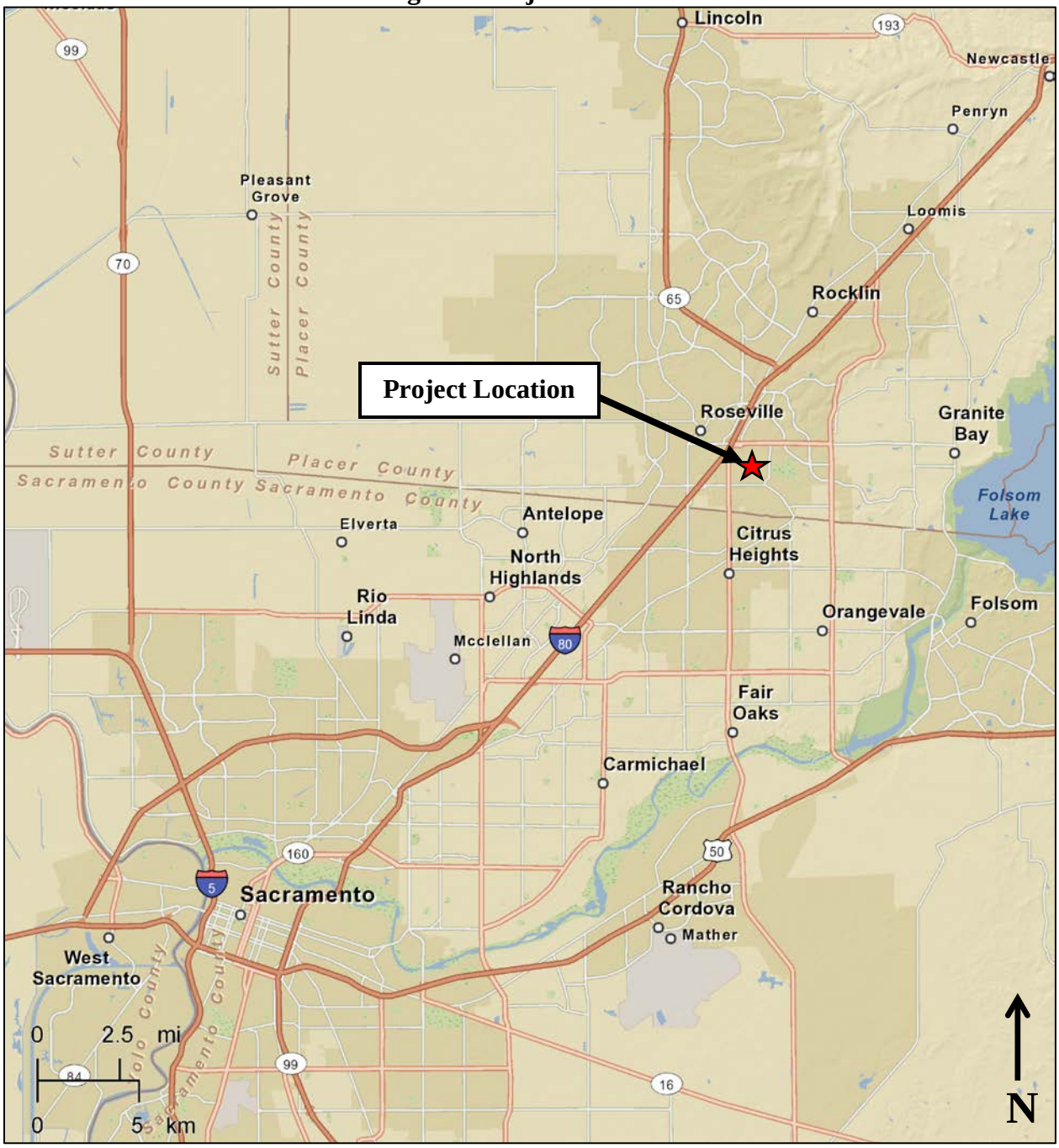

Figure 2
Project Vicinity Map

7. Placer County Air Pollution Control District. *CEQA Air Quality Handbook*. November 21, 2017.
8. Placer County Air Pollution Control District. *Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA.* October 13, 2016
9. Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County*. December 2009.
10. Sacramento Metropolitan Air Quality Management District. *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 SIP Revisions).* September 26, 2013.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✖	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	✖	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	✖	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	✖	☐

Discussion

a, b. The proposed project site is located within the Sacramento Valley Air Basin (SVAB) and is under the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). The SVAB is designated nonattainment for the federal particulate matter 2.5 microns in diameter ($PM_{2.5}$) and the State particulate matter 10 microns in diameter (PM_{10}) standards, as well as for both the federal and State ozone standards. The federal Clean Air Act requires areas designated as federal nonattainment to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures for states to use to attain the national ambient air quality standards (NAAQS). The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. In compliance with regulations, the PCAPCD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the NAAQS, including control strategies to reduce air pollutant emissions via regulations, incentive programs, public education, and partnerships with other agencies.

The current applicable air quality plan for the proposed project area is the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan), adopted September 26, 2013. The U.S. Environmental Protection Agency (USEPA) determined the motor vehicle emission budgets in the Plan to be adequate and made such findings effective August 25, 2014. On January 9, 2015, the USEPA approved the 2013 Ozone Attainment Plan.

The 2013 Ozone Attainment Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the CAA requirements, including the NAAQS. It should be noted that in addition to strengthening the 8-hour ozone NAAQS, the USEPA also strengthened the secondary 8-hour ozone NAAQS, making the

secondary standard identical to the primary standard. The SVAB remains classified as a severe nonattainment area with an attainment deadline of 2027. On October 26, 2015, the USEPA released a final implementation rule for the revised NAAQS for ozone to address the requirements for reasonable further progress, modeling and attainment demonstrations, and reasonably available control measures (RACM) and reasonably available control technology (RACT). With the publication of the new NAAQS ozone rules, areas in nonattainment must update their ozone attainment plans and submit new plans by 2020/2021.

General conformity requirements of the regional air quality plan include whether a project would cause or contribute to new violations of any NAAQS, increase the frequency or severity of an existing violation of any NAAQS, or delay timely attainment of any NAAQS. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, the PCAPCD adopts recommended thresholds of significance for emissions of PM_{10}, and ozone precursors – reactive organic gases (ROG) and oxides of nitrogen (NO_X). On October 13, 2016, the PCAPCD adopted updated significance thresholds for the aforementioned pollutants.

The significance thresholds, expressed in pounds per day (lbs/day), listed in Table 1 are the PCAPCD's recently updated thresholds of significance for use in the evaluation of air quality impacts associated with proposed development projects. The City of Roseville, as lead agency, uses the PCAPCD's recommended thresholds of significance for CEQA evaluation purposes. Thus, if the proposed project's emissions exceed the pollutant thresholds presented in Table 1, the project could have a significant effect on air quality, the attainment of federal and State AAQS, and could conflict with or obstruct implementation of the applicable air quality plan.

Table 1
PCAPCD Thresholds of Significance

Pollutant	Construction Threshold (lbs/day)	Operational Threshold (lbs/day)
ROG	82	55
NO_X	82	55
PM_{10}	82	82

Source: Placer County Air Pollution Control District. Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. October 13, 2016

Implementation of the proposed project would contribute local emissions in the area during both the construction and operation of the proposed project. The proposed project's short-term construction-related were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2 software – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including vehicle mix, trip length, average speed, etc. However, where project-specific data was available, such data was input into the model (e.g., project specific trip generation, land uses, density, construction phases and timing, inherent project design and site features, etc.).

Construction Emissions

During construction of the project, various types of equipment and vehicles would temporarily operate on the project site. Construction exhaust emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction worker commutes, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes particulate matter (PM) emissions. As construction of the proposed project would generate air pollutant emissions intermittently within the site, and the vicinity of the site, until all construction has been completed, construction is a potential concern because the proposed project is in a non-attainment area for ozone and PM_{10} and $PM_{2.5}$.

The project is required to comply with all PCAPCD rules and regulations for construction, which would be noted on City-approved construction plans. The applicable rules and regulations would include, but not be limited to, the following:

- Rule 202 related to visible emissions;
- Rule 218 related to architectural coatings;
- Rule 228 related to fugitive dust; and
- Regulation 3 related to open burning.

Table 2 below presents the estimated construction-related emissions of ROG, NO_X, and PM_{10}, resulting from the proposed project. CalEEMod inherently accounts for applicable PCAPCD rules, with the exception of Rule 218 related to architectural coatings; accordingly, the modeling was adjusted to reflect that the project would use only low volatile organic compound (VOC) paints per PCAPCD rules and regulations.

Table 2
Maximum Unmitigated Construction-Related Emissions

Pollutant	Project Emissions (lbs/day)	PCAPCD Significance Threshold (lbs/day)	Exceeds Threshold?
ROG	4.44	82.0	NO
NO_X	24.32	82.0	NO
PM_{10}	7.71	82.0	NO

Source: CalEEMod, April 2018.

As Table 2 indicates, the project's maximum unmitigated construction-related emissions would be below the applicable thresholds of significance. Therefore, construction activities associated with development of the proposed project would not substantially contribute to the PCAPCD's nonattainment status for ozone or PM. Accordingly, construction of the proposed project would not violate an air quality standard or contribute to an existing or

projected air quality violation, and a less-than-significant impact would occur associated with construction.

Operational Emissions

Operational emissions of ROG, NO_X, and PM_{10} would be generated by the proposed project from both mobile and stationary sources. Day-to-day activities such as the future employees' vehicle trips to and from the project site would make up the majority of the mobile emissions. Emissions would also occur from area sources such as natural gas combustion from heating mechanisms, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, cleaning products, spray paint, etc.).

The Placer CEQA Air Quality Handbook contains a screening table used in place of an air quality analysis to determine the level of significance for a project's air quality impacts. A project the size of 617 single family homes or less is considered to be within the threshold to be considered insignificant. The proposed project includes 20 single-family units, which falls below the threshold for being considered significant. Therefore, operations associated with development of the proposed project would not substantially contribute to the PCAPCD's nonattainment status for ozone or PM_{10}.

In addition, the project is required to comply with all PCAPCD rules and regulations, such as those listed previously for construction, as well as the following for operations:

- Rule 205 related to nuisances; and
- Rule 246 related to water heaters.

These rules are directed at reducing ambient concentrations and limiting fugitive emissions of fine particulate matter from construction activities as well as limit the emission of nitrogen oxides (NOx) from natural gas-fired water heaters.

Conclusion

The proposed project's construction and operational emissions would not exceed the applicable thresholds of significance. In addition, the project would be required to comply with all applicable PCAPCD rules and regulations. Because the project would not exceed the thresholds of significance, the proposed project would not substantially contribute to the region's nonattainment status of ozone or PM_{10}. Therefore, implementation of the proposed project would not violate an air quality standard or contribute to an existing or projected air quality violation, and a ***less-than-significant*** impact related to air quality could occur.

c. A cumulative impact analysis considers a project over time in conjunction with other past, present, and reasonably foreseeable future projects whose impacts might compound those of the project being assessed. Due to the dispersive nature and regional sourcing of air pollutants, air pollution is already largely a cumulative impact. The nonattainment status of regional pollutants, including ozone and PM, is a result of past and present development,

and, thus, cumulative impacts related to these pollutants could be considered cumulatively significant.

To improve air quality and attain the health-based standards, reductions in emissions are necessary within nonattainment areas. The project is part of a pattern of urbanization occurring in the greater Sacramento ozone nonattainment area. The growth and combined vehicle usage, and business activity within the nonattainment area from the project, in combination with other past, present, and reasonably foreseeable projects within Roseville and surrounding areas, could either delay attainment of the standards or require the adoption of additional controls on existing and future air pollution sources to offset emission increases. Thus, the project could cumulatively contribute to regional air quality health effects through emissions of criteria and mobile source air pollutants.

The PCAPCD recommends using the region's existing attainment plans as a basis for analysis of cumulative emissions. If a project would interfere with an adopted attainment plan, the project would inhibit the future attainment of AAQS, and thus result in a cumulative impact. As discussed above, the PCAPCD's recommended thresholds of significance for ozone precursors and PM_{10} are based on attainment plans for the region. Thus, the PCAPCD concluded that if a project's ozone precursor and PM_{10} emissions would be less than PCAPCD project-level thresholds, the project would not be expected to conflict with any relevant attainment plans, and would not result in a cumulatively considerable contribution to a significant cumulative impact. As a result, the PCACPD established operational phase cumulative-level emissions thresholds identical to the operational thresholds identified above, in Table 1.

As shown by comparing the proposed project to Table 2-2: Corresponding Size of a Project for 55 lbs/day of NOx Emissions in the Placer County Air Quality Handbook, the proposed project would not result in emissions in exceedance of the applicable thresholds of significance for ozone precursors or PM_{10} . Accordingly, impacts related to the cumulative emissions of criteria pollutants for which PCAPCD is in non-attainment would be considered ***less than significant***.

d. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics.

The proposed project involves the construction and operation of single family homes in a residential area; thus, the proposed project would be considered a sensitive receptor. The major pollutant concentrations of concern are localized CO emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would increase traffic volumes on streets near the project site; therefore, the project would be expected to increase local CO concentrations. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. The statewide CO Protocol document identifies signalized intersections operating at Level of Service (LOS) E or F, or projects that would result in the worsening of signalized intersections to LOS E or F, as having the potential to result in localized CO concentrations in excess of the State or federal AAQS, as a result of large numbers of cars idling at stop lights.

In accordance with the State CO Protocol, the PCAPCD recommends further analysis for localized CO concentrations if the project would cause a signalized intersection to be degraded from an acceptable LOS (i.e., LOS A, B, C, or D) to an unacceptable LOS (i.e., LOS E or F), or substantially worsen an already existing unacceptable LOS at an intersection, as determined by a traffic study. Substantially worsen is defined by PCAPCD as an increase in delay by 10 seconds or more (or by five percent).

The proposed project's anticipated trips would not be substantial enough that any nearby intersections or roadways would be degraded to such levels or that any intersection or roadway already operating at unacceptable levels would be substantially worsened. The trips would be within the range anticipated by the City of Roseville for the buildout of the site. Therefore, the proposed project is not anticipated to generate substantial localized CO concentrations.

TAC Emissions

Another category of environmental concern is TACs. The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, gasoline stations, freeways and high traffic roads, distribution centers, and rail yards.

CARB identifies diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant heavy diesel semi-truck traffic (such as distribution centers) are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

The CARB handbook identifies significant sources of DPM as land uses accommodating 100 heavy diesel semi-trucks per day, railyards and freeways. Although residential development would involve increased vehicle traffic in the area, the project would not be expected to attract 100 or more diesel semi-trucks to the area. The nearest freeway to the potential project is more than 500 feet away, placing it outside of the recommended buffer zone. Although there is a railway nearby, trains passing through do not produce a considerable amount of DPM. The nearest railyard is over 1.5 miles away, placing it outside of the recommended buffer zone.. As such, the proposed project would not generate a substantial amount of DPM per the CARB handbook.

Construction activities have the potential to generate DPM emissions related to the number and types of equipment typically associated with construction. Off-road heavy-duty diesel equipment used for site grading, paving, and other construction activities would result in the generation of DPM. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Operation of construction equipment would be regulated by the PCAPCD and would likely occur intermittently throughout the course of a day. Thus, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM associated with construction of the proposed project for any extended period of time would be low. Because health risks associated with exposure to DPM or any TAC are correlated with high concentrations over a long period of exposure, the temporary, intermittent construction-related DPM emissions would not be expected to cause any health risks to nearby sensitive receptors.

In conclusion, the proposed project would not expose any sensitive receptors to substantial concentrations of any pollutants. Therefore, impacts related to exposing sensitive receptors to substantial pollutant concentrations would be ***less than significant***.

e. According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, autobody shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The project site is located in a residential area and is not located near any land use associated with the aforementioned operations. Residential neighborhoods are not typically associated with the creation of objectionable odors. Thus, the project would not introduce any new sources or be exposed to any existing sources of potential objectionable odors.

Diesel fumes from construction equipment and delivery trucks are often found to be objectionable; however, as discussed above, construction is temporary and diesel emissions would be minimal and regulated through compliance with the PCAPCD's rules and regulations. Emissions of DPM from I-80 could result in objectionable odor; however, due to the buffer distance between the freeway and the project site, the odors associated with DPM emissions from nearby freeway traffic would not be expected to affect nearby sensitive receptors.

Therefore, the proposed project would not create objectionable odors that would affect a substantial number of people, and a ***less-than-significant*** impact would occur.

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

Discussion

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

On October 13, 2016, the PCAPCD adopted GHG emissions thresholds in concert with the criteria pollutant threshold update. The updated thresholds begin with a screening emission level of 1,100 MT CO_2e/yr. Any project below the 1,100 MT CO_2e/yr threshold is judged by the PCAPCD as having a less-than-significant impact on GHG emissions within the District and thus would not conflict with any state or regional GHG emissions reduction goals. Projects that would result in emissions above the 1,100 MT CO_2e/yr threshold would not necessarily result in substantial impacts, if certain efficiency thresholds are met. The efficiency thresholds, which are based on service populations and square footage, are presented in Table 3.

Table 3 PCAPCD Operational Thresholds of Significance			
Efficiency Thresholds			
Residential (MT CO_2e/capita)		**Non-Residential (MT CO_2e/1,000 sf)**	
Urban	**Rural**	**Urban**	**Rural**
4.5	5.5	26.5	27.3
Source: Placer County Air Pollution Control District. Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. October 13, 2016.			

Projects which involve emissions below the 1,100 MT CO_2e/yr threshold or below the efficiency thresholds presented in Table 3, are considered to result in less-than-significant impacts in regards to GHG emissions within the District and thus would not conflict with any state or regional GHG emissions reduction goals. Finally, the PCAPCD has also established a Bright Line Cap, which shall be the maximum limit for any proposed project. The Bright Line Cap is 10,000 MT CO_2e/yr for all types of projects.

Buildout of the proposed project would contribute to increases of GHG emissions that are associated with global climate change during construction and operations. The proposed project's short-term construction-related and long-term operational GHG emissions are presented below.

Short-Term Construction GHG Emissions

Construction-related GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. However, the proposed project's construction GHG emissions have been estimated and compared to the threshold of significance.

Table 4 Maximum Unmitigated Project Construction GHG Emissions		
	Construction GHG Emissions (MTCO_2e/yr)	**Threshold of Significance (MTCO_2e/yr)**
Maximum Annual Construction-related GHG Emissions	247.10	1,100
Source: CalEEMod, September 2016 (see Appendix).		

As shown in Table 4, the proposed project's maximum unmitigated construction-related GHG emissions would be below the applicable 1,100 MT CO_2e/yr threshold. Accordingly, the proposed project would not be expected to have a significant impact related to GHG emissions during construction.

Long-Term Operational GHG Emissions

Pursuant to the Placer County Air Pollution Control District 2017 CEQA handbook, the size of the project does not exceed the threshold for long-term operational GHG emissions. According to the handbook, any residential project that is smaller than 646 single-family homes is exempt from GHG modeling for long-term operational GHG emissions.

The Placer CEQA Air Quality Handbook contains a screening table used in place of a GHG emission analysis to determine the level of significance of a project's GHG emissions. Table 2-6: Corresponding Size of a Project for De Minimis Level of 1,100 MT CO2e/yr in the handbook shows that a project of 71 single-family homes or is considered to have a less-than-significant impact on long-term operational GHG emissions.

Therefore, the proposed project would not create greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses, and a ***less-than-significant*** impact would occur.

APPENDIX

CALEEMOD RESULTS

Kit Carson Way

Placer County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	20.00	Dwelling Unit	2.45	20,000.00	57

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2020
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	584.45	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on Roseville Electric's anticipated progress towards statewide RPS goals

Land Use - Applicant-provided

Construction Phase - Applicant-provided

Grading - Applicant-provided

Vehicle Trips - Per ITE trip generation rates

Area Mitigation - Per PCAPCD rules and regulations

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	PhaseEndDate	7/11/2019	6/13/2019
tblConstructionPhase	PhaseEndDate	6/13/2019	5/30/2019
tblConstructionPhase	PhaseEndDate	8/9/2018	7/12/2018
tblConstructionPhase	PhaseEndDate	6/27/2019	7/26/2018
tblConstructionPhase	PhaseEndDate	8/1/2018	7/4/2018
tblConstructionPhase	PhaseStartDate	6/28/2019	8/10/2018
tblConstructionPhase	PhaseStartDate	8/10/2018	7/27/2018
tblConstructionPhase	PhaseStartDate	8/2/2018	7/5/2018
tblConstructionPhase	PhaseStartDate	6/14/2019	7/13/2018
tblConstructionPhase	PhaseStartDate	7/28/2018	7/1/2018
tblGrading	AcresOfGrading	3.00	2.45
tblGrading	AcresOfGrading	4.50	0.00
tblLandUse	LotAcreage	1.25	2.45
tblProjectCharacteristics	CO2IntensityFactor	793.8	584.45
tblVehicleTrips	ST_TR	5.67	5.81
tblVehicleTrips	SU_TR	4.84	5.81

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.2577	1.4601	1.1225	1.8600e-003	0.0284	0.0875	0.1158	0.0125	0.0838	0.0963	0.0000	159.1910	159.1910	0.0324	0.0000	160.0010
2019	0.2250	1.1459	0.9623	1.6300e-003	8.0300e-003	0.0666	0.0746	2.1500e-003	0.0642	0.0663	0.0000	137.8689	137.8689	0.0252	0.0000	138.4982
Maximum	**0.2577**	**1.4601**	**1.1225**	**1.8600e-003**	**0.0284**	**0.0875**	**0.1158**	**0.0125**	**0.0838**	**0.0963**	**0.0000**	**159.1910**	**159.1910**	**0.0324**	**0.0000**	**160.0010**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.2577	1.4601	1.1225	1.8600e-003	0.0284	0.0875	0.1158	0.0125	0.0838	0.0963	0.0000	159.1908	159.1908	0.0324	0.0000	160.0008
2019	0.2250	1.1459	0.9623	1.6300e-003	8.0300e-003	0.0666	0.0746	2.1500e-003	0.0642	0.0663	0.0000	137.8687	137.8687	0.0252	0.0000	138.4981
Maximum	**0.2577**	**1.4601**	**1.1225**	**1.8600e-003**	**0.0284**	**0.0875**	**0.1158**	**0.0125**	**0.0838**	**0.0963**	**0.0000**	**159.1908**	**159.1908**	**0.0324**	**0.0000**	**160.0008**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2018**	**9-30-2018**	0.8212	0.8212
2	**10-1-2018**	**12-31-2018**	0.9029	0.9029
3	**1-1-2019**	**3-31-2019**	0.8066	0.8066
4	**4-1-2019**	**6-30-2019**	0.5538	0.5538
		Highest	0.9029	0.9029

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3501	0.0262	1.6981	2.8100e-003		0.2180	0.2180		0.2180	0.2180	20.6592	8.9067	29.5659	0.0193	1.6200e-003	30.5327
Energy	2.2200e-003	0.0189	8.0600e-003	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	49.3863	49.3863	1.7800e-003	6.8000e-004	49.6347
Mobile	0.0410	0.2882	0.4824	1.7200e-003	0.1237	1.8900e-003	0.1256	0.0333	1.7800e-003	0.0351	0.0000	157.7278	157.7278	6.4700e-003	0.0000	157.8896
Waste						0.0000	0.0000		0.0000	0.0000	1.8675	0.0000	1.8675	0.1104	0.0000	4.6267
Water						0.0000	0.0000		0.0000	0.0000	0.4134	2.6315	3.0449	0.0426	1.0300e-003	4.4165
Total	**1.3934**	**0.3334**	**2.1885**	**4.6500e-003**	**0.1237**	**0.2214**	**0.3452**	**0.0333**	**0.2213**	**0.2546**	**22.9401**	**218.6523**	**241.5924**	**0.1805**	**3.3300e-003**	**247.1002**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3443	0.0262	1.6981	2.8100e-003		0.2180	0.2180		0.2180	0.2180	20.6592	8.9067	29.5659	0.0193	1.6200e-003	30.5327
Energy	2.2200e-003	0.0189	8.0600e-003	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	49.3863	49.3863	1.7800e-003	6.8000e-004	49.6347
Mobile	0.0410	0.2882	0.4824	1.7200e-003	0.1237	1.8900e-003	0.1256	0.0333	1.7800e-003	0.0351	0.0000	157.7278	157.7278	6.4700e-003	0.0000	157.8896
Waste						0.0000	0.0000		0.0000	0.0000	1.8675	0.0000	1.8675	0.1104	0.0000	4.6267
Water						0.0000	0.0000		0.0000	0.0000	0.4134	2.6315	3.0449	0.0426	1.0300e-003	4.4165
Total	**1.3875**	**0.3334**	**2.1885**	**4.6500e-003**	**0.1237**	**0.2214**	**0.3452**	**0.0333**	**0.2213**	**0.2546**	**22.9401**	**218.6523**	**241.5924**	**0.1805**	**3.3300e-003**	**247.1002**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2018	7/4/2018	5	3	
2	Grading	Grading	7/5/2018	7/12/2018	5	6	
3	Paving	Paving	7/13/2018	7/26/2018	5	10	
4	Building Construction	Building Construction	7/27/2018	5/30/2019	5	220	
5	Architectural Coating	Architectural Coating	8/10/2018	6/13/2019	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.45

Acres of Paving: 0

Residential Indoor: 40,500; Residential Outdoor: 13,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Kit Carson Way - Placer County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	14.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0354	0.0191	4.0000e-005		1.4300e-003	1.4300e-003		1.3200e-003	1.3200e-003	0.0000	3.3590	3.3590	1.0500e-003	0.0000	3.3851
Total	**2.8500e-003**	**0.0354**	**0.0191**	**4.0000e-005**	**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**1.3200e-003**	**1.3200e-003**	**0.0000**	**3.3590**	**3.3590**	**1.0500e-003**	**0.0000**	**3.3851**

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0866	0.0866	0.0000	0.0000	0.0867
Total	**5.0000e-005**	**4.0000e-005**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0866**	**0.0866**	**0.0000**	**0.0000**	**0.0867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0354	0.0191	4.0000e-005		1.4300e-003	1.4300e-003		1.3200e-003	1.3200e-003	0.0000	3.3590	3.3590	1.0500e-003	0.0000	3.3851
Total	**2.8500e-003**	**0.0354**	**0.0191**	**4.0000e-005**	**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**1.3200e-003**	**1.3200e-003**	**0.0000**	**3.3590**	**3.3590**	**1.0500e-003**	**0.0000**	**3.3851**

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0866	0.0866	0.0000	0.0000	0.0867
Total	**5.0000e-005**	**4.0000e-005**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0866**	**0.0866**	**0.0000**	**0.0000**	**0.0867**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0194	0.0000	0.0194	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0729	0.0311	6.0000e-005		3.5000e-003	3.5000e-003		3.2200e-003	3.2200e-003	0.0000	5.6539	5.6539	1.7600e-003	0.0000	5.6979
Total	**6.4500e-003**	**0.0729**	**0.0311**	**6.0000e-005**	**0.0194**	**3.5000e-003**	**0.0229**	**0.0101**	**3.2200e-003**	**0.0133**	**0.0000**	**5.6539**	**5.6539**	**1.7600e-003**	**0.0000**	**5.6979**

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2165	0.2165	1.0000e-005	0.0000	0.2167
Total	**1.3000e-004**	**9.0000e-005**	**9.7000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2165**	**0.2165**	**1.0000e-005**	**0.0000**	**0.2167**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0194	0.0000	0.0194	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0729	0.0311	6.0000e-005		3.5000e-003	3.5000e-003		3.2200e-003	3.2200e-003	0.0000	5.6539	5.6539	1.7600e-003	0.0000	5.6979
Total	**6.4500e-003**	**0.0729**	**0.0311**	**6.0000e-005**	**0.0194**	**3.5000e-003**	**0.0229**	**0.0101**	**3.2200e-003**	**0.0133**	**0.0000**	**5.6539**	**5.6539**	**1.7600e-003**	**0.0000**	**5.6979**

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2165	0.2165	1.0000e-005	0.0000	0.2167
Total	**1.3000e-004**	**9.0000e-005**	**9.7000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2165**	**0.2165**	**1.0000e-005**	**0.0000**	**0.2167**

3.4 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0200e-003	0.0713	0.0599	9.0000e-005		4.2500e-003	4.2500e-003		3.9200e-003	3.9200e-003	0.0000	8.0478	8.0478	2.4600e-003	0.0000	8.1093
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.0200e-003**	**0.0713**	**0.0599**	**9.0000e-005**		**4.2500e-003**	**4.2500e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**8.0478**	**8.0478**	**2.4600e-003**	**0.0000**	**8.1093**

3.4 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.3000e-004	2.4300e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5414	0.5414	2.0000e-005	0.0000	0.5418
Total	**3.1000e-004**	**2.3000e-004**	**2.4300e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5414**	**0.5414**	**2.0000e-005**	**0.0000**	**0.5418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0200e-003	0.0713	0.0599	9.0000e-005		4.2500e-003	4.2500e-003		3.9200e-003	3.9200e-003	0.0000	8.0478	8.0478	2.4600e-003	0.0000	8.1093
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.0200e-003**	**0.0713**	**0.0599**	**9.0000e-005**		**4.2500e-003**	**4.2500e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**8.0478**	**8.0478**	**2.4600e-003**	**0.0000**	**8.1093**

3.4 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.3000e-004	2.4300e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5414	0.5414	2.0000e-005	0.0000	0.5418
Total	**3.1000e-004**	**2.3000e-004**	**2.4300e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5414**	**0.5414**	**2.0000e-005**	**0.0000**	**0.5418**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1631	1.1596	0.8802	1.4000e-003		0.0704	0.0704		0.0675	0.0675	0.0000	118.3581	118.3581	0.0255	0.0000	118.9955
Total	**0.1631**	**1.1596**	**0.8802**	**1.4000e-003**		**0.0704**	**0.0704**		**0.0675**	**0.0675**	**0.0000**	**118.3581**	**118.3581**	**0.0255**	**0.0000**	**118.9955**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6000e-004	0.0153	3.3500e-003	3.0000e-005	7.3000e-004	1.1000e-004	8.4000e-004	2.1000e-004	1.0000e-004	3.1000e-004	0.0000	3.1428	3.1428	1.7000e-004	0.0000	3.1471
Worker	3.2800e-003	2.4400e-003	0.0254	6.0000e-005	6.1600e-003	4.0000e-005	6.2000e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.6589	5.6589	1.7000e-004	0.0000	5.6632
Total	**3.8400e-003**	**0.0177**	**0.0288**	**9.0000e-005**	**6.8900e-003**	**1.5000e-004**	**7.0400e-003**	**1.8500e-003**	**1.4000e-004**	**1.9900e-003**	**0.0000**	**8.8017**	**8.8017**	**3.4000e-004**	**0.0000**	**8.8103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1631	1.1596	0.8802	1.4000e-003		0.0704	0.0704		0.0675	0.0675	0.0000	118.3579	118.3579	0.0255	0.0000	118.9954
Total	**0.1631**	**1.1596**	**0.8802**	**1.4000e-003**		**0.0704**	**0.0704**		**0.0675**	**0.0675**	**0.0000**	**118.3579**	**118.3579**	**0.0255**	**0.0000**	**118.9954**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6000e-004	0.0153	3.3500e-003	3.0000e-005	7.3000e-004	1.1000e-004	8.4000e-004	2.1000e-004	1.0000e-004	3.1000e-004	0.0000	3.1428	3.1428	1.7000e-004	0.0000	3.1471
Worker	3.2800e-003	2.4400e-003	0.0254	6.0000e-005	6.1600e-003	4.0000e-005	6.2000e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.6589	5.6589	1.7000e-004	0.0000	5.6632
Total	**3.8400e-003**	**0.0177**	**0.0288**	**9.0000e-005**	**6.8900e-003**	**1.5000e-004**	**7.0400e-003**	**1.8500e-003**	**1.4000e-004**	**1.9900e-003**	**0.0000**	**8.8017**	**8.8017**	**3.4000e-004**	**0.0000**	**8.8103**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1381	1.0212	0.8237	1.3500e-003		0.0589	0.0589		0.0564	0.0564	0.0000	113.2673	113.2673	0.0236	0.0000	113.8564
Total	**0.1381**	**1.0212**	**0.8237**	**1.3500e-003**		**0.0589**	**0.0589**		**0.0564**	**0.0564**	**0.0000**	**113.2673**	**113.2673**	**0.0236**	**0.0000**	**113.8564**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-004	0.0139	2.8800e-003	3.0000e-005	7.1000e-004	8.0000e-005	7.9000e-004	2.0000e-004	8.0000e-005	2.8000e-004	0.0000	3.0047	3.0047	1.6000e-004	0.0000	3.0087
Worker	2.8600e-003	2.0700e-003	0.0219	6.0000e-005	5.9400e-003	4.0000e-005	5.9800e-003	1.5800e-003	4.0000e-005	1.6200e-003	0.0000	5.2933	5.2933	1.5000e-004	0.0000	5.2969
Total	**3.3400e-003**	**0.0160**	**0.0248**	**9.0000e-005**	**6.6500e-003**	**1.2000e-004**	**6.7700e-003**	**1.7800e-003**	**1.2000e-004**	**1.9000e-003**	**0.0000**	**8.2981**	**8.2981**	**3.1000e-004**	**0.0000**	**8.3056**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1381	1.0212	0.8237	1.3500e-003		0.0589	0.0589		0.0564	0.0564	0.0000	113.2672	113.2672	0.0236	0.0000	113.8563
Total	**0.1381**	**1.0212**	**0.8237**	**1.3500e-003**		**0.0589**	**0.0589**		**0.0564**	**0.0564**	**0.0000**	**113.2672**	**113.2672**	**0.0236**	**0.0000**	**113.8563**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-004	0.0139	2.8800e-003	3.0000e-005	7.1000e-004	8.0000e-005	7.9000e-004	2.0000e-004	8.0000e-005	2.8000e-004	0.0000	3.0047	3.0047	1.6000e-004	0.0000	3.0087
Worker	2.8600e-003	2.0700e-003	0.0219	6.0000e-005	5.9400e-003	4.0000e-005	5.9800e-003	1.5800e-003	4.0000e-005	1.6200e-003	0.0000	5.2933	5.2933	1.5000e-004	0.0000	5.2969
Total	**3.3400e-003**	**0.0160**	**0.0248**	**9.0000e-005**	**6.6500e-003**	**1.2000e-004**	**6.7700e-003**	**1.7800e-003**	**1.2000e-004**	**1.9000e-003**	**0.0000**	**8.2981**	**8.2981**	**3.1000e-004**	**0.0000**	**8.3056**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0580					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1023	0.0946	1.5000e-004		7.6800e-003	7.6800e-003		7.6800e-003	7.6800e-003	0.0000	13.0216	13.0216	1.2400e-003	0.0000	13.0526
Total	**0.0733**	**0.1023**	**0.0946**	**1.5000e-004**		**7.6800e-003**	**7.6800e-003**		**7.6800e-003**	**7.6800e-003**	**0.0000**	**13.0216**	**13.0216**	**1.2400e-003**	**0.0000**	**13.0526**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.8000e-004	4.9600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1044	1.1044	3.0000e-005	0.0000	1.1052
Total	**6.4000e-004**	**4.8000e-004**	**4.9600e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.1044**	**1.1044**	**3.0000e-005**	**0.0000**	**1.1052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0580					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1023	0.0946	1.5000e-004		7.6800e-003	7.6800e-003		7.6800e-003	7.6800e-003	0.0000	13.0216	13.0216	1.2400e-003	0.0000	13.0525
Total	**0.0733**	**0.1023**	**0.0946**	**1.5000e-004**		**7.6800e-003**	**7.6800e-003**		**7.6800e-003**	**7.6800e-003**	**0.0000**	**13.0216**	**13.0216**	**1.2400e-003**	**0.0000**	**13.0525**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.8000e-004	4.9600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1044	1.1044	3.0000e-005	0.0000	1.1052
Total	**6.4000e-004**	**4.8000e-004**	**4.9600e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.1044**	**1.1044**	**3.0000e-005**	**0.0000**	**1.1052**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1083	0.1086	1.8000e-004		7.6000e-003	7.6000e-003		7.6000e-003	7.6000e-003	0.0000	15.0642	15.0642	1.2700e-003	0.0000	15.0960
Total	**0.0828**	**0.1083**	**0.1086**	**1.8000e-004**		**7.6000e-003**	**7.6000e-003**		**7.6000e-003**	**7.6000e-003**	**0.0000**	**15.0642**	**15.0642**	**1.2700e-003**	**0.0000**	**15.0960**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	4.8000e-004	5.1300e-003	1.0000e-005	1.3900e-003	1.0000e-005	1.4000e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2393	1.2393	3.0000e-005	0.0000	1.2402
Total	**6.7000e-004**	**4.8000e-004**	**5.1300e-003**	**1.0000e-005**	**1.3900e-003**	**1.0000e-005**	**1.4000e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.2393**	**1.2393**	**3.0000e-005**	**0.0000**	**1.2402**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1083	0.1086	1.8000e-004		7.6000e-003	7.6000e-003		7.6000e-003	7.6000e-003	0.0000	15.0642	15.0642	1.2700e-003	0.0000	15.0960
Total	**0.0828**	**0.1083**	**0.1086**	**1.8000e-004**		**7.6000e-003**	**7.6000e-003**		**7.6000e-003**	**7.6000e-003**	**0.0000**	**15.0642**	**15.0642**	**1.2700e-003**	**0.0000**	**15.0960**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	4.8000e-004	5.1300e-003	1.0000e-005	1.3900e-003	1.0000e-005	1.4000e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2393	1.2393	3.0000e-005	0.0000	1.2402
Total	**6.7000e-004**	**4.8000e-004**	**5.1300e-003**	**1.0000e-005**	**1.3900e-003**	**1.0000e-005**	**1.4000e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.2393**	**1.2393**	**3.0000e-005**	**0.0000**	**1.2402**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0410	0.2882	0.4824	1.7200e-003	0.1237	1.8900e-003	0.1256	0.0333	1.7800e-003	0.0351	0.0000	157.7278	157.7278	6.4700e-003	0.0000	157.8896
Unmitigated	0.0410	0.2882	0.4824	1.7200e-003	0.1237	1.8900e-003	0.1256	0.0333	1.7800e-003	0.0351	0.0000	157.7278	157.7278	6.4700e-003	0.0000	157.8896

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	116.20	116.20	116.20	332,860	332,860
Total	116.20	116.20	116.20	332,860	332,860

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.489257	0.041257	0.220156	0.132626	0.025790	0.006586	0.027831	0.045583	0.001467	0.001229	0.006102	0.000783	0.001333

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.4525	27.4525	1.3600e-003	2.8000e-004	27.5705
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.4525	27.4525	1.3600e-003	2.8000e-004	27.5705
NaturalGas Mitigated	2.2200e-003	0.0189	8.0600e-003	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9339	21.9339	4.2000e-004	4.0000e-004	22.0642
NaturalGas Unmitigated	2.2200e-003	0.0189	8.0600e-003	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9339	21.9339	4.2000e-004	4.0000e-004	22.0642

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	411025	2.2200e-003	0.0189	8.0600e-003	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9339	21.9339	4.2000e-004	4.0000e-004	22.0642
Total		**2.2200e-003**	**0.0189**	**8.0600e-003**	**1.2000e-004**		**1.5300e-003**	**1.5300e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**21.9339**	**21.9339**	**4.2000e-004**	**4.0000e-004**	**22.0642**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	411025	2.2200e-003	0.0189	8.0600e-003	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9339	21.9339	4.2000e-004	4.0000e-004	22.0642
Total		**2.2200e-003**	**0.0189**	**8.0600e-003**	**1.2000e-004**		**1.5300e-003**	**1.5300e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**21.9339**	**21.9339**	**4.2000e-004**	**4.0000e-004**	**22.0642**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	103554	27.4525	1.3600e-003	2.8000e-004	27.5705
Total		**27.4525**	**1.3600e-003**	**2.8000e-004**	**27.5705**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	103554	27.4525	1.3600e-003	2.8000e-004	27.5705
Total		**27.4525**	**1.3600e-003**	**2.8000e-004**	**27.5705**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3443	0.0262	1.6981	2.8100e-003		0.2180	0.2180		0.2180	0.2180	20.6592	8.9067	29.5659	0.0193	1.6200e-003	30.5327
Unmitigated	1.3501	0.0262	1.6981	2.8100e-003		0.2180	0.2180		0.2180	0.2180	20.6592	8.9067	29.5659	0.0193	1.6200e-003	30.5327

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0781					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2549	0.0245	1.5491	2.8100e-003		0.2172	0.2172		0.2172	0.2172	20.6592	8.6642	29.3233	0.0191	1.6200e-003	30.2842
Landscaping	4.5400e-003	1.7200e-003	0.1490	1.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	0.2426	0.2426	2.4000e-004	0.0000	0.2485
Total	**1.3501**	**0.0262**	**1.6981**	**2.8200e-003**		**0.2180**	**0.2180**		**0.2180**	**0.2180**	**20.6592**	**8.9067**	**29.5659**	**0.0193**	**1.6200e-003**	**30.5327**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0723					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2549	0.0245	1.5491	2.8100e-003		0.2172	0.2172		0.2172	0.2172	20.6592	8.6642	29.3233	0.0191	1.6200e-003	30.2842
Landscaping	4.5400e-003	1.7200e-003	0.1490	1.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	0.2426	0.2426	2.4000e-004	0.0000	0.2485
Total	**1.3442**	**0.0262**	**1.6981**	**2.8200e-003**		**0.2180**	**0.2180**		**0.2180**	**0.2180**	**20.6592**	**8.9067**	**29.5659**	**0.0193**	**1.6200e-003**	**30.5327**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.0449	0.0426	1.0300e-003	4.4165
Unmitigated	3.0449	0.0426	1.0300e-003	4.4165

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.30308 / 0.821507	3.0449	0.0426	1.0300e-003	4.4165
Total		**3.0449**	**0.0426**	**1.0300e-003**	**4.4165**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.30308 / 0.821507	3.0449	0.0426	1.0300e-003	4.4165
Total		**3.0449**	**0.0426**	**1.0300e-003**	**4.4165**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.8675	0.1104	0.0000	4.6267
Unmitigated	1.8675	0.1104	0.0000	4.6267

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	9.2	1.8675	0.1104	0.0000	4.6267
Total		**1.8675**	**0.1104**	**0.0000**	**4.6267**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	9.2	1.8675	0.1104	0.0000	4.6267
Total		**1.8675**	**0.1104**	**0.0000**	**4.6267**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Kit Carson Way

Placer County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	20.00	Dwelling Unit	2.45	20,000.00	57

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2020
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	584.45	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on Roseville Electric's anticipated progress towards statewide RPS goals

Land Use - Applicant-provided

Construction Phase - Applicant-provided

Grading - Applicant-provided

Vehicle Trips - Per ITE trip generation rates

Area Mitigation - Per PCAPCD rules and regulations

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	PhaseEndDate	7/11/2019	6/13/2019
tblConstructionPhase	PhaseEndDate	6/13/2019	5/30/2019
tblConstructionPhase	PhaseEndDate	8/9/2018	7/12/2018
tblConstructionPhase	PhaseEndDate	6/27/2019	7/26/2018
tblConstructionPhase	PhaseEndDate	8/1/2018	7/4/2018
tblConstructionPhase	PhaseStartDate	6/28/2019	8/10/2018
tblConstructionPhase	PhaseStartDate	8/10/2018	7/27/2018
tblConstructionPhase	PhaseStartDate	8/2/2018	7/5/2018
tblConstructionPhase	PhaseStartDate	6/14/2019	7/13/2018
tblConstructionPhase	PhaseStartDate	7/28/2018	7/1/2018
tblGrading	AcresOfGrading	3.00	2.45
tblGrading	AcresOfGrading	4.50	0.00
tblLandUse	LotAcreage	1.25	2.45
tblProjectCharacteristics	CO2IntensityFactor	793.8	584.45
tblVehicleTrips	ST_TR	5.67	5.81
tblVehicleTrips	SU_TR	4.84	5.81

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.4384	24.3169	18.2439	0.0301	6.5373	1.4109	7.7061	3.3788	1.3583	4.4541	0.0000	2,822.1493	2,822.1493	0.7705	0.0000	2,835.5554
2019	4.0429	21.0399	17.6985	0.0300	0.1532	1.2214	1.3745	0.0410	1.1760	1.2169	0.0000	2,799.5606	2,799.5606	0.5117	0.0000	2,812.3540
Maximum	**4.4384**	**24.3169**	**18.2439**	**0.0301**	**6.5373**	**1.4109**	**7.7061**	**3.3788**	**1.3583**	**4.4541**	**0.0000**	**2,822.1493**	**2,822.1493**	**0.7705**	**0.0000**	**2,835.5554**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.4384	24.3169	18.2439	0.0301	6.5373	1.4109	7.7061	3.3788	1.3583	4.4541	0.0000	2,822.1493	2,822.1493	0.7705	0.0000	2,835.5554
2019	4.0429	21.0399	17.6985	0.0300	0.1532	1.2214	1.3745	0.0410	1.1760	1.2169	0.0000	2,799.5606	2,799.5606	0.5117	0.0000	2,812.3540
Maximum	**4.4384**	**24.3169**	**18.2439**	**0.0301**	**6.5373**	**1.4109**	**7.7061**	**3.3788**	**1.3583**	**4.4541**	**0.0000**	**2,822.1493**	**2,822.1493**	**0.7705**	**0.0000**	**2,835.5554**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	31.1549	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530
Energy	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Mobile	0.2686	1.5316	2.8419	0.0101	0.7105	0.0103	0.7208	0.1904	9.7500e-003	0.2001		1,017.9766	1,017.9766	0.0393		1,018.9579
Total	**31.4356**	**2.2523**	**42.3237**	**0.0793**	**0.7105**	**5.3252**	**6.0357**	**0.1904**	**5.3247**	**5.5151**	**555.4346**	**1,386.3707**	**1,941.8053**	**0.5573**	**0.0461**	**1,969.4800**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	31.1229	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530
Energy	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Mobile	0.2686	1.5316	2.8419	0.0101	0.7105	0.0103	0.7208	0.1904	9.7500e-003	0.2001		1,017.9766	1,017.9766	0.0393		1,018.9579
Total	**31.4036**	**2.2523**	**42.3237**	**0.0793**	**0.7105**	**5.3252**	**6.0357**	**0.1904**	**5.3247**	**5.5151**	**555.4346**	**1,386.3707**	**1,941.8053**	**0.5573**	**0.0461**	**1,969.4800**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2018	7/4/2018	5	3	
2	Grading	Grading	7/5/2018	7/12/2018	5	6	
3	Paving	Paving	7/13/2018	7/26/2018	5	10	
4	Building Construction	Building Construction	7/27/2018	5/30/2019	5	220	
5	Architectural Coating	Architectural Coating	8/10/2018	6/13/2019	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.45

Acres of Paving: 0

Residential Indoor: 40,500; Residential Outdoor: 13,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Kit Carson Way - Placer County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	14.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8995	23.6201	12.7461	0.0245		0.9540	0.9540		0.8777	0.8777		2,468.4131	2,468.4131	0.7685		2,487.6244
Total	**1.8995**	**23.6201**	**12.7461**	**0.0245**	**0.0000**	**0.9540**	**0.9540**	**0.0000**	**0.8777**	**0.8777**		**2,468.4131**	**2,468.4131**	**0.7685**		**2,487.6244**

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0374	0.0220	0.2902	7.0000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		69.7380	69.7380	2.0700e-003		69.7896
Total	**0.0374**	**0.0220**	**0.2902**	**7.0000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**69.7380**	**69.7380**	**2.0700e-003**		**69.7896**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8995	23.6201	12.7461	0.0245		0.9540	0.9540		0.8777	0.8777	0.0000	2,468.4131	2,468.4131	0.7685		2,487.6244
Total	**1.8995**	**23.6201**	**12.7461**	**0.0245**	**0.0000**	**0.9540**	**0.9540**	**0.0000**	**0.8777**	**0.8777**	**0.0000**	**2,468.4131**	**2,468.4131**	**0.7685**		**2,487.6244**

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0374	0.0220	0.2902	7.0000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		69.7380	69.7380	2.0700e-003		69.7896
Total	**0.0374**	**0.0220**	**0.2902**	**7.0000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**69.7380**	**69.7380**	**2.0700e-003**		**69.7896**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4551	0.0000	6.4551	3.3570	0.0000	3.3570			0.0000			0.0000
Off-Road	2.1515	24.2895	10.3804	0.0206		1.1683	1.1683		1.0748	1.0748		2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**2.1515**	**24.2895**	**10.3804**	**0.0206**	**6.4551**	**1.1683**	**7.6234**	**3.3570**	**1.0748**	**4.4318**		**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0274	0.3628	8.8000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		87.1725	87.1725	2.5800e-003		87.2371
Total	**0.0468**	**0.0274**	**0.3628**	**8.8000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**87.1725**	**87.1725**	**2.5800e-003**		**87.2371**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4551	0.0000	6.4551	3.3570	0.0000	3.3570			0.0000			0.0000
Off-Road	2.1515	24.2895	10.3804	0.0206		1.1683	1.1683		1.0748	1.0748	0.0000	2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**2.1515**	**24.2895**	**10.3804**	**0.0206**	**6.4551**	**1.1683**	**7.6234**	**3.3570**	**1.0748**	**4.4318**	**0.0000**	**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0274	0.3628	8.8000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		87.1725	87.1725	2.5800e-003		87.2371
Total	**0.0468**	**0.0274**	**0.3628**	**8.8000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**87.1725**	**87.1725**	**2.5800e-003**		**87.2371**

3.4 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4046	14.2518	11.9787	0.0178		0.8505	0.8505		0.7836	0.7836		1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4046**	**14.2518**	**11.9787**	**0.0178**		**0.8505**	**0.8505**		**0.7836**	**0.7836**		**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.4 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0701	0.0412	0.5442	1.3100e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		130.7587	130.7587	3.8700e-003		130.8556
Total	**0.0701**	**0.0412**	**0.5442**	**1.3100e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**130.7587**	**130.7587**	**3.8700e-003**		**130.8556**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4046	14.2518	11.9787	0.0178		0.8505	0.8505		0.7836	0.7836	0.0000	1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4046**	**14.2518**	**11.9787**	**0.0178**		**0.8505**	**0.8505**		**0.7836**	**0.7836**	**0.0000**	**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.4 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0701	0.0412	0.5442	1.3100e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		130.7587	130.7587	3.8700e-003		130.8556
Total	**0.0701**	**0.0412**	**0.5442**	**1.3100e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**130.7587**	**130.7587**	**3.8700e-003**		**130.8556**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9127	20.7077	15.7183	0.0250		1.2575	1.2575		1.2051	1.2051		2,329.7759	2,329.7759	0.5019		2,342.3232
Total	**2.9127**	**20.7077**	**15.7183**	**0.0250**		**1.2575**	**1.2575**		**1.2051**	**1.2051**		**2,329.7759**	**2,329.7759**	**0.5019**		**2,342.3232**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.8300e-003	0.2682	0.0547	6.0000e-004	0.0136	1.9000e-003	0.0155	3.9000e-003	1.8200e-003	5.7200e-003		62.7316	62.7316	3.2200e-003		62.8121
Worker	0.0655	0.0384	0.5079	1.2300e-003	0.1150	7.5000e-004	0.1158	0.0305	7.0000e-004	0.0312		122.0415	122.0415	3.6200e-003		122.1319
Total	**0.0753**	**0.3066**	**0.5625**	**1.8300e-003**	**0.1286**	**2.6500e-003**	**0.1312**	**0.0344**	**2.5200e-003**	**0.0369**		**184.7731**	**184.7731**	**6.8400e-003**		**184.9440**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9127	20.7077	15.7183	0.0250		1.2575	1.2575		1.2051	1.2051	0.0000	2,329.7759	2,329.7759	0.5019		2,342.3232
Total	**2.9127**	**20.7077**	**15.7183**	**0.0250**		**1.2575**	**1.2575**		**1.2051**	**1.2051**	**0.0000**	**2,329.7759**	**2,329.7759**	**0.5019**		**2,342.3232**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.8300e-003	0.2682	0.0547	6.0000e-004	0.0136	1.9000e-003	0.0155	3.9000e-003	1.8200e-003	5.7200e-003		62.7316	62.7316	3.2200e-003		62.8121
Worker	0.0655	0.0384	0.5079	1.2300e-003	0.1150	7.5000e-004	0.1158	0.0305	7.0000e-004	0.0312		122.0415	122.0415	3.6200e-003		122.1319
Total	**0.0753**	**0.3066**	**0.5625**	**1.8300e-003**	**0.1286**	**2.6500e-003**	**0.1312**	**0.0344**	**2.5200e-003**	**0.0369**		**184.7731**	**184.7731**	**6.8400e-003**		**184.9440**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449		2,312.1454	2,312.1454	0.4810		2,324.1705
Total	**2.5581**	**18.9103**	**15.2545**	**0.0250**		**1.0901**	**1.0901**		**1.0449**	**1.0449**		**2,312.1454**	**2,312.1454**	**0.4810**		**2,324.1705**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.6700e-003	0.2533	0.0487	5.9000e-004	0.0136	1.5400e-003	0.0151	3.9000e-003	1.4800e-003	5.3800e-003		62.2043	62.2043	3.0500e-003		62.2806
Worker	0.0594	0.0338	0.4563	1.1900e-003	0.1150	7.5000e-004	0.1158	0.0305	6.9000e-004	0.0312		118.3930	118.3930	3.2200e-003		118.4734
Total	**0.0680**	**0.2871**	**0.5049**	**1.7800e-003**	**0.1286**	**2.2900e-003**	**0.1308**	**0.0344**	**2.1700e-003**	**0.0366**		**180.5972**	**180.5972**	**6.2700e-003**		**180.7540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449	0.0000	2,312.1454	2,312.1454	0.4810		2,324.1705
Total	**2.5581**	**18.9103**	**15.2545**	**0.0250**		**1.0901**	**1.0901**		**1.0449**	**1.0449**	**0.0000**	**2,312.1454**	**2,312.1454**	**0.4810**		**2,324.1705**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.6700e-003	0.2533	0.0487	5.9000e-004	0.0136	1.5400e-003	0.0151	3.9000e-003	1.4800e-003	5.3800e-003		62.2043	62.2043	3.0500e-003		62.2806
Worker	0.0594	0.0338	0.4563	1.1900e-003	0.1150	7.5000e-004	0.1158	0.0305	6.9000e-004	0.0312		118.3930	118.3930	3.2200e-003		118.4734
Total	**0.0680**	**0.2871**	**0.5049**	**1.7800e-003**	**0.1286**	**2.2900e-003**	**0.1308**	**0.0344**	**2.1700e-003**	**0.0366**		**180.5972**	**180.5972**	**6.2700e-003**		**180.7540**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**1.4363**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0140	8.2300e-003	0.1088	2.6000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		26.1518	26.1518	7.7000e-004		26.1711
Total	**0.0140**	**8.2300e-003**	**0.1088**	**2.6000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**26.1518**	**26.1518**	**7.7000e-004**		**26.1711**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**1.4363**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0140	8.2300e-003	0.1088	2.6000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		26.1518	26.1518	7.7000e-004		26.1711
Total	**0.0140**	**8.2300e-003**	**0.1088**	**2.6000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**26.1518**	**26.1518**	**7.7000e-004**		**26.1711**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**1.4041**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0127	7.2300e-003	0.0978	2.5000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		25.3699	25.3699	6.9000e-004		25.3872
Total	**0.0127**	**7.2300e-003**	**0.0978**	**2.5000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**25.3699**	**25.3699**	**6.9000e-004**		**25.3872**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**1.4041**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0127	7.2300e-003	0.0978	2.5000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		25.3699	25.3699	6.9000e-004		25.3872
Total	**0.0127**	**7.2300e-003**	**0.0978**	**2.5000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**25.3699**	**25.3699**	**6.9000e-004**		**25.3872**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2686	1.5316	2.8419	0.0101	0.7105	0.0103	0.7208	0.1904	9.7500e-003	0.2001		1,017.9766	1,017.9766	0.0393		1,018.9579
Unmitigated	0.2686	1.5316	2.8419	0.0101	0.7105	0.0103	0.7208	0.1904	9.7500e-003	0.2001		1,017.9766	1,017.9766	0.0393		1,018.9579

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	116.20	116.20	116.20	332,860	332,860
Total	116.20	116.20	116.20	332,860	332,860

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.489257	0.041257	0.220156	0.132626	0.025790	0.006586	0.027831	0.045583	0.001467	0.001229	0.006102	0.000783	0.001333

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
NaturalGas Unmitigated	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	1126.1	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Total		**0.0121**	**0.1038**	**0.0442**	**6.6000e-004**		**8.3900e-003**	**8.3900e-003**		**8.3900e-003**	**8.3900e-003**		**132.4819**	**132.4819**	**2.5400e-003**	**2.4300e-003**	**133.2691**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	1.1261	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Total		**0.0121**	**0.1038**	**0.0442**	**6.6000e-004**		**8.3900e-003**	**8.3900e-003**		**8.3900e-003**	**8.3900e-003**		**132.4819**	**132.4819**	**2.5400e-003**	**2.4300e-003**	**133.2691**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.1229	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530
Unmitigated	31.1549	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	30.6079	0.5977	37.7821	0.0685		5.2974	5.2974		5.2974	5.2974	555.4346	232.9412	788.3758	0.5126	0.0437	814.2095
Landscaping	0.0504	0.0192	1.6555	9.0000e-005		9.1000e-003	9.1000e-003		9.1000e-003	9.1000e-003		2.9711	2.9711	2.9000e-003		3.0435
Total	**31.1549**	**0.6169**	**39.4376**	**0.0685**		**5.3065**	**5.3065**		**5.3065**	**5.3065**	**555.4346**	**235.9122**	**791.3468**	**0.5155**	**0.0437**	**817.2530**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	30.6079	0.5977	37.7821	0.0685		5.2974	5.2974		5.2974	5.2974	555.4346	232.9412	788.3758	0.5126	0.0437	814.2095
Landscaping	0.0504	0.0192	1.6555	9.0000e-005		9.1000e-003	9.1000e-003		9.1000e-003	9.1000e-003		2.9711	2.9711	2.9000e-003		3.0435
Total	**31.1229**	**0.6169**	**39.4376**	**0.0685**		**5.3065**	**5.3065**		**5.3065**	**5.3065**	**555.4346**	**235.9122**	**791.3468**	**0.5155**	**0.0437**	**817.2530**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Kit Carson Way

Placer County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	20.00	Dwelling Unit	2.45	20,000.00	57

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2020
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	584.45	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on Roseville Electric's anticipated progress towards statewide RPS goals

Land Use - Applicant-provided

Construction Phase - Applicant-provided

Grading - Applicant-provided

Vehicle Trips - Per ITE trip generation rates

Area Mitigation - Per PCAPCD rules and regulations

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	PhaseEndDate	7/11/2019	6/13/2019
tblConstructionPhase	PhaseEndDate	6/13/2019	5/30/2019
tblConstructionPhase	PhaseEndDate	8/9/2018	7/12/2018
tblConstructionPhase	PhaseEndDate	6/27/2019	7/26/2018
tblConstructionPhase	PhaseEndDate	8/1/2018	7/4/2018
tblConstructionPhase	PhaseStartDate	6/28/2019	8/10/2018
tblConstructionPhase	PhaseStartDate	8/10/2018	7/27/2018
tblConstructionPhase	PhaseStartDate	8/2/2018	7/5/2018
tblConstructionPhase	PhaseStartDate	6/14/2019	7/13/2018
tblConstructionPhase	PhaseStartDate	7/28/2018	7/1/2018
tblGrading	AcresOfGrading	3.00	2.45
tblGrading	AcresOfGrading	4.50	0.00
tblLandUse	LotAcreage	1.25	2.45
tblProjectCharacteristics	CO2IntensityFactor	793.8	584.45
tblVehicleTrips	ST_TR	5.67	5.81
tblVehicleTrips	SU_TR	4.84	5.81

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.4365	24.3239	18.2003	0.0299	6.5373	1.4109	7.7061	3.3788	1.3584	4.4541	0.0000	2,803.8387	2,803.8387	0.7704	0.0000	2,817.2464
2019	4.0410	21.0537	17.6549	0.0298	0.1532	1.2214	1.3746	0.0410	1.1760	1.2170	0.0000	2,781.7254	2,781.7254	0.5118	0.0000	2,794.5204
Maximum	**4.4365**	**24.3239**	**18.2003**	**0.0299**	**6.5373**	**1.4109**	**7.7061**	**3.3788**	**1.3584**	**4.4541**	**0.0000**	**2,803.8387**	**2,803.8387**	**0.7704**	**0.0000**	**2,817.2464**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.4365	24.3239	18.2003	0.0299	6.5373	1.4109	7.7061	3.3788	1.3584	4.4541	0.0000	2,803.8386	2,803.8386	0.7704	0.0000	2,817.2464
2019	4.0410	21.0537	17.6549	0.0298	0.1532	1.2214	1.3746	0.0410	1.1760	1.2170	0.0000	2,781.7254	2,781.7254	0.5118	0.0000	2,794.5204
Maximum	**4.4365**	**24.3239**	**18.2003**	**0.0299**	**6.5373**	**1.4109**	**7.7061**	**3.3788**	**1.3584**	**4.4541**	**0.0000**	**2,803.8386**	**2,803.8386**	**0.7704**	**0.0000**	**2,817.2464**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	31.1549	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530
Energy	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Mobile	0.2200	1.6050	2.7577	9.2400e-003	0.7105	0.0105	0.7210	0.1904	9.8800e-003	0.2003		935.5353	935.5353	0.0406		936.5500
Total	**31.3870**	**2.3256**	**42.2395**	**0.0784**	**0.7105**	**5.3254**	**6.0359**	**0.1904**	**5.3248**	**5.5152**	**555.4346**	**1,303.9294**	**1,859.3640**	**0.5586**	**0.0461**	**1,887.0721**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	31.1229	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530
Energy	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Mobile	0.2200	1.6050	2.7577	9.2400e-003	0.7105	0.0105	0.7210	0.1904	9.8800e-003	0.2003		935.5353	935.5353	0.0406		936.5500
Total	**31.3550**	**2.3256**	**42.2395**	**0.0784**	**0.7105**	**5.3254**	**6.0359**	**0.1904**	**5.3248**	**5.5152**	**555.4346**	**1,303.9294**	**1,859.3640**	**0.5586**	**0.0461**	**1,887.0721**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2018	7/4/2018	5	3	
2	Grading	Grading	7/5/2018	7/12/2018	5	6	
3	Paving	Paving	7/13/2018	7/26/2018	5	10	
4	Building Construction	Building Construction	7/27/2018	5/30/2019	5	220	
5	Architectural Coating	Architectural Coating	8/10/2018	6/13/2019	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.45

Acres of Paving: 0

Residential Indoor: 40,500; Residential Outdoor: 13,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Kit Carson Way - Placer County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	14.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8995	23.6201	12.7461	0.0245		0.9540	0.9540		0.8777	0.8777		2,468.4131	2,468.4131	0.7685		2,487.6244
Total	**1.8995**	**23.6201**	**12.7461**	**0.0245**	**0.0000**	**0.9540**	**0.9540**	**0.0000**	**0.8777**	**0.8777**		**2,468.4131**	**2,468.4131**	**0.7685**		**2,487.6244**

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0363	0.0275	0.2646	6.2000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		62.0940	62.0940	1.9100e-003		62.1417
Total	**0.0363**	**0.0275**	**0.2646**	**6.2000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**62.0940**	**62.0940**	**1.9100e-003**		**62.1417**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8995	23.6201	12.7461	0.0245		0.9540	0.9540		0.8777	0.8777	0.0000	2,468.4131	2,468.4131	0.7685		2,487.6244
Total	**1.8995**	**23.6201**	**12.7461**	**0.0245**	**0.0000**	**0.9540**	**0.9540**	**0.0000**	**0.8777**	**0.8777**	**0.0000**	**2,468.4131**	**2,468.4131**	**0.7685**		**2,487.6244**

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0363	0.0275	0.2646	6.2000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		62.0940	62.0940	1.9100e-003		62.1417
Total	**0.0363**	**0.0275**	**0.2646**	**6.2000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**62.0940**	**62.0940**	**1.9100e-003**		**62.1417**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4551	0.0000	6.4551	3.3570	0.0000	3.3570			0.0000			0.0000
Off-Road	2.1515	24.2895	10.3804	0.0206		1.1683	1.1683		1.0748	1.0748		2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**2.1515**	**24.2895**	**10.3804**	**0.0206**	**6.4551**	**1.1683**	**7.6234**	**3.3570**	**1.0748**	**4.4318**		**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0453	0.0344	0.3307	7.8000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		77.6175	77.6175	2.3900e-003		77.6771
Total	**0.0453**	**0.0344**	**0.3307**	**7.8000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**77.6175**	**77.6175**	**2.3900e-003**		**77.6771**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4551	0.0000	6.4551	3.3570	0.0000	3.3570			0.0000			0.0000
Off-Road	2.1515	24.2895	10.3804	0.0206		1.1683	1.1683		1.0748	1.0748	0.0000	2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**2.1515**	**24.2895**	**10.3804**	**0.0206**	**6.4551**	**1.1683**	**7.6234**	**3.3570**	**1.0748**	**4.4318**	**0.0000**	**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0453	0.0344	0.3307	7.8000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		77.6175	77.6175	2.3900e-003		77.6771
Total	**0.0453**	**0.0344**	**0.3307**	**7.8000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**77.6175**	**77.6175**	**2.3900e-003**		**77.6771**

3.4 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4046	14.2518	11.9787	0.0178		0.8505	0.8505		0.7836	0.7836		1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4046**	**14.2518**	**11.9787**	**0.0178**		**0.8505**	**0.8505**		**0.7836**	**0.7836**		**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.4 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0517	0.4960	1.1700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		116.4262	116.4262	3.5800e-003		116.5157
Total	**0.0680**	**0.0517**	**0.4960**	**1.1700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**116.4262**	**116.4262**	**3.5800e-003**		**116.5157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4046	14.2518	11.9787	0.0178		0.8505	0.8505		0.7836	0.7836	0.0000	1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4046**	**14.2518**	**11.9787**	**0.0178**		**0.8505**	**0.8505**		**0.7836**	**0.7836**	**0.0000**	**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.4 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0517	0.4960	1.1700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		116.4262	116.4262	3.5800e-003		116.5157
Total	**0.0680**	**0.0517**	**0.4960**	**1.1700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**116.4262**	**116.4262**	**3.5800e-003**		**116.5157**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9127	20.7077	15.7183	0.0250		1.2575	1.2575		1.2051	1.2051		2,329.7759	2,329.7759	0.5019		2,342.3232
Total	**2.9127**	**20.7077**	**15.7183**	**0.0250**		**1.2575**	**1.2575**		**1.2051**	**1.2051**		**2,329.7759**	**2,329.7759**	**0.5019**		**2,342.3232**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0104	0.2723	0.0656	5.8000e-004	0.0136	1.9500e-003	0.0155	3.9000e-003	1.8600e-003	5.7600e-003		60.6645	60.6645	3.6200e-003		60.7550
Worker	0.0635	0.0482	0.4630	1.0900e-003	0.1150	7.5000e-004	0.1158	0.0305	7.0000e-004	0.0312		108.6645	108.6645	3.3400e-003		108.7480
Total	**0.0738**	**0.3205**	**0.5286**	**1.6700e-003**	**0.1286**	**2.7000e-003**	**0.1313**	**0.0344**	**2.5600e-003**	**0.0370**		**169.3290**	**169.3290**	**6.9600e-003**		**169.5030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9127	20.7077	15.7183	0.0250		1.2575	1.2575		1.2051	1.2051	0.0000	2,329.7759	2,329.7759	0.5019		2,342.3232
Total	**2.9127**	**20.7077**	**15.7183**	**0.0250**		**1.2575**	**1.2575**		**1.2051**	**1.2051**	**0.0000**	**2,329.7759**	**2,329.7759**	**0.5019**		**2,342.3232**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0104	0.2723	0.0656	5.8000e-004	0.0136	1.9500e-003	0.0155	3.9000e-003	1.8600e-003	5.7600e-003		60.6645	60.6645	3.6200e-003		60.7550
Worker	0.0635	0.0482	0.4630	1.0900e-003	0.1150	7.5000e-004	0.1158	0.0305	7.0000e-004	0.0312		108.6645	108.6645	3.3400e-003		108.7480
Total	**0.0738**	**0.3205**	**0.5286**	**1.6700e-003**	**0.1286**	**2.7000e-003**	**0.1313**	**0.0344**	**2.5600e-003**	**0.0370**		**169.3290**	**169.3290**	**6.9600e-003**		**169.5030**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449		2,312.1454	2,312.1454	0.4810		2,324.1705
Total	**2.5581**	**18.9103**	**15.2545**	**0.0250**		**1.0901**	**1.0901**		**1.0449**	**1.0449**		**2,312.1454**	**2,312.1454**	**0.4810**		**2,324.1705**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.1400e-003	0.2566	0.0587	5.7000e-004	0.0136	1.5800e-003	0.0151	3.9000e-003	1.5100e-003	5.4100e-003		60.1379	60.1379	3.4400e-003		60.2240
Worker	0.0574	0.0424	0.4121	1.0600e-003	0.1150	7.5000e-004	0.1158	0.0305	6.9000e-004	0.0312		105.4068	105.4068	2.9500e-003		105.4806
Total	**0.0666**	**0.2990**	**0.4708**	**1.6300e-003**	**0.1286**	**2.3300e-003**	**0.1309**	**0.0344**	**2.2000e-003**	**0.0366**		**165.5448**	**165.5448**	**6.3900e-003**		**165.7046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449	0.0000	2,312.1454	2,312.1454	0.4810		2,324.1705
Total	**2.5581**	**18.9103**	**15.2545**	**0.0250**		**1.0901**	**1.0901**		**1.0449**	**1.0449**	**0.0000**	**2,312.1454**	**2,312.1454**	**0.4810**		**2,324.1705**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.1400e-003	0.2566	0.0587	5.7000e-004	0.0136	1.5800e-003	0.0151	3.9000e-003	1.5100e-003	5.4100e-003		60.1379	60.1379	3.4400e-003		60.2240
Worker	0.0574	0.0424	0.4121	1.0600e-003	0.1150	7.5000e-004	0.1158	0.0305	6.9000e-004	0.0312		105.4068	105.4068	2.9500e-003		105.4806
Total	**0.0666**	**0.2990**	**0.4708**	**1.6300e-003**	**0.1286**	**2.3300e-003**	**0.1309**	**0.0344**	**2.2000e-003**	**0.0366**		**165.5448**	**165.5448**	**6.3900e-003**		**165.7046**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**1.4363**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0136	0.0103	0.0992	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		23.2852	23.2852	7.2000e-004		23.3031
Total	**0.0136**	**0.0103**	**0.0992**	**2.3000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**23.2852**	**23.2852**	**7.2000e-004**		**23.3031**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**1.4363**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0136	0.0103	0.0992	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		23.2852	23.2852	7.2000e-004		23.3031
Total	**0.0136**	**0.0103**	**0.0992**	**2.3000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**23.2852**	**23.2852**	**7.2000e-004**		**23.3031**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**1.4041**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0123	9.0800e-003	0.0883	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.5872	22.5872	6.3000e-004		22.6030
Total	**0.0123**	**9.0800e-003**	**0.0883**	**2.3000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**22.5872**	**22.5872**	**6.3000e-004**		**22.6030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**1.4041**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0123	9.0800e-003	0.0883	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.5872	22.5872	6.3000e-004		22.6030
Total	**0.0123**	**9.0800e-003**	**0.0883**	**2.3000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**22.5872**	**22.5872**	**6.3000e-004**		**22.6030**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2200	1.6050	2.7577	9.2400e-003	0.7105	0.0105	0.7210	0.1904	9.8800e-003	0.2003		935.5353	935.5353	0.0406		936.5500
Unmitigated	0.2200	1.6050	2.7577	9.2400e-003	0.7105	0.0105	0.7210	0.1904	9.8800e-003	0.2003		935.5353	935.5353	0.0406		936.5500

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	116.20	116.20	116.20	332,860	332,860
Total	116.20	116.20	116.20	332,860	332,860

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.489257	0.041257	0.220156	0.132626	0.025790	0.006586	0.027831	0.045583	0.001467	0.001229	0.006102	0.000783	0.001333

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
NaturalGas Unmitigated	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	1126.1	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Total		**0.0121**	**0.1038**	**0.0442**	**6.6000e-004**		**8.3900e-003**	**8.3900e-003**		**8.3900e-003**	**8.3900e-003**		**132.4819**	**132.4819**	**2.5400e-003**	**2.4300e-003**	**133.2691**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	1.1261	0.0121	0.1038	0.0442	6.6000e-004		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003		132.4819	132.4819	2.5400e-003	2.4300e-003	133.2691
Total		**0.0121**	**0.1038**	**0.0442**	**6.6000e-004**		**8.3900e-003**	**8.3900e-003**		**8.3900e-003**	**8.3900e-003**		**132.4819**	**132.4819**	**2.5400e-003**	**2.4300e-003**	**133.2691**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.1229	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530
Unmitigated	31.1549	0.6169	39.4376	0.0685		5.3065	5.3065		5.3065	5.3065	555.4346	235.9122	791.3468	0.5155	0.0437	817.2530

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	30.6079	0.5977	37.7821	0.0685		5.2974	5.2974		5.2974	5.2974	555.4346	232.9412	788.3758	0.5126	0.0437	814.2095
Landscaping	0.0504	0.0192	1.6555	9.0000e-005		9.1000e-003	9.1000e-003		9.1000e-003	9.1000e-003		2.9711	2.9711	2.9000e-003		3.0435
Total	**31.1549**	**0.6169**	**39.4376**	**0.0685**		**5.3065**	**5.3065**		**5.3065**	**5.3065**	**555.4346**	**235.9122**	**791.3468**	**0.5155**	**0.0437**	**817.2530**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	30.6079	0.5977	37.7821	0.0685		5.2974	5.2974		5.2974	5.2974	555.4346	232.9412	788.3758	0.5126	0.0437	814.2095
Landscaping	0.0504	0.0192	1.6555	9.0000e-005		9.1000e-003	9.1000e-003		9.1000e-003	9.1000e-003		2.9711	2.9711	2.9000e-003		3.0435
Total	**31.1229**	**0.6169**	**39.4376**	**0.0685**		**5.3065**	**5.3065**		**5.3065**	**5.3065**	**555.4346**	**235.9122**	**791.3468**	**0.5155**	**0.0437**	**817.2530**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Kit Carson Way

Placer County APCD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	5	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	1	No Change	0.00
Scrapers	Diesel	No Change	0	1	No Change	0.00
Welders	Diesel	No Change	0	3	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	3.09500E-002	2.10580E-001	2.03200E-001	3.30000E-004	1.52800E-002	1.52800E-002	0.00000E+000	2.80858E+001	2.80858E+001	2.51000E-003	0.00000E+000	2.81486E+001
Cement and Mortar Mixers	2.90000E-004	1.84000E-003	1.54000E-003	0.00000E+000	7.00000E-005	7.00000E-005	0.00000E+000	2.29140E-001	2.29140E-001	2.00000E-005	0.00000E+000	2.29730E-001
Cranes	5.91800E-002	7.06340E-001	2.65050E-001	6.30000E-004	3.02800E-002	2.78600E-002	0.00000E+000	5.74782E+001	5.74782E+001	1.80400E-002	0.00000E+000	5.79291E+001
Forklifts	3.25700E-002	2.89280E-001	2.31550E-001	2.90000E-004	2.27700E-002	2.09500E-002	0.00000E+000	2.66449E+001	2.66449E+001	8.36000E-003	0.00000E+000	2.68539E+001
Generator Sets	5.22800E-002	4.34360E-001	4.10890E-001	7.20000E-004	2.68700E-002	2.68700E-002	0.00000E+000	6.21728E+001	6.21728E+001	4.22000E-003	0.00000E+000	6.22782E+001
Graders	2.34000E-003	3.20700E-002	8.62000E-003	3.00000E-005	1.04000E-003	9.60000E-004	0.00000E+000	2.73490E+000	2.73490E+000	8.50000E-004	0.00000E+000	2.75618E+000
Pavers	1.63000E-003	1.80400E-002	1.46300E-002	2.00000E-005	8.80000E-004	8.10000E-004	0.00000E+000	2.14609E+000	2.14609E+000	6.70000E-004	0.00000E+000	2.16280E+000
Paving Equipment	1.19000E-003	1.32900E-002	1.26800E-002	2.00000E-005	6.50000E-004	6.00000E-004	0.00000E+000	1.85975E+000	1.85975E+000	5.80000E-004	0.00000E+000	1.87423E+000
Rollers	2.58000E-003	2.49300E-002	1.93500E-002	3.00000E-005	1.72000E-003	1.58000E-003	0.00000E+000	2.39412E+000	2.39412E+000	7.50000E-004	0.00000E+000	2.41275E+000
Rubber Tired Dozers	3.50000E-003	3.76800E-002	1.31300E-002	3.00000E-005	1.83000E-003	1.69000E-003	0.00000E+000	2.34101E+000	2.34101E+000	7.30000E-004	0.00000E+000	2.35923E+000
Scrapers	1.72000E-003	2.12900E-002	1.31800E-002	2.00000E-005	8.40000E-004	7.70000E-004	0.00000E+000	2.07491E+000	2.07491E+000	6.50000E-004	0.00000E+000	2.09106E+000
Tractors/Loaders/ Backhoes	2.36800E-002	2.35520E-001	2.18420E-001	2.90000E-004	1.63000E-002	1.49900E-002	0.00000E+000	2.64975E+001	2.64975E+001	8.31000E-003	0.00000E+000	2.67052E+001
Welders	1.36610E-001	5.45700E-001	6.05080E-001	8.40000E-004	3.52200E-002	3.52200E-002	0.00000E+000	6.21128E+001	6.21128E+001	1.11600E-002	0.00000E+000	6.23919E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	3.09500E-002	2.10580E-001	2.03200E-001	3.30000E-004	1.52800E-002	1.52800E-002	0.00000E+000	2.80858E+001	2.80858E+001	2.51000E-003	0.00000E+000	2.81485E+001
Cement and Mortar Mixers	2.90000E-004	1.84000E-003	1.54000E-003	0.00000E+000	7.00000E-005	7.00000E-005	0.00000E+000	2.29140E-001	2.29140E-001	2.00000E-005	0.00000E+000	2.29730E-001
Cranes	5.91800E-002	7.06340E-001	2.65050E-001	6.30000E-004	3.02800E-002	2.78600E-002	0.00000E+000	5.74781E+001	5.74781E+001	1.80400E-002	0.00000E+000	5.79290E+001
Forklifts	3.25700E-002	2.89280E-001	2.31550E-001	2.90000E-004	2.27700E-002	2.09500E-002	0.00000E+000	2.66449E+001	2.66449E+001	8.36000E-003	0.00000E+000	2.68539E+001
Generator Sets	5.22800E-002	4.34350E-001	4.10890E-001	7.20000E-004	2.68700E-002	2.68700E-002	0.00000E+000	6.21728E+001	6.21728E+001	4.22000E-003	0.00000E+000	6.22782E+001
Graders	2.34000E-003	3.20700E-002	8.62000E-003	3.00000E-005	1.04000E-003	9.60000E-004	0.00000E+000	2.73489E+000	2.73489E+000	8.50000E-004	0.00000E+000	2.75618E+000
Pavers	1.63000E-003	1.80400E-002	1.46300E-002	2.00000E-005	8.80000E-004	8.10000E-004	0.00000E+000	2.14609E+000	2.14609E+000	6.70000E-004	0.00000E+000	2.16279E+000
Paving Equipment	1.19000E-003	1.32900E-002	1.26800E-002	2.00000E-005	6.50000E-004	6.00000E-004	0.00000E+000	1.85975E+000	1.85975E+000	5.80000E-004	0.00000E+000	1.87422E+000
Rollers	2.58000E-003	2.49300E-002	1.93500E-002	3.00000E-005	1.72000E-003	1.58000E-003	0.00000E+000	2.39412E+000	2.39412E+000	7.50000E-004	0.00000E+000	2.41275E+000
Rubber Tired Dozers	3.50000E-003	3.76800E-002	1.31300E-002	3.00000E-005	1.83000E-003	1.69000E-003	0.00000E+000	2.34101E+000	2.34101E+000	7.30000E-004	0.00000E+000	2.35923E+000
Scrapers	1.72000E-003	2.12900E-002	1.31800E-002	2.00000E-005	8.40000E-004	7.70000E-004	0.00000E+000	2.07491E+000	2.07491E+000	6.50000E-004	0.00000E+000	2.09106E+000
Tractors/Loaders/Backhoes	2.36800E-002	2.35520E-001	2.18420E-001	2.90000E-004	1.63000E-002	1.49900E-002	0.00000E+000	2.64975E+001	2.64975E+001	8.31000E-003	0.00000E+000	2.67051E+001
Welders	1.36610E-001	5.45700E-001	6.05080E-001	8.40000E-004	3.52200E-002	3.52200E-002	0.00000E+000	6.21127E+001	6.21127E+001	1.11600E-002	0.00000E+000	6.23918E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.06816E-006	1.06816E-006	0.00000E+000	0.00000E+000	1.42103E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21785E-006	1.21785E-006	0.00000E+000	0.00000E+000	1.20837E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.12592E-006	1.12592E-006	0.00000E+000	0.00000E+000	1.11716E-006
Generator Sets	0.00000E+000	2.30224E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.12589E-006	1.12589E-006	0.00000E+000	0.00000E+000	1.12399E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.65644E-006	3.65644E-006	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.62364E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	5.33552E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.13218E-006	1.13218E-006	0.00000E+000	0.00000E+000	1.12338E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.28798E-006	1.28798E-006	0.00000E+000	0.00000E+000	1.12194E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Grading	Fugitive Dust	0.02	0.01	0.02	0.01	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

ARBORIST REPORT
AND
TREE INVENTORY SUMMARY

1612, 1614, 1616 & 1618 KIT CARSON WAY
PROJECT SITE
City of Roseville, California

Prepared for:

The J William Roach 2012 Revocable Trust
c/o 3eDevelopments LLC
ATTN: Chris Coulter

Prepared by:

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ISA Tree Risk Assessment Qualified
Member, American Society of Consulting Arborists

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January 31, 2018

TABLE OF CONTENTS

COPYRIGHT STATEMENT i

QUALIFICATION STATEMENT ii

INTRODUCTION 1

SCOPE OF INVENTORY EFFORT 1

METHODOLOGY 1

SUMMARY OF INVENTORY EFFORT 2

Recommended Removals 2

CONSTRUCTION IMPACT ASSESSMENT 3

GENERAL COMMENTS AND ARBORISTS' DISCLAIMER 4

ASSUMPTIONS AND LIMITING CONDITIONS 6

DEFINITIONS 8

TREE CONDITION RATING CRITERIA 9

GENERAL PROTECTION GUIDELINES FOR TREES PLANNED FOR PRESERVATION 10

APPENDICES:

A. Tree Inventory Summary (sorted by tree number)

B. Tree Inventory Exhibit

COPYRIGHT STATEMENT

This consultant's report, dated January 31, 2018, is for the exclusive and confidential use of The J William Roach 2012 Revocable Trust concerning potential development of the 1612, 1614, 1616 & 1618 Kit Carson Way Project Site, located in the City of Roseville, 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 Sierra Nevada Arborists. 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

Sierra Nevada Arborists is a fully insured, Rio Linda-based arboriculture consulting firm founded in January of 1998 by its Principal, Edwin E. Stirtz. Mr. Stirtz is an ISA Certified Arborist and is ISA Tree Risk Assessment Qualified. He is 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

Sierra Nevada Arborists is pleased to present this Arborist Report and Tree Inventory Summary for the trees located within and/or overhanging the property located at the 1612, 1614, 1616 & 1618 Kit Carson Way Project Site in the City of Roseville, California. This Arborist Report and Tree Inventory Summary memorializes tree data obtained by Edwin E. Stirtz, ISA Certified Arborist WE-0510A, at the time of field reconnaissance and inventory efforts on January 23, 2018.

SCOPE OF INVENTORY EFFORT

The City of Roseville Municipal Code, Chapter 19.66, Tree Preservation, defines a "Protected Tree" as any native oak tree equal to or greater than 6 inches diameter at breast height (DBH) measured as a total of a single trunk or multiple trunks. The purpose of this field reconnaissance effort was to identify, inventory, and comment upon the current structure and vigor of the "protected trees" located within and/or overhanging the project site.

METHODOLOGY

During field reconnaissance and inventory efforts, Edwin E. Stirtz of Sierra Nevada Arborists conducted a visual review from ground level of the trees within and/or overhanging the selected lots within the project area as depicted on the parcel map, aerial screenshot, and preliminary land plan documents provided to us. The trees which met the defined criteria were identified in the field by affixing round tags with blue flagging to the tree trunks. The tree numbers utilized in this report and accompanying Tree Inventory Summary correspond to the tree tags which were affixed to the trees in the field, and those tree numbers or grouping of numbers were rough-plotted on the attached Tree Inventory Exhibit so that the precise vertical and horizontal location of the trees may be surveyed in the field by a licensed land surveyor and data for the trees (i.e. tree number, diameter, dripline and protected root zone radii) may be properly depicted on future development plans and Tree Location Exhibit.

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

[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 terms and ratings utilized in this report and accompany inventory summary are found on pages 8-9.

rating considers factors such as the size, color and density of the foliage; the amount of deadwood within the canopy; bud viability; evidence of wound closure; 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. The recommendations are based on the assumption that the tree would be introduced into a developed environment and may require maintenance and/or may not be suitable for retention within a post-development setting.

SUMMARY OF INVENTORY EFFORT

Field reconnaissance and inventory efforts found 27 trees measuring 6 inches in diameter and larger measured at breast height within and/or overhanging the proposed project area. Composition of the 27 inventoried trees includes the following species and accompanying aggregate diameter inches:

SPECIES DIVERSIFICATION			
Blue Oak	=	13 trees	(232 aggregate diameter inches)
Interior Live Oak	=	11 trees	(110 aggregate diameter inches)
Valley Oak	=	3 trees	(37 aggregate diameter inches)
TOTAL	**=**	**27 trees**	**(379 aggregate diameter inches)**

Recommended Removals

At this time, six trees have 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. If these trees were retained within the proposed project area it is our opinion that they may be hazardous depending upon their proximity to planned development activities. For reference, the trees which have been recommended for removal due to the severity of noted defects, compromised health and/or structural instability are highlighted in green within the accompanying Tree Inventory Summary and are briefly summarized as follows:

TREE #	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)	CONDITIONAL ASSESSMENT	
						STRUCTURE	VIGOR
85	Interior Live Oak	(Quercus wislizeni)		9	17	Poor to fair	Fair
87	Interior Live Oak	(Quercus wislizeni)		13	21	Poor	Fair
93	Blue Oak	(Quercus douglasii)		20	27	Poor	Poor to fair
94	Blue Oak	(Quercus douglasii)		24	35	Poor	Poor to fair
96	Blue Oak	(Quercus douglasii)		22	36	Poor	Fair
100	Blue Oak	(Quercus douglasii)		10	11	Poor	Poor

It should also be noted that some of the trees within the proposed project area are trees which may be undesirable on residential lots, or are trees which will require periodic/seasonal monitoring to assess the trees' ongoing structural integrity. At this early stage of the project Sierra Nevada Arborists has not recommended the removal of these trees since development plans, including proposed home sites and building footprints, have not yet been finalized and the precise location of these trees in proximity to planned improvement activities is not known. At this time it is recommended that these trees be monitored and thoroughly inspected by a qualified ISA Certified Arborist on at least an annual basis 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.

CONSTRUCTION IMPACT ASSESSMENT

This Arborist Report and Tree Inventory Summary is intended to provide to The J William Roach 2012 Revocable Trust, the City of Roseville, and other members of the development team a detailed *pre-development review* of the species, size, and current structure and vigor of the trees within and/or overhanging the proposed project area. It is not an exhaustive review of the impacts which will be sustained from project implementation. At this early stage of the project specific root system and canopy impacts on a tree-by-tree basis cannot be definitively assessed until the site development, grading, and other improvement plans have been refined and finalized and data from the accompanying inventory summary (i.e., tree numbers, dripline radius, and root protection zones) is properly depicted on the plans.

Since trees are living organisms whose condition may change at any time a complete assessment of construction impacts and specific recommendations to help mitigate for the adverse impacts which may be sustained by the trees from contemplated construction activities cannot be made until the development plans have been refined and finalized. Once final plans have been developed for the site a qualified ISA Certified Arborist with special expertise and demonstrated experience with construction projects in and among native and

non-native trees should review those plans and provide a more detailed assessment of impacts, including identification of trees which may require removal to facilitate home construction and other contemplated site development activities. This review will be particularly important if structures and/or residential activities will fall within or near the fall zone of a tree which has been noted as exhibiting structural defects, questionable long-term longevity and/or a conditional rating which is less than "fair", and for trees which measure 16 inches and greater in diameter which will be retained within close proximity to development as trees of this size may pose a more significant hazard if a sudden limb shed and/or catastrophic failure should occur. In addition, the review should include an assessment of root system and canopy impacts which will be sustained by the trees which will be retained within the proposed development area, along with specific recommendations on a tree-by-tree basis to help reduce adverse impacts of construction on the retained trees. In the meantime, this report provides some pre-development recommendations which logically follow the observed characteristics noted in the trees at the time of the field inventory efforts, as well as General Protection Measures which should be utilized as a guideline for the protection of trees which may be retained within the development area. These recommendations will require modification and/or augmentation as development plans are refined and finalized.

GENERAL COMMENTS AND ARBORISTS' DISCLAIMER

The City of Roseville regulates both the removal of "protected trees" and the encroachment of construction activities within their driplines. Therefore, a tree permit and/or additional development authorization should be obtained from the City of Roseville prior to the removal of any trees within the proposed project area. All terms and conditions of the tree permit and/or other Conditions of Approval are the sole and exclusive responsibility of the project applicant. It should be noted that prior to final inspection written verification from an ISA Certified Arborist may be required certifying the approved removal activities and/or implementation of other Conditions of Approval outlined for the retained trees on the site. ***Sierra Nevada Arborists will not provide written Certification of Compliance unless we have been provided with a copy of the approved site development plans, applicable permits and/or Conditions of Approval, and are on site to monitor and observe regulated activities during the course of construction.*** Therefore, it will be necessary for the project applicant to notify Sierra Nevada Arborists well in advance (at least 72 hours prior notice) of any regulated activities which are scheduled to occur on site so that those activities can be properly monitored and documented for compliance certification.

Please bear in mind that implementation of the recommendations provided within this report will help to reduce adverse impacts of construction on the retained 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. Entities who choose to construct homes on wooded property are accepting a certain level of risk from unpredictable tree related hazards such as toppling in storms, limbs falling and fires 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. ***An entity who develops land and builds a home with a tree in the vicinity should be aware of and inform their future residents of this Arborists' Disclaimer, and be further advised that the developer and the future residents assume the risk that a tree could at any time suffer a branch and/or limb failure, blow over in a storm and/or fail for no apparent reason which may cause bodily injury or property damage***. Sierra Nevada Arborists 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 preserved within and/or overhanging the proposed project area will experience a physical environment different from the pre-development environment. As a result, tree health and structural stability should be regularly monitored. Occasional pruning, fertilization, mulch, pest management, replanting and/or irrigation may be required. In addition, ***provisions for monitoring both tree health and structural stability following construction must be made a priority***. As trees age, the likelihood of failure of branches or entire trees increases. 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 Sierra Nevada Arborists to assist you with this review. Please feel free to give me a call if you have any questions or require additional information and/or clarification.

Sincerely,

Edwin E. Stirtz

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 Sierra Nevada Arborists 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 ("DBH"):	This is the trunk diameter measured at breast 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

GENERAL PROTECTION GUIDELINES FOR TREES PLANNED FOR PRESERVATION

Great care must be exercised when work is conducted upon or around protected trees. The purpose of these General Protection Measures is to provide guidelines to protect the health of the affected protected trees. These guidelines apply to all encroachments into the protected zone of a protected tree, and may be incorporated into tree permits and/or other Conditions of Approval as deemed appropriate by the applicable governing body.

- A circle with a radius measurement from the trunk of the tree to the tip of its longest limb, plus one foot, shall constitute the critical root zone protection area of each protected tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each protected tree. Removing limbs that make up the dripline does not change the protected area.

- Any protected trees on site which require pruning shall be pruned by an ISA Certified Arborist prior to the start of construction work. All pruning shall be in accordance with the American National Standards Institute (ANSI) A300 pruning standards, ANSI Standard 2133.1-2000 regarding safety practices, and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines" and Best Management Practices.

- Prior to initiating construction, temporary protective fencing shall be installed at least one foot outside the root protection zone of the protected trees in order to avoid damage to the tree canopies and root systems. Fencing shall be installed in accordance with the approved fencing plan prior to the commencement of any grading operations or such other time as determined by the review body. The developer shall contact the Project Arborist and the Planning Department for an inspection of the fencing prior to commencing construction activities on site.

- Signs shall be installed on the protective fence in four (4) equidistant locations around each individual protected tree. The size of each sign must be a minimum of two (2) feet by two (2) feet and must contain the following language:

  WARNING: THIS FENCE SHALL NOT BE REMOVED OR RELOCATED WITHOUT WRITTEN AUTHORIZATION FROM THE CITY OF ROSEVILLE.

  Once approval has been obtained by the City of Roseville protective fencing shall remain in place throughout the entire construction period and shall not be removed, relocated, taken down or otherwise modified in whole or in part without prior written authorization from the Agency, or as deemed necessary by the Project Arborist to facilitate approved activities within the root protection zone.

- Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected tree shall be done under the direct supervision of the Project Arborist. To the maximum extent feasible, demolition work within the dripline protection area of the protected tree shall be performed by hand. If the Project Arborist determines that it is not feasible to perform some portion(s) of this work by hand, then the smallest/lightest weight equipment that will adequately perform the demolition work shall be used.

- No signs, ropes, cables (except those which may be installed by an ISA Certified Arborist to provide limb support) or any other items shall be attached to the protected trees. Small metallic numbering tags for the purpose of identification in preparing tree reports and inventories shall be allowed.

- No vehicles, construction equipment, mobile homes/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of protected trees.

- Drainage patterns on the site shall not be modified so that water collects, stands or is diverted across the dripline of any protected tree.

- No trenching shall be allowed within the driplines of protected trees, except as specifically approved by the Planning Department as set forth in the project's Conditions of Approval and/or approved tree permit. If it is absolutely necessary to install underground utilities within the dripline of a protected tree the utility line within the protected zone shall be "bored and jacked" or performed utilizing hand tools to avoid root injury under the direct supervision of the Project Arborist.

- Grading within the protected zone of a protected tree shall be minimized. Cuts within the protected zone shall be maintained at less than 20% of the critical root zone area. Grade cuts shall be monitored by the Project Arborist. Any damaged roots encountered shall be root pruned and properly treated as deemed necessary by the Project Arborist.

- Minor roots less than one (1) inch in diameter encountered during approved excavation and/or grading activities may be cut, but damaged roots shall be traced back and cleanly cut behind any split, cracked or damaged area as deemed necessary by the Project Arborist.

- Major roots greater than one (1) inch in diameter encountered during approved excavation and/or grading activities may not be cut without approval of the Project Arborist. Depending upon the type of improvement being proposed, bridging techniques or a new site design may need to be employed to protect the roots and the tree.

- Cut faces, which will be exposed for more than 2-3 days, shall be covered with dense burlap fabric and watered to maintain soil moisture at least on a daily basis (or possibly more frequently during summer months). If any native ground surface fabric within the protected zone must be removed for any reason, it shall be replaced within forty-eight (48) hours.

- If fills exceed 1 foot in depth up to 20% of the critical root zone area, aeration systems may serve to mitigate the presence of the fill materials as determined by the Project Arborist.

- When fill materials are deemed necessary on two or three sides of a tree it is critical to provide for drainage away from the critical root zone area of the tree (particularly when considering heavy winter rainfalls). Overland releases and subterranean drains dug outside the critical root zone area and tied directly to the main storm drain system are two options.

- In cases where a permit has been approved for construction of a retaining wall(s) within the protected zone of a protected tree the applicant will be required to provide for immediate protection of exposed roots from moisture loss during the time prior to completion of the wall. The retaining wall within the protected zone of the protected tree shall be constructed within seventy-two (72) hours after completion of grading within the root protection zone.

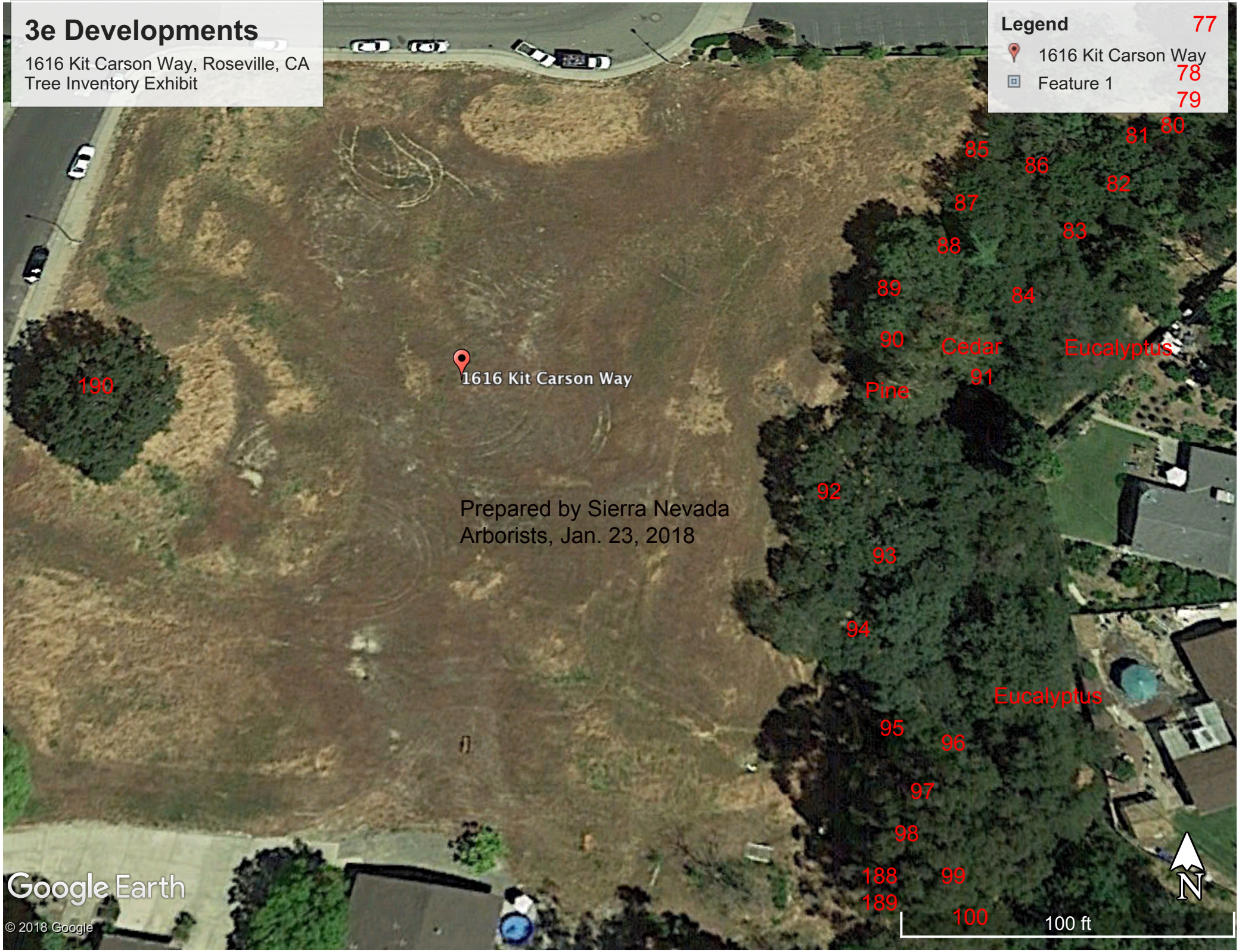
- The construction of impervious surfaces within the dripline of a protected tree shall be minimized. When necessary, a piped aeration system shall be installed under the direct supervision of the Project Arborist.

- Preservation devices such as aeration systems, tree wells, drains, special paving and cabling systems must be installed in conformance with approved plans and certified by the Project Arborist.

- No sprinkler or irrigation system shall be installed in such a manner that sprays water or requires trenching within the dripline of a protected tree. An above ground drip irrigation system is recommended. An independent low-flow drip irrigation system may be used for establishing drought-tolerant plants within the protected zone of a protected tree. Irrigation shall be gradually reduced and discontinued after a two (2) year period.

- All portions of permanent fencing that will encroach into the protected zone of a protected tree shall be constructed using posts set no closer than ten (10) feet on center. Posts shall be spaced in such a manner as to maximize the separation between the tree trunks and the posts in order to reduce impacts to the tree(s).

- Landscaping beneath native oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. Planting live material under protected native oak trees is generally discouraged, and is not recommended within six (6) feet of the trunk of a native oak tree with a diameter a breast height (DBH) of eighteen (18) inches or less, or within ten (10) feet of the trunk of a native oak tree with a DBH of more than eighteen (18) inches. The only plant species which shall be planted within the dripline of native oak trees are those which are tolerant of the natural, semi-arid environs of the tree(s).


3e Developments
1616 Kit Carson Way, Roseville, CA
Tree Inventory Exhibit
Legend
1616 Kit Carson Way
Feature 1
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Cedar
Eucalyptus
Pine
Eucalyptus
1616 Kit Carson Way
Prepared by Sierra Nevada
Arborists, Jan. 23, 2018
Google Earth
© 2018 Google
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100 ft

THE J WILLIAM ROACH 2012 REVOCABLE TRUST
1612, 1614, 1616 1618 Kit Carson Way Project Site
City of Roseville, California
TREE INVENTORY SUMMARY

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		
77	Blue Oak	*(Quercus douglasii)*		6	7	Fair	Poor to fair	Poor to fair	Dormant	Poor to fair	Poor	Leans to the north; branches at 8' above grade; suppressed due to Eucalyptus tree to the south.	None at this time.
78	Valley Oak	*(Quercus lobata)*		13	27	Fair	Fair	Fair	Dormant	Fair	Fair	Branches at 12' above grade.	None at this time.
79	Interior Live Oak	*(Quercus wislizeni)*		12	17	Fair	Fair	Poor	Fair	Fair	Poor	Branches at 15' above grade; excessive amount of deadwood in the lower branches.	***Prune to reduce deadwood.***
80	Interior Live Oak	*(Quercus wislizeni)*		8	14	Fair	Poor	Poor	Sparse	Poor	Poor	Callusing 6" wound 3' above grade on the northwest side; another callusing wound on the lowest branch 6' above grade on the north side.	None at this time.
81	Valley Oak	*(Quercus lobata)*		13	21	Fair	Fair	Fair	Dormant	Fair	Fair	Branches at 13' above grade; leans north.	None at this time.
82	Interior Live Oak	*(Quercus wislizeni)*		8	23	Fair	Fair	Fair	Poor to fair	Poor to fair	Poor to fair	Branches at 7' and 9' above grade.	None at this time.
83	Interior Live Oak	*(Quercus wislizeni)*		9	31	Fair	Poor to fair	Poor	Fair	Poor to fair	Fair	Leans to the northwest; callusing wound 8' above grade on the south side; branches at 8' above grade; bottom third of the canopy appears to be dead.	***Inspect annually.***
84	Interior Live Oak	*(Quercus wislizeni)*		10	24	Fair	Fair	Fair	Poor to fair	Poor to fair	Poor to fair	Branches at 13' above grade; leaning/out of balance to the south; suppressed on the east side.	None at this time.
85	Interior Live Oak	*(Quercus wislizeni)*		9	17	Poor to fair	Poor	Fair	Fair	Poor to fair	Fair	Branches at 5' above grade; large callusing wound from 1'-4' above grade on the northwest side with evidence of moderate decay. Out of balnce to the northeast.	***Recommend removal due to nature and extent of noted defects.***
86	Interior Live Oak	*(Quercus wislizeni)*		8	14	Fair	Fair	Fair	Fair	Fair	Fair	Branches at 15' above grade.	None at this time.
87	Interior Live Oak	*(Quercus wislizeni)*		13	21	Fair	Poor	Poor to fair	Fair	Poor	Fair	Callousing trunk wound 5'-9' above grade on south and east side with moderate decay. Out of balance to the north.	***Recommend removal due to nature and extent of noted defects.***
88	Interior Live Oak	*(Quercus wislizeni)*		8	14	Poor to fair	Fair	Fair	Poor to fair	Poor to fair	Poor to fair	Branches at 11' above grade; evidence of callusing pruning wound just above root crown on the south side with no evidence of decay. Slightly sparse foliage.	None at this time.
89	Valley Oak	*(Quercus lobata)*		11	17	Fair	Poor to fair	Fair	Dormant	Fair	Fair	Branches at 7' above grade with evidence of included bark and weak attachments; trunk has loss of bark; evidence of decay on the east side.	None at this time.

THE J WILLIAM ROACH 2012 REVOCABLE TRUST
1612, 1614, 1616 1618 Kit Carson Way Project Site
City of Roseville, California
TREE INVENTORY SUMMARY

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		
90	Blue Oak	*(Quercus douglasii)*		9	11	Fair	Fair	Fair	Dormant	Fair	Poor to fair	Branches at 7' above grade with evidence of included bark and weak attachments; evidence of pruning wounds at 6' above grade on the north side with no evidence of decay.	None at this time.
91	Blue Oak	*(Quercus douglasii)*		11	16	Fair	Fair	Fair	Dormant	Fair	Fair	Branches at 17' above grade.	None at this time.
92	Blue Oak	*(Quercus douglasii)*		45	37	Poor to fair	Poor to fair	Fair	Dormant	Poor to fair	Fair	Branches at 8', 15' and 17' above grade; trunk has missing bark fissures from the 8' branching; cracks and fissures in the north stem, up as far as 15'; loss of bark and evidence of decay on the north side; callused pruning wounds on the north side with evidence of decay; decay in the primary crotch at 8' above grade; old 5" cabling system present on the east side is incorporated in the tree; excessive amount of deadwood.	***Perform aerial and root crown inspections and provide further recommendations.***
93	Blue Oak	*(Quercus douglasii)*		20	27	Poor to fair	Poor to fair	Poor to fair	Dormant	Poor	Poor to fair	Leaning/out of balance to the west; suppressed by the previous tree. Basal cavity on west side. Other callousing wounds on upper trunk.	***Recommend removal due to nature and extent of noted defects.***
94	Blue Oak	*(Quercus douglasii)*		24	35	Poor	Poor	Poor to fair	Dormant	Poor	Poor to fair	Leaning/out of balance to the northwest; callusing trunk wound 2'-4' above grade on the northeast side with moderate to significant decay; callusing wound from grade to 2' above grade on the northwest side with evidence of decay; suppressed due to the adjacent tree.	***Recommend removal due to nature and extent of noted defects.***
95	Blue Oak	*(Quercus douglasii)*		27	44	Poor to fair	Fair	Fair	Dormant	Poor to fair	Fair	Branches at 8' above grade; root crown partially exposed on the south side due to erosion; leaning/out of balance to the south over the creek; excessive amount of deadwood.	***Inspect annually.***

THE J WILLIAM ROACH 2012 REVOCABLE TRUST
1612, 1614, 1616 1618 Kit Carson Way Project Site
City of Roseville, California
TREE INVENTORY SUMMARY

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		
96	Blue Oak	*(Quercus douglasii)*		22	36	Fair	Poor to fair	Fair	Dormant	Poor	Fair	12" H, 4"-6"W cavity with moderate to significant decay at grade on the north side; leaning/out of balance to the west; suppressed by the adjacent tree to the east.	***Recommend removal due to nature and extent of noted defects.***
97	Blue Oak	*(Quercus douglasii)*		12	31	Fair	Fair	Poor to fair	Dormant	Poor	Poor	Leans south; suppressed.	***Inspect annually.***
98	Interior Live Oak	*(Quercus wislizeni)*		15	29	Fair	Fair	Fair	Fair	Fair	Fair	Branches at 7' above grade; leans northeast.	None at this time.
99	Interior Live Oak	*(Quercus wislizeni)*		10	16	Fair	Fair	Fair	Fair	Fair	Fair	Branches at 12' above grade; suppressed by the Eucalyptus trees to the northwest and northeast.	None at this time.
100	Blue Oak	*(Quercus douglasii)*		10	11	Fair	Fair	Poor	Dormant	Poor	Poor	Previously pruned for utility line clearance. Very sparse upper branches; Poor bud swell. Tree approx. 70% dead.	***Recommend removal due to nature and extent of noted defects.***
Tag # 101-187 not used													
188	Blue Oak	*(Quercus douglasii)*		7	11	Fair	Fair	Fair	Dormant	Fair	Poor to fair	Branches at 9' above grade; leans northwest; suppressed by Eucalyptus tree to the south.	None at this time.
189	Blue Oak	*(Quercus douglasii)*		7	9	Fair	Fair	Fair	Dormant	Fair	Fair	Branches at 10' above grade; leans north; suppressed by Eucalyptus tree to the south.	None at this time.
190	Blue Oak	*(Quercus douglasii)*		32	30	Fair	Poor to fair	Poor to fair	Dormant	Poor to fair	Fair	Branches at 10' and 12' above grade; callused pruning wounds 9' above grade, north and south sides; callusing minor pruning wound at 4' above grade, northeast side, with decay; sap sucker damage to the trunk from 5'-12' above grade; above average amount of deadwood.	***Perform aerial inspection and provide further recommendations.***

TOTAL INVENTORIED TREES = 27 trees (379 aggregate diameter inches)
TOTAL RECOMMENDED REMOVALS = 6 trees (98 aggregate diameter inches)
PRECAUTIONARY TREES HIGHLIGHTED FOR REFERENCE

BAKER-WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19 CARMICHAEL, CA 95608
PHONE (916)331-4336~FAX # (916)331-4430~EMAIL:office@bwengineers.com

September 3, 2018

The Village at Kit Carson
Technical Memo
Water Allocation
A.P.N. 048-350-015, 016, 018 & 021
PL 18-0063 BWEG Job No. 17-09-035

The proposed project is a General Plan Amendment from BP to MDR, a rezone from RD-1 to RD-3 and a tentative subdivision map for 20 attached dwelling units.

Based on the General Plan and 2.45 acre site, the water allocation would be 2.45acres x 2598 GPD = 6365 GPD. The proposed 20 units (MDR) x 430 GPD = 8600 GPD. This is 35% increase in the allocation. Landscape irrigation for residential development is conservatively 50% of the water use or 4300 GPD. The City Water Efficient Landscape Ordinance reduces the irrigation use to 1,878 GPD (see attached memo from landscape architect) or a 2422 GPD reduction. The building code requirements after 2011 reduces the indoor water use by estimated 20% of 4300 GPD or 860 GPD. Therefore, based on the new codes, the residential use of 8600 GPD is reduced by 2422 GPD for irrigation and 860 GPD for indoor use to 5318 GPD which is (5318/6365) 100% = 84% of the allocated water use.

BAKER-WILLIAMS ENGINEERING GROUP

KENT H. BAKER
R.C.E. 26487

Roach & Campbell

MEMORANDUM

To	Chris Coulter, e3 Developments, LLC Kent Baker, Baker-Williams Engineering	Date	April 17, 2018
From	David Campbell, ASLA	RE:	The Villages at Kit Carson Projected Water Demand

Summary

This project proposes a re-zone from Business Professional (BP) to Medium Density Residential (MDR) and must demonstrate that projected water demand is below or equal to currently zoned and allowable water demand. Based on current water efficient landscape requirements alone, this project is projected to use 5,108 gallons per day average (GPD), which is a 1,257 GPD savings over the currently zoned allotment of 6,365 GPD.

Background

Indoor and Outdoor water use are typically co-mingled in planning-level per capital GPD estimates. Outdoor landscape water use accounts for, conservatively, 50% of residential water use[1]. Using this factor, we may establish the following target landscape water use allotments for the proposed project:

- The proposed demand for MDR is 323 GPD per unit x 20 units= 6,460 GPD (Per the City's General Plan). 50% of this, attributable to landscape use, is 3,230 gallons per day (GPD, averaged).
- Based on the existing General Plan Zoning of BP, the allowable water demand is 2.45 ac x 2,598 GPD per acre= 6,365 GPD. 50% of this, attributable to landscape use, is 3,182 GPD.

Based on current and mandatory water efficient landscape requirements alone, the proposed project achieves the water demand of the current zoning, as demonstrated using standard landscape worksheet (following the format of the City's Water Efficient Landscape Ordinance), below. For the overall project, outdoor landscape water demand is estimated at 685,597 gallons per year, equating to 1,878 GPD.

Additional notes:

This estimate includes private rear-yard landscape water use, which is assumed to be, 40% turf (high water use) and 60% planting (mixed low and medium water use) by area. Any rear-yard landscaping installed is the responsibility of the homeowner, and not the developer.

This estimate only includes water savings from current mandatory water efficient landscape standards. It does not include water savings from mandatory interior water efficient building standards, including low-flow fixtures, dual-flush and low-flush toilets, hot-water recirculation, instant hot-water heaters, or parallel pluming to fixtures.

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[1](According to the State Water Boards, see https://www.waterboards.ca.gov/press_room/press_releases/2015/pr020315_rgcpd_dec.pdf), This is assumed to be conservative, as other references (California Homebuilding Foundation and others) are higher. The proportion of outdoor to indoor landscape water use varies across jurisdictions due to climate, demographics and other factors. No breakdown between outdoor and indoor water use is provided in the Roseville UWMP on a per capita basis.

Roach+Campbell Landscape Architecture

111 Scripps Drive, Sacramento, CA 95825 | www.roachcampbell.com

p. 916.945.8003 | 916.342.7119

Water Efficient Landscape Worksheet						Project:	18006A
The Villages at Kit Carson (e3 Developments, LLC)						Date:	4/17/2018
Hydrozone/Planting Description	**Plant Factor (PF)**	**Irrigation Method**	**Irrigation Effcncy (IE)**	**ETAF (PF/IE)**	**Landscape Area (sf)**	**ETAF x Area**	**Estimated Total Water Use (g)**
Regular Landscape Areas							
Front Yard Low-Water Use (drip, bubblers)	0.2	DripEmtr	0.81	0.25	11,477	2,834	92,897
Front Yard Medium Water Use (drip)	0.5	DripEmtr	0.81	0.62	8,695	5,367	175,948
Front Yard Turf (MSMTR nozzles)	0.8	MultiStrm	0.75	1.07	4,085	4,357	142,840
Patio Tree Planters	0.5	DripEmtr	0.81	0.62	490	302	9,915
Rear Yard Turf (MSMTR nozzles, assumed)	*0.8*	*MultiStrm*	*0.75*	*1.07*	*5,604*	*5,978*	*195,955*
Rear Yard Planting (drip, assumed)	*0.2*	*DripEmtr*	*0.81*	*0.25*	*8,406*	*2,076*	*68,040*
				Totals	38,757	20,914	
Special Landscape Areas							
				1.00		-	-
				1.00		-	
				1.00		-	
						-	
				Totals	-	-	
Nearest Data Location	Roseville						
Reference Eto	52.2		Estimated Total Water Use (ETWU)[1]				**685,597**
Reference ETAF	0.55		Maximum Allowed Water Allowance (MAWA)[2]				**689,882**

ETAF Calculations/Regular Landscape	
Total ETAF x Area	20,914
Total Area (sf)	38,757
Average ETAF	0.54

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, 0.45 or below for non-residential areas, and 0.65 for DSA projects. These values are also reference values for determining MAWA.

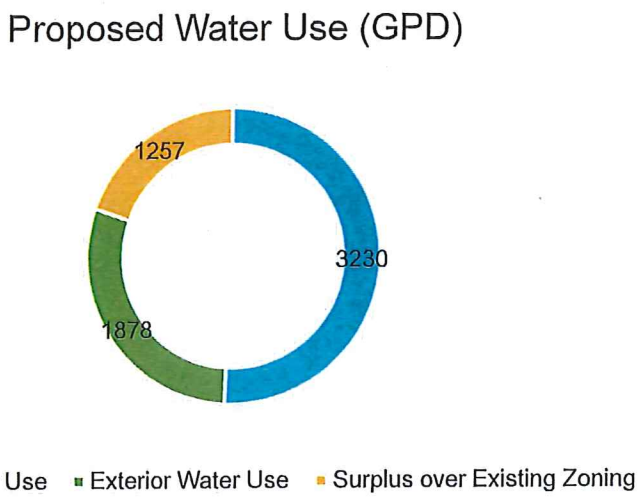
ETAF Calculations/All Landscape	
Total ETAF x Area	20,914
Total Area (sf)	38,757
Average ETAF	0.54

[1]ETWU= Eto x 0.62 x ETAF x Area

[2]MAWA = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)}

**ETWU must be less than or equal to MAWA*

Compared to the existing zoned water use, the overall project estimated water use is 1,257 GPD below allowable water use based on landscape development standards alone:



CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT – PLANNING DIVISION
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

MITIGATION MONITORING AND REPORTING PROGRAM

Project Title/File Number:	INFILL PCL 239 - The Villages At Kit Carson in the City of Roseville / PL18-0063
Project Location:	1612-1618 Kit Carson Way, Roseville, Placer County, CA; APNs: 048-350-015, 016, 018, and 021
Project Description:	The project consists of the construction 10 attached residences each consisting of two single-family dwellings, for a total of 20 single-family units. Ten of the residences (five buildings) will front on to Kit Carson Way and the other ten residences (five buildings) will front toward the adjacent open space. All 20 dwellings will be accessed from a proposed cul-de-sac. The project includes a General Plan Amendment to change the land use designation from Business Professional (BP) to Medium Density Residential (MDR), a Rezone from Single Family Residential (R1) to Single Family Small Lot (RS), a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit.
Environmental Document	Mitigated Negative Declaration
Project Applicant:	Chris Coulter, 3eDevelopments LLC
Property Owner:	J. William Roach 2012 Revocable Trust
Lead Agency Contact Person:	Charity Gold, Associate Planner, (916) 774-5276

Section 21081.6 of the California Public Resources Code requires public agencies to "adopt a reporting and monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." This Mitigation Monitoring and Reporting Program has been adopted for the purpose of avoiding environmental impacts

MONITORING PROCESS: Existing monitoring mechanisms are in place that assist the City of Roseville in meeting the intent of CEQA. These existing monitoring mechanisms eliminate the need to develop new monitoring processes for each mitigation measure. These mechanisms include grading plan review and approval, improvement/building plan review and approval and on-site inspections by City Departments. Given that these monitoring processes are requirements of the project, they are not included in the mitigation monitoring program.

It shall be the responsibility of the project applicant/owner to provide written notification to the City using the Mitigation Verification Cover Sheet and Forms, in a timely manner, of the completion of each Mitigation Measure as identified on the following pages. The City will verify that the project is in compliance with the adopted Mitigation Monitoring and Reporting Program. Any non-compliance will be reported by the City to the applicant/owner, and it shall be the project applicant's/owner's responsibility to rectify the situation by bringing the project into compliance. The purpose of this program is to ensure diligent and good faith compliance with the Mitigation Measures which have been adopted as part of the project.

TABLE OF MITIGATION MEASURES

Mitigation Measure	Implementation	Timing	Reviewing Party	Documents to be Submitted to City	Staff Use Only
MM BIO-1 Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, including Nuttall's woodpecker, loggerhead shrike, yellow-billed magpie, oak titmouse, grasshopper sparrow, song sparrow, purple martin, and white-tailed kite have the potential to nest within the trees within the riparian woodland and within the annual grassland. Ground-disturbing activities and/or vegetation clearing operations, including pruning or removal of trees and shrubs, shall be completed between September 1 to February 14, if feasible. If ground-disturbing activities and/or vegetation removal begins during the nesting season (February 15 to August 31), the developer shall have a qualified biologist conduct a pre-construction survey for active nests within 300 feet of the Project Site. The pre-construction survey will be conducted within 14 days prior to commencement of ground-disturbing activities and/or vegetation removal. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity or vegetation removal. If the pre-construction survey shows that there is no evidence of active nests, no additional measures are required. If construction does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional pre-construction survey shall be required. If any active nests are located within the vicinity of the proposed project the qualified biologist shall delineate an appropriate buffer zone, subject to approval of City Planning and in consultation with any other appropriate agencies, with construction tape or pin flags and maintain the buffer zone until the end of the breeding season or the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests. If active nests are found onsite, a qualified biologist shall monitor nests weekly during construction to ensure activities are not causing nesting disturbance.	Results of preconstruction surveys shall be submitted prior to the issuance of a grading permit or Improvement Plans. Applicable construction restrictions shall be reflected within plans.	*Pre-Construction and Construction*: Surveys required prior to construction. If surveys are positive for birds, then remainder of mitigation steps are required prior to construction. Add as note on Improvement Plans.	Planning and Engineering	Nesting bird surveys	
MM BIO-2 Within 14 days prior to the start of ground disturbance, the developer shall have a qualified biologist conduct a pre-construction survey for western pond turtles. Ground disturbance includes any grading and excavation activities and any work associated with work adjacent to Cirby Creek. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days and the site still contains undisturbed habitat, a new survey shall be required. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity. If no western pond turtles are found, no additional measures are required. If western pond turtles are found, all on-site work shall cease and the applicant shall submit a mitigation plan for review and approval by City Planning, in consultation with the California Department of Fish and Wildlife. The plan shall document all proposed measures, including avoidance, minimization, exclusion, relocation, the presence of a biological monitor, or other measures, and include a plan to monitor mitigation success. Work on the site shall not resume until the mitigation plan is approved and appropriate measures have been implemented.	Results of preconstruction surveys shall be submitted prior to the issuance of a grading permit or Improvement Plans. Applicable construction restrictions shall be reflected within plans.	*Pre-Construction and Construction*: Surveys required prior to construction. If surveys are positive for birds, then remainder of mitigation steps are required prior to construction. Add as note on Improvement Plans.	Planning and Engineering	Western pond turtle survey	

Mitigation Measure	Implementation	Timing	Reviewing Party	Documents to be Submitted to City	Staff Use Only
MM BIO-3 The trees within the riparian woodland provide roosting habitat for special-status bats. The developer shall have a qualified biologist perform onsite pre-construction surveys for special-status bat species within 14 days prior to the start of ground disturbance and tree removal. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity or tree removal. If no bats are observed, then no additional measures are required. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days and the site still contains undisturbed habitat, a supplemental survey is required. If bats are found, all on-site work shall cease and the applicant shall submit a mitigation plan for review and approval by City Planning, in consultation with the California Department of Fish and Wildlife. The plan shall document all proposed measures, including avoidance, minimization, exclusion, relocation, the presence of a biological monitor, or other measures, and include a plan to monitor mitigation success. Work on the site shall not resume until the mitigation plan is approved and appropriate measures have been implemented. If the bat is roosting in a tree anticipated for removal, then that tree shall not be removed until a qualified biologist has determined that the tree is no longer occupied by the bat.	Results of preconstruction surveys shall be submitted prior to the issuance of a grading permit or Improvement Plans. Applicable construction restrictions shall be reflected within plans.	*Pre-Construction and Construction*: Surveys required prior to construction. If surveys are positive for birds, then remainder of mitigation steps are required prior to construction. Add as note on Improvement Plans.	Planning and Engineering	Special-status bat survey	
MM BIO-4 Prior to commencement of ground disturbing activities, a qualified biologist shall mark the boundaries of onsite riparian habitat and the contractor shall install exclusion fencing around these boundaries to exclude construction equipment and personnel. The fencing shall be inspected and approved by City Planning prior to ground-disturbing activities. The exclusion area shall be maintained until ground-disturbing activities are completed and soil within the adjacent area is stabilized.	The applicants shall design the project to avoid and preserve riparian vegetation.	*Pre-Construction*: Temporary fencing shall be installed prior to construction. Permanent measures shall be shown on Improvement Plans. Add as note on Improvement Plans.	Planning, Engineering, and Parks	None	
CUL-1 - A minimum of seven days prior to beginning earthwork or other soil disturbance activities, the applicant shall notify the CEQA lead agency representative of the proposed earthwork start-date, in order to provide the CEQA lead agency representative with time to contact the United Auburn Indian Community (UAIC). A UAIC tribal representative shall be invited to the project's pre-construction meeting. The tribal representative may provide the consultant and construction worker tribal cultural resources awareness brochure which includes relevant information regarding sensitive tribal cultural resources including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations; and also describes appropriate avoidance and minimization measures for resources that have the potential to be located on the project site. The brochure outlines what to do and whom to contact if any potential archaeological resources or artifacts are encountered and underscores the requirement for confidentiality and culturally-appropriate treatment of any find-of-significance to Native Americans and behaviors, consistent with Native American Tribal values.	The applicant shall notify the Planning Division of the pre-construction meeting is date.		Planning		

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

MITIGATION VERIFICATION SUBMITTAL COVER SHEET

Project Title/Planning File # _____

Project Address _____

Property Owner _____

Planning Division Contact _____

SUMMARY OF VERIFICATION MATERIALS INCLUDED IN THIS SUBMITTAL

Mitigation Measure	Supporting Attachments Included	Date Complete

I HAVE ATTACHED THE FOLLOWING REQUIRED ITEMS:

☐ Table of Applicable Mitigation Measures

☐ Mitigation Verification Form(s)

☐ Specific supporting documentation required by measure(s), if applicable (e.g. biologist's report)

I hereby certify under penalty of perjury under the laws of the State of California that I am the property owner or an agent of the property owner and am authorized to submit this Mitigation Verification Form. I also certify that the above-listed mitigation measures have been completed in the manner required, and that all of the information in this submittal is true and correct, to the best of my knowledge:

_____	_____	_____
Signature and Date	Print Name	Contact Number

MITIGATION VERIFICATION FORM

Mitigation Measure_____

Description of Monitoring and Verification Work Performed. The following information is a required part of the description: dates, personnel names or titles, and the stage/phase of construction work. Additional notes sheets may be attached, if necessary, or the below may simply reference a separate attachment that provides the required information.

INSTRUCTIONS

COVER SHEET:

A Cover Sheet for the project/development is prepared by City staff, with the top portion filled out. Each time Mitigation Verification Forms(s) are being submitted, a Cover Sheet completed by the Developer, Contractor, or Designee is required. An example of a completed summary table is provided below. The signature on the Cover Sheet must be *original wet ink*.

EXAMPLE MITIGATION VERIFICATION SUBMITTAL COVER SHEET

Project Title/Planning File #	New Coffee Shop, PL15-0000
Project Address	10 Justashort Street
Property Owner	Jane Owner
Planning Division Contact	Joe Planner, Associate Planner, (916) 774-####

SUMMARY OF VERIFICATION MATERIALS INCLUDED IN THIS SUBMITTAL

Mitigation Measure	Supporting Attachments Included	Date Complete
MM-3	Copy of survey report signed by biologist	5/10/2016
MM-4	All information included in Mitigation Verification Form	5/12/2016
MM-5	E-mail from Air District approving Dust Control Plan	5/05/2016

MITIGATION VERIFICATION FORM:

A Mitigation Verification Form is provided by City staff, along with the Cover Sheet and Table of Applicable Mitigation Measures. A form is filled in and submitted for each mitigation measure by the Developer, Contractor, or Designee. The form needs only the mitigation number to be filled in, along with the Description of Monitoring and Verification Work Performed. Multiple forms may be submitted simultaneously, under one cover sheet. It is also permissible to submit a form for each part of a measure, on separate dates. For instance, in the example measure MM-4 in the table above, the actual mitigation requires informing construction workers *and* retaining a qualified archeologist if resources are uncovered. Thus, a developer may submit a form in May certifying that construction workers have been informed, and also submit a second copy of the form in July because resources were discovered and additional actions had to be undertaken.

Each mitigation measure specifies the type of supporting documentation required; this must be submitted in order for the City to accept the mitigation as complete. An example of a completed Mitigation Verification Form is provided below.

EXAMPLE
MITIGATION VERIFICATION FORM

Mitigation Measure MM3

Description of Monitoring and Verification Work Performed. The following information is a required part of the description: dates, personnel names or titles, and the stage/phase of construction work. Additional notes sheets may be attached, if necessary, or the below may simply reference a separate attachment that provides the required information.

The mitigation measure text is included on the Improvement Plans General Notes page (Improvement Plan EN15-0001). On May 4, 2016, prior to any ground-disturbing activities (the pre-construction phase), a site meeting was held. At this meeting, workers on the site were informed of the potential to unearth remains, and were instructed to cease work and notify their supervisor immediately if any resources were observed.