CITY OF ROSEVILLE CALIFORNIA

PLANNING DIVISION
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

INITIAL STUDY & ENVIRONMENTAL CHECKLIST

Project Title/File Number:	NERSP PCL 15 - Adventist Health Headquarters/PL16-0254
Project Location:	1400 Stone Point Dr., Roseville; Placer County; APN: 048-460-041-000, 048-460-042-000, 048-460-043-000 & 048-460-052-000
Project Description:	The applicant requests approval of a Major Project Permit (Stage 1 & 2) to allow construction of a 275,000 square foot office building on the site. The project will include parking areas, frontage improvements, lighting, landscaping and pedestrian pathways.
Project Applicant:	David Powlen, Little Diversified Consulting, 5815 Westpark Drive, Charlotte, NC 28217; (704) 561-3472
Property Owner:	John Gustin, Adventist Health, 1075 Creekside Drive, Suite 240, Roseville, CA 95678; (916) 774-3333
Lead Agency Contact Person:	Ron Miller, Associate Planner - City of Roseville; (916) 774-5276

This initial study has been prepared to identify and assess the anticipated environmental impacts of the above-described project application. The document relies on previous environmental documents (see Attachments) and 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 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.

Because the proposed project is consistent with the City's General Plan, for which an EIR was prepared, the project is subject to the streamlining provisions of CEQA Guidelines Section 15183. Under that section, certain categories of impacts can be exempt from CEQA, including significant effects of projects that were previously disclosed in a General Plan EIR. (See CEQA Guidelines, § 15183, subd. (b)(2).) In general, project-specific review under that section is focused on "project-specific significant impacts which are peculiar to the project or its site." (*Id.*, subd. (a).) Notably, "[a]n effect of a project on the environment shall not be considered peculiar to the project or the parcel . . . if uniformly applied development policies or standards have been previously adopted by the city . . . with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect." (*Id.*, subd. (f).).

In reviewing the site specific information provided for this project, the City of Roseville Planning Division has analyzed the potential environmental impacts created by this project and determined that the impacts are less than significant. Therefore, **on the basis of the following initial evaluation,** we find that the proposed project **could not** have a significant effect on the environment, and a **Negative Declaration** will be prepared.

Prepared by: Ron Miller
Ron Miller, Associate Planner

Date: 1/3/2017

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PROJECT DESCRIPTION

Project Setting

Applicable Specific Plan and Standards: Northeast Roseville Specific Plan, Stone Point Master Plan, and City of Roseville General Plan, Zoning Ordinance, and Community Design Guidelines.

Total Acreage: Stone Point Campus – 130 acres; Project Site - 26.63 acres (Lots 6, 7, 8 & 9 combined)

Existing Lot Dimensions: The project site is irregular in shape. The overall boundary for the entire 130-acre Stone Point site at Miner's Ravine is ±11,360 feet, while the project site's overall boundary is ±4,215 feet (see Figures 1 & 2).

The subject 23.63-acre project site has frontages on Eureka Road of ±745 feet, North Sunrise Avenue of ±1,065 feet, Stone Point Drive of ±1,255 feet, and Street B, an internal drive at the eastern boundary of the project site, of 1,150 feet (see Figure 2).

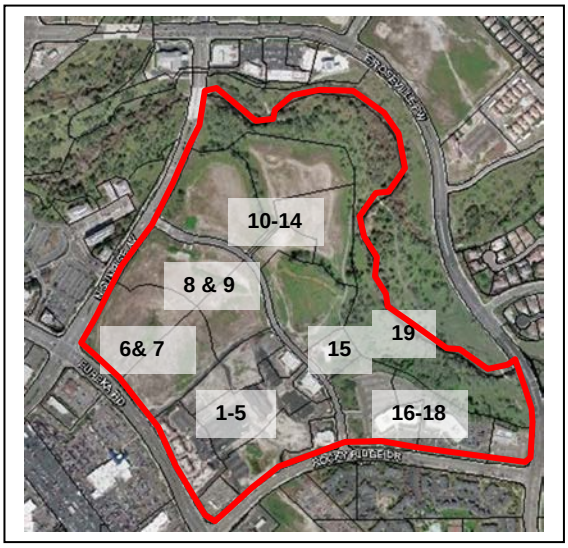


Figure 1: Stone Point (130 acre development)

Project Site Background: There has been two projects previously approved for portions of the project site. In June 2008, a Rezone, General Plan Amendment and Development Agreement Amendment were approved for construction of a 174-room hotel and health club/fitness center on Parcel 9, as well as a 55,000 square foot office building on Parcel 8 (City of Roseville Planning File #2007PL-201). This project has since expired. In January 2015, a Major Project Permit Modification (Stage 1) and Major Project Permit (Stage 2) (City of Roseville Planning File #PL14-0350) was approved for Stone Point Parcels 8 & 9 for construction of two four-story, 90,0000 square foot medical office buildings and associated site improvements, including parking areas, lighting, and landscaping. This project is still current; however, the property has been purchased by Adventist Health for the purpose of constructing their headquarters campus on the site.

Physical or Natural Features: The Stone Point site was rough-graded in 2003 pursuant to previously approved entitlements. Although significant earthwork followed, the site continues to have rolling terrain, with steep slopes near N. Sunrise Avenue, with a high point on the site at 258± feet above sea level and the low point of the site at 238± feet above sea level. Concurrent with the rough-grading, Stone Point Drive and related backbone utilities were constructed through the project area, linking N. Sunrise Avenue to Rocky Ridge Drive Additionally, backbone storm drain and sewer stubs were installed throughout the project area for connection from future development.

Figure 2: Project Site (26.63 acres)

The site continues to drain primarily towards Miner's Ravine at the north and east boundaries of the site, except that the west end of the site drains west to N. Sunrise Avenue. The centerline of Miner's Ravine roughly forms the north and east boundary of the site. Due to the grading activity, little vegetation exists on the site, except

where annual non-native grasses have re-established themselves and where existing native oak woodland areas were preserved in Miner's Ravine, as well as existing lots 11 and 13. The oak woodland includes Blue, Valley and Interior Live Oak, with some other native shrubs and trees. The property owner received approval of state and federal agency permits on January 7, 1993, to fill, with the exception of Miner's Ravine, the site's wetlands. The landowner has effectuated the permits and there are no wetlands on the site except directly adjacent to Miner's Ravine. A segment of the City's Miner's Ravine bike trail crosses through the Stone Point site adjacent to Miner's Ravine.

Physical or Natural Features on Adjacent Land: Eureka Road serves as the project site's boundary to the south. Properties south of Eureka Road are developed with a restaurant and automobile dealership. The property to the north across Stone Point Drive is currently being developed with a single-family medium density subdivision and a park parcel. Undeveloped office designated parcels and a commercial center are located east of the project site (see Table 1 below).

Location	Zoning	General Plan Land Use	Actual Use Of Property
Site	Planned Development 178 – Research and Development (PD 178)	Community Commercial (CC-35.9 & 11.9)	Vacant
North	R3/DS; Parks & Recreation (PR)	Medium Density Residential (MDR); PR	Single Family homes under construction
South	Eureka Road Right-of-Way (ROW) & Regional Commercial/Special Area Overlay – Northeast Roseville Specific Plan (RC/SA-NE) beyond	Eureka Road ROW and Community Commercial (CC) beyond	ROW, Restaurant and Automobile Dealership
West	North Sunrise Av.	ROW	ROW
East	PD 178	BP	Stone Point Office & Commercial Development Partially Constructed

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 Design & Construction Standards (Resolution 07-137)
- 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 (SCH #2013102057)
- Northeast Roseville Specific Plan (NERSP) EIR (SCH #86042805)
- Stoneridge Specific Plan (SRSP) EIR (SCH# 97032058)
- Marriot Club Sport Mitigated Negative Declaration (04/01/2008)
- Stone Point Lots 8 & 9 Negative Declaration (01/22/2015)

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 consistent 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 summarize 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 to 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.

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

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 "Potentially Significant Unless Mitigation Incorporated" answer is appropriate where the applicant has agreed to incorporate a mitigation measure to reduce an impact from "Potentially Significant" to a "Less than Significant." For instance, impacts to flood waters could be reduced from a "potentially significant impact" to a "less than significant impact" 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 that 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 impact.

4) A "No Impact" answer is appropriate where it can be clearly seen that the impact at hand does not have the potential to adversely affect the environment. For instance, a project in the center of an urbanized area will clearly not have an adverse effect on agricultural resources or operations.

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

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the parentheses following each response. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

INITIAL STUDY CHECKLIST

I. Aesthetics

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-d) As described in further detail in this analysis, the City’s Mitigating Policies and Standards that have been adopted as they relate to aesthetics (i.e. Community Design Guidelines, Stone Point Master Plan) will substantially mitigate any potential impacts.

In spite of the building’s visibility, it will not obstruct any established scenic vista or scenic highway. The Stoneridge EIR indicates that there are views to downtown Sacramento from the northeast corner of the Stoneridge Specific Plan area, from Sierra College to the south and southwest. The five-story office building

will potentially be visible from this location on Sierra College Blvd., but the building will not block views to the south and southwest or to downtown. The Stoneridge EIR identifies this viewshed from Sierra College Blvd. as a local view and not a formally established scenic vista or highway. Furthermore, the Stoneridge EIR indicates that the loss of part of the viewshed from the development of the Stoneridge Specific Plan area is a potentially significant and unavoidable impact.

The proposed project provides for a five-story office building to be located on Stone Point Parcels 6, 7, 8 and 9, for which a Major Project Permit (MPP) Stage 2 is being processed.[1] The MPP provides plans for the building's architecture and overall height. The plans show a building height of ±75 feet. A previously approved plan (now expired) for Stone Point Lot 9 permitted a six-story hotel tower that was approximately 74 feet in height. In addition, the Stone Point Master Plan permits office buildings on multiple parcel between five and ten-stories tall. Because the project has been reviewed against the Stone Point Master Plan and the project has been reviewed for consistency with these standards, staff has determined that aesthetic impacts are considered to be less than significant.

The height of the building may have an incremental effect on the proposed residential component on Lots 11-14 with respect to local views. To address the short-range visual effects and compatibility between land uses, the Stone Point Master Plan includes design guidelines that specifically address the interface between the project's office and residential uses. These guidelines address setbacks, landscape corridors, automobile and pedestrian circulation, building materials relative to reflectivity, and siting of loading/trash facilities. Due to these measures, the visual and aesthetic impacts associated with this project are considered to be less than significant.

Light and glare will not increase from the office project when compared to the currently-approved project (medical office buildings). Coating on the glass that will be used for the proposed building is not highly reflective, which is a requirement of the Stone Point Master Plan. Light and glare produced from the development of the proposed project will result from building, street, and parking lot lighting, which is typical of both residential and commercial developments in the City. Additionally, street lighting and site lighting throughout the project will comply with existing City standards. The buildings, landscaping and site improvements for the office project will address aesthetic concerns and are in compliance with the Community Design Guidelines as well as applicable development standards of the NERSP and the Stone Point Master Plan. The project does not request to deviate from any of the development standards of these documents. The office project was reviewed against these same documents. Projects that conform to the City's development standards are considered to have less than significant aesthetic impacts. Further, the proposal does not obstruct any scenic views; therefore, there are less than significant impacts to scenic views.

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

[1] On August 10, 2016, a Voluntary Merger Application (City of Roseville Planning File #PL16-0203) was approved to merge Parcels 6, 7, 8, & 9 into a single parcel. This merger has not yet been recorded.

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
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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impac t
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 is 82 pounds daily of reactive organic gases (ROG), nitrogen oxides (NO_x), and particulate matter (PM), which are the thresholds applied for both construction-related emissions and operational emissions. 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 the use of a cumulative threshold of significance for land use projects of 10 pounds per day for ROG and NO_X. Although described as a significance threshold, the *Handbook* specifically states that the threshold should not be used to determine whether to prepare an EIR; in other words, that it is not intended to be used as a threshold for significance. The *Handbook* recommends that the "threshold" be used to determine when to apply mitigation for cumulative impacts. Given that it is not recommended for use as a threshold for determining the significance of a cumulative impact, the City (acting as CEQA lead agency), has chosen to rely on a two-tier cumulative analysis methodology similar to that adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD), as outlined in the SMAQMD *Guide to Air Quality Assessment in Sacramento County*. The City is located within the SVAB, which is the same air basin where the SMAQMD methodology is used by numerous CEQA lead agencies; on these grounds, the City finds use of this methodology to be appropriate.

The first analysis tier involves determining whether a project would result in significant project-level criteria air pollutant emissions for which the region is designated non-attainment (i.e., exceed the PCAPCD recommended project threshold of 82 lbs./day for ROG or NO_x). If it does not, then project emissions would not be considered cumulatively considerable. Should a project exceed the thresholds, a Tier 2 evaluation is conducted to determine whether project emissions would jeopardize implementation of the State Implementation Plan (SIP), which is a methodology consistent with CEQA Guidelines Section 15064 (h)(3). Under the Tier 2 analysis, projects found to be consistent with the SIP and which would not conflict with the SIP emissions budget are considered less than cumulatively considerable.

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. 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**	**Operational Threshold**
ROG	82	55
NOX	82	55
PM10	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 and long-term operational emissions 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 PM10 and PM2.5.

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.

As shown in Table 1 above, the PCAPCD threshold of significance for construction is 82 pounds per day for ROG, NOX, and PM10. Table 2 below presents the estimated construction-related emissions of ROG, NOX, and PM10, 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. Construction of the proposed project was assumed to commence in Spring of 2017. Adjusted values for construction phasing and durations were provided by the applicant, as well as estimates for material import and export during grading and other construction activities.

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.

Table 2
Maximum Unmitigated Construction-Related Emissions

Pollutant	Project Emissions	PCAPCD Significance Threshold (lbs/day)
ROG	19.61	82.0
NO_X	73.32	82.0
PM_{10}	20.97	82.0

Source: CalEEMod, September 2016

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 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.

The estimated operational emissions for the proposed project are presented below in Table 3. The modeling was adjusted to reflect the project's use of only low-VOC paints per PCAPCD rules and regulations, inherent site or project design features (i.e., proximity to nearest bus stop), project specific trip rates provided by Fehr and Peers, and compliance with applicable regulations (i.e., 2013 California Building Energy Efficiency Standards).

As Table 3 indicates, the project's maximum unmitigated operational-related emissions would be below the applicable thresholds of significance. Therefore, operations associated with development of the proposed project would not substantially contribute to the PCAPCD's nonattainment status for ozone or PM_{10}.

Table 3
Unmitigated Operational Emissions

Pollutant	Project Emissions	PCAPCD Significance Threshold
ROG	23.23	55.0
NO_X	25.31	55.0
PM_{10}	14.95	82.0

Source: CalEEMod, September 2016

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 in Table 3 above, 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 an office building; thus, the proposed project would not be considered a sensitive receptor. The nearest sensitive receptors to the proposed project site are the residents of the newly constructed residential development north of stone point drive approximately 85 feet north of the project site. While the proposed project would not involve siting new sensitive receptors at the project site, the project has the potential to expose future residents of the development to the north of the project site to pollutants during the construction or operational phases of the project. 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 would be consistent with the allowable uses on the site per the existing land use designation; thus, potential impacts related to degradation of LOS associated with development of the project site would have been previously evaluated. In particular, the City's 2025 Capital Improvement Program assumed that build-out of the project site would occur, along with development of the surrounding area. The 2025 Capital Improvement Plan concluded that build out of the area would not result in unacceptable LOS for the major intersections in the project area. Additionally, a circulation evaluation prepared for the proposed project by Fehr and Peers determined that the proposed project would result in a reduced trip rate from what was anticipated for the site by the 2035 Capital Improvement Program analysis.[2] Therefore, the proposed project would be unlikely to cause the degradation of an intersection from an acceptable LOS to an unacceptable LOS, nor would the project be anticipated to substantially worsen an existing delay. As a result, the proposed project would not meet the PCAPCD CO screening criteria discussed above, and 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.

[2] Fehr & Peers. Evaluation of Circulation for Proposed Adventist Health Office Project on Stone Point Property. September 16, 2016.

Because the proposed project is not a sensitive receptor, the project would not involve siting a new sensitive receptor within any recommended setback distance of any existing source of TACs. Additionally, an office building would not itself be considered a major source of TACs, and therefore would not expose nearby sensitive receptors to TAC emissions.

The 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. Although the office building 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. 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, auto body shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The project site is located in a commercial area and is not located near any land use associated with the aforementioned operations. Office uses 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 the nearby freeway could result in objectionable odor; however, as presented above, 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. In addition, the nearest rail yard is located over two miles from the project site. Accordingly, odors due to DPM from the rail yards would not affect any persons at the project site. Thus, odors related to DPM would not be expected to be considerable or affect a substantial number of people.

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.

IV. Biological Resources

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 Game or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Plan, or other approved local, regional, or state habitat conservation plan?				

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 does not 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:

Wetlands – A wetlands delineation was prepared for the subject property and certified by the U.S. Army Corps of Engineers on May 31, 1991. The wetland delineation identified 3.51 acres of wetlands on the site. The then landowner subsequently received authorization from the U.S. Army Corps of Engineers to fill 0.44 acres of the wetlands under Nationwide Permit No. 26. The wetlands were filled in approximately 1993. The then landowner conducted mitigation in the form of purchase of compensation habitat at on off-site location. The remaining 3.07 acres of wetlands are located on a private open space parcel (Parcel 19), which was dedicated to the City as public open space as a part of a future project. No wetlands are located on Lots 6, 7, 8 & 9 and therefore, the proposed project will have no impact.

The grading and construction activities of the proposed Stone Point project are located outside the dedicated open space. Therefore, the construction activities will not affect wetlands as the site wetlands have already been filled as discussed above.

Special Status Species – No special status species have been identified on Parcels 6, 7, 8, and 9; therefore, the proposed project will have no impact.

Native Oak Trees – There are no native oak trees located on the project site; therefore, the proposed project will have no impact.

Vegetation and Wildlife – Numerous mitigation measures are incorporated in the NERSP EIR relating to the loss of potential habitat for wildlife and vegetation throughout the NERSP area including preservation of the most valuable habitat areas. Despite this, the conclusion in the NERSP EIR was that any lost habitat areas constituted a significant impact. The 130-acre Stone Point Master Plan area was not designated as a preserve area in the NERSP or NERSP EIR; however, the NERSP does state that the oak woodland and ravine area shall be preserved as open space.

The current proposal is related to changes on Lots 6, 7, 8 & 9 where no vegetation or wildlife is present with the exception of annual non-native grasses. The NERSP EIR anticipated the removal of vegetation and habitat within the plan area and a statement of overriding considerations was adopted. Staff has determined that the proposed development plan is consistent with and does not result in any additional impacts beyond that considered in the NERSP EIR.

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 a 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 formal 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–e 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:

No cultural resources are known to exist on the project site. Impacts to potential cultural, historical, and paleontological resources are considered less than significant. Since the adoption of the Specific Plan there has been no additional information to suggest greater impacts than anticipated by the EIR. CEQA Guidelines Section 15064.5, subdivision (e), requires that excavation activities be stopped whenever potential resources are uncovered. Should human remains be found, the county coroner shall be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the Native American Heritage Commission. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains. If archaeological artifacts are found, work shall cease and a qualified archaeologist shall be called in. As with archaeological artifacts, the site could contain unique types of invertebrate (marine), plant, or vertebrate fossils or other resources of paleontological value. These resources could be damaged or destroyed during site preparation. Therefore, should any fossils be discovered during excavation or grading, all work shall cease and would not be permitted to resume until a qualified paleontologist is retained to review the find, and the paleontologist's recommendation for recordation and, if appropriate, preservation of the find have been implemented. The project will be conditioned to adhere to the General Plan EIR mitigation measures that require, in the event of a discovery of buried archeological or historic deposits, project activity in the vicinity to be halted until a qualified archeologist can assess the resources and provide management. Impacts to potential cultural resources are therefore considered to be 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) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located 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:

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

The project site is located in Roseville, which is in Placer County. The California Department of Mines and Geology classifies the South Placer area as a low severity earthquake zone. No active faults are known to exist within the County. The project site is considered to have low seismic risk with respect to faulting, ground shaking, seismically-related ground failure and liquefaction. Therefore, no impact would occur in association with rupture of a known earthquake fault or seismic related ground failure.

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 are not steep enough to present a hazard during development or upon completion of the project. During construction, measures will be incorporated to shore slopes and prevent potential earth movement. Therefore, impacts associated with landslides are considered less than significant.

Grading activities will result in the disruption, displacement, compaction and over-covering of soils associated with site preparation (grading and trenching for utilities). The project site has been disturbed by previous rough grading activities; therefore, there are no notable topographic features on the site. Grading activities for the project will be limited to the project site.

Grading activities require a grading permit from the City's Engineering Division. The grading permit will be reviewed for compliance with the City's Design and Construction 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 will be included in the project conditions. The property owner has submitted a grading plan as part of the requested entitlements which, as conditioned, is consistent with the City Design and Construction Standards. Therefore, impacts associated with disruption, displacement, compaction and over-covering of soils associated with site preparation are considered less than significant.

The project site is not located in a sensitive geologic area and does not expose people to potential geologic impacts. The geotechnical studies required by the City will ensure that soils are suitable to support development. Additionally, such impacts are considered to be less than significant since new buildings and structures are required to comply with all applicable building codes. The City of Roseville Building Division will review construction plans before a building permit is issued and the Engineering

Division will review and approve all grading plans to ensure that all grading and structures would withstand shrink-swell potentials and earthquake activity in this area.

No septic tanks are proposed as part of the project. Therefore, no impact to soils relative to supporting use of septic tanks would occur.

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[3], 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. 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[4] million metric tons, which would require a reduction of 15.3% from 2020 BAU.

[3] http://www3.epa.gov/climatechange/science/overview.html, Accessed January 2016

[4] Includes Pavely and Renewables Portfolio Standard reduction

The Placer County Air Pollution Control District (PCAPCD) recommends that thresholds of significance for GHG be related to AB 32 reduction goals, but has not adopted a threshold. However, the neighboring Air District, the Sacramento Metropolitan Air Quality Management District, has established thresholds which relate significance to AB 32. The City is located within the Sacramento Valley Air Basin, which is the same air basin where the SMAQMD methodology is used by numerous CEQA lead agencies; on these grounds, the City finds use of these thresholds to be appropriate. The thresholds were developed to ensure that 90 percent of new GHG emissions would be reviewed and assessed for mitigation. In accordance with these thresholds, if the project emits 1,100 or more metric tons of carbon dioxide equivalents (CO_2e) per year in either the construction phase or the operational phase, mitigation is required. Thus, a GHG impact is significant if a project generates 1,100 metric tons of CO_2e per year or more (during either construction or operation).

Discussion of Checklist Answers:

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 (CO2) and, to a lesser extent, other GHG pollutants, such as methane (CH4) and nitrous oxide (N2O) 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 CO2 equivalents (MTCO2*e*/yr.).

On October 13, 2016, the PCAPCD adopted GHG emissions thresholds in concert with the aforementioned criteria pollutant threshold update. The updated thresholds begin with a screening emission level of 1,100 MT CO2*e*/yr. Any project below the 1,100 MT CO2*e*/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 CO2*e*/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 4.

Table 4
PCAPCD Operational Thresholds of Significance

Efficiency Thresholds			
Residential (MT CO2*e*/capita)		**Non-Residential (MT**	
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 that fall below the 1,100 MT CO_2e/yr. threshold or meet the efficiency thresholds are considered to be in keeping with statewide GHG emissions reduction targets, which would ensure that the proposed project would not inhibit the State's achievement of GHG emissions reductions. Thus, projects which involve emissions below the 1,100 MT CO_2e/yr threshold or below the efficiency thresholds presented in Table 4, 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. The proposed project's maximum annual construction-related GHG emissions are presented in Table 5. The construction modeling assumptions are described in the Air Quality section above.

Table 5
Maximum Unmitigated Project Construction GHG Emissions

	Construction GHG Emissions	**Threshold of Significance**
Maximum Annual Construction-related GHG Emissions	941.51	1,100

Source: CalEEMod, September 2016.

As shown in the table, 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

The modeling assumptions for operational GHG emissions are discussed in the Air Quality section of this report. The proposed project's estimated GHG emissions at full buildout (2021) are presented in Table 6.

Table 6
Unmitigated Project Operational GHG Emissions

Emission Source	**Annual GHG Emissions**
Area	0.02
Energy	1,035.93
Mobile	2,163.03
Solid Waste	118.46
Water	164.53
TOTAL ANNUAL GHG EMISSIONS	**3,481.98**

Source: CalEEMod, September 2016..

As shown in the table, the proposed project would result in operational GHG emissions in excess of the 1,100 MT CO_2e/yr threshold. Accordingly, the project must be further reviewed under the efficiency thresholds presented in Table 4. The efficiency thresholds rely on GHG emissions in $MTCO_2e$ per 1,000 square feet to determine significance for non-residential projects. As such, the proposed project's estimated annual operational emissions of 3,481.98 $MTCO_2e$ must be divided by the proposed office space area. The proposed project would include 280,000 sf. Thus, the proposed project would result in an efficiency rate of 12.44 $MTCO_2$ per 1,000 sf. Table 7 compares the proposed project's efficiency rate to the applicable efficiency threshold.

Table 7
Unmitigated Project Operational GHG Emissions (MT CO2e/1,000 sf)

PCAPCD Urban Non-Residential Efficiency	Project Emissions
26.5	12.44

Source: CalEEMod, September 2016.

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

As shown in the table, the proposed project would result in operational GHG emissions below the applicable PCAPCD efficiency thresholds. Because the project's unmitigated annual GHG emissions would be below the applicable PCAPCD efficiency threshold, the proposed project would be considered to result in a ***less-than-significant*** impact related to GHG emissions and global climate change.

VIII. Hazards and Hazardous Materials

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	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous				X

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

The City's Mitigating Policies and Standards that have been adopted as they relate to hazards and hazardous materials (i.e. Hazardous Materials Management Program (HMMP), Site-specific Business Plan with the City's Fire Department, Risk Management and Prevention Program (RMPP)) will substantially mitigate any potential impacts.

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. 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. The project is not located within one-quarter mile of an existing or proposed school. The potential does exist for office uses to store and/or use toxic/flammable materials (i.e. solvents for cleaning and maintenance, etc.). The California Health and Safety Code, and local City Ordinances regulate the handling, storage and transportation of hazardous and toxic materials. The California Health and Safety Codes require a Risk Management and Prevention Program (RMPP) for those uses that handle specified quantities of toxic and/or hazardous materials. Also, businesses which handle toxic or hazardous materials are required to complete a Hazardous Materials Management Program (HMMP). Furthermore, all business owners must file a site-specific business plan with the City's Fire Department before a new building is occupied. All plans would specify what to do in the event of an accident, and which transportation routes would be used. Because the office uses that are proposed would be required to comply with these codes, ordinances and programs, staff has determined that the impact to the environment will be less than significant.

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[5]; therefore, no impact will occur.

e-f) The project site is not located near or within an airport land use plan or private airstrip.

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. Therefore, the project will cause a less than significant impact to the City's Emergency Response or Management Plans. Furthermore, the

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

project will be required to comply with all local, State and federal requirements for the handling of hazardous materials. 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, on a fully-develop commercial property, 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	
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,			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				
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	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

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 2013 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 2013 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 furthermore 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

Table 1 above depicts the zoning and General Plan Land Use designations for the project site as well as adjacent and nearby properties. The project site has a zoning designation of Planned Development 178 – Research and Development (PD-178) and a General Plan Land Use Designation of Community Commercial (CC) 35.9 & 11.9. The proposed office use is permitted within these zoning and land use designations.

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
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, Design and Construction Standards is now 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 proposed project will not physically divide an established community and therefore there is no impact.

b) The Stone Point property was zoned and granted land use with the adoption of the Northeast Roseville Specific Plan (April 8, 1987) to accommodate commercial development. The property was zoned Planned Development for Research and Development (PD 178) with a General Plan land use designation of Business Professional/Light Industrial (BP/LI) and a Specific Plan land use designation of BP/LI. The Stone Point Master Plan provides a detailed description of the uses permitted within the PD 178 zoning district for the entire Stone Point Campus.

In 2005, a portion of the property was rezoned to allow for 575 residential units on Lots 8 & 9 and 11-14 and a park located on Lot 10. In 2008, a Rezone/General Plan Amendment/Specific Plan Amendment were approved to change the zoning designation for the subject property to PD 178, with a land use designation of Community Commercial (CC) which allows for office, lodging, and indoor recreation. The current request to locate a corporate headquarters office building on the property is consistent with the zoning and land use designations for the site.

The proposed zoning and land uses as described above are existing designations in either the Stone Point Master Plan and/or the City's Zoning Ordinance and the General Plan. The architecture and landscaping for the office project will comply with the guidelines established in the Stone Point Master Plan. This will be accounted for through the Major Project Permit (Stage 2) entitlement process. Staff has evaluated the project and has found that it complies with the guidelines of the Stone Point Master Plan.

Regarding land use compatibility, Table II-9 of the General Plan indicates that the CC land uses are "Conditionally Compatible" with the MDR residential land uses. The General Plan recognizes that the adjacency of office and residential land uses may be appropriate if potential conflicts are avoided through specific project review. The Stone Point Master Plan includes design guidelines that specifically address the interface between the project's office and residential uses. These guidelines address setbacks, landscape corridors, automobile and pedestrian circulation, office building materials relative to reflectivity, and siting of loading/trash facilities. The proposed project includes amenities such as pedestrian paths, exercise stations, etc., that are for community use, including the nearby residences. The project is compatible with the applicable design guidelines. As such there is no impact to adopted land use plans or policies.

c) There are no Habitat Conservation Plans or Natural Community Conservation Plans covering the project site.

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

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 California Department of Geology survey lists the project site as being located within the MRZ-1 zone, indicating that significant mineral resources are not likely to be located in this area. Because the project

site is not known to include any mineral resources that would be of local, regional, or statewide importance, the project is not considered to have any impacts on mineral resources.

XII. Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise 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:

Short Term: Construction activities on the site could expose nearby residents (Taylor Morrison Subdivision) to increased noise levels, including ground-born vibrations. These impacts are temporary in nature (being associated with construction of the facility) and are not anticipated to result in any unusual or excessive ground-born vibration or noise levels. In addition, construction hours are limited by the City's Municipal Code Section 9.24 to daytime hours (7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 8:00 p.m., Saturday, Sunday and Holidays.) These potential impacts are therefore considered less than significant.

Long Term – Site Specific: The principally permitted use on the site, which will be an office use, typically generates low to moderate noise levels through the use of mechanical equipment such as roof top air conditioning units. The site is adjacent to other office buildings, and bound on the south and west sides by arterial roadways, and bound on the north by a collector roadway. Consistent with the City's Community Design Guidelines the mechanical equipment will be required to be screened. It is anticipated that long-term noise impacts will be minimal and well within the limits established by the City's Municipal Code Section 9.24.

The proposed project site is not located within an airport land use plan area nor is it located within two miles of an airport. No housing is proposed as part of the project. No impact would occur relative to exposing people to excessive airport related noise levels.

Because the project would comply with the provisions of the City's General Plan and Noise Ordinance, impacts related to noise are considered less than significant.

XIII. Population and Housing

The project site is located within the Northeast Roseville Specific Plan and has a land use designation of Community Commercial. 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 and Stone Point Master Plan likewise include 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, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

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 is consistent with the land use designation of the site. Therefore, while the project in question will induce some level of growth, this growth was already identified and its effects disclosed and mitigated within the Northeast Roseville Specific Plan and General Plan EIRs. Therefore, the impact of the project is less than significant.

b, c) The project site is undeveloped. No housing exists on the project site, and 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 City 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 EIR for the Specific Plan addressed the level of public services which would need to be provided in order to serve planned growth in the community. Development Agreements and other conditions have been adopted in all proposed growth areas of the City which identify the physical facilities needed to serve growth, and the funding needed to provide for the construction and operation of those

facilities and services; the project is consistent with the Specific Plan. 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) Pursuant to the Development Agreement for the project area, the developer is required to pay fees into a Community Facilities District, which provides funding for police services. Sales taxes and property taxes resulting from the development will add revenue to the General Fund, which also 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) Pursuant to the Development Agreement for the project area, 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) Pursuant to the Development Agreement for the project area, the developer will be required to pay fees into a Community Facilities District, which provides funding for the library system and other such facilities and services. In addition, 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

John G. Piches Park, a two-acre park site is located approximately 320 feet northeast of the eastern boundary of the project site. Additionally, the Miner's Ravine Bike Trail and open space is located in the area north of the park and the Taylor Morrison residential subdivision north of Stone Point Drive. The bike trail is accessible for pedestrians or bicycles via a pedestrian/bike path that connects the bike trail with the park and Stone Point Drive. In addition, the site plan indicates walking and exercise stations will be added as a part of 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			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
facilities such that physical deterioration of the facility would occur or be accelerated?				
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 EIR for the Specific Plan addressed the level of park services—including new construction, maintenance, and operations—which would need to be provided in order to serve planned growth in the community. Given that the project is consistent with the General Plan and Specific Plan, the project would not cause any unforeseen or new impacts related to the use of existing or proposed parks and recreational facilities. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

b) Park sites and other recreational facilities were identified within the Specific Plan, and the plan-level impacts of developing those facilities were addressed within the Final EIR for the Specific Plan. The project will not cause any unforeseen or new impacts related to the construction or expansion of recreational facilities.

XVI. Transportation/Traffic

The project site is bounded by arterial roadways on the south (Eureka Road) and west (North Sunrise Avenue). Stone Point Drive, a collector roadway, borders the project site to the north. The Stone Point Master Plan includes development and design standards for development to ensure that the various uses within the plan area would be designed in a way to promote a well-designed, walkable, interconnected community as it relates to the residential and commercial components.

The areas currently developed within Stone Point include interconnecting roadways, drive aisles, and pedestrian and bicycle pathways that interconnect commercial development, as well as provide access to the Miner's Ravine bike trail and bicycle pathways along surrounding streets. The proposed project includes additional bicycle and pedestrian pathways to interconnect with existing facilities, as well as additional internal roadways and drive aisles.

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	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?				X
d) Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Result in inadequate parking capacity?			X	
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			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 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.

Setting:

The City's General Plan established the land use for the project site. With the General Plan EIR, a traffic model was prepared that took into account the anticipated land use within the City. The traffic model is continuously updated as parcels are developed and or land uses are modified. The City's Development Services Engineering Division maintains the traffic model. Based on the traffic model, a City wide Capital Improvement Projects (CIP) program was prepared to identify roadway improvements necessary to ensure an adequate transportation system is in place. A comprehensive CIP update was completed with annexation of the Sierra Vista Specific Plan. An EIR was adopted with the CIP in 2007, with amendments completed as part of Specific Plan approvals, including West Roseville, Sierra Vista, and Amoroso Ranch Specific Plans. Funding for the recommended CIP improvements has already been accounted for through grants and/or traffic mitigation fees.

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 consistent with the adopted land use designations examined within the environmental documents listed above.

The General Plan, as modified in recent years, contains policies for roadway standards and establishes thresholds for determining significant impacts to the City's circulation system, as follows:

- The proposed project would result in less than 70 percent of the total existing and planned signalized intersections to operate at Level of Service (LOS) C or better conditions (based on build out of currently entitled land within the City and 2020 market rate development outside of the City).
- The proposed project would cause a signalized intersection or roadway segment previously identified in the Capital Improvement Projects (CIP) as functioning at LOS C or better under cumulative conditions to function at LOS D or worse.
- The proposed project would cause a signalized intersection or roadway segment previously identified in the CIP as functioning at LOS D or E under cumulative conditions to degrade by one or more LOS categories (i.e. from LOS D to LOS E).

"Levels of service" describe roadway-operating conditions. Level of service is a qualitative measure of the effect of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs. Levels of service are designated "A" through

"F" from best to worst, which cover the entire range of traffic operations that might occur. Level of service (LOS) A through E generally represent traffic volumes at less than roadway capacity, while LOS F represents over capacity and/or forced conditions. It is standard City practice to evaluate the traffic model when a development project is proposed and ensure that the project is consistent with General Plan policies. The current traffic model reflects the approval of the Amoroso Ranch Specific Plan.

The City's Engineering Division requested that the project prepare a short term traffic study that would focus on access to the project site. Fehr & Peers prepared this study on September 16, 2016 (see Attachment 5).

The study analyzed vehicular circulation associated with the development of the proposed Adventist Health Office Project on Stone Point Parcels 6, 7, 8 & 9. The Major Project Permit application under review includes only Phase 1 of the project.

The study does not include analyses of project impacts to surrounding intersections because the project land uses are consistent with the assumptions in the City's 2035 Capital Improvement Program (CIP) travel demand model and a 2007 study analyzed its project-specific traffic impacts. Accordingly, the impacts associated with development of the site have been previously evaluated, and the City's list of CIP projects considers the traffic generated by the project.

Discussion of Checklist Answers:

a-b) The City has established a criteria threshold that requires a long-term traffic study should the proposed project generate 50 or more p.m. peak hour trips above what has been anticipated in the City's travel demand model. The project is consistent with the traffic generation assumptions anticipated in the City's Traffic Model. Therefore, the City's Traffic Engineering Division did not require a long term traffic study for the project.

However, a site access study was completed by Fehr & Peers as discussed above. This study was completed to determine the roadway improvements that would be necessary to maintain the City's existing level of service and to address public safety concerns. Based on the evaluation, several improvements have been identified to be constructed by the project, as follows.

1. Construct a 200-foot southbound left-turn lane on North Sunrise Avenue at Driveway 1.
2. Extend the acceleration lane on northbound North Sunrise Avenue departing Eureka Road to Driveway 1.
3. Restripe northbound North Sunrise Avenue north of Eureka Road to eliminate the inside (#1) lane as a receiving lane.
4. Repaint the eastbound left-turn lane markings within the intersection to align with the two remaining lanes.
5. Lengthen the eastbound dual left-turn lanes on Eureka Road at the North Sunrise Avenue/Eureka Road intersection from 225 to 325 feet.

These improvements are included as part of the project description and reflected on the project plans. Given the fact that the project is consistent with the City's Traffic Model and the results of the site access study will be implemented by the project, impacts to traffic and level of service has been determined to be less than significant.

c) No airports are located in proximity to the project site. The project will not result in a change to air traffic patterns. No impact would occur.

d) The design of on-site circulation is reviewed as part of the MPP application. The City has adopted standards for roadway design, parking lot designs, and vehicular queuing. The Engineering Division and the Fehr & Peers

traffic study evaluated the project design to ensure City standards were met and no hazardous conditions were present. Any modifications required from their review were either already incorporated into the project design or will be incorporated into the conditions of approval. Therefore, the impact is less than significant.

e) The City's Fire Department reviewed the project and determined that the design will provide adequate emergency access and meets their design criteria and code requirements. With adherence to the City of Roseville Design and Construction Standards (January 2010), the project will have a less than significant impact to emergency access.

f) The parking ratio for the project is based upon the Zoning Ordinance off-street parking requirement for Professional Office uses which is one parking space per 250 sq. ft. of net building area. In addition, the Stone Point Campus contains reciprocal parking agreements for shared parking on several lots within the Stone Point Campus. If overflow parking were required the project could rely on the overflow parking on adjacent projects. Parking impacts will be less than significant.

g) The Alternative Transportation Division has also reviewed the project to ensure that it will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The project is conditioned to provide a Transportation Systems Management (TSM) plan. The intent is to reduce vehicle trips and reduce peak hour traffic generated from the project. The installation of sidewalks and continuation of bicycle lanes will encourage alternative transportation methods, which have the potential to further reduce the amount of vehicle trips generated from the project. The applicant must show alternative commute options are encouraged as part of the TSM plan. The City's Alternative Transportation Division will review and approve the plan prior to building permit approval of the project.

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 Northeast Roseville Specific Plan EIR included historic and cultural resources studies, which included research on whether any listed or eligible sites had been documented in the project area. No such sites were found. Since the adoption of the Northeast Roseville Specific Plan there has been no additional information to suggest greater impacts than anticipated by the EIR. 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 Northeast Roseville Specific Plan EIR; therefore, 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. As discussed in item a, above, no resources are known to occur in the area. However, standard mitigation measures are contained in the City's adopted Design and Construction Standards, which are designed to reduce impacts to 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 Northeast Roseville Specific Plan EIR; therefore, project-specific impacts are less than significant.

XVIII. Utilities and Service Systems

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	
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?			X	
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 7.0[6] mgd OR 8.9 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) The project is consistent with the Specific Plan, and will be required to construct any lines necessary to serve the project, as well as pay fees which fund the operation of the facilities and the construction of major infrastructure. The construction impacts related to building the major infrastructure were disclosed in the EIR for the Specific Plan, and appropriate mitigation was adopted. 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. 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 project is consistent with existing land use designations, and is therefore consistent with the assumptions of the UWMP and AR WSA. 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 project, which is consistent with existing land use designations, would not require new or expanded water supply entitlements.

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 of City buildout 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

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

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	Potentially Significant Unless Mitigated	Less Than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?			X	
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:

As shown in the checklist prepared as part of this Initial Study, City staff has not identified any impacts that are peculiar to the parcel that cannot be mitigated to less than significant levels, whether offsite or cumulative in nature, which were not discussed in the General Plan EIR or for which the impacts are greater than anticipated in the EIR. This determination is based on a review of the project and General Plan EIR. City staff has determined through review of these documents and the subsequent development conducted there under that the mitigation measures contained within these documents have been undertaken. Specifically, City staff has determined that the Stone Point Lots 8 & 9 project is compliant with the mitigation measures identified in the Initial Study and General Plan EIR.

On the basis of this initial evaluation:

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

Initial Study Prepared by:

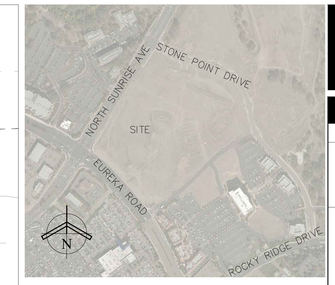
Ron Miller, Associate Planner

City of Roseville, Planning Division

Attachments

1. Site Plan
2. Building Elevations
3. Photometric Plan
4. Air Quality Study
5. Traffic Study

EUREKA TURN LANE EXTENTION



VICINITY MAP – NTS

LAYOUT LEGEND:

1. 1'-6" CONCRETE CURB & GUTTER
2. LIGHT DUTY ASPHALT
3. HEAVY DUTY ASPHALT
4. HEAVY DUTY CONCRETE
5. CONCRETE SIDEWALK
6. ACCESSIBLE PARKING
7. ACCESSIBLE PARKING SIGNAGE
8. CONCRETE STEPS & ALUMINUM HANDRAIL
9. 4" WIDE WHITE PARKING STRIPE
10. PAINTED ACCESSIBLE CROSSWALK
11. WHEELSTOPS
12. CRUSHED STONE WALKWAY (3" DEPTH)
13. PARKING LIGHT POLES – SEE ELECTRICAL DRAWING
14. PEDESTRIAN LIGHT POLES – SEE ELECTRICAL DRAWING
15. LIGHT BOLLARD – SEE ELECTRICAL DRAWING
16. 4'x9' TREE PLANTING AREA
17. "SANDSTONE" STONE PAVERS
18. RETAINING WALL
19. INTEGRAL COLORED HEAVY-DUTY CONCRETE
20. 6' TALL, ALUMINUM GATE
21. MONUMENTAL SIGN WALL, (TO MATCH EXISTING SIGN WALL)
22. CONCRETE FITNESS TRAIL/ SIDEWALK (WITH 6 FITNESS STATIONS)
23. DIAL-A-RIDE (SEATING LOCATED IN LOBBY, PICK-UP AT DROP-OFF)
24. STANDARD A-7 DRIVEWAY
25. BUS SHELTER
26. BIKE LOCKERS (LONG TERM)
27. PARK-N-RIDE LOT (25 SPACES)
28. DECELERATION LANE (NORTH SUNRISE AVE)
29. ORGANIC WASTE, TRASH BIN, & RECYCLING BIN
30. GREASE TRAP INTERCEPTOR
31. FLAG POLES
32. BUILDING ENTRANCE
33. BIKE RACK (SHORT-TERM)
34. VANPOOL/ FUEL EFFICIENT/ ELECTRIC VEHICLE SPACES

LAYOUT NOTES:

A. ALL TRAFFIC CONTROL SIGNAGE, AND STRIPING TO CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND CALIFORNIA SUPPLEMENT.

B. THE UTILITIES AND THE LOCATION THEREOF, SHOWN ON THE DRAWINGS, REPRESENT THE DESIGNERS UNDERSTANDING OF EXISTING UTILITIES IN THE CONSTRUCTION AREA. CONTRACTOR SHALL FIELD VERIFY THE LOCATION, DEPTH AND EXISTENCE OF ALL UTILITIES (ELECTRICAL, MECHANICAL, WATER, TELEPHONE, GAS ETC.) WITHIN THE CONSTRUCTION AREA WITH THE OWNER AND/OR THE APPROPRIATE UTILITY COMPANY PRIOR TO ANY EXCAVATION. THE OMISSION OF OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF NOR A DEFINITE LOCATION OF A UTILITY. UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. CONTACT USA NORTH (811) PRIOR TO DIGGING.

C. ALL CUTS TO EXISTING PAVING MATERIALS SHALL BE SAW CUTS. EXISTING ELEVATIONS SHALL BE FIELD VERIFIED AND MATCHED.

D. CONTRACTOR TO COORDINATE ANY CHANGES IN FIELD CONDITIONS THAT MAY REVISE THE DESIGN WITH ARCHITECT/ ENGINEER PRIOR TO PROCEEDING.

E. ANY UNSUITABLE MATERIAL ON SITE IS TO BE QUANTIFIED BY A GEOTECHNICAL ENGINEER, PRIOR TO REMOVING. CONTRACTOR MUST NOTIFY OWNER, OR OWNER'S REPRESENTATIVE IN CASE UNSUITABLE MATERIAL IS UNCOVERED.

F. NEW CONCRETE SIDEWALKS SHALL BE 4" THICK, 3000 PSI PORTLAND CEMENT CONCRETE OVER COMPACTED SUBGRADE WITH 1" DEEP (1/8" RADII) GROOVE JOINTS (C.J.) AND 1/2" EXPANSION JOINTS AT INTERVALS INDICATED ON THE PLAN AND ABUTTING ALL RIGID STRUCTURES. IN NO CASES SHALL EXP. JT. SPACING EXCEED 30'-0" O.C.

G. FITNESS TRAIL CONCRETE SIDEWALKS SHALL BE 6" THICK PORTLAND CEMENT CONCRETE AS PER THE DESIGN AND CONSTRUCTION STANDARDS OF THE CITY OF ROSEVILLE.

H. ALL DIMENSIONS ARE TO FACE OF CURB OR TO FINISHED FACE OF BUILDING UNLESS NOTED OTHERWISE.

I. ALL RADII ON CURBS SHALL BE 4'-0" UNLESS NOTED OTHERWISE.

J. ALL ACCESSIBLE PARKING SPACES SHALL DISPLAY APPROVED RESERVED PARKING SPACES SIGNS AS PRESCRIBED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

K. ALL WORK WITHIN THE RIGHT OF WAY OF ALL ROADS AND HIGHWAYS SHALL BE PER THE DESIGN AND CONSTRUCTION STANDARDS OF THE CITY OF ROSEVILLE. CONTRACTOR SHALL SECURE ALL NECESSARY DRIVEWAY AND ENCROACHMENT PERMITS PRIOR TO CONSTRUCTION AND PROVIDE TRAFFIC CONTROL, IF NECESSARY, WITHIN THE RIGHT OF WAY DURING CONSTRUCTION.

L. ACCESSIBLE SPACES AND CROSSWALKS SHALL BE SIGNED, MARKED AND MAINTAINED.

SITE DATA TABULATION

• DEVELOPER:	ADVENTIST HEALTH
• NAME OF DEVELOPMENT:	ADVENTIST HEALTH WEST
• PROPERTY OWNER:	ADVENTIST HEALTH
• PROJECT ADDRESS:	1400 STONE POINT DRIVE, ROSEVILLE, CA
• APPROXIMATE ACREAGE:	1,160,133 SF / 26.6 AC
• ZONING:	PD178 – PLANNED DEVELOPMENT
• LAND USE:	BP– BUSINESS PROFESSIONAL
• PIN NUMBER/TAX PARCEL NUMBER:	LOT 6 – 048–460–052–000 LOT 7 – 048–460–041–000 LOT 8 – 048–460–043–000 LOT 9 – 048–460–042–000
• PROPOSED USE	OFFICE
• PROPOSED BUILDING AREA:	275,000 SF, TOTAL BUILD–OUT
• BUILDING LOT COVERAGE:	
• NUMBER OF STORIES:	5 STORIES MAX.
• NUMBER OF BUILDINGS:	1
• BUILDING HEIGHT:	83–91 FEET
• OFF–STREET PARKING REQUIREMENT:	1 SPACE/250 NET LEASABLE S.F.
• BUILDING SETBACK ADJACENT TO RESIDENTIAL:	30 FEET
• LANDSCAPE SETBACK (EUREKA RD & SUNRISE AVE.)	35 FEET
• LANDSCAPE SETBACK (STONE POINT DR.)	20 FEET
• EXISTING OVERHEAD ELECTRICAL EASEMENT:	450 FEET
• EXISTING PUBLIC UTILITY EASEMENT: (EUREKA RD.)	VARIABLE

SITE INFORMATION

1. SITE AREA: 26.6 AC
2. IMPERVIOUS AREA EXISTING: 0.0 AC (0%)
3. IMPERVIOUS AREA PROPOSED: 12.7 AC (48%)
4. PERVIOUS AREA REMAINING: 13.9 AC (52%)
5. FAR: 275,000 SF OF BUILDING – 26.6 ACRES
   275,000/(26.6*43,560)=23.7%
6. BUILDING HEIGHT TO TOP OF SCREEN WALL: 91 FT.

ON-SITE PEDESTRIAN/VEHICULAR CIRCULATION PLAN

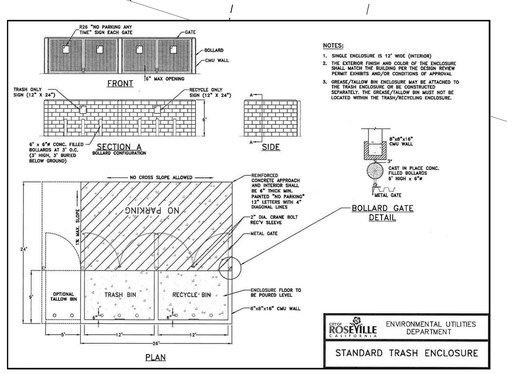
	REQUIRED	PROVIDED
1. PARKING SPACES:	990	1010
1.1. STANDARD SPACES		758
1.2. COMPACT SPACES		127
1.3. MOTORCYCLE SPACES		24
1.4. ADA SPACES	21	21
1.5. VANPOOL/ FUEL EFFICIENT (FEV)	50	50
1.6. ELECTRIC VEHICLE (EV)	30	30
2. BIKE (LONG TERM)	50	50
3. BIKE (SHORT TERM)	0	4
4. PARK–N–RIDE (P&R)	25	25
4.1. STANDARD SPACES		24
4.2. ADA SPACES		1
5. LOADING/DROPOFF AREA:		1
6. TRANSIT FACILITIES (BUS STOP):		1
7. OFF–SITE TRAFFIC CONTROL DEVICES/IMPROVEMENTS		

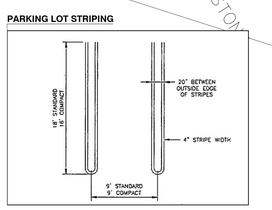
SITE FURNISHINGS LIST

1. COLUMN TABLE (FORMS+SURFACES)
2. APEX BENCH (FORMS+SURFACES)
3. AVICO CHAIR (FORMS+SURFACES)
4. PARC CENTRE CHAIR (LANDSCAPE FORMS)
5. BIKE LOCKER (DERO)
6. BIKE RACK (FORMS+SURFACES)

FITNESS COURSE STATIONS

1. DECLINE BENCH (KOMPAN)
2. PUSH UP BAR (KOMPAN)
3. FITNESS BENCH (KOMPAN)
4. INCLINE PRESS (KOMPAN)
5. DIP BENCH (KOMPAN)
6. STEPS – 3 (KOMPAN)





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SCALE: 1" = 40'-0"

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www.littleonline.com

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10/07/16

REVISIONS

NO.	REVISION	DATE
	PER MPP STAGE 2 CITY COMMENTS	12.07.16

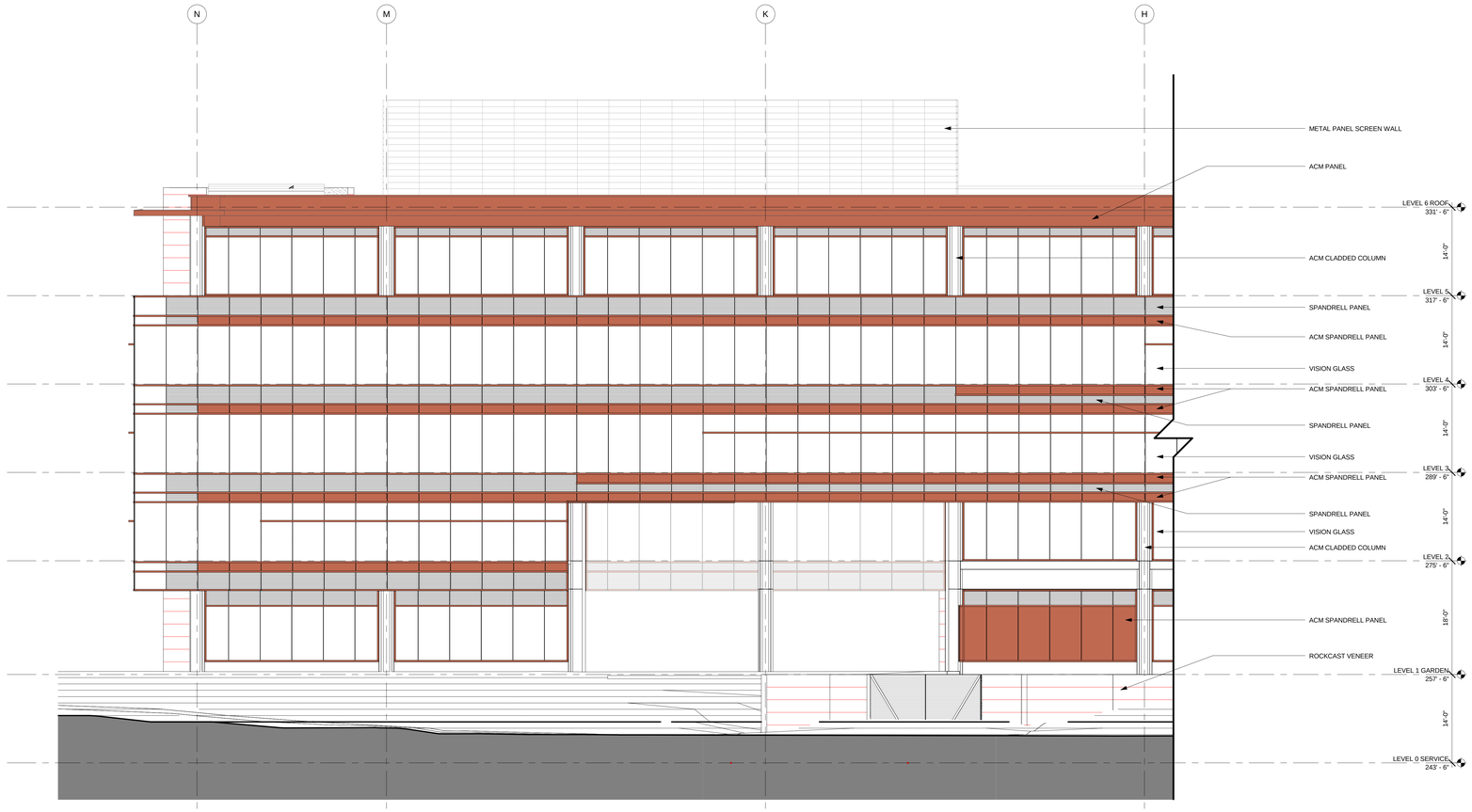
PROJECT TEAM
PRINCIPAL IN CHARGE
David Powlen, RLA
PROJECT MANAGER
Kenneth Bark, RLA
DESIGN TEAM
Casey Cline, Kristen Spears

PROJECT NAME
ADVENTIST HEALTH WEST
1400 Stone Point Drive
Roseville, California 95661

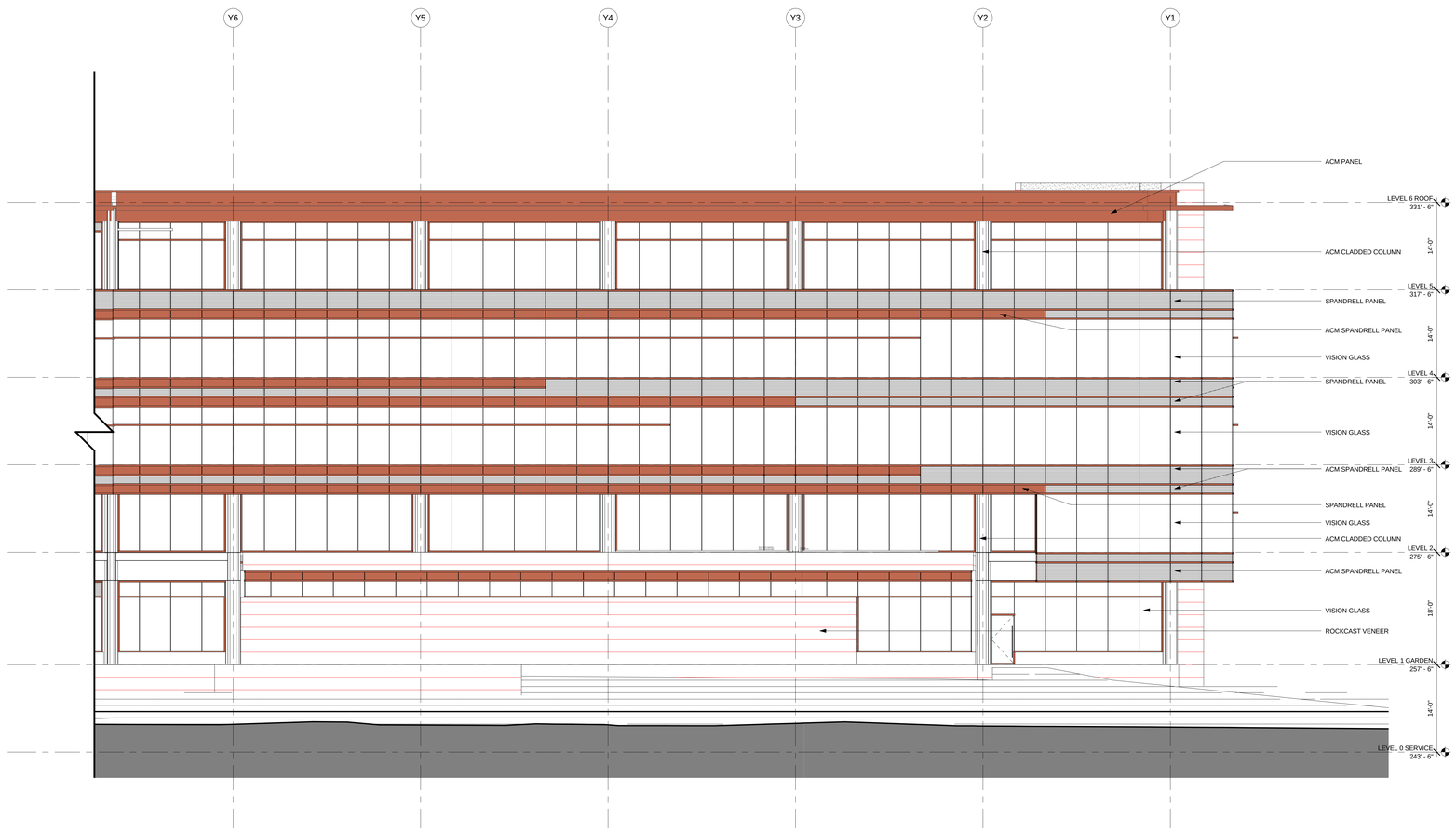
PROJECT NUMBER
132.4960.00

SHEET TITLE
SITE PLAN

SHEET NUMBER
C100



1 A221 North Elevation A
1/8" = 1'-0"



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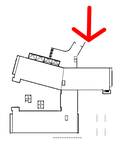

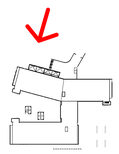

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T: 704.525.6350 F: 704.561.8700
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PRINCIPAL IN CHARGE
David Powlen, RLA
PROJECT MANAGER
Kenneth Bark, RLA
PROJECT DESIGNER
Casey Cline

PROJECT NAME
NEW CAMPUS

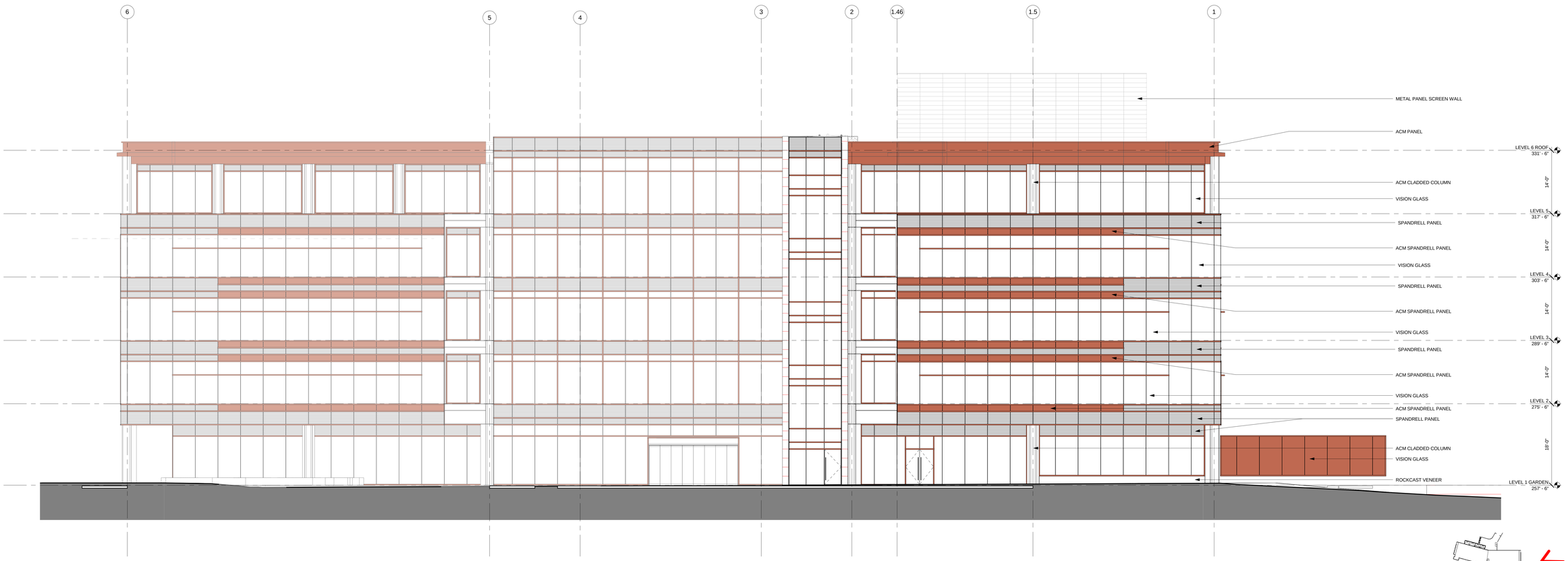
Stone Point Drive & North Sunrise Avenue
Roseville, California
95661

PROJECT NO.
132.4960.00

SHEET TITLE
OVERALL ELEVATIONS

SHEET NUMBER
A221

1 A222 East Elevation
1/8" = 1'-0"



2 A222 West Elevation
1/8" = 1'-0"

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T: 704.525.6350 F: 704.561.8700
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David Powlen, RLA
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Kenneth Bark, RLA
PROJECT DESIGNER
Casey Cline

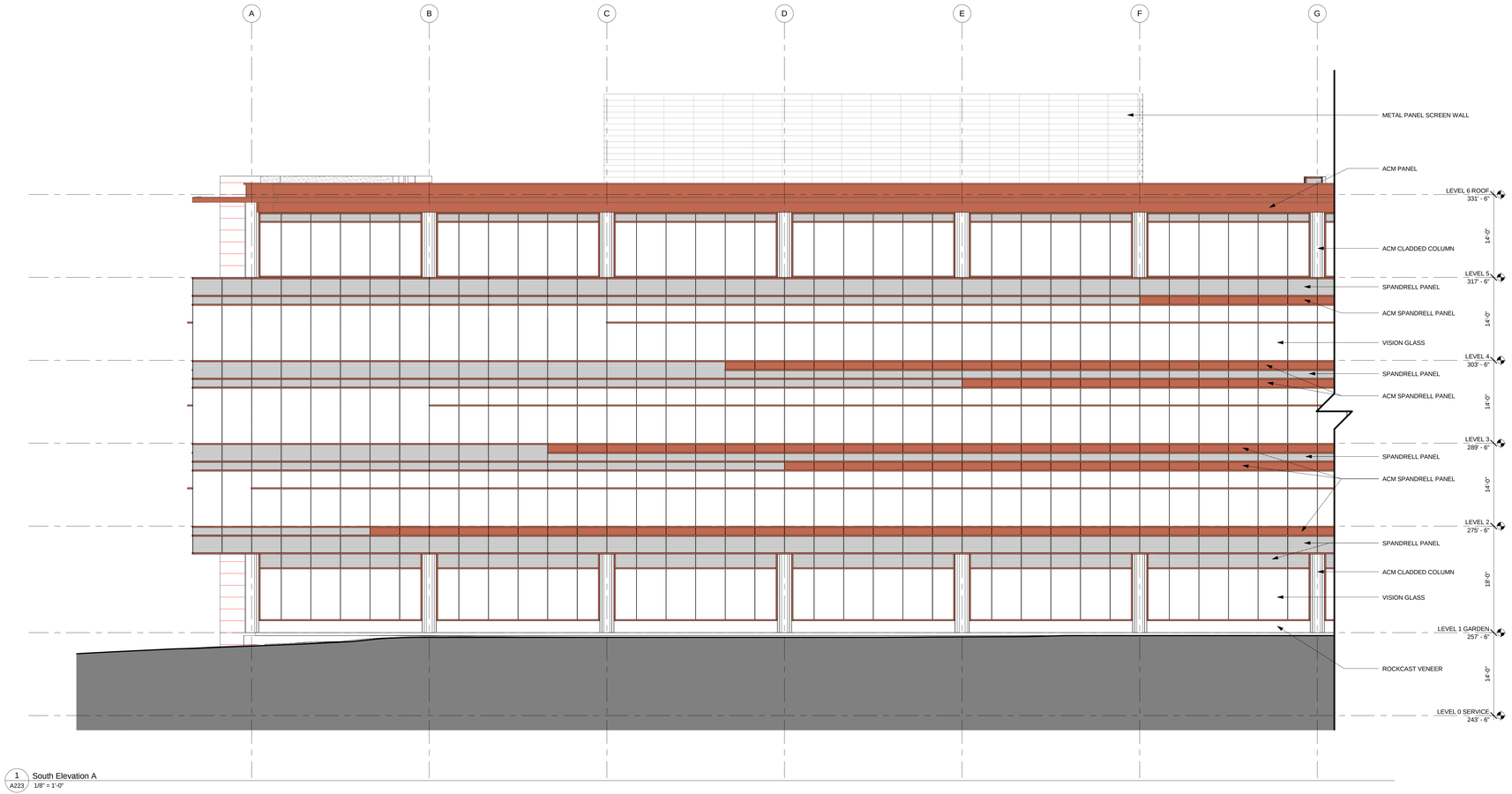
PROJECT NAME
NEW CAMPUS

Stone Point Drive & North Sunrise Avenue
Roseville, California
95661

PROJECT NO.
132.4960.00

SHEET TITLE
OVERALL ELEVATIONS

SHEET NUMBER
A222



1 A223 South Elevation A
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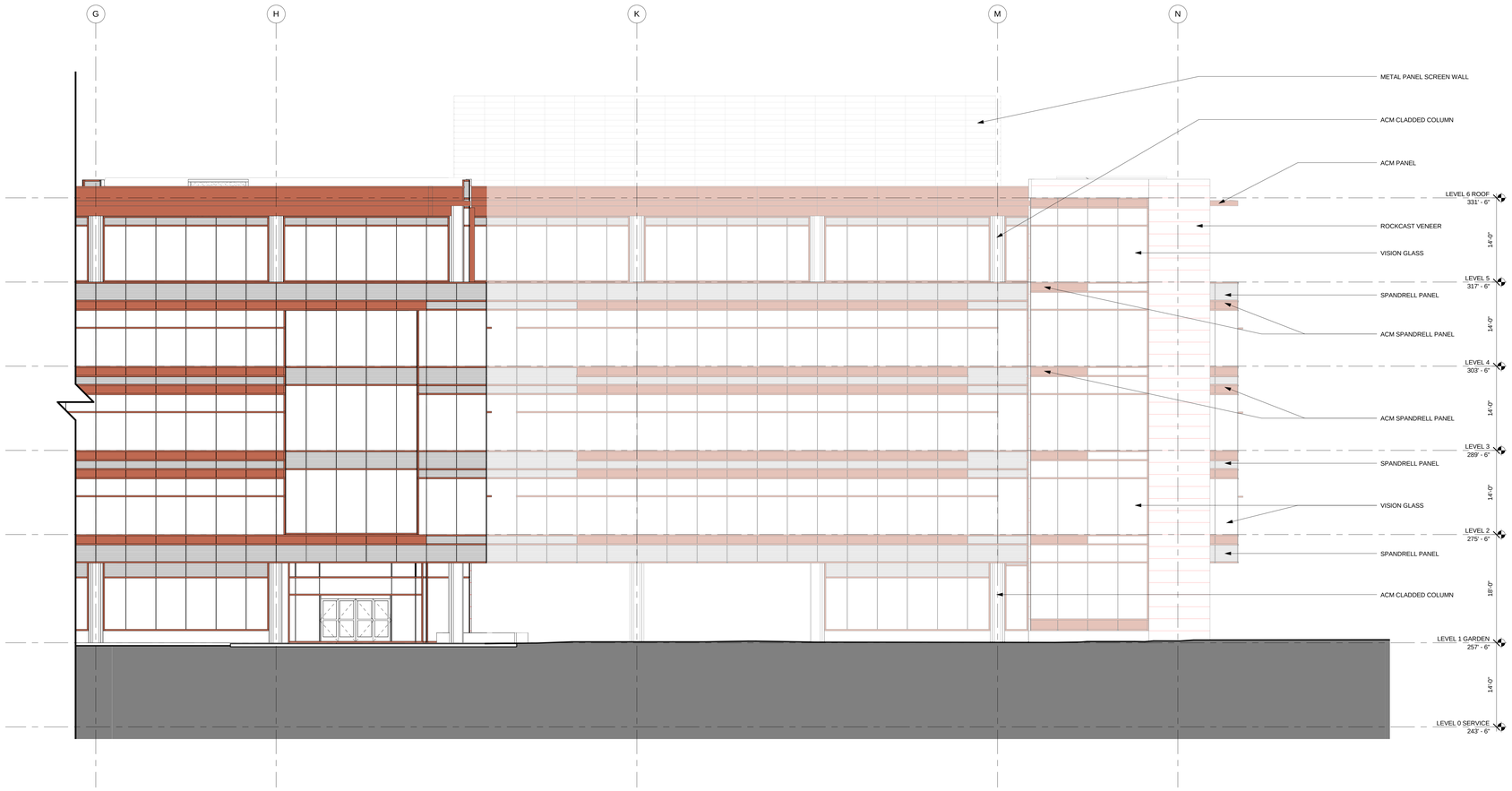

2 A223 South Elevation B
1/8" = 1'-0"

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5815 Westpark Drive Charlotte, NC 28217
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Casey Cline

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NEW CAMPUS

Stone Point Drive & North Sunrise Avenue
Roseville, California
95661

PROJECT NO.
132.4960.00

SHEET TITLE
OVERALL ELEVATIONS

SHEET NUMBER
A223

Calculation Summary				
Label	Avg	Max	Min	Avg/Min
Parking - South Entrance	8.21	25.0	0.9	9.12
Parking_East	5.05	10.7	0.9	5.61
Parking_South	10.05	26.6	0.3	33.50
Parking South East	5.12	11.7	0.6	8.53
Parking_West	9.58	30.4	0.3	31.93
Roadway - Main Drive	6.20	35.3	0.3	20.67
Walkway - South	2.50	6.3	0.3	8.33
Walkway - West	3.10	7.6	0.5	6.20
Walkway - West_1	2.99	6.6	0.6	4.98
Walkway_East	2.78	7.0	0.6	4.63
Walkways - Plaza	3.40	54.4	0.4	8.50
Walkways - South West	2.79	17.3	0.3	9.30

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MODEL	LAMP INFORMATION TYPE	APPARANT LOAD	MOUNTING	COMMENTS
S1a	SINGLE HEAD LED AREA LIGHT TYPE 4	GARDCO	P32-A1-1-4-260LA-NW-UNV-NP	LED	256.6 VA	POLE	MOUNTED AT 15'
S1b	SINGLE HEAD LED AREA LIGHT TYPE 3	GARDCO	P32-A1-1-3-215LA-NW-UNV-NP	LED	207.8 VA	POLE	MOUNTED AT 25'
S1c	DUAL HEAD LED AREA LIGHT TYPE 4	GARDCO	P32-A1-2-4-260LA-NW-UNV-NP	LED	513.2 VA	POLE	MOUNTED AT 15'
S1d	DUAL HEAD LED AREA LIGHT TYPE 3	GARDCO	P32-A1-2-3-215LA-NW-UNV-NP	LED	415.6 VA	POLE	MOUNTED AT 25'
S1e	SINGLE HEAD LED AREA LIGHT TYPE 2	GARDCO	P32-A1-1-2-290LA-NW-UNV-NP	LED	286.6 VA	POLE	MOUNTED AT 25'
S2	SITE LIGHTING - BOLLARD	LIGMAN	VANCOUVER UVA-10001-W30-120-277V-01	LED	21 VA	GROUND	
S3	SITE LIGHTING - PEDESTRIAN	LANDSCAPE FORMS	AG-500L3-046F-40K-UV1-12-NTW	LED	-	GROUND	

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SCALE: 1" = 40'-0" (0, 20, 40, 80)

N

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DIVERSIFIED ARCHITECTURAL CONSULTING
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PRINCIPAL IN CHARGE
David Powlen, RLA
PROJECT MANAGER
Kenneth Bark, RLA
DESIGN TEAM
Casey Cline, Kristen Spears

PROJECT NAME
ADVENTIST HEALTH WEST
1400 Stone Point Drive
Roseville, California 95661

PROJECT NUMBER
132.4960.00

SHEET TITLE
SITE ELECTRIC PLAN

SHEET NUMBER
E101

Air Quality Impact and Greenhouse Gas Analysis

Stone Point Office Building Project

Prepared for:

LITTLE DIVERSIFIED ARCHITECTURAL CONSULTING

OCTOBER 2016

Prepared by:

RANEY
PLANNING & MANAGEMENT, INC.

1501 SPORTS DRIVE, SUITE A • SACRAMENTO • CA • 95834
OFFICE 916.372.6100 • FAX 916.419.6108
INFO@RANEYMANAGEMENT.COM

Introduction

This Air Quality Impact and Greenhouse Gas Analysis identifies and analyzes the potential environmental impacts from the Stone Point Office Building Project (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 proposed project would include the construction of a five-story office building, landscape areas, a perimeter walking and fitness course, and associated parking located in the City of Roseville, California (see Figure 1, Regional Project Location). The site is bound by Stone Point Drive to the north, North Sunrise Avenue to the West, Eureka Road to the south, and an access drive as well as office and retail uses to the east (see Figure 2, Project Vicinity Map). The project site consists of Lots 6, 7, 8 and 9 of the Stone Point Master Plan area and is identified as Assessor's Parcel Numbers (APNs) 048-460-041, -042, -043 and -052, which make up a total of approximately 28 acres. The total building square footage would equal 280,000, and a total of 900 parking spaces would be provided.

The project site is designated as Community Commercial as well as Business Park and zoned for Planned Development. Existing land uses in the vicinity of the project site include office uses to the west, office and retail uses to the southwest, a car dealership and restaurant to the south (across the vacant lot and Eureka Road), commercial uses to the southeast, and to the north of the site (opposite Stone Point Drive) is a recently constructed residential development and an undeveloped park site as well as open space associated with the Miner’s Ravine Trail beyond the residential development.

Construction of the proposed project has been assumed to commence in March of 2017 and would be accomplished over an estimated 24-month period. It should be noted that the proposed project would incorporate a variety of sustainable design features, which would include, but not necessarily be limited to, the following:

- High efficiency irrigation system;
- Landscape plans that incorporate low water use and readily available plant material;
- Compliance with the California Green Building Code (CALGreen Code); and
- Compliance with the design requirements of the Stone Point Master Plan, including those regarding pedestrian and bicycle circulation.

Figure 1
Regional Project Location

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*nt. August 19, 2011.
6. ENVIRON International Corporation and the California Air Districts. *California Emissions Estimator Model User's Guide Version 2013.2*. July 2013.
7. Fehr & Peers. *Evaluation of Circulation for Proposed Adventist Health Office Project on Stone Point Property*. September 16, 2016.
8. Placer County Air Pollution Control District. *CEQA Air Quality Handbook*. October 11, 2012.
9. Placer County Air Pollution Control District. *Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA.* October 13, 2016
10. Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County*. December 2009.
11. 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 and long-term operational emissions 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.

As shown in Table 1 above, the PCAPCD threshold of significance for construction is 82 pounds per day for ROG, NO_X, and PM_{10}. 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. Construction of the proposed project was assumed to commence in Spring of 2017. Adjusted values for construction phasing and durations were provided by the applicant, as well as estimates for material import and export during grading and other construction activities.

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.

Table 2 Maximum Unmitigated Construction-Related Emissions		
Pollutant	**Project Emissions (lbs/day)**	**PCAPCD Significance Threshold (lbs/day)**
ROG	19.61	82.0
NO_X	73.32	82.0
PM_{10}	20.97	82.0
Source: CalEEMod, Septmber 2016 (see Appendix).		

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 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.

The estimated operational emissions for the proposed project are presented below in Table 3. The modeling was adjusted to reflect the project's use of only low-VOC paints per PCAPCD rules and regulations, inherent site or project design features (i.e., proximity to nearest bus stop), project specific trip rates provided by Fehr and Peers, and compliance with applicable regulations (i.e., 2013 California Building Energy Efficiency Standards).

As Table 3 indicates, the project's maximum unmitigated operational-related emissions would be below the applicable thresholds of significance. Therefore, operations associated with development of the proposed project would not substantially contribute to the PCAPCD's nonattainment status for ozone or PM_{10}.

Table 3 Unmitigated Operational Emissions		
Pollutant	**Project Emissions (lbs/day)**	**PCAPCD Significance Threshold (lbs/day)**
ROG	23.23	55.0
NO_X	25.31	55.0
PM_{10}	14.95	82.0
Source: CalEEMod, September 2016 (see Appendix).		

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 in Table 3 above, 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 an office building; thus, the proposed project would not be considered a sensitive receptor. The nearest sensitive receptors to the proposed project site are the residents of the newly constructed residential development north of stone point drive approximately 85 feet north of the project site. While the proposed project would not involve siting new sensitive receptors at the project site, the project has the potential to expose future residents of the development to the north of the project site to pollutants during the construction or operational phases of the project. 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 would be consistent with the allowable uses on the site per the existing land use designation; thus, potential impacts related to degradation of LOS associated with development of the project site would have been previously evaluated. In particular, the City's 2025 Capital Improvement Program assumed that build-out of the project site would occur, along with development of the surrounding area. The 2025 Capital Improvement Plan concluded that build out of the area would not result in unacceptable

LOS for the major intersections in the project area. Additionally, a circulation evaluation prepared for the proposed project by Fehr and Peers determined that the proposed project would result in a reduced trip rate from what was anticipated for the site by the 2035 Capital Improvement Program analysis.[1] Therefore, the proposed project would be unlikely to cause the degradation of an intersection from an acceptable LOS to an unacceptable LOS, nor would the project be anticipated to substantially worsen an existing delay. As a result, the proposed project would not meet the PCAPCD CO screening criteria discussed above, and 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.

Because the proposed project is not a sensitive receptor, the project would not involve siting a new sensitive receptor within any recommended setback distance of any existing source of TACs. Additionally, an office building would not itself be considered a major source of TACs, and therefore would not expose nearby sensitive receptors to TAC emissions.

The 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. Although the office building 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. 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

[1] Fehr & Peers. *Evaluation of Circulation for Proposed Adventist Health Office Project on Stone Point Property*. September 16, 2016.

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 commercial area and is not located near any land use associated with the aforementioned operations. Office uses 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 the nearby freeway could result in objectionable odor; however, as presented above, 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. In addition, the nearest rail yard is located over two miles from the project site. Accordingly, odors due to DPM from the rail yards would not affect any persons at the project site. Thus, odors related to DPM would not be expected to be considerable or affect a substantial number of people.

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 aforementioned 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 4.

Table 4 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 that fall below the 1,100 MT CO_2e/yr threshold or meet the efficiency thresholds are considered to be in keeping with statewide GHG emissions reduction targets, which would ensure that the proposed project would not inhibit the State's achievement of GHG emissions reductions. Thus, projects which involve emissions below the 1,100 MT CO_2e/yr threshold or below the efficiency thresholds presented in Table 4, 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. The proposed project's maximum annual construction-related GHG emissions are presented in Table 5. The construction modeling assumptions are described in the Air Quality section above.

Table 5 Maximum Unmitigated Project Construction GHG Emissions		
	Construction GHG Emissions (MTCO_2e/yr)	**Threshold of Significance (MTCO_2e/yr)**
Maximum Annual Construction-related GHG Emissions	941.51	1,100
Source: CalEEMod, September 2016 (see Appendix).		

As shown in the table, 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

The modeling assumptions for operational GHG emissions are discussed in the Air Quality section of this report. The proposed project's estimated GHG emissions at full buildout (2021) are presented in Table 6.

Table 6
Unmitigated Project Operational GHG Emissions

Emission Source	Annual GHG Emissions ($MTCO_2e$/yr)
Area	0.02
Energy	1,035.93
Mobile	2,163.03
Solid Waste	118.46
Water	164.53
TOTAL ANNUAL GHG EMISSIONS	**3,481.98**

Source: CalEEMod, September 2016 (see Appendix).

As shown in the table, the proposed project would result in operational GHG emissions in excess of the 1,100 MT CO_2e/yr threshold. Accordingly, the project must be further reviewed under the efficiency thresholds presented in Table 4. The efficiency thresholds rely on GHG emissions in $MTCO_2e$ per 1,000 square feet to determine significance for non-residential projects. As such, the proposed project's estimated annual operational emissions of 3,481.98 $MTCO_2e$ must be divided by the proposed office space area. The proposed project would include 280,000 sf. Thus, the proposed project would result in an efficiency rate of 12.44 $MTCO_2$ per 1,000 sf. Table 7 compares the proposed project's efficiency rate to the applicable efficiency threshold.

Table 7
Unmitigated Project Operational GHG Emissions (MT CO2e/1,000 sf)

PCAPCD Urban Non-Residential Efficiency Threshold	Project Emissions
26.5	12.44

Source: CalEEMod, September 2016 (see Appendix).

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

As shown in the table, the proposed project would result in operational GHG emissions below the applicable PCAPCD efficiency thresholds. Because the project's unmitigated annual GHG emissions would be below the applicable PCAPCD efficiency threshold, the proposed project would be considered to result in a ***less-than-significant*** impact related to GHG emissions and global climate change.

APPENDIX

CALEEMOD RESULTS

Stone Point Office Building

Placer County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	280.00	1000sqft	11.79	280,000.00	0
Parking Lot	900.00	Space	6.00	360,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2019
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	600.5	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted to reflect progress towards RPS

Land Use - Applicant information

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Fehr and Peers provided trip rate

Area Mitigation - Per PCAPCD Rules

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	100
tblConstructionPhase	NumDays	20.00	528.00
tblConstructionPhase	NumDays	300.00	528.00
tblConstructionPhase	NumDays	30.00	129.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	12/21/2021	12/26/2019
tblConstructionPhase	PhaseEndDate	9/12/2019	12/12/2019
tblConstructionPhase	PhaseEndDate	3/26/2020	12/4/2018
tblConstructionPhase	PhaseStartDate	12/13/2019	12/19/2017
tblConstructionPhase	PhaseStartDate	9/5/2017	12/5/2017
tblConstructionPhase	PhaseStartDate	12/27/2019	9/5/2018
tblGrading	AcresOfGrading	322.50	25.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	LotAcreage	6.43	11.79
tblLandUse	LotAcreage	8.10	6.00
tblProjectCharacteristics	CO2IntensityFactor	793.8	600.5
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleTrips	WD_TR	11.01	10.25

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					
2017	0.5371	5.2121	3.7945	5.6400e-003	0.5000	0.2435	0.7434	0.2541	0.2244	0.4785	0.0000	512.1420	512.1420	0.1234	0.0000	514.7342
2018	2.3534	5.0720	5.9619	0.0114	0.3878	0.2637	0.6515	0.1051	0.2481	0.3532	0.0000	939.1538	939.1538	0.1120	0.0000	941.5060
2019	2.1835	3.8943	5.0100	0.0101	0.3668	0.1924	0.5592	0.0994	0.1816	0.2810	0.0000	813.1703	813.1703	0.0847	0.0000	814.9487
Total	**5.0741**	**14.1784**	**14.7664**	**0.0272**	**1.2546**	**0.6996**	**1.9541**	**0.4585**	**0.6541**	**1.1126**	**0.0000**	**2,264.4661**	**2,264.4661**	**0.3201**	**0.0000**	**2,271.1890**

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					
2017	0.5371	5.2121	3.7945	5.6400e-003	0.5000	0.2435	0.7434	0.2541	0.2244	0.4785	0.0000	512.1415	512.1415	0.1234	0.0000	514.7337
2018	2.3534	5.0720	5.9618	0.0114	0.3878	0.2637	0.6515	0.1051	0.2481	0.3532	0.0000	939.1533	939.1533	0.1120	0.0000	941.5056
2019	2.1835	3.8943	5.0100	0.0101	0.3668	0.1924	0.5592	0.0994	0.1816	0.2810	0.0000	813.1699	813.1699	0.0847	0.0000	814.9484
Total	**5.0741**	**14.1784**	**14.7663**	**0.0272**	**1.2546**	**0.6996**	**1.9541**	**0.4585**	**0.6541**	**1.1126**	**0.0000**	**2,264.4648**	**2,264.4648**	**0.3201**	**0.0000**	**2,271.1876**

	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	tons/yr										MT/yr					
Area	2.8375	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0211	0.0211	6.0000e-005	0.0000	0.0223
Energy	0.0261	0.2375	0.1995	1.4200e-003		0.0181	0.0181		0.0181	0.0181	0.0000	1,196.6876	1,196.6876	0.0503	0.0141	1,202.1182
Mobile	1.2221	3.2462	12.4123	0.0295	1.9287	0.0440	1.9727	0.5172	0.0406	0.5578	0.0000	2,161.5409	2,161.5409	0.0711	0.0000	2,163.0348
Waste						0.0000	0.0000		0.0000	0.0000	52.8589	0.0000	52.8589	3.1239	0.0000	118.4601
Water						0.0000	0.0000		0.0000	0.0000	15.7883	102.4255	118.2137	1.6266	0.0393	164.5584
Total	**4.0857**	**3.4838**	**12.6227**	**0.0309**	**1.9287**	**0.0621**	**1.9908**	**0.5172**	**0.0586**	**0.5758**	**68.6471**	**3,460.6751**	**3,529.3222**	**4.8719**	**0.0534**	**3,648.1938**

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	2.4485	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0211	0.0211	6.0000e-005	0.0000	0.0223
Energy	0.0185	0.1682	0.1413	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	1,031.3273	1,031.3273	0.0445	0.0118	1,035.9291
Mobile	1.2221	3.2462	12.4123	0.0295	1.9287	0.0440	1.9727	0.5172	0.0406	0.5578	0.0000	2,161.5409	2,161.5409	0.0711	0.0000	2,163.0348
Waste						0.0000	0.0000		0.0000	0.0000	52.8589	0.0000	52.8589	3.1239	0.0000	118.4601
Water						0.0000	0.0000		0.0000	0.0000	15.7883	102.4255	118.2137	1.6263	0.0393	164.5332
Total	**3.6890**	**3.4145**	**12.5645**	**0.0305**	**1.9287**	**0.0568**	**1.9856**	**0.5172**	**0.0534**	**0.5706**	**68.6471**	**3,295.3148**	**3,363.9619**	**4.8658**	**0.0511**	**3,481.9795**

	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	**9.71**	**1.99**	**0.46**	**1.33**	**0.00**	**8.49**	**0.26**	**0.00**	**8.99**	**0.92**	**0.00**	**4.78**	**4.69**	**0.12**	**4.38**	**4.56**

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	3/1/2017	3/7/2017	5	5	
2	Grading	Grading	3/8/2017	9/4/2017	5	129	
3	Building Construction	Building Construction	12/5/2017	12/12/2019	5	528	
4	Architectural Coating	Architectural Coating	12/19/2017	12/26/2019	5	528	
5	Paving	Paving	9/5/2018	12/4/2018	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 436,200; Non-Residential Outdoor: 145,400 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

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	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	241.00	105.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	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

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0121	0.1294	0.0985	1.0000e-004		6.8900e-003	6.8900e-003		6.3300e-003	6.3300e-003	0.0000	9.0789	9.0789	2.7800e-003	0.0000	9.1373
Total	**0.0121**	**0.1294**	**0.0985**	**1.0000e-004**	**0.0452**	**6.8900e-003**	**0.0521**	**0.0248**	**6.3300e-003**	**0.0312**	**0.0000**	**9.0789**	**9.0789**	**2.7800e-003**	**0.0000**	**9.1373**

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	1.6000e-004	1.6400e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2986	0.2986	1.0000e-005	0.0000	0.2989
Total	**1.3000e-004**	**1.6000e-004**	**1.6400e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2986**	**0.2986**	**1.0000e-005**	**0.0000**	**0.2989**

3.2 Site Preparation - 2017

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0121	0.1294	0.0985	1.0000e-004		6.8900e-003	6.8900e-003		6.3300e-003	6.3300e-003	0.0000	9.0788	9.0788	2.7800e-003	0.0000	9.1373
Total	**0.0121**	**0.1294**	**0.0985**	**1.0000e-004**	**0.0452**	**6.8900e-003**	**0.0521**	**0.0248**	**6.3300e-003**	**0.0312**	**0.0000**	**9.0788**	**9.0788**	**2.7800e-003**	**0.0000**	**9.1373**

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	1.6000e-004	1.6400e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2986	0.2986	1.0000e-005	0.0000	0.2989
Total	**1.3000e-004**	**1.6000e-004**	**1.6400e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2986**	**0.2986**	**1.0000e-005**	**0.0000**	**0.2989**

3.3 Grading - 2017

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					0.4025	0.0000	0.4025	0.2151	0.0000	0.2151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3934	4.4887	3.0189	3.9800e-003		0.2140	0.2140		0.1968	0.1968	0.0000	369.4168	369.4168	0.1132	0.0000	371.7938
Total	**0.3934**	**4.4887**	**3.0189**	**3.9800e-003**	**0.4025**	**0.2140**	**0.6165**	**0.2151**	**0.1968**	**0.4119**	**0.0000**	**369.4168**	**369.4168**	**0.1132**	**0.0000**	**371.7938**

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	0.0206	0.2319	0.2216	7.0000e-004	0.0157	3.3800e-003	0.0191	4.3200e-003	3.1100e-003	7.4300e-003	0.0000	63.0160	63.0160	4.4000e-004	0.0000	63.0251
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	3.6700e-003	4.6100e-003	0.0470	1.2000e-004	0.0101	7.0000e-005	0.0102	2.7000e-003	6.0000e-005	2.7600e-003	0.0000	8.5607	8.5607	3.9000e-004	0.0000	8.5688
Total	**0.0243**	**0.2365**	**0.2685**	**8.2000e-004**	**0.0259**	**3.4500e-003**	**0.0293**	**7.0200e-003**	**3.1700e-003**	**0.0102**	**0.0000**	**71.5767**	**71.5767**	**8.3000e-004**	**0.0000**	**71.5940**

3.3 Grading - 2017

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					0.4025	0.0000	0.4025	0.2151	0.0000	0.2151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3934	4.4887	3.0189	3.9800e-003		0.2140	0.2140		0.1968	0.1968	0.0000	369.4164	369.4164	0.1132	0.0000	371.7933
Total	**0.3934**	**4.4887**	**3.0189**	**3.9800e-003**	**0.4025**	**0.2140**	**0.6165**	**0.2151**	**0.1968**	**0.4119**	**0.0000**	**369.4164**	**369.4164**	**0.1132**	**0.0000**	**371.7933**

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	0.0206	0.2319	0.2216	7.0000e-004	0.0157	3.3800e-003	0.0191	4.3200e-003	3.1100e-003	7.4300e-003	0.0000	63.0160	63.0160	4.4000e-004	0.0000	63.0251
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	3.6700e-003	4.6100e-003	0.0470	1.2000e-004	0.0101	7.0000e-005	0.0102	2.7000e-003	6.0000e-005	2.7600e-003	0.0000	8.5607	8.5607	3.9000e-004	0.0000	8.5688
Total	**0.0243**	**0.2365**	**0.2685**	**8.2000e-004**	**0.0259**	**3.4500e-003**	**0.0293**	**7.0200e-003**	**3.1700e-003**	**0.0102**	**0.0000**	**71.5767**	**71.5767**	**8.3000e-004**	**0.0000**	**71.5940**

3.4 Building Construction - 2017

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	0.0295	0.2509	0.1722	2.5000e-004		0.0169	0.0169		0.0159	0.0159	0.0000	22.7505	22.7505	5.6000e-003	0.0000	22.8681
Total	**0.0295**	**0.2509**	**0.1722**	**2.5000e-004**		**0.0169**	**0.0169**		**0.0159**	**0.0159**	**0.0000**	**22.7505**	**22.7505**	**5.6000e-003**	**0.0000**	**22.8681**

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	0.0117	0.0877	0.1350	2.4000e-004	6.3900e-003	1.3400e-003	7.7400e-003	1.8400e-003	1.2400e-003	3.0700e-003	0.0000	21.2446	21.2446	1.6000e-004	0.0000	21.2480
Worker	6.5200e-003	8.1900e-003	0.0834	2.1000e-004	0.0180	1.2000e-004	0.0181	4.7900e-003	1.1000e-004	4.9000e-003	0.0000	15.1936	15.1936	6.8000e-004	0.0000	15.2080
Total	**0.0182**	**0.0959**	**0.2184**	**4.5000e-004**	**0.0244**	**1.4600e-003**	**0.0258**	**6.6300e-003**	**1.3500e-003**	**7.9700e-003**	**0.0000**	**36.4382**	**36.4382**	**8.4000e-004**	**0.0000**	**36.4560**

3.4 Building Construction - 2017

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	0.0295	0.2509	0.1722	2.5000e-004		0.0169	0.0169		0.0159	0.0159	0.0000	22.7505	22.7505	5.6000e-003	0.0000	22.8681
Total	**0.0295**	**0.2509**	**0.1722**	**2.5000e-004**		**0.0169**	**0.0169**		**0.0159**	**0.0159**	**0.0000**	**22.7505**	**22.7505**	**5.6000e-003**	**0.0000**	**22.8681**

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	0.0117	0.0877	0.1350	2.4000e-004	6.3900e-003	1.3400e-003	7.7400e-003	1.8400e-003	1.2400e-003	3.0700e-003	0.0000	21.2446	21.2446	1.6000e-004	0.0000	21.2480
Worker	6.5200e-003	8.1900e-003	0.0834	2.1000e-004	0.0180	1.2000e-004	0.0181	4.7900e-003	1.1000e-004	4.9000e-003	0.0000	15.1936	15.1936	6.8000e-004	0.0000	15.2080
Total	**0.0182**	**0.0959**	**0.2184**	**4.5000e-004**	**0.0244**	**1.4600e-003**	**0.0258**	**6.6300e-003**	**1.3500e-003**	**7.9700e-003**	**0.0000**	**36.4382**	**36.4382**	**8.4000e-004**	**0.0000**	**36.4560**

3.4 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	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

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	0.1445	1.0947	1.7286	3.2600e-003	0.0878	0.0166	0.1044	0.0252	0.0152	0.0405	0.0000	286.7484	286.7484	2.1500e-003	0.0000	286.7936
Worker	0.0789	0.1006	1.0145	2.9100e-003	0.2470	1.6300e-003	0.2486	0.0657	1.5000e-003	0.0672	0.0000	200.7972	200.7972	8.6200e-003	0.0000	200.9783
Total	**0.2233**	**1.1953**	**2.7430**	**6.1700e-003**	**0.3348**	**0.0182**	**0.3530**	**0.0910**	**0.0167**	**0.1077**	**0.0000**	**487.5457**	**487.5457**	**0.0108**	**0.0000**	**487.7719**

3.4 Building Construction - 2018

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	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

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	0.1445	1.0947	1.7286	3.2600e-003	0.0878	0.0166	0.1044	0.0252	0.0152	0.0405	0.0000	286.7484	286.7484	2.1500e-003	0.0000	286.7936
Worker	0.0789	0.1006	1.0145	2.9100e-003	0.2470	1.6300e-003	0.2486	0.0657	1.5000e-003	0.0672	0.0000	200.7972	200.7972	8.6200e-003	0.0000	200.9783
Total	**0.2233**	**1.1953**	**2.7430**	**6.1700e-003**	**0.3348**	**0.0182**	**0.3530**	**0.0910**	**0.0167**	**0.1077**	**0.0000**	**487.5457**	**487.5457**	**0.0108**	**0.0000**	**487.7719**

3.4 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	0.2916	2.5997	2.1229	3.3200e-003		0.1594	0.1594		0.1498	0.1498	0.0000	290.3122	290.3122	0.0706	0.0000	291.7956
Total	**0.2916**	**2.5997**	**2.1229**	**3.3200e-003**		**0.1594**	**0.1594**		**0.1498**	**0.1498**	**0.0000**	**290.3122**	**290.3122**	**0.0706**	**0.0000**	**291.7956**

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	0.1284	0.9522	1.5823	3.0900e-003	0.0835	0.0146	0.0981	0.0240	0.0134	0.0374	0.0000	267.8790	267.8790	1.9900e-003	0.0000	267.9207
Worker	0.0685	0.0875	0.8841	2.7600e-003	0.2347	1.5400e-003	0.2362	0.0625	1.4300e-003	0.0639	0.0000	183.9313	183.9313	7.6900e-003	0.0000	184.0928
Total	**0.1968**	**1.0397**	**2.4664**	**5.8500e-003**	**0.3182**	**0.0161**	**0.3343**	**0.0864**	**0.0149**	**0.1013**	**0.0000**	**451.8103**	**451.8103**	**9.6800e-003**	**0.0000**	**452.0135**

3.4 Building Construction - 2019

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	0.2916	2.5997	2.1229	3.3200e-003		0.1594	0.1594		0.1498	0.1498	0.0000	290.3119	290.3119	0.0706	0.0000	291.7952
Total	**0.2916**	**2.5997**	**2.1229**	**3.3200e-003**		**0.1594**	**0.1594**		**0.1498**	**0.1498**	**0.0000**	**290.3119**	**290.3119**	**0.0706**	**0.0000**	**291.7952**

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	0.1284	0.9522	1.5823	3.0900e-003	0.0835	0.0146	0.0981	0.0240	0.0134	0.0374	0.0000	267.8790	267.8790	1.9900e-003	0.0000	267.9207
Worker	0.0685	0.0875	0.8841	2.7600e-003	0.2347	1.5400e-003	0.2362	0.0625	1.4300e-003	0.0639	0.0000	183.9313	183.9313	7.6900e-003	0.0000	184.0928
Total	**0.1968**	**1.0397**	**2.4664**	**5.8500e-003**	**0.3182**	**0.0161**	**0.3343**	**0.0864**	**0.0149**	**0.1013**	**0.0000**	**451.8103**	**451.8103**	**9.6800e-003**	**0.0000**	**452.0135**

3.5 Architectural Coating - 2017

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	0.0574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-003	9.8300e-003	8.4100e-003	1.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.1490	1.1490	1.2000e-004	0.0000	1.1515
Total	**0.0589**	**9.8300e-003**	**8.4100e-003**	**1.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.2000e-004**	**0.0000**	**1.1515**

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	6.1000e-004	7.7000e-004	7.8700e-003	2.0000e-005	1.7000e-003	1.0000e-005	1.7100e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.4334	1.4334	6.0000e-005	0.0000	1.4348
Total	**6.1000e-004**	**7.7000e-004**	**7.8700e-003**	**2.0000e-005**	**1.7000e-003**	**1.0000e-005**	**1.7100e-003**	**4.5000e-004**	**1.0000e-005**	**4.6000e-004**	**0.0000**	**1.4334**	**1.4334**	**6.0000e-005**	**0.0000**	**1.4348**

3.5 Architectural Coating - 2017

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	0.0574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-003	9.8300e-003	8.4100e-003	1.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.1490	1.1490	1.2000e-004	0.0000	1.1515
Total	**0.0589**	**9.8300e-003**	**8.4100e-003**	**1.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.2000e-004**	**0.0000**	**1.1515**

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	6.1000e-004	7.7000e-004	7.8700e-003	2.0000e-005	1.7000e-003	1.0000e-005	1.7100e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.4334	1.4334	6.0000e-005	0.0000	1.4348
Total	**6.1000e-004**	**7.7000e-004**	**7.8700e-003**	**2.0000e-005**	**1.7000e-003**	**1.0000e-005**	**1.7100e-003**	**4.5000e-004**	**1.0000e-005**	**4.6000e-004**	**0.0000**	**1.4334**	**1.4334**	**6.0000e-005**	**0.0000**	**1.4348**

3.5 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	1.6657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.2618	0.2420	3.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	**1.7047**	**0.2618**	**0.2420**	**3.9000e-004**		**0.0197**	**0.0197**		**0.0197**	**0.0197**	**0.0000**	**33.3200**	**33.3200**	**3.1700e-003**	**0.0000**	**33.3865**

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	0.0157	0.0200	0.2021	5.8000e-004	0.0492	3.2000e-004	0.0495	0.0131	3.0000e-004	0.0134	0.0000	39.9928	39.9928	1.7200e-003	0.0000	40.0289
Total	**0.0157**	**0.0200**	**0.2021**	**5.8000e-004**	**0.0492**	**3.2000e-004**	**0.0495**	**0.0131**	**3.0000e-004**	**0.0134**	**0.0000**	**39.9928**	**39.9928**	**1.7200e-003**	**0.0000**	**40.0289**

3.5 Architectural Coating - 2018

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	1.6657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.2618	0.2420	3.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	**1.7047**	**0.2618**	**0.2420**	**3.9000e-004**		**0.0197**	**0.0197**		**0.0197**	**0.0197**	**0.0000**	**33.3200**	**33.3200**	**3.1700e-003**	**0.0000**	**33.3865**

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	0.0157	0.0200	0.2021	5.8000e-004	0.0492	3.2000e-004	0.0495	0.0131	3.0000e-004	0.0134	0.0000	39.9928	39.9928	1.7200e-003	0.0000	40.0289
Total	**0.0157**	**0.0200**	**0.2021**	**5.8000e-004**	**0.0492**	**3.2000e-004**	**0.0495**	**0.0131**	**3.0000e-004**	**0.0134**	**0.0000**	**39.9928**	**39.9928**	**1.7200e-003**	**0.0000**	**40.0289**

3.5 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	1.6465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0344	0.2368	0.2375	3.8000e-004		0.0166	0.0166		0.0166	0.0166	0.0000	32.9370	32.9370	2.7800e-003	0.0000	32.9954
Total	**1.6809**	**0.2368**	**0.2375**	**3.8000e-004**		**0.0166**	**0.0166**		**0.0166**	**0.0166**	**0.0000**	**32.9370**	**32.9370**	**2.7800e-003**	**0.0000**	**32.9954**

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	0.0142	0.0181	0.1832	5.7000e-004	0.0486	3.2000e-004	0.0489	0.0129	3.0000e-004	0.0132	0.0000	38.1108	38.1108	1.5900e-003	0.0000	38.1443
Total	**0.0142**	**0.0181**	**0.1832**	**5.7000e-004**	**0.0486**	**3.2000e-004**	**0.0489**	**0.0129**	**3.0000e-004**	**0.0132**	**0.0000**	**38.1108**	**38.1108**	**1.5900e-003**	**0.0000**	**38.1443**

3.5 Architectural Coating - 2019

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	1.6465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0344	0.2368	0.2375	3.8000e-004		0.0166	0.0166		0.0166	0.0166	0.0000	32.9369	32.9369	2.7800e-003	0.0000	32.9954
Total	**1.6809**	**0.2368**	**0.2375**	**3.8000e-004**		**0.0166**	**0.0166**		**0.0166**	**0.0166**	**0.0000**	**32.9369**	**32.9369**	**2.7800e-003**	**0.0000**	**32.9954**

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	0.0142	0.0181	0.1832	5.7000e-004	0.0486	3.2000e-004	0.0489	0.0129	3.0000e-004	0.0132	0.0000	38.1108	38.1108	1.5900e-003	0.0000	38.1443
Total	**0.0142**	**0.0181**	**0.1832**	**5.7000e-004**	**0.0486**	**3.2000e-004**	**0.0489**	**0.0129**	**3.0000e-004**	**0.0132**	**0.0000**	**38.1108**	**38.1108**	**1.5900e-003**	**0.0000**	**38.1443**

3.6 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	0.0524	0.5578	0.4711	7.3000e-004		0.0305	0.0305		0.0281	0.0281	0.0000	66.1984	66.1984	0.0206	0.0000	66.6312
Paving	7.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0602**	**0.5578**	**0.4711**	**7.3000e-004**		**0.0305**	**0.0305**		**0.0281**	**0.0281**	**0.0000**	**66.1984**	**66.1984**	**0.0206**	**0.0000**	**66.6312**

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	1.2200e-003	1.5600e-003	0.0157	5.0000e-005	3.8300e-003	3.0000e-005	3.8500e-003	1.0200e-003	2.0000e-005	1.0400e-003	0.0000	3.1125	3.1125	1.3000e-004	0.0000	3.1153
Total	**1.2200e-003**	**1.5600e-003**	**0.0157**	**5.0000e-005**	**3.8300e-003**	**3.0000e-005**	**3.8500e-003**	**1.0200e-003**	**2.0000e-005**	**1.0400e-003**	**0.0000**	**3.1125**	**3.1125**	**1.3000e-004**	**0.0000**	**3.1153**

3.6 Paving - 2018

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	0.0524	0.5578	0.4711	7.3000e-004		0.0305	0.0305		0.0281	0.0281	0.0000	66.1983	66.1983	0.0206	0.0000	66.6311
Paving	7.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0602**	**0.5578**	**0.4711**	**7.3000e-004**		**0.0305**	**0.0305**		**0.0281**	**0.0281**	**0.0000**	**66.1983**	**66.1983**	**0.0206**	**0.0000**	**66.6311**

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	1.2200e-003	1.5600e-003	0.0157	5.0000e-005	3.8300e-003	3.0000e-005	3.8500e-003	1.0200e-003	2.0000e-005	1.0400e-003	0.0000	3.1125	3.1125	1.3000e-004	0.0000	3.1153
Total	**1.2200e-003**	**1.5600e-003**	**0.0157**	**5.0000e-005**	**3.8300e-003**	**3.0000e-005**	**3.8500e-003**	**1.0200e-003**	**2.0000e-005**	**1.0400e-003**	**0.0000**	**3.1125**	**3.1125**	**1.3000e-004**	**0.0000**	**3.1153**

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	1.2221	3.2462	12.4123	0.0295	1.9287	0.0440	1.9727	0.5172	0.0406	0.5578	0.0000	2,161.5409	2,161.5409	0.0711	0.0000	2,163.0348
Unmitigated	1.2221	3.2462	12.4123	0.0295	1.9287	0.0440	1.9727	0.5172	0.0406	0.5578	0.0000	2,161.5409	2,161.5409	0.0711	0.0000	2,163.0348

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	2,870.00	663.60	274.40	5,219,220	5,219,220
Parking Lot	0.00	0.00	0.00		
Total	2,870.00	663.60	274.40	5,219,220	5,219,220

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.436123	0.064009	0.189752	0.169683	0.063959	0.008608	0.013150	0.039191	0.001722	0.001069	0.008434	0.000534	0.003765

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	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	848.2745	848.2745	0.0410	8.4800e-003	851.7622
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	938.1933	938.1933	0.0453	9.3700e-003	942.0508
NaturalGas Mitigated	0.0185	0.1682	0.1413	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.0528	183.0528	3.5100e-003	3.3600e-003	184.1668
NaturalGas Unmitigated	0.0261	0.2375	0.1995	1.4200e-003		0.0181	0.0181		0.0181	0.0181	0.0000	258.4943	258.4943	4.9500e-003	4.7400e-003	260.0674

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					
General Office Building	4.844e+006	0.0261	0.2375	0.1995	1.4200e-003		0.0181	0.0181		0.0181	0.0181	0.0000	258.4943	258.4943	4.9500e-003	4.7400e-003	260.0674
Parking Lot	0	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
Total		**0.0261**	**0.2375**	**0.1995**	**1.4200e-003**		**0.0181**	**0.0181**		**0.0181**	**0.0181**	**0.0000**	**258.4943**	**258.4943**	**4.9500e-003**	**4.7400e-003**	**260.0674**

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					
Parking Lot	0	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
General Office Building	3.43028e+006	0.0185	0.1682	0.1413	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.0528	183.0528	3.5100e-003	3.3600e-003	184.1668
Total		**0.0185**	**0.1682**	**0.1413**	**1.0100e-003**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**183.0528**	**183.0528**	**3.5100e-003**	**3.3600e-003**	**184.1668**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	3.1276e+006	851.9026	0.0411	8.5100e-003	855.4053
Parking Lot	316800	86.2907	4.1700e-003	8.6000e-004	86.6455
Total		**938.1933**	**0.0453**	**9.3700e-003**	**942.0508**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	2.79748e+006	761.9838	0.0368	7.6100e-003	765.1168
Parking Lot	316800	86.2907	4.1700e-003	8.6000e-004	86.6455
Total		**848.2745**	**0.0410**	**8.4700e-003**	**851.7622**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	2.4485	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0211	0.0211	6.0000e-005	0.0000	0.0223
Unmitigated	2.8375	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0211	0.0211	6.0000e-005	0.0000	0.0223

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	0.3370					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0400e-003	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0211	0.0211	6.0000e-005	0.0000	0.0223
Total	**2.8375**	**1.0000e-004**	**0.0110**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0211**	**0.0211**	**6.0000e-005**	**0.0000**	**0.0223**

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	0.1348					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0400e-003	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0211	0.0211	6.0000e-005	0.0000	0.0223
Total	**2.4485**	**1.0000e-004**	**0.0110**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0211**	**0.0211**	**6.0000e-005**	**0.0000**	**0.0223**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	118.2137	1.6263	0.0393	164.5332
Unmitigated	118.2137	1.6266	0.0393	164.5584

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	49.7654 / 30.5014	118.2137	1.6266	0.0393	164.5584
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**118.2137**	**1.6266**	**0.0393**	**164.5584**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	49.7654 / 30.5014	118.2137	1.6263	0.0393	164.5332
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**118.2137**	**1.6263**	**0.0393**	**164.5332**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	52.8589	3.1239	0.0000	118.4601
Unmitigated	52.8589	3.1239	0.0000	118.4601

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	260.4	52.8589	3.1239	0.0000	118.4601
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**52.8589**	**3.1239**	**0.0000**	**118.4601**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	260.4	52.8589	3.1239	0.0000	118.4601
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**52.8589**	**3.1239**	**0.0000**	**118.4601**

9.0 Operational Offroad

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

10.0 Vegetation

Stone Point Office Building

Placer County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	280.00	1000sqft	11.79	280,000.00	0
Parking Lot	900.00	Space	6.00	360,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2019
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	600.5	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted to reflect progress towards RPS

Land Use - Applicant information

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Fehr and Peers provided trip rate

Area Mitigation - Per PCAPCD Rules

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	100
tblConstructionPhase	NumDays	20.00	528.00
tblConstructionPhase	NumDays	300.00	528.00
tblConstructionPhase	NumDays	30.00	129.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	12/21/2021	12/26/2019
tblConstructionPhase	PhaseEndDate	9/12/2019	12/12/2019
tblConstructionPhase	PhaseEndDate	3/26/2020	12/4/2018
tblConstructionPhase	PhaseStartDate	12/13/2019	12/19/2017
tblConstructionPhase	PhaseStartDate	9/5/2017	12/5/2017
tblConstructionPhase	PhaseStartDate	12/27/2019	9/5/2018
tblGrading	AcresOfGrading	322.50	25.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	LotAcreage	6.43	11.79
tblLandUse	LotAcreage	8.10	6.00
tblProjectCharacteristics	CO2IntensityFactor	793.8	600.5
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleTrips	WD_TR	11.01	10.25

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					
2017	18.2777	73.0735	50.3558	0.0844	18.2141	3.3706	20.9693	9.9699	3.1009	12.5047	0.0000	7,726.7762	7,726.7762	1.9484	0.0000	7,767.6924
2018	19.4930	51.2995	54.8138	0.1081	3.1960	2.7254	5.9215	0.8620	2.5495	3.4115	0.0000	9,927.5224	9,927.5224	1.4742	0.0000	9,958.4814
2019	17.1129	30.8878	38.1363	0.0842	3.0729	1.5458	4.6187	0.8293	1.4586	2.2879	0.0000	7,415.1226	7,415.1226	0.7511	0.0000	7,430.8961
Total	**54.8836**	**155.2608**	**143.3059**	**0.2767**	**24.4830**	**7.6419**	**31.5095**	**11.6612**	**7.1090**	**18.2041**	**0.0000**	**25,069.4213**	**25,069.4213**	**4.1737**	**0.0000**	**25,157.0698**

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					
2017	18.2777	73.0735	50.3558	0.0844	18.2141	3.3706	20.9693	9.9699	3.1009	12.5047	0.0000	7,726.7762	7,726.7762	1.9484	0.0000	7,767.6924
2018	19.4930	51.2995	54.8138	0.1081	3.1960	2.7254	5.9215	0.8620	2.5495	3.4115	0.0000	9,927.5224	9,927.5224	1.4742	0.0000	9,958.4813
2019	17.1129	30.8878	38.1363	0.0842	3.0729	1.5458	4.6187	0.8293	1.4586	2.2879	0.0000	7,415.1226	7,415.1226	0.7511	0.0000	7,430.8961
Total	**54.8836**	**155.2608**	**143.3059**	**0.2767**	**24.4830**	**7.6419**	**31.5095**	**11.6612**	**7.1090**	**18.2041**	**0.0000**	**25,069.4213**	**25,069.4213**	**4.1737**	**0.0000**	**25,157.0698**

	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	15.5539	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Energy	0.1431	1.3011	1.0929	7.8100e-003		0.0989	0.0989		0.0989	0.0989		1,561.3215	1,561.3215	0.0299	0.0286	1,570.8235
Mobile	9.7042	21.8838	88.0420	0.2291	14.5573	0.3175	14.8748	3.8893	0.2925	4.1818		18,407.6048	18,407.6048	0.5664		18,419.5001
Total	**25.4012**	**23.1860**	**89.2566**	**0.2369**	**14.5573**	**0.4168**	**14.9741**	**3.8893**	**0.3918**	**4.2811**		**19,969.1846**	**19,969.1846**	**0.5971**	**0.0286**	**19,990.5965**

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	13.4221	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Energy	0.1014	0.9214	0.7740	5.5300e-003		0.0700	0.0700		0.0700	0.0700		1,105.6503	1,105.6503	0.0212	0.0203	1,112.3791
Mobile	9.7042	21.8838	88.0420	0.2291	14.5573	0.3175	14.8748	3.8893	0.2925	4.1818		18,407.6048	18,407.6048	0.5664		18,419.5001
Total	**23.2276**	**22.8063**	**88.9376**	**0.2346**	**14.5573**	**0.3879**	**14.9452**	**3.8893**	**0.3630**	**4.2523**		**19,513.5134**	**19,513.5134**	**0.5883**	**0.0203**	**19,532.1522**

	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	**8.56**	**1.64**	**0.36**	**0.96**	**0.00**	**6.92**	**0.19**	**0.00**	**7.37**	**0.67**	**0.00**	**2.28**	**2.28**	**1.46**	**29.18**	**2.29**

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	3/1/2017	3/7/2017	5	5	
2	Grading	Grading	3/8/2017	9/4/2017	5	129	
3	Building Construction	Building Construction	12/5/2017	12/12/2019	5	528	
4	Architectural Coating	Architectural Coating	12/19/2017	12/26/2019	5	528	
5	Paving	Paving	9/5/2018	12/4/2018	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 436,200; Non-Residential Outdoor: 145,400 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

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	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	241.00	105.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	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

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0606	0.0571	0.7394	1.8400e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		145.2794	145.2794	5.9300e-003		145.4040
Total	**0.0606**	**0.0571**	**0.7394**	**1.8400e-003**	**0.1479**	**9.5000e-004**	**0.1488**	**0.0392**	**8.7000e-004**	**0.0401**		**145.2794**	**145.2794**	**5.9300e-003**		**145.4040**

3.2 Site Preparation - 2017

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0606	0.0571	0.7394	1.8400e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		145.2794	145.2794	5.9300e-003		145.4040
Total	**0.0606**	**0.0571**	**0.7394**	**1.8400e-003**	**0.1479**	**9.5000e-004**	**0.1488**	**0.0392**	**8.7000e-004**	**0.0401**		**145.2794**	**145.2794**	**5.9300e-003**		**145.4040**

3.3 Grading - 2017

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					6.2408	0.0000	6.2408	3.3344	0.0000	3.3344			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**6.2408**	**3.3172**	**9.5580**	**3.3344**	**3.0518**	**6.3862**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

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	0.2926	3.4181	2.7293	0.0109	0.2535	0.0524	0.3059	0.0694	0.0482	0.1176		1,078.0111	1,078.0111	7.3900e-003		1,078.1664
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	0.0673	0.0634	0.8215	2.0400e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		161.4216	161.4216	6.5900e-003		161.5600
Total	**0.3599**	**3.4815**	**3.5508**	**0.0129**	**0.4178**	**0.0534**	**0.4712**	**0.1130**	**0.0491**	**0.1621**		**1,239.4327**	**1,239.4327**	**0.0140**		**1,239.7264**

3.3 Grading - 2017

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					6.2408	0.0000	6.2408	3.3344	0.0000	3.3344			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**6.2408**	**3.3172**	**9.5580**	**3.3344**	**3.0518**	**6.3862**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

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	0.2926	3.4181	2.7293	0.0109	0.2535	0.0524	0.3059	0.0694	0.0482	0.1176		1,078.0111	1,078.0111	7.3900e-003		1,078.1664
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	0.0673	0.0634	0.8215	2.0400e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		161.4216	161.4216	6.5900e-003		161.5600
Total	**0.3599**	**3.4815**	**3.5508**	**0.0129**	**0.4178**	**0.0534**	**0.4712**	**0.1130**	**0.0491**	**0.1621**		**1,239.4327**	**1,239.4327**	**0.0140**		**1,239.7264**

3.4 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	1.1066	8.8070	10.7614	0.0250	0.6988	0.1408	0.8396	0.1996	0.1294	0.3290		2,472.9808	2,472.9808	0.0187		2,473.3729
Worker	0.8111	0.7640	9.8995	0.0246	1.9798	0.0127	1.9925	0.5251	0.0117	0.5368		1,945.1302	1,945.1302	0.0794		1,946.7985
Total	**1.9177**	**9.5710**	**20.6610**	**0.0497**	**2.6786**	**0.1535**	**2.8321**	**0.7247**	**0.1411**	**0.8658**		**4,418.1110**	**4,418.1110**	**0.0981**		**4,420.1714**

3.4 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	1.1066	8.8070	10.7614	0.0250	0.6988	0.1408	0.8396	0.1996	0.1294	0.3290		2,472.9808	2,472.9808	0.0187		2,473.3729
Worker	0.8111	0.7640	9.8995	0.0246	1.9798	0.0127	1.9925	0.5251	0.0117	0.5368		1,945.1302	1,945.1302	0.0794		1,946.7985
Total	**1.9177**	**9.5710**	**20.6610**	**0.0497**	**2.6786**	**0.1535**	**2.8321**	**0.7247**	**0.1411**	**0.8658**		**4,418.1110**	**4,418.1110**	**0.0981**		**4,420.1714**

3.4 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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

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	0.9981	8.0066	9.7823	0.0250	0.6987	0.1263	0.8250	0.1996	0.1161	0.3157		2,429.9176	2,429.9176	0.0179		2,430.2941
Worker	0.7218	0.6846	8.8395	0.0246	1.9798	0.0125	1.9922	0.5251	0.0115	0.5366		1,871.6725	1,871.6725	0.0728		1,873.2020
Total	**1.7200**	**8.6912**	**18.6217**	**0.0496**	**2.6785**	**0.1387**	**2.8172**	**0.7247**	**0.1276**	**0.8523**		**4,301.5901**	**4,301.5901**	**0.0908**		**4,303.4961**

3.4 Building Construction - 2018

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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

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	0.9981	8.0066	9.7823	0.0250	0.6987	0.1263	0.8250	0.1996	0.1161	0.3157		2,429.9176	2,429.9176	0.0179		2,430.2941
Worker	0.7218	0.6846	8.8395	0.0246	1.9798	0.0125	1.9922	0.5251	0.0115	0.5366		1,871.6725	1,871.6725	0.0728		1,873.2020
Total	**1.7200**	**8.6912**	**18.6217**	**0.0496**	**2.6785**	**0.1387**	**2.8172**	**0.7247**	**0.1276**	**0.8523**		**4,301.5901**	**4,301.5901**	**0.0908**		**4,303.4961**

3.4 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	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

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	0.9357	7.3349	9.3825	0.0250	0.6988	0.1171	0.8159	0.1996	0.1077	0.3073		2,389.0264	2,389.0264	0.0174		2,389.3926
Worker	0.6633	0.6276	8.1657	0.0246	1.9798	0.0124	1.9922	0.5251	0.0115	0.5367		1,804.4865	1,804.4865	0.0684		1,805.9225
Total	**1.5989**	**7.9624**	**17.5482**	**0.0496**	**2.6786**	**0.1295**	**2.8081**	**0.7247**	**0.1192**	**0.8440**		**4,193.5130**	**4,193.5130**	**0.0858**		**4,195.3151**

3.4 Building Construction - 2019

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	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

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	0.9357	7.3349	9.3825	0.0250	0.6988	0.1171	0.8159	0.1996	0.1077	0.3073		2,389.0264	2,389.0264	0.0174		2,389.3926
Worker	0.6633	0.6276	8.1657	0.0246	1.9798	0.0124	1.9922	0.5251	0.0115	0.5367		1,804.4865	1,804.4865	0.0684		1,805.9225
Total	**1.5989**	**7.9624**	**17.5482**	**0.0496**	**2.6786**	**0.1295**	**2.8081**	**0.7247**	**0.1192**	**0.8440**		**4,193.5130**	**4,193.5130**	**0.0858**		**4,195.3151**

3.5 Architectural Coating - 2017

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	12.7638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**13.0961**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1615	0.1522	1.9717	4.9000e-003	0.3943	2.5300e-003	0.3968	0.1046	2.3300e-003	0.1069		387.4118	387.4118	0.0158		387.7441
Total	**0.1615**	**0.1522**	**1.9717**	**4.9000e-003**	**0.3943**	**2.5300e-003**	**0.3968**	**0.1046**	**2.3300e-003**	**0.1069**		**387.4118**	**387.4118**	**0.0158**		**387.7441**

3.5 Architectural Coating - 2017

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	12.7638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**13.0961**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1615	0.1522	1.9717	4.9000e-003	0.3943	2.5300e-003	0.3968	0.1046	2.3300e-003	0.1069		387.4118	387.4118	0.0158		387.7441
Total	**0.1615**	**0.1522**	**1.9717**	**4.9000e-003**	**0.3943**	**2.5300e-003**	**0.3968**	**0.1046**	**2.3300e-003**	**0.1069**		**387.4118**	**387.4118**	**0.0158**		**387.7441**

3.5 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	12.7638					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		282.0102
Total	**13.0624**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

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	0.1438	0.1364	1.7606	4.9000e-003	0.3943	2.4800e-003	0.3968	0.1046	2.2900e-003	0.1069		372.7813	372.7813	0.0145		373.0859
Total	**0.1438**	**0.1364**	**1.7606**	**4.9000e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.2900e-003**	**0.1069**		**372.7813**	**372.7813**	**0.0145**		**373.0859**

3.5 Architectural Coating - 2018

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	12.7638					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		282.0102
Total	**13.0624**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

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	0.1438	0.1364	1.7606	4.9000e-003	0.3943	2.4800e-003	0.3968	0.1046	2.2900e-003	0.1069		372.7813	372.7813	0.0145		373.0859
Total	**0.1438**	**0.1364**	**1.7606**	**4.9000e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.2900e-003**	**0.1069**		**372.7813**	**372.7813**	**0.0145**		**373.0859**

3.5 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	12.7638					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		281.9473
Total	**13.0303**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

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	0.1321	0.1250	1.6264	4.9000e-003	0.3943	2.4800e-003	0.3968	0.1046	2.3000e-003	0.1069		359.3998	359.3998	0.0136		359.6858
Total	**0.1321**	**0.1250**	**1.6264**	**4.9000e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.3000e-003**	**0.1069**		**359.3998**	**359.3998**	**0.0136**		**359.6858**

3.5 Architectural Coating - 2019

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	12.7638					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		281.9473
Total	**13.0303**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

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	0.1321	0.1250	1.6264	4.9000e-003	0.3943	2.4800e-003	0.3968	0.1046	2.3000e-003	0.1069		359.3998	359.3998	0.0136		359.6858
Total	**0.1321**	**0.1250**	**1.6264**	**4.9000e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.3000e-003**	**0.1069**		**359.3998**	**359.3998**	**0.0136**		**359.6858**

3.6 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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8533**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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	0.0449	0.0426	0.5502	1.5300e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		116.4941	116.4941	4.5300e-003		116.5893
Total	**0.0449**	**0.0426**	**0.5502**	**1.5300e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.2000e-004**	**0.0334**		**116.4941**	**116.4941**	**4.5300e-003**		**116.5893**

3.6 Paving - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8533**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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	0.0449	0.0426	0.5502	1.5300e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		116.4941	116.4941	4.5300e-003		116.5893
Total	**0.0449**	**0.0426**	**0.5502**	**1.5300e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.2000e-004**	**0.0334**		**116.4941**	**116.4941**	**4.5300e-003**		**116.5893**

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	9.7042	21.8838	88.0420	0.2291	14.5573	0.3175	14.8748	3.8893	0.2925	4.1818		18,407.6048	18,407.6048	0.5664		18,419.5001
Unmitigated	9.7042	21.8838	88.0420	0.2291	14.5573	0.3175	14.8748	3.8893	0.2925	4.1818		18,407.6048	18,407.6048	0.5664		18,419.5001

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	2,870.00	663.60	274.40	5,219,220	5,219,220
Parking Lot	0.00	0.00	0.00		
Total	2,870.00	663.60	274.40	5,219,220	5,219,220

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.436123	0.064009	0.189752	0.169683	0.063959	0.008608	0.013150	0.039191	0.001722	0.001069	0.008434	0.000534	0.003765

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	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	0.1014	0.9214	0.7740	5.5300e-003		0.0700	0.0700		0.0700	0.0700		1,105.6503	1,105.6503	0.0212	0.0203	1,112.3791
NaturalGas Unmitigated	0.1431	1.3011	1.0929	7.8100e-003		0.0989	0.0989		0.0989	0.0989		1,561.3215	1,561.3215	0.0299	0.0286	1,570.8235

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					
General Office Building	13271.2	0.1431	1.3011	1.0929	7.8100e-003		0.0989	0.0989		0.0989	0.0989		1,561.3215	1,561.3215	0.0299	0.0286	1,570.8235
Parking Lot	0	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
Total		**0.1431**	**1.3011**	**1.0929**	**7.8100e-003**		**0.0989**	**0.0989**		**0.0989**	**0.0989**		**1,561.3215**	**1,561.3215**	**0.0299**	**0.0286**	**1,570.8235**

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					
Parking Lot	0	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
General Office Building	9.39803	0.1014	0.9214	0.7740	5.5300e-003		0.0700	0.0700		0.0700	0.0700		1,105.6503	1,105.6503	0.0212	0.0203	1,112.3791
Total		**0.1014**	**0.9214**	**0.7740**	**5.5300e-003**		**0.0700**	**0.0700**		**0.0700**	**0.0700**		**1,105.6503**	**1,105.6503**	**0.0212**	**0.0203**	**1,112.3791**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	13.4221	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Unmitigated	15.5539	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729

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	1.8464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0115	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Total	**15.5539**	**1.1300e-003**	**0.1217**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2583**	**0.2583**	**7.0000e-004**		**0.2729**

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	0.7386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.6720					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0115	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Total	**13.4221**	**1.1300e-003**	**0.1217**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2583**	**0.2583**	**7.0000e-004**		**0.2729**

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 Vegetation

Stone Point Office Building

Placer County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	280.00	1000sqft	11.79	280,000.00	0
Parking Lot	900.00	Space	6.00	360,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2019
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	600.5	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted to reflect progress towards RPS

Land Use - Applicant information

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Fehr and Peers provided trip rate

Area Mitigation - Per PCAPCD Rules

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	100
tblConstructionPhase	NumDays	20.00	528.00
tblConstructionPhase	NumDays	300.00	528.00
tblConstructionPhase	NumDays	30.00	129.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	12/21/2021	12/26/2019
tblConstructionPhase	PhaseEndDate	9/12/2019	12/12/2019
tblConstructionPhase	PhaseEndDate	3/26/2020	12/4/2018
tblConstructionPhase	PhaseStartDate	12/13/2019	12/19/2017
tblConstructionPhase	PhaseStartDate	9/5/2017	12/5/2017
tblConstructionPhase	PhaseStartDate	12/27/2019	9/5/2018
tblGrading	AcresOfGrading	322.50	25.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	LotAcreage	6.43	11.79
tblLandUse	LotAcreage	8.10	6.00
tblProjectCharacteristics	CO2IntensityFactor	793.8	600.5
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleTrips	WD_TR	11.01	10.25

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					
2017	18.4459	73.3190	51.6673	0.0808	18.2141	3.3708	20.9693	9.9699	3.1011	12.5047	0.0000	7,531.1685	7,531.1685	1.9485	0.0000	7,572.0869
2018	19.6116	51.9996	60.5530	0.1043	3.1960	2.7269	5.9229	0.8620	2.5508	3.4128	0.0000	9,629.0469	9,629.0469	1.4748	0.0000	9,660.0167
2019	17.2204	31.5111	43.7627	0.0806	3.0729	1.5471	4.6200	0.8293	1.4598	2.2891	0.0000	7,140.0434	7,140.0434	0.7516	0.0000	7,155.8279
Total	**55.2778**	**156.8297**	**155.9830**	**0.2657**	**24.4830**	**7.6447**	**31.5122**	**11.6612**	**7.1117**	**18.2065**	**0.0000**	**24,300.2588**	**24,300.2588**	**4.1749**	**0.0000**	**24,387.9315**

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					
2017	18.4459	73.3190	51.6673	0.0808	18.2141	3.3708	20.9693	9.9699	3.1011	12.5047	0.0000	7,531.1685	7,531.1685	1.9485	0.0000	7,572.0869
2018	19.6116	51.9996	60.5530	0.1043	3.1960	2.7269	5.9229	0.8620	2.5508	3.4128	0.0000	9,629.0469	9,629.0469	1.4748	0.0000	9,660.0167
2019	17.2204	31.5111	43.7627	0.0806	3.0729	1.5471	4.6200	0.8293	1.4598	2.2891	0.0000	7,140.0434	7,140.0434	0.7516	0.0000	7,155.8279
Total	**55.2778**	**156.8297**	**155.9830**	**0.2657**	**24.4830**	**7.6447**	**31.5122**	**11.6612**	**7.1117**	**18.2065**	**0.0000**	**24,300.2588**	**24,300.2588**	**4.1749**	**0.0000**	**24,387.9315**

	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	15.5539	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Energy	0.1431	1.3011	1.0929	7.8100e-003		0.0989	0.0989		0.0989	0.0989		1,561.3215	1,561.3215	0.0299	0.0286	1,570.8235
Mobile	9.2877	24.3830	99.7230	0.2092	14.5573	0.3191	14.8765	3.8893	0.2940	4.1833		16,899.1411	16,899.1411	0.5674		16,911.0571
Total	**24.9848**	**25.6852**	**100.9376**	**0.2170**	**14.5573**	**0.4185**	**14.9758**	**3.8893**	**0.3934**	**4.2827**		**18,460.7209**	**18,460.7209**	**0.5981**	**0.0286**	**18,482.1535**

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	13.4221	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Energy	0.1014	0.9214	0.7740	5.5300e-003		0.0700	0.0700		0.0700	0.0700		1,105.6503	1,105.6503	0.0212	0.0203	1,112.3791
Mobile	9.2877	24.3830	99.7230	0.2092	14.5573	0.3191	14.8765	3.8893	0.2940	4.1833		16,899.1411	16,899.1411	0.5674		16,911.0571
Total	**22.8112**	**25.3055**	**100.6186**	**0.2148**	**14.5573**	**0.3896**	**14.9469**	**3.8893**	**0.3645**	**4.2538**		**18,005.0497**	**18,005.0497**	**0.5893**	**0.0203**	**18,023.7091**

	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	**8.70**	**1.48**	**0.32**	**1.05**	**0.00**	**6.90**	**0.19**	**0.00**	**7.34**	**0.67**	**0.00**	**2.47**	**2.47**	**1.46**	**29.18**	**2.48**

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	3/1/2017	3/7/2017	5	5	
2	Grading	Grading	3/8/2017	9/4/2017	5	129	
3	Building Construction	Building Construction	12/5/2017	12/12/2019	5	528	
4	Architectural Coating	Architectural Coating	12/19/2017	12/26/2019	5	528	
5	Paving	Paving	9/5/2018	12/4/2018	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 436,200; Non-Residential Outdoor: 145,400 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

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	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	241.00	105.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	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

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0535	0.0712	0.6754	1.6200e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		128.0841	128.0841	5.9300e-003		128.2087
Total	**0.0535**	**0.0712**	**0.6754**	**1.6200e-003**	**0.1479**	**9.5000e-004**	**0.1488**	**0.0392**	**8.7000e-004**	**0.0401**		**128.0841**	**128.0841**	**5.9300e-003**		**128.2087**

3.2 Site Preparation - 2017

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0535	0.0712	0.6754	1.6200e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		128.0841	128.0841	5.9300e-003		128.2087
Total	**0.0535**	**0.0712**	**0.6754**	**1.6200e-003**	**0.1479**	**9.5000e-004**	**0.1488**	**0.0392**	**8.7000e-004**	**0.0401**		**128.0841**	**128.0841**	**5.9300e-003**		**128.2087**

3.3 Grading - 2017

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					6.2408	0.0000	6.2408	3.3344	0.0000	3.3344			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**6.2408**	**3.3172**	**9.5580**	**3.3344**	**3.0518**	**6.3862**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

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	0.3486	3.6479	4.1118	0.0109	0.2535	0.0525	0.3060	0.0694	0.0483	0.1177		1,075.4838	1,075.4838	7.5000e-003		1,075.6413
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	0.0595	0.0791	0.7505	1.8000e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		142.3157	142.3157	6.5900e-003		142.4541
Total	**0.4081**	**3.7270**	**4.8623**	**0.0127**	**0.4178**	**0.0536**	**0.4714**	**0.1130**	**0.0493**	**0.1623**		**1,217.7995**	**1,217.7995**	**0.0141**		**1,218.0954**

3.3 Grading - 2017

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					6.2408	0.0000	6.2408	3.3344	0.0000	3.3344			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**6.2408**	**3.3172**	**9.5580**	**3.3344**	**3.0518**	**6.3862**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

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	0.3486	3.6479	4.1118	0.0109	0.2535	0.0525	0.3060	0.0694	0.0483	0.1177		1,075.4838	1,075.4838	7.5000e-003		1,075.6413
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	0.0595	0.0791	0.7505	1.8000e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		142.3157	142.3157	6.5900e-003		142.4541
Total	**0.4081**	**3.7270**	**4.8623**	**0.0127**	**0.4178**	**0.0536**	**0.4714**	**0.1130**	**0.0493**	**0.1623**		**1,217.7995**	**1,217.7995**	**0.0141**		**1,218.0954**

3.4 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	1.3879	9.3527	17.6055	0.0250	0.6988	0.1425	0.8414	0.1996	0.1311	0.3307		2,454.1351	2,454.1351	0.0192		2,454.5381
Worker	0.7168	0.9528	9.0432	0.0217	1.9798	0.0127	1.9925	0.5251	0.0117	0.5368		1,714.9042	1,714.9042	0.0794		1,716.5724
Total	**2.1046**	**10.3055**	**26.6487**	**0.0467**	**2.6786**	**0.1552**	**2.8338**	**0.7247**	**0.1427**	**0.8675**		**4,169.0393**	**4,169.0393**	**0.0986**		**4,171.1106**

3.4 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	1.3879	9.3527	17.6055	0.0250	0.6988	0.1425	0.8414	0.1996	0.1311	0.3307		2,454.1351	2,454.1351	0.0192		2,454.5381
Worker	0.7168	0.9528	9.0432	0.0217	1.9798	0.0127	1.9925	0.5251	0.0117	0.5368		1,714.9042	1,714.9042	0.0794		1,716.5724
Total	**2.1046**	**10.3055**	**26.6487**	**0.0467**	**2.6786**	**0.1552**	**2.8338**	**0.7247**	**0.1427**	**0.8675**		**4,169.0393**	**4,169.0393**	**0.0986**		**4,171.1106**

3.4 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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

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	1.2342	8.4947	16.6264	0.0249	0.6987	0.1277	0.8264	0.1996	0.1174	0.3170		2,411.3405	2,411.3405	0.0185		2,411.7279
Worker	0.6287	0.8527	7.9636	0.0217	1.9798	0.0125	1.9922	0.5251	0.0115	0.5366		1,649.7794	1,649.7794	0.0728		1,651.3088
Total	**1.8629**	**9.3473**	**24.5899**	**0.0466**	**2.6785**	**0.1401**	**2.8186**	**0.7247**	**0.1289**	**0.8536**		**4,061.1199**	**4,061.1199**	**0.0913**		**4,063.0368**

3.4 Building Construction - 2018

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	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

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	1.2342	8.4947	16.6264	0.0249	0.6987	0.1277	0.8264	0.1996	0.1174	0.3170		2,411.3405	2,411.3405	0.0185		2,411.7279
Worker	0.6287	0.8527	7.9636	0.0217	1.9798	0.0125	1.9922	0.5251	0.0115	0.5366		1,649.7794	1,649.7794	0.0728		1,651.3088
Total	**1.8629**	**9.3473**	**24.5899**	**0.0466**	**2.6785**	**0.1401**	**2.8186**	**0.7247**	**0.1289**	**0.8536**		**4,061.1199**	**4,061.1199**	**0.0913**		**4,063.0368**

3.4 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	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

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	1.1517	7.7744	16.0828	0.0249	0.6988	0.1184	0.8172	0.1996	0.1089	0.3085		2,370.7229	2,370.7229	0.0180		2,371.1000
Worker	0.5727	0.7808	7.2702	0.0217	1.9798	0.0124	1.9922	0.5251	0.0115	0.5367		1,590.3588	1,590.3588	0.0684		1,591.7948
Total	**1.7244**	**8.5552**	**23.3530**	**0.0465**	**2.6786**	**0.1308**	**2.8094**	**0.7247**	**0.1204**	**0.8452**		**3,961.0817**	**3,961.0817**	**0.0863**		**3,962.8948**

3.4 Building Construction - 2019

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	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

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	1.1517	7.7744	16.0828	0.0249	0.6988	0.1184	0.8172	0.1996	0.1089	0.3085		2,370.7229	2,370.7229	0.0180		2,371.1000
Worker	0.5727	0.7808	7.2702	0.0217	1.9798	0.0124	1.9922	0.5251	0.0115	0.5367		1,590.3588	1,590.3588	0.0684		1,591.7948
Total	**1.7244**	**8.5552**	**23.3530**	**0.0465**	**2.6786**	**0.1308**	**2.8094**	**0.7247**	**0.1204**	**0.8452**		**3,961.0817**	**3,961.0817**	**0.0863**		**3,962.8948**

3.5 Architectural Coating - 2017

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	12.7638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**13.0961**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1428	0.1898	1.8011	4.3200e-003	0.3943	2.5300e-003	0.3968	0.1046	2.3300e-003	0.1069		341.5577	341.5577	0.0158		341.8899
Total	**0.1428**	**0.1898**	**1.8011**	**4.3200e-003**	**0.3943**	**2.5300e-003**	**0.3968**	**0.1046**	**2.3300e-003**	**0.1069**		**341.5577**	**341.5577**	**0.0158**		**341.8899**

3.5 Architectural Coating - 2017

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	12.7638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**13.0961**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1428	0.1898	1.8011	4.3200e-003	0.3943	2.5300e-003	0.3968	0.1046	2.3300e-003	0.1069		341.5577	341.5577	0.0158		341.8899
Total	**0.1428**	**0.1898**	**1.8011**	**4.3200e-003**	**0.3943**	**2.5300e-003**	**0.3968**	**0.1046**	**2.3300e-003**	**0.1069**		**341.5577**	**341.5577**	**0.0158**		**341.8899**

3.5 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	12.7638					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		282.0102
Total	**13.0624**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

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	0.1252	0.1698	1.5861	4.3200e-003	0.3943	2.4800e-003	0.3968	0.1046	2.2900e-003	0.1069		328.5868	328.5868	0.0145		328.8914
Total	**0.1252**	**0.1698**	**1.5861**	**4.3200e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.2900e-003**	**0.1069**		**328.5868**	**328.5868**	**0.0145**		**328.8914**

3.5 Architectural Coating - 2018

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	12.7638					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		282.0102
Total	**13.0624**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

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	0.1252	0.1698	1.5861	4.3200e-003	0.3943	2.4800e-003	0.3968	0.1046	2.2900e-003	0.1069		328.5868	328.5868	0.0145		328.8914
Total	**0.1252**	**0.1698**	**1.5861**	**4.3200e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.2900e-003**	**0.1069**		**328.5868**	**328.5868**	**0.0145**		**328.8914**

3.5 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	12.7638					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		281.9473
Total	**13.0303**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

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	0.1141	0.1555	1.4480	4.3100e-003	0.3943	2.4800e-003	0.3968	0.1046	2.3000e-003	0.1069		316.7520	316.7520	0.0136		317.0380
Total	**0.1141**	**0.1555**	**1.4480**	**4.3100e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.3000e-003**	**0.1069**		**316.7520**	**316.7520**	**0.0136**		**317.0380**

3.5 Architectural Coating - 2019

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	12.7638					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		281.9473
Total	**13.0303**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

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	0.1141	0.1555	1.4480	4.3100e-003	0.3943	2.4800e-003	0.3968	0.1046	2.3000e-003	0.1069		316.7520	316.7520	0.0136		317.0380
Total	**0.1141**	**0.1555**	**1.4480**	**4.3100e-003**	**0.3943**	**2.4800e-003**	**0.3968**	**0.1046**	**2.3000e-003**	**0.1069**		**316.7520**	**316.7520**	**0.0136**		**317.0380**

3.6 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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8533**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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	0.0391	0.0531	0.4957	1.3500e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		102.6834	102.6834	4.5300e-003		102.7786
Total	**0.0391**	**0.0531**	**0.4957**	**1.3500e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.2000e-004**	**0.0334**		**102.6834**	**102.6834**	**4.5300e-003**		**102.7786**

3.6 Paving - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8533**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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	0.0391	0.0531	0.4957	1.3500e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		102.6834	102.6834	4.5300e-003		102.7786
Total	**0.0391**	**0.0531**	**0.4957**	**1.3500e-003**	**0.1232**	**7.8000e-004**	**0.1240**	**0.0327**	**7.2000e-004**	**0.0334**		**102.6834**	**102.6834**	**4.5300e-003**		**102.7786**

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	9.2877	24.3830	99.7230	0.2092	14.5573	0.3191	14.8765	3.8893	0.2940	4.1833		16,899.1411	16,899.1411	0.5674		16,911.0571
Unmitigated	9.2877	24.3830	99.7230	0.2092	14.5573	0.3191	14.8765	3.8893	0.2940	4.1833		16,899.1411	16,899.1411	0.5674		16,911.0571

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	2,870.00	663.60	274.40	5,219,220	5,219,220
Parking Lot	0.00	0.00	0.00		
Total	2,870.00	663.60	274.40	5,219,220	5,219,220

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.436123	0.064009	0.189752	0.169683	0.063959	0.008608	0.013150	0.039191	0.001722	0.001069	0.008434	0.000534	0.003765

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	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	0.1014	0.9214	0.7740	5.5300e-003		0.0700	0.0700		0.0700	0.0700		1,105.6503	1,105.6503	0.0212	0.0203	1,112.3791
NaturalGas Unmitigated	0.1431	1.3011	1.0929	7.8100e-003		0.0989	0.0989		0.0989	0.0989		1,561.3215	1,561.3215	0.0299	0.0286	1,570.8235

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					
General Office Building	13271.2	0.1431	1.3011	1.0929	7.8100e-003		0.0989	0.0989		0.0989	0.0989		1,561.3215	1,561.3215	0.0299	0.0286	1,570.8235
Parking Lot	0	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
Total		**0.1431**	**1.3011**	**1.0929**	**7.8100e-003**		**0.0989**	**0.0989**		**0.0989**	**0.0989**		**1,561.3215**	**1,561.3215**	**0.0299**	**0.0286**	**1,570.8235**

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					
Parking Lot	0	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
General Office Building	9.39803	0.1014	0.9214	0.7740	5.5300e-003		0.0700	0.0700		0.0700	0.0700		1,105.6503	1,105.6503	0.0212	0.0203	1,112.3791
Total		**0.1014**	**0.9214**	**0.7740**	**5.5300e-003**		**0.0700**	**0.0700**		**0.0700**	**0.0700**		**1,105.6503**	**1,105.6503**	**0.0212**	**0.0203**	**1,112.3791**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	13.4221	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Unmitigated	15.5539	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729

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	1.8464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0115	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Total	**15.5539**	**1.1300e-003**	**0.1217**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2583**	**0.2583**	**7.0000e-004**		**0.2729**

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	0.7386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.6720					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0115	1.1300e-003	0.1217	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2583	0.2583	7.0000e-004		0.2729
Total	**13.4221**	**1.1300e-003**	**0.1217**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2583**	**0.2583**	**7.0000e-004**		**0.2729**

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 Vegetation

Stone Point Office Building

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
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	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	7.48400E-002	5.08350E-001	4.87910E-001	7.80000E-004	3.70400E-002	3.70400E-002	0.00000E+000	6.74060E+001	6.74060E+001	6.07000E-003	0.00000E+000	6.75334E+001
Cranes	1.22650E-001	1.46359E+000	5.48050E-001	1.30000E-003	6.28600E-002	5.78300E-002	0.00000E+000	1.18202E+002	1.18202E+002	3.70600E-002	0.00000E+000	1.18980E+002
Excavators	4.67300E-002	5.18170E-001	4.41320E-001	6.80000E-004	2.54900E-002	2.34500E-002	0.00000E+000	6.33422E+001	6.33422E+001	1.94100E-002	0.00000E+000	6.37497E+001
Forklifts	1.35250E-001	1.19980E+000	9.54040E-001	1.21000E-003	9.46500E-002	8.70800E-002	0.00000E+000	1.09726E+002	1.09726E+002	3.44000E-002	0.00000E+000	1.10448E+002
Generator Sets	1.26430E-001	1.04766E+000	9.86520E-001	1.74000E-003	6.50500E-002	6.50500E-002	0.00000E+000	1.49215E+002	1.49215E+002	1.02000E-002	0.00000E+000	1.49429E+002
Graders	6.14400E-002	6.21870E-001	3.12060E-001	4.00000E-004	3.49300E-002	3.21400E-002	0.00000E+000	3.73082E+001	3.73082E+001	1.14300E-002	0.00000E+000	3.75483E+001
Pavers	2.03900E-002	2.25530E-001	1.82910E-001	2.90000E-004	1.10200E-002	1.01400E-002	0.00000E+000	2.68262E+001	2.68262E+001	8.35000E-003	0.00000E+000	2.70016E+001
Paving Equipment	1.52200E-002	1.70190E-001	1.62350E-001	2.60000E-004	8.33000E-003	7.67000E-003	0.00000E+000	2.38105E+001	2.38105E+001	7.41000E-003	0.00000E+000	2.39661E+001
Rollers	1.67600E-002	1.62070E-001	1.25800E-001	1.70000E-004	1.11500E-002	1.02600E-002	0.00000E+000	1.55618E+001	1.55618E+001	4.84000E-003	0.00000E+000	1.56635E+001
Rubber Tired Dozers	8.57000E-002	9.49870E-001	7.15720E-001	6.40000E-004	4.41300E-002	4.06000E-002	0.00000E+000	5.94393E+001	5.94393E+001	1.82100E-002	0.00000E+000	5.98218E+001
Scrapers	1.67580E-001	2.10506E+000	1.31558E+000	1.92000E-003	8.44700E-002	7.77200E-002	0.00000E+000	1.78273E+002	1.78273E+002	5.46200E-002	0.00000E+000	1.79420E+002
Tractors/Loaders/ Backhoes	2.18870E-001	2.16066E+000	1.94243E+000	2.59000E-003	1.52140E-001	1.39970E-001	0.00000E+000	2.35347E+002	2.35347E+002	7.35000E-002	0.00000E+000	2.36890E+002
Welders	1.10170E-001	4.37440E-001	4.84860E-001	6.70000E-004	2.83900E-002	2.83900E-002	0.00000E+000	4.96903E+001	4.96903E+001	9.00000E-003	0.00000E+000	4.98792E+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	7.48400E-002	5.08350E-001	4.87910E-001	7.80000E-004	3.70400E-002	3.70400E-002	0.00000E+000	6.74059E+001	6.74059E+001	6.07000E-003	0.00000E+000	6.75333E+001
Cranes	1.22650E-001	1.46359E+000	5.48050E-001	1.30000E-003	6.28600E-002	5.78300E-002	0.00000E+000	1.18202E+002	1.18202E+002	3.70600E-002	0.00000E+000	1.18980E+002
Excavators	4.67300E-002	5.18170E-001	4.41310E-001	6.80000E-004	2.54900E-002	2.34500E-002	0.00000E+000	6.33421E+001	6.33421E+001	1.94100E-002	0.00000E+000	6.37496E+001
Forklifts	1.35250E-001	1.19980E+000	9.54040E-001	1.21000E-003	9.46500E-002	8.70800E-002	0.00000E+000	1.09726E+002	1.09726E+002	3.44000E-002	0.00000E+000	1.10448E+002
Generator Sets	1.26430E-001	1.04766E+000	9.86520E-001	1.74000E-003	6.50500E-002	6.50500E-002	0.00000E+000	1.49215E+002	1.49215E+002	1.02000E-002	0.00000E+000	1.49429E+002
Graders	6.14400E-002	6.21860E-001	3.12060E-001	4.00000E-004	3.49300E-002	3.21400E-002	0.00000E+000	3.73082E+001	3.73082E+001	1.14300E-002	0.00000E+000	3.75482E+001
Pavers	2.03900E-002	2.25530E-001	1.82910E-001	2.90000E-004	1.10200E-002	1.01400E-002	0.00000E+000	2.68262E+001	2.68262E+001	8.35000E-003	0.00000E+000	2.70015E+001
Paving Equipment	1.52200E-002	1.70190E-001	1.62350E-001	2.60000E-004	8.33000E-003	7.67000E-003	0.00000E+000	2.38104E+001	2.38104E+001	7.41000E-003	0.00000E+000	2.39661E+001
Rollers	1.67600E-002	1.62070E-001	1.25800E-001	1.70000E-004	1.11500E-002	1.02600E-002	0.00000E+000	1.55618E+001	1.55618E+001	4.84000E-003	0.00000E+000	1.56635E+001
Rubber Tired Dozers	8.57000E-002	9.49870E-001	7.15720E-001	6.40000E-004	4.41300E-002	4.06000E-002	0.00000E+000	5.94392E+001	5.94392E+001	1.82100E-002	0.00000E+000	5.98217E+001
Scrapers	1.67580E-001	2.10506E+000	1.31558E+000	1.92000E-003	8.44700E-002	7.77200E-002	0.00000E+000	1.78273E+002	1.78273E+002	5.46200E-002	0.00000E+000	1.79420E+002
Tractors/Loaders/Backhoes	2.18870E-001	2.16066E+000	1.94243E+000	2.59000E-003	1.52140E-001	1.39970E-001	0.00000E+000	2.35347E+002	2.35347E+002	7.34900E-002	0.00000E+000	2.36890E+002
Welders	1.10170E-001	4.37440E-001	4.84860E-001	6.70000E-004	2.83900E-002	2.83900E-002	0.00000E+000	4.96902E+001	4.96902E+001	9.00000E-003	0.00000E+000	4.98792E+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	1.18684E-006	1.18684E-006	0.00000E+000	0.00000E+000	1.18460E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18442E-006	1.18442E-006	0.00000E+000	0.00000E+000	1.17667E-006
Excavators	0.00000E+000	0.00000E+000	2.26593E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.26298E-006	1.26298E-006	0.00000E+000	0.00000E+000	1.25491E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18477E-006	1.18477E-006	0.00000E+000	0.00000E+000	1.17702E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20631E-006	1.20631E-006	0.00000E+000	0.00000E+000	1.20459E-006
Graders	0.00000E+000	1.60805E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07215E-006	1.07215E-006	0.00000E+000	0.00000E+000	1.33162E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11831E-006	1.11831E-006	0.00000E+000	0.00000E+000	1.11105E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.25995E-006	1.25995E-006	0.00000E+000	0.00000E+000	1.25177E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.28520E-006	1.28520E-006	0.00000E+000	0.00000E+000	1.27685E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17767E-006	1.17767E-006	0.00000E+000	0.00000E+000	1.17014E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23406E-006	1.23406E-006	0.00000E+000	0.00000E+000	1.17044E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18973E-006	1.18973E-006	1.36054E-004	0.00000E+000	1.22419E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20748E-006	1.20748E-006	0.00000E+000	0.00000E+000	1.20291E-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)			
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	0.10	0.03	0.10	0.03	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.68	0.18	0.68	0.18	0.00	0.00
Grading	Fugitive Dust	0.40	0.22	0.40	0.22	0.00	0.00
Grading	Roads	0.03	0.01	0.03	0.01	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	0.05	0.02	0.05	0.02	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	60.00	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	9.58	9.58	9.58	9.61	9.58
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	29.17	29.19	29.18	28.87	29.20	29.20	0.00	29.18	29.18	29.09	29.11	29.18
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.15	0.02
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	0.11	0.33		
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	
Yes	Use Low VOC Paint (Residential Interior)	100.00
Yes	Use Low VOC Paint (Residential Exterior)	100.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	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
Yes	Exceed Title 24	30.00	
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

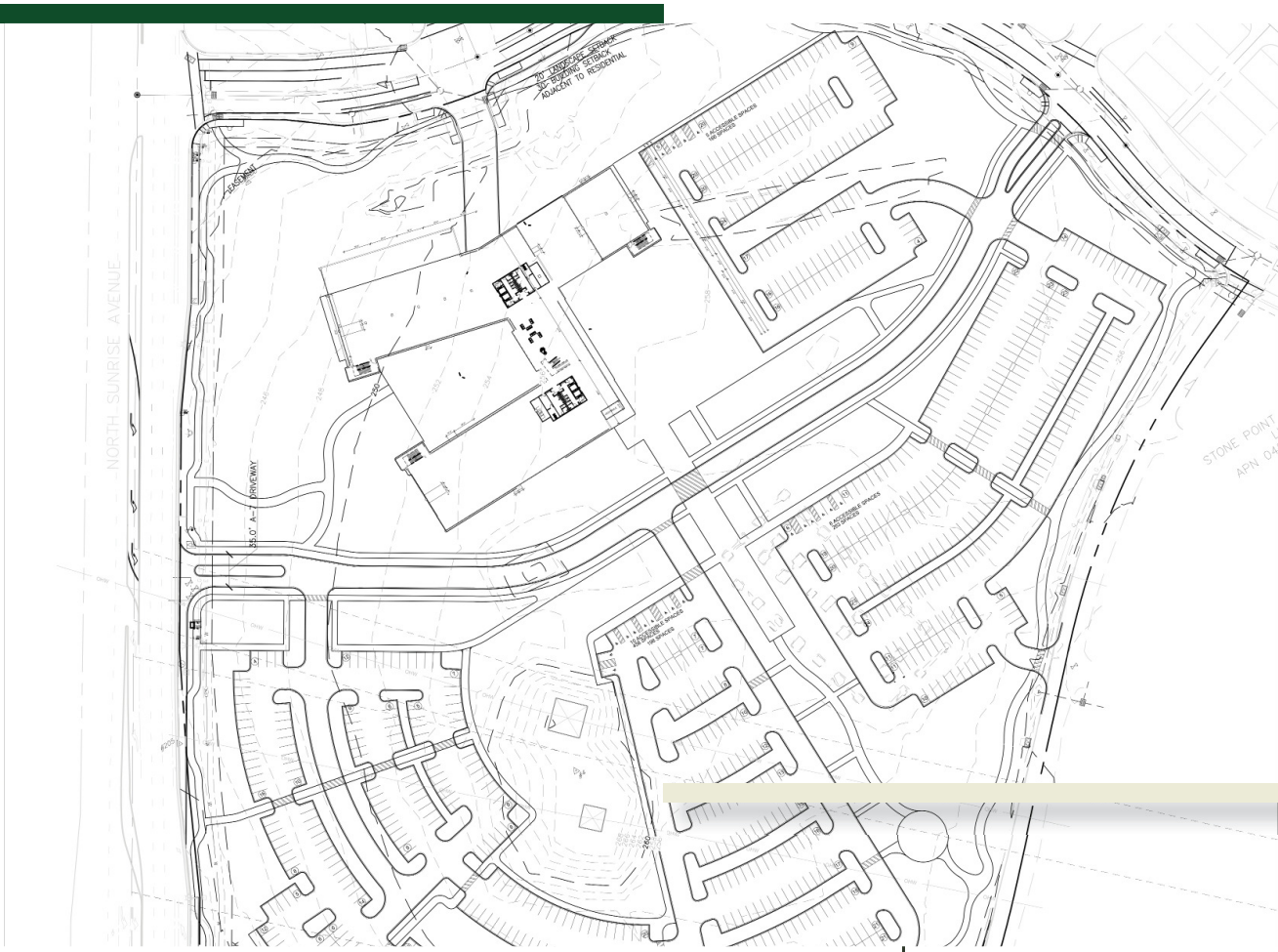
Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00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

Evaluation of Circulation for Proposed Adventist Health Office Project on Stone Point Property

for Roseville, CA



FEHR PEERS

Submitted By:
Fehr & Peers
1013 Galleria Blvd
Suite 255
Roseville, CA 95678

September 16, 2016

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EXECUTIVE SUMMARY

This study analyzes vehicular circulation associated with the development of the proposed Adventist Health Office Project on Stone Point Parcels 6, 7, 8, and 9 located in the northeast quadrant of the North Sunrise Avenue/Eureka Road intersection in Roseville, CA. Although the project would be developed in multiple phases, the Major Project Permit application being submitted to the City includes only Phase 1 of the project. Therefore, the access needs and internal circulation for this phase of the project are analyzed under existing conditions. Since it is important to also consider a site's ultimate access needs, an evaluation of a conceptual full build-out scenario is also presented.

This study does not include analyses of project impacts to surrounding intersections because the project land uses are consistent with the assumptions in the City's 2035 Capital Improvement Program (CIP) travel demand model and a 2007 study analyzed its project-specific traffic impacts.

PROJECT DESCRIPTION

Phase 1 of the project would consist of 280,000 square feet of office space including two four-story general office buildings and 887 surface parking spaces. Refer to Figure 2 for the project site plan. This figure also shows the proposed project driveways and their permitted turn movements.

Full build-out could include up to 685,000 total square feet of office including replacement of some surface parking with two new parking structures.

ACCESS EVALUATION FOR EXISTING PLUS PROJECT (PHASE 1) CONDITIONS

Preliminary analyses by Fehr & Peers of a prior project site plan indicated a strong potential for vehicular queuing issues along Eureka Road based on the access provisions proposed under that plan and existing field conditions. To address these concerns, a meeting was held on July 28, 2016 with Fehr & Peers, City staff, and the applicant, in which agreement was reached on the following:

1. Fehr & Peers and the City evaluated potential enhancements in signal timings and physical improvements at the Eureka Road/North Sunrise Avenue intersection to address the current imbalanced lane usage in the eastbound Eureka Road left-turn lanes onto North Sunrise Avenue. This evaluation led to the following feasible improvements:
    - Restripe (and add delineators or equivalent) northbound North Sunrise Avenue north of Eureka Road to eliminate the inside (#1) receiving lane for a distance of 200 feet. The inside lane would reopen beyond this point so that motorists would continue to be able to access the northbound left-turn ingress lane to the North Sunrise Professional Center.

- Repaint the eastbound left-turn lane markings within the intersection to align with the two remaining lanes.
- Retime the traffic signal so that the eastbound left-turn is given an additional seven seconds of green time during the AM peak hour.

2. Lengthen the eastbound dual left-turn lanes from 225 to 325 feet at the North Sunrise Avenue/ Eureka Road intersection to provide greater opportunities for left-turning motorists to access the turn lanes without being blocked by queued traffic in the adjacent through lane. This would require removal of some trees and landscaping in the median.

City staff directed Fehr & Peers to assume these improvements are in place for purposes of analyzing existing plus project conditions. The City and applicant should discuss the financial responsibility and timing for implementing these improvements.

A micro-simulation model was used to analyze access to the project site under existing plus project conditions. Conclusions from this analysis were that:

- During the AM peak hour, the eastbound left-turn lanes on Eureka Road would not exceed the available storage. The maximum queue in the eastbound through lanes would increase from 850 to 1,175 feet, but would not reach the Eureka Road/Taylor Road/I-80 EB Ramps intersection.
- During the AM peak hour, the left-turn movement from eastbound Eureka Road onto the Stone Point Driveway would experience a maximum queue increase from 150 to 200 feet. This queue would not exceed the 325 feet of available storage that is provided.
- During the PM peak hour, the southbound right-turn movement from the Stone Point Driveway onto westbound Eureka Road would experience a maximum queue increase from 200 to 425 feet. The queue would extend beyond the entrance to the Stone Point Retail Center.

Vehicular queuing at the accesses along North Sunrise Avenue would be accommodated within the available storage. The following are recommended:

- Construct a 200-foot southbound left-turn ingress lane on North Sunrise Avenue at Driveway 1.
- Extend the acceleration lane on northbound North Sunrise Avenue departing Eureka Road to Driveway 1.

REVIEW OF ON-SITE CIRCULATION

The following two options are recommended to address the queuing issue that would occur along the Stone Point Driveway in the vicinity of Driveway 4:

- Option 1: *Construct a new right-turn only driveway on Eureka Road between the Stone Point Driveway and North Sunrise Avenue*; or
- Option 2: *Widen the width of Stone Point Driveway from north of Eureka Road to beyond Driveway 4 to enable construction of exclusive left-turn lanes. Stripe markings and/or post signs indicating "Do Not Block Intersection"*.

Due to the horizontal curvature of Stone Point Drive between Avanti Drive and Vittorio Drive, a detailed sight distance review was found to be necessary. Based on that analysis, the following is recommended:

- Landscaping should be limited to low shrubs (e.g., less than 2 feet tall) for a distance of 260 feet east of Driveway 2 (within the cross-hatched area).
- Landscaping should be limited to low shrubs (e.g., less than 2 feet tall) for a distance of 300 feet east of Driveway 2 (within the cross-hatched area).

The following recommendations are offered along the main internal circulatory roadway that extends between Driveways 1 and 3:

- *Install a raised crosswalk at the main crossing in the central portion of the site.*
- *Add two additional crosswalks across the main internal circulatory roadway.*
- *Install stop signs as shown on Figure 7.*
- *Design/construct center median at Driveway 3 to enable its potential conversion to an outbound left-turn lane (under a future build-out condition)*

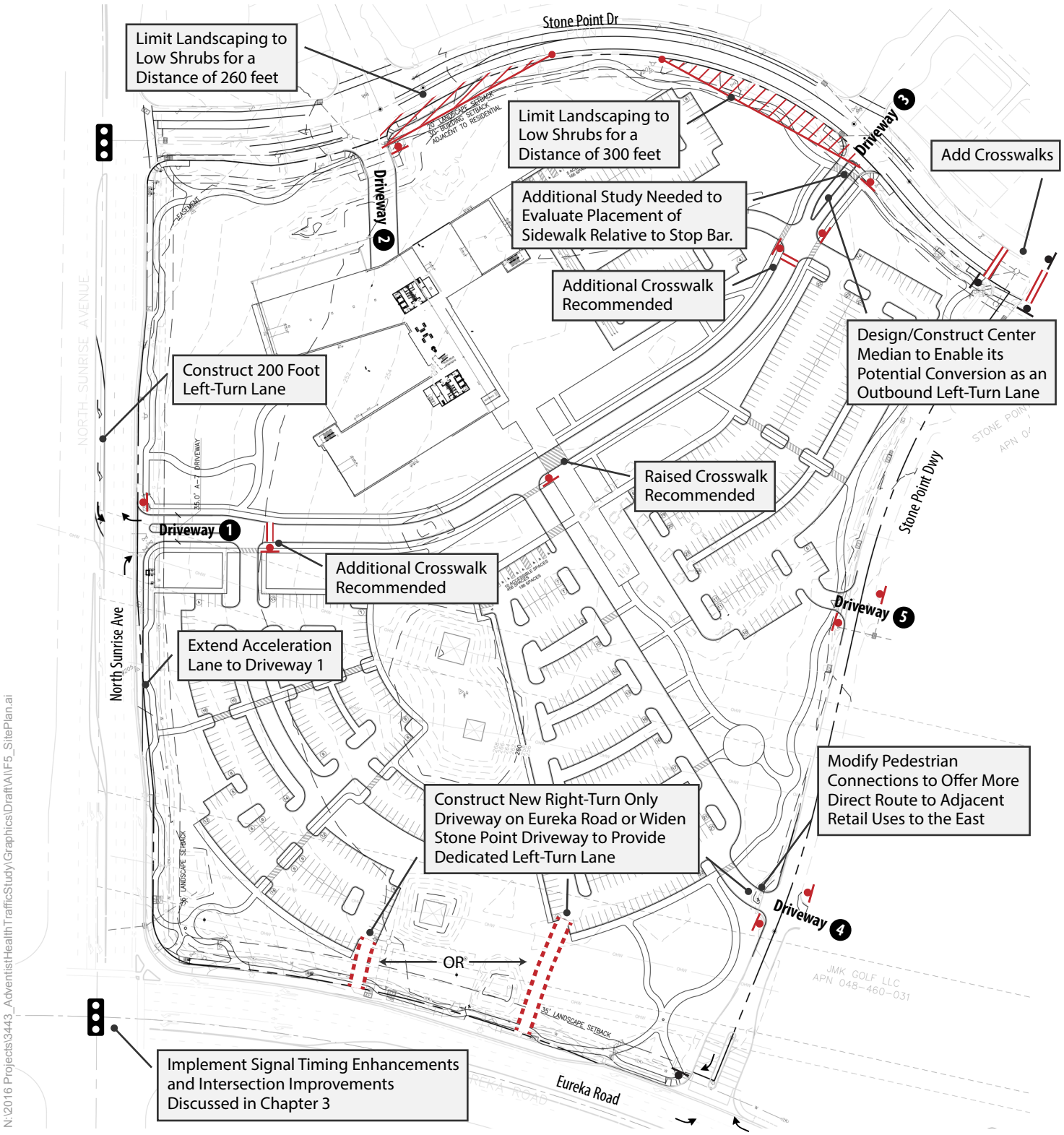
The following additional recommendations are offered:

- *Install crosswalks across Stone Point Drive at the all-way-stop Stone Point Driveway intersection.*
- *Additional review is necessary at Driveway 3 to evaluate the proposed location of the multi-use path crossing of the driveway relative to the stop bar.*
- *Modify pedestrian connectivity near the Stone Point Driveway / Driveway 4 intersection to provide better connectivity to the adjacent retail/restaurant uses located east of the Stone Point Driveway.*

FUTURE CONSIDERATIONS

The timing of the construction of the remainder of the project is currently unknown. While conceptual plans showing potential buildings and parking structures have been developed, a formal application has not been submitted to the City of Roseville. Therefore, the following actions are recommended with respect to the review of access when development applications for future phases are submitted:

1. Conduct multi-day, peak-hour trip generation studies of the Phase 1 project to determine if its trip generation is less than the estimates in this report (given the applicant's expectation based on the transitory nature of Adventist Health employee travel between different offices).
2. Measure the volume of turning traffic and queuing at the Eureka Road/Stone Point Driveway intersection and note the degree to which approved, but currently not yet built projects have been constructed.
3. Observe the level of queuing that occurs on eastbound Eureka Road approaching North Sunrise Avenue. Based on these observations, determine whether additional signal timing adjustments are necessary, and if a modification of signal phasing to provide an eastbound left-turn lead phase should be considered.
4. Conduct supplemental analyses of the additional project phases to determine which, if any, type of traffic control change (e.g., partial traffic signal) or additional storage is needed at the Eureka Road/Stone Point Driveway intersection.
5. Measure vehicular queuing at proposed project driveways on Eureka Road, North Sunrise Avenue, Stone Point Drive, and Stone Point Driveway, and evaluate how project buildout would affect these queues.



New Stop Sign

Existing Stop Sign

Existing Traffic Signal

Permitted Turning Movement

Note: All movements allowed at driveways on Stone Point Drive and along Stone Point Driveway.

Figure ES-1

Phase 1 Recommendations

1. INTRODUCTION

PURPOSE

This study analyzes vehicular circulation associated with development of the proposed Adventist Health Office Project on Stone Point Parcels 6, 7, 8, and 9 located in the northeast quadrant of the North Sunrise Avenue/Eureka Road intersection in Roseville, CA. Although the project would be developed in multiple phases, the Major Project Permit application being submitted to the City includes only Phase 1 of the project. Therefore, the access needs and internal circulation for this phase of the project are analyzed under existing conditions. Since it is important to also consider a site's access needs under a build-out condition, an evaluation of a conceptual full-buildout scenario is presented in Appendix B.

This report does not include a transportation impact study that analyzes surrounding intersections under existing and cumulative conditions. Such a study was previously conducted for the property in 2007, and the proposed project land uses generate less traffic than the assumed land uses for the site in the City's 2035 Capital Improvement Program (CIP) travel demand model. Accordingly, the impacts associated with development of the site have been previously evaluated, and the City's list of CIP projects considers the traffic generated by the project.

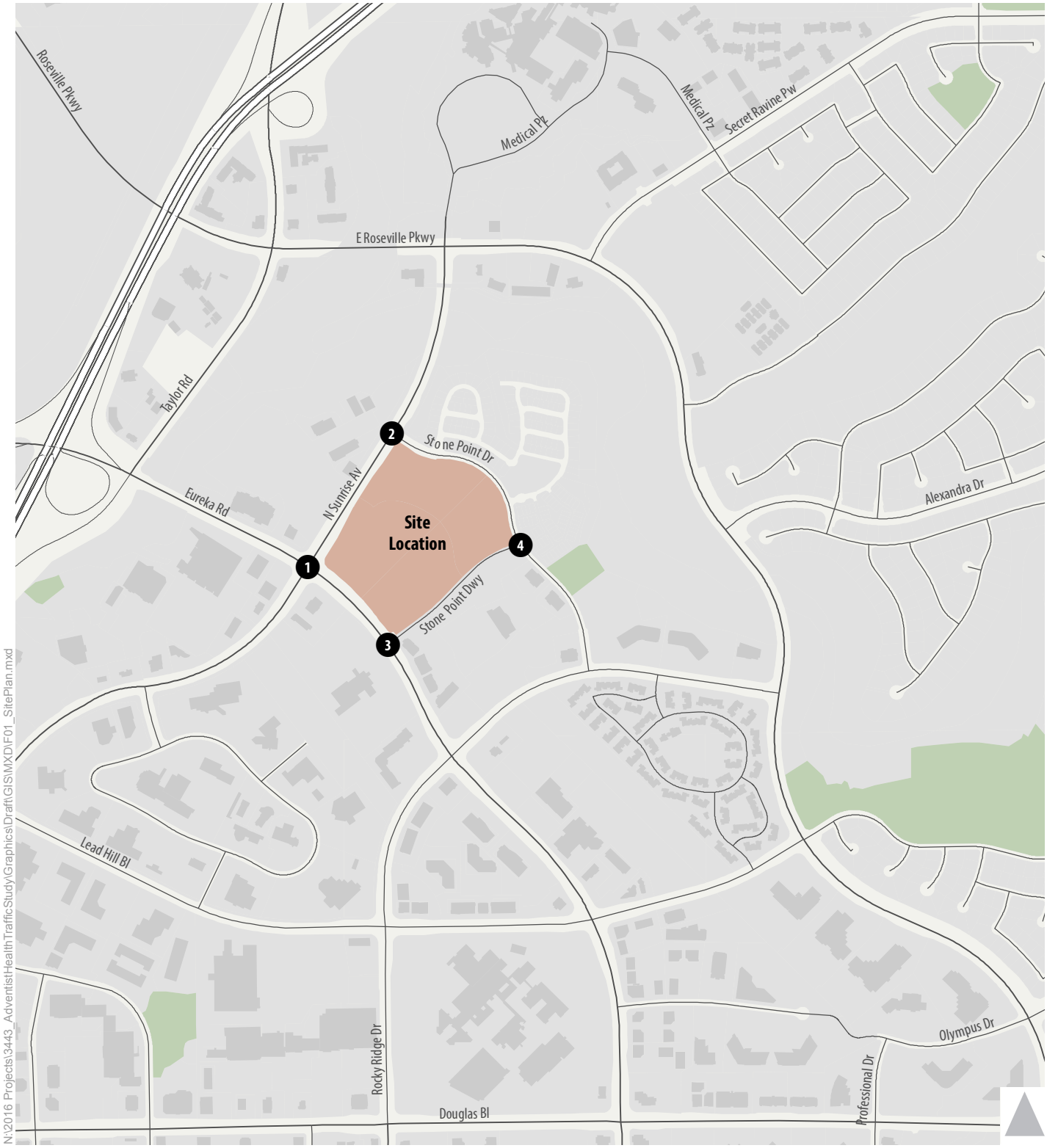
STUDY AREA

The study area includes existing and proposed access points along the North Sunrise Avenue, Eureka Road, and Stone Point Drive corridors. Since this study focuses on project access and circulation (versus potential off-site traffic impacts), intersection operations are only considered in the context for which their operations may affect project access.

Through field visits, it was determined that a micro-simulation model that includes the following intersections was necessary to properly analyze project access (see **Figure 1)**:

1. North Sunrise Avenue/Eureka Road
2. North Sunrise Avenue/Stone Point Drive
3. Stone Point Driveway/Eureka Road
4. Stone Point Driveway/Stone Point Drive

Intersection 1 was included in the model to replicate the effects of upstream coordinated, signal operations and vehicle spillbacks that may affect project driveways. The remaining intersections were included based on their proximity to the project site and expected usage by project traffic.



1 Study Intersection

Figure 1

Project Site Location

PROJECT DESCRIPTION

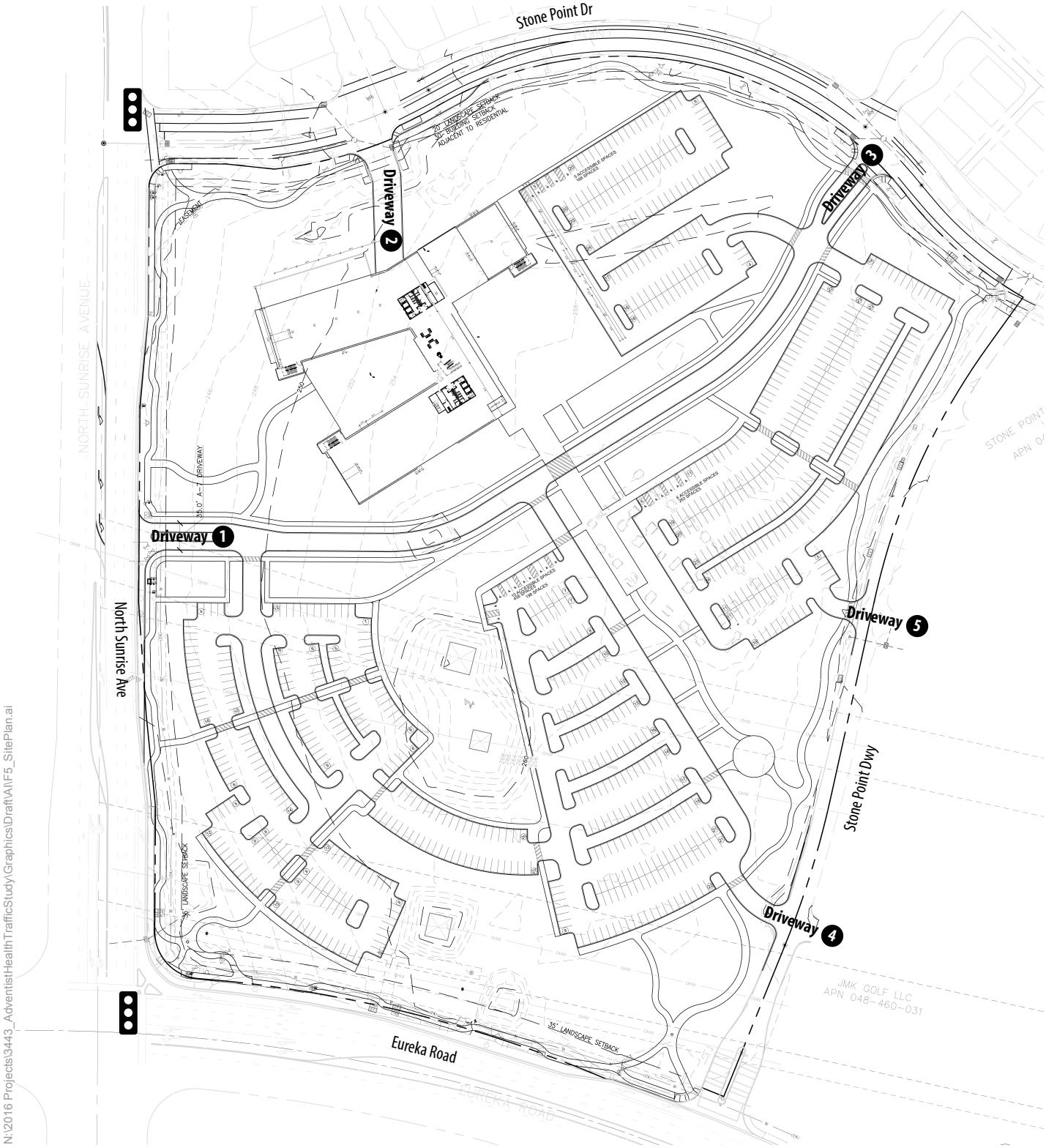
According to the most recent project site plan (*Little*, August 16, 2016), Phase 1 of the project (i.e., "Proposed Project") would consist of 280,000 square feet including two four-story general office buildings and 887 surface parking spaces. Refer to **Figure 2**, for the project site plan. This figure also shows the proposed project driveways including permitted turn movements.

Full buildout, which is evaluated in Appendix B, could include up to 685,000 total square feet, consisting of four four-story general office buildings and two parking structures with 1,850 combined spaces and 461 surface parking spaces, totaling 2,311 parking spaces.

ANALYSIS METHODOLOGIES

The study area was analyzed using the SimTraffic micro-simulation software package (Version 9). This model employs procedures from the *Highway Capacity Manual* (Transportation Research Board, 2010) to estimate delay and vehicle queues. The model considers lane utilization, turn pocket storage lengths, upstream/downstream queue spillbacks, and coordinated signal timings on intersection queuing and delays. The SimTraffic model was validated against measured traffic volumes and observed queues (as described in Chapter 2). Reported results are based on the average of 10 runs. The following specific procedures and assumptions were applied:

- Roadway geometric data were gathered using aerial photographs and field observations.
- Peak hour traffic volumes were entered into the model according to the peak hour of the study area.
- The peak hour factor (PHF) was calculated based on traffic counts and entered into the model.
- The counted pedestrian and bicycle volumes were entered into the model according to the peak hour.
- Signal phasing and timings were based on existing signal timing sheets provided by the City of Roseville.
- Speeds for the model network were based on the posted speed limits.



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Traffic Signal

1 Driveway Number

Figure 2

Phase 1 Project Site Plan

2. EXISTING CONDITIONS

This chapter describes the physical and operational characteristics of the transportation system within the study area including the roadway, transit, bicycle, and pedestrian components of the system.

ROADWAY SYSTEM

Regional access to the project site is provided by Interstate 80 (I-80) via an existing interchange with Eureka Road. The following arterial streets provide access to the site.

- **North Sunrise Avenue** is a north-south arterial that extends from south of Douglas Boulevard northerly to East Roseville Parkway. Within the study area, it has a posted speed limit of 40 miles per hour with three lanes in each direction separated by a center median or channelized left-turn pockets.
- **Eureka Road** is an arterial that extends from I-80 into Granite Bay in unincorporated Placer County. Within the study area, it has a posted speed limit of 40 miles per hour with three lanes in each direction separated by a center median or channelized left-turn pocket. For study purposes, Eureka Road is defined as an east-west roadway.

Access is also provided via Stone Point Drive, which is a two-lane collector street with a posted speed limit of 35 miles per hour. It extends from North Sunrise Avenue to Rocky Ridge Drive. The Stone Point Driveway is a private two-lane street that extends from Eureka Road to Stone Point Drive.

PEAK HOUR TRAFFIC VOLUMES

Traffic counts were collected at study intersections 3 and 4 on Tuesday, June 14, 2016 during the AM (7:00 – 9:00) and PM (4:00 – 6:00 PM) peak period. Although schools in the area were not in session at this time, this is not particularly critical because the purpose of the counts was to document existing levels of traffic entering/exiting the Stone Point property to access retail, restaurant, and office uses. Therefore, the effects of school traffic are modest. Traffic counts for intersections 1 and 2 were obtained from the City's ITS traffic count database and were collected on April 13, 2015. **Figure 3** shows the existing peak hour traffic volumes, lane configurations, and traffic controls at each intersection.

SIMTRAFFIC MODEL VALIDATION

It is critical that the SimTraffic model be adequately validated to existing conditions to accurately predict "plus project" conditions. Model validation typically consists of measures relating to volume served, queue lengths, and average travel time. Given the modest size of the study area but moderate levels of congestion, volume served and vehicle queuing are considered important validation parameters.

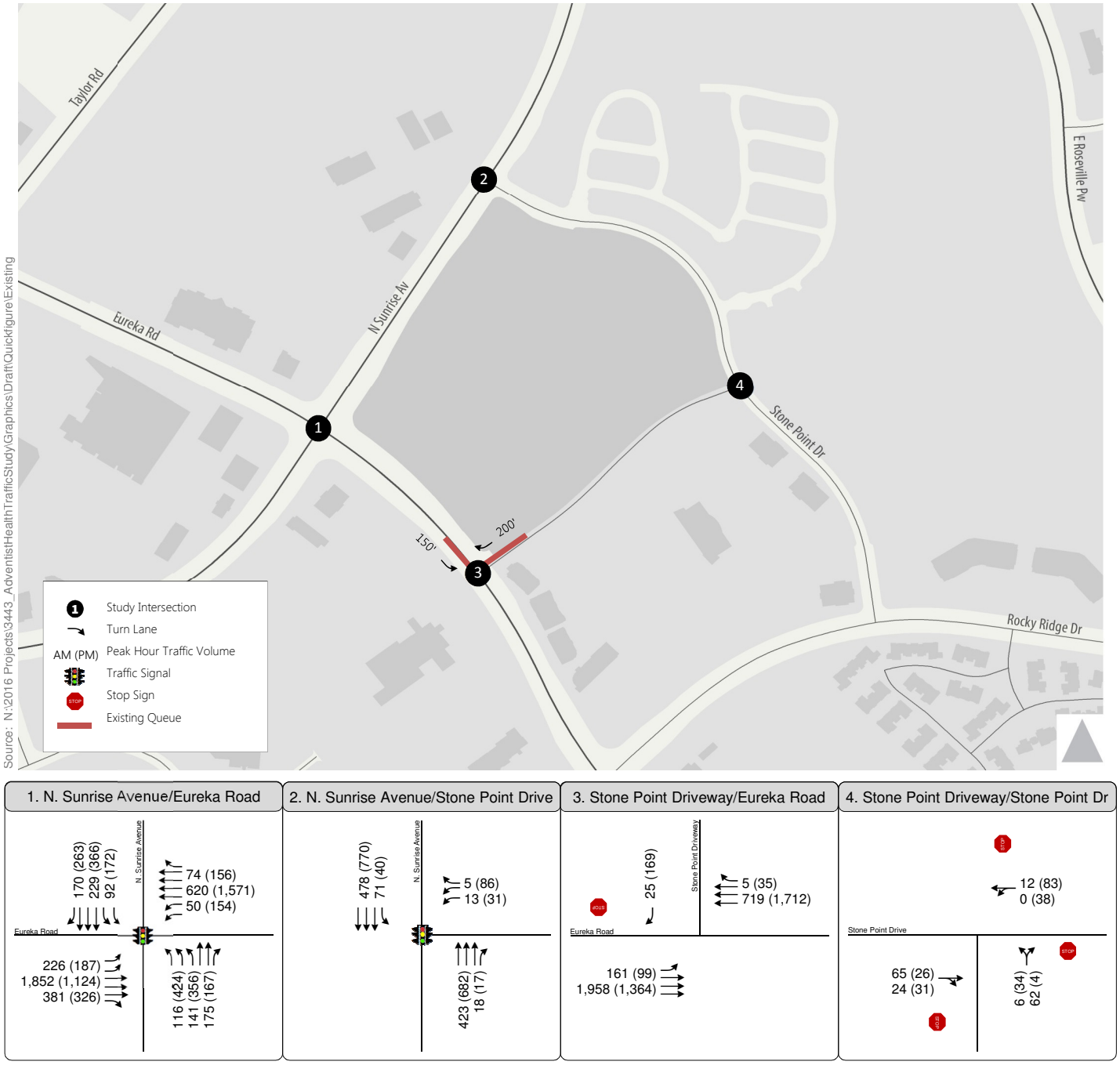


Figure 3

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions

As part of the traffic count data collection, maximum vehicle queues were recorded for two critical turning movements at the Eureka Road/Stone Point Driveway intersection. **Table 1** displays the observed maximum vehicle queue and modeled maximum queue (via SimTraffic) during the existing AM and PM peak hours. Refer to Appendix A for technical calculations.

TABLE 1:
OBSERVED MAXIMUM PEAK HOUR DRIVEWAY QUEUEING

Intersection	Movement	Maximum Observed Vehicle Queue[1, 2]		Maximum Modeled Vehicle Queue[1, 3]		Difference	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Eureka Road/ Stone Point Driveway	Eastbound Left	6	5	6	5	0	0
	Southbound Right	2	8	2	8	0	0

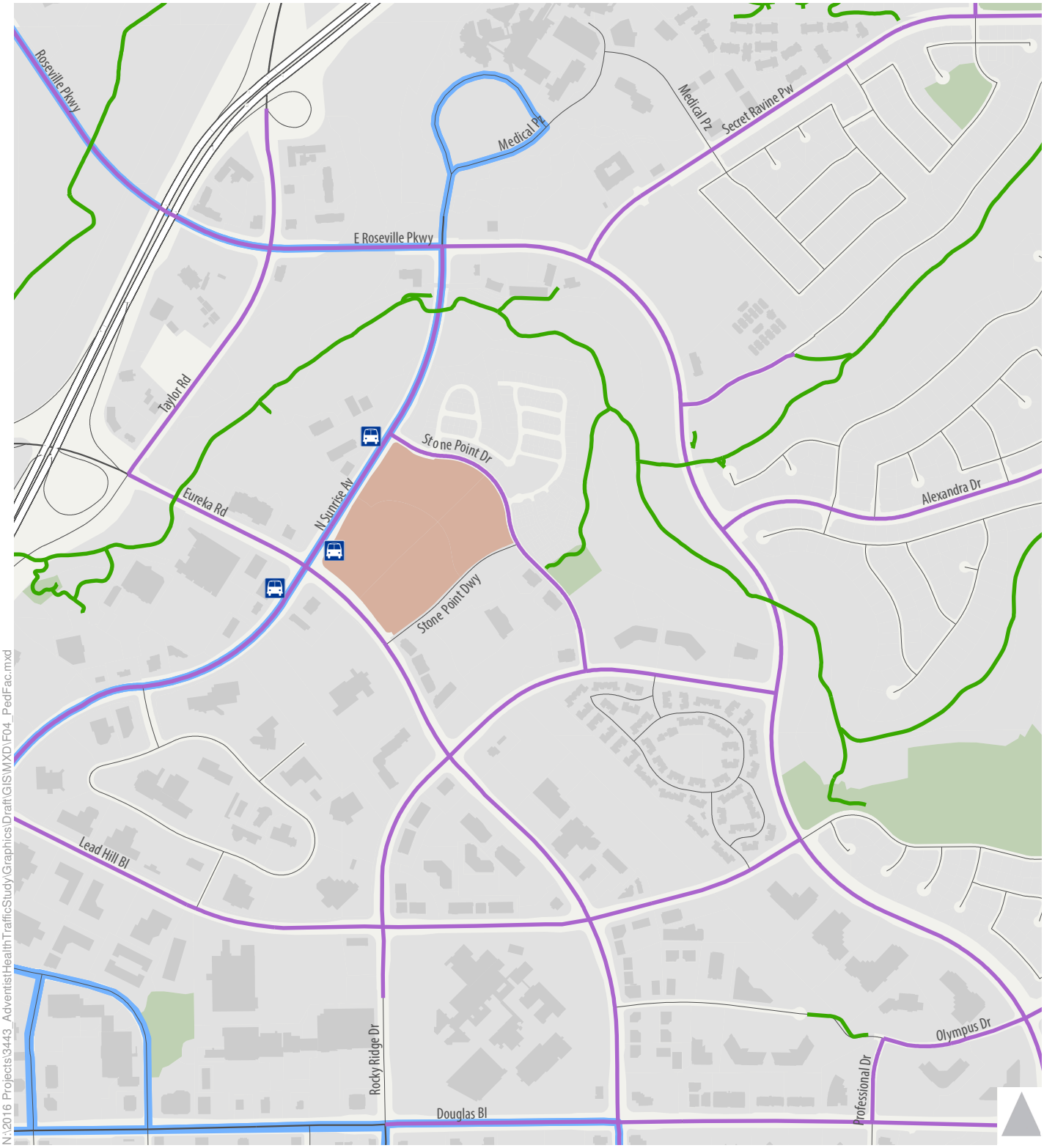
Notes:
[1] Queues measured in number of vehicles
[2] Based on traffic counts collected during the AM and PM peak hours on Tuesday, June 14, 2016
[3] Based on SimTraffic model output.
Source: Fehr & Peers, 2016.

Table 1 shows that the modeled queues validate very well to observed maximum queues. This table shows that each critical directional turn movement currently handles maximum queues of 6 to 8 vehicles during the AM and PM peak hours. With the modeled queues ability to replicated observed conditions, the model is deemed adequately calibrated to forecast "plus project" conditions.

BICYCLE/PEDESTRIAN SYSTEM

Figure 4 displays the bike and pedestrian facilities near the project site. A Class II bicycle lane (designated on-street with appropriate signing and striping) is provided in both directions along North Sunrise Avenue between Lead Hill Boulevard and East Roseville Parkway, Eureka Road from the I-80 ramps to past Sierra College Boulevard, and along Stone Point Drive from North Sunrise Avenue to Rocky Ridge Drive. The Miners Ravine Trail Class I bike path (separated from the roadway) connects to Stone Point Drive just east of Stone Point Driveway, and runs from Harding Boulevard to Sierra College Boulevard.

Sidewalks exist at all four corners of the project site, but with no connections between them (due to the lack of development). At the signalized intersections of North Sunrise Avenue/Eureka Road and North Sunrise Avenue/Stone Point Drive, crosswalks with push-button pedestrian activation are present.



Class I Bike Path
Class II Bike Lane
Class III Bike Route
Bus Route
Bus Stop
Project Site

Figure 4

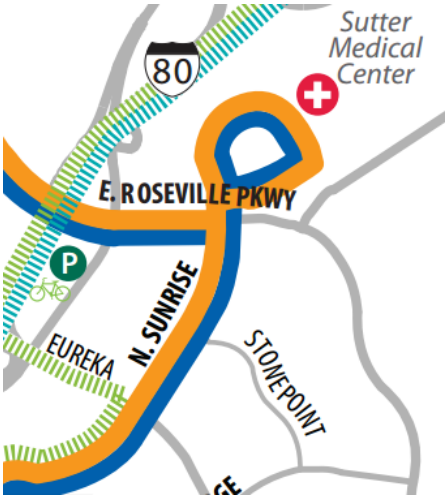
Existing Bike/Pedestrian and Transit Facilities

TRANSIT SYSTEM

The City of Roseville operates both fixed route busing and demand-responsive dial-a-ride service throughout much of the City. The project is served by the following routes which operate together in a loop system serving the same streets:

Route A operates in a clockwise loop starting at the Galleria Transfer Point at Galleria Mall, using North Sunrise Avenue, Cirby Way, Riverside Avenue, and East Roseville Parkway. Route A operates Monday through Friday on 30 minute headways from 6:00 AM to 6:30 PM, and hourly headways thereafter until 9:53 PM. On Saturday, Route A operates on 1-hour headways from 8:00 AM to 5:00 PM. The nearest transit stop to the project site is located on the western side of North Sunrise Avenue just south of Stone Point Drive.

Route B operates in a counter-clockwise loop starting at the Galleria Transfer Point at Galleria Mall, using Riverside Avenue, Cirby Way, Sunrise Avenue, and East Roseville Parkway. Route B operates Monday through Friday on 30 minute headways from 6:10 AM to 6:40 PM, and hourly headways thereafter until 9:43 PM. On Saturday, Route B operates on 1-hour headways from 8:07 AM to 4:50 PM. The nearest transit stop to the project site is located on the eastern side of North Sunrise Avenue adjacent to the project just north of Eureka Road.



City of Roseville Transit Network Surrounding Project
Route A – Orange Route B - Blue

3. EXISTING PLUS PROJECT CONDITIONS

This chapter first analyzes the proposed project's expected trip distribution and assignment characteristics under existing plus project conditions. It then analyzes project access. Appendix A contains all technical calculations for this scenario.

PROJECT TRAVEL CHARACTERISTICS

This chapter begins by describing the project's expected travel characteristics including the anticipated number of vehicle trips, directionality of those trips, and the resulting travel routes.

Trip Generation

The project is intended as a support office for Adventist Health operations, and thus is evaluated as general office space and not a medical office building. Page 27 of the *Trip Generation Handbook, 3rd Edition* (Institute of Transportation Engineers, 2014) provides guidance for selecting average rate or equation when estimating trip generation. Based on this guidance, the equation was used for this project, with the trip rate calculated based on the estimated trips generated. **Table 2** displays the proposed project's expected weekday AM and PM peak hour trip generation based on data published in the *Trip Generation Manual, 9th Edition* (Institute of Transportation Engineers, 2012). Table 2 shows that the vast majority of AM peak hour trips are inbound and PM peak hour trips are outbound, which is typical of an office complex.

TABLE 2:
PROPOSED PROJECT AM AND PM PEAK HOUR TRIP GENERATION

Land Use	Quantity	Trip Rate [1]						Trips					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Office	280 ksf[2]	1.37	0.19	1.56	0.24	1.16	1.40	384	52	436	67	325	392

Notes:
[1] Based on fitted curve equations for the General Office land use (Code 710) from the *Trip Generation Manual, 9th Edition* (Institute of Transportation Engineers, 2012).
[2] ksf = Thousand Square Feet
Source: Fehr & Peers, 2016.

Following are some important considerations when reviewing the data in Table 2:

- *Suitability of ITE Trip Rates*: Fehr & Peers had previously studied (in March 2015) the existing Adventist Health office site at 2100 Douglas Boulevard, including analyzing driveway counts to calculate its trip generation during both the AM and PM peak hours. The site was exclusively occupied by Adventist Health employees who would relocate to the proposed site, reflecting similar travel patterns. After reviewing the previous study, it was found that observed Adventist Health trip rates were comparable to ITE trip rates for the general office land use category. This suggests that ITE trip rates are suitable for use in estimating the trip generation of the Adventist Health office buildings.
- *Internalization*: To be conservative, this study does not assume any internalization of trips between the project and other complementary (e.g., retail and restaurant) uses within the Stone Point property.

Trip Distribution

The distribution of project trips was developed using the following methods:

- *Existing turning movements at adjacent intersections*. Since travel patterns of employees/visitors to these offices would likely be similar to existing travel patterns, their travel patterns provide valuable insight.
- *Travel demand model select zone assignments*. The City of Roseville travel demand model was used to analyze how project trips would access the project site from the surrounding arterial streets. The model was calibrated to match the project's trip generation and then used to run select zone assignments to determine the percentage of trips expected to use each corridor.

Trip Assignment

Trip assignment determines the routes project trips would likely take to enter and exit the project site. The trip assignment considers the project's driveway including their permitted turning movements, which are described below (and shown on Figure 2):

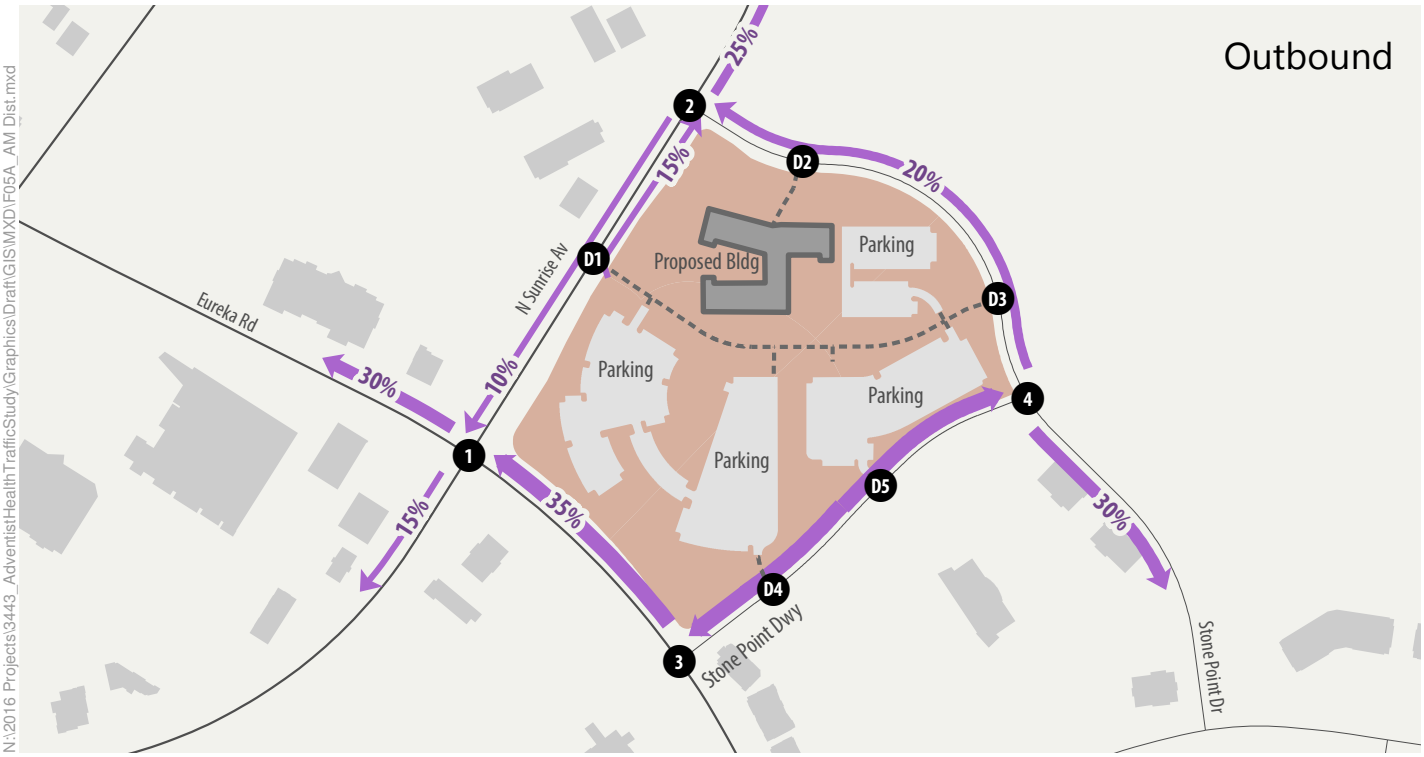
- Driveway 1 – would be located 525 feet north of North Sunrise Avenue/Eureka Road and permit left-in/right-in, right-out only.
- Driveway 2 – would be located 275 feet east of North Sunrise Avenue/Stone Point Drive and permit full access. This driveway would be a service-entrance to the back of the Phase 1 office building.
- Driveway 3 – would be located 230 feet west of Stone Point Driveway/Stone Point Drive and permit full access.

- Driveway 4 – would be located 320 feet north of Stone Point Driveway/Eureka Road and permit full access. This driveway would be situated directly opposite an existing Stone Point Retail Center driveway.
- Driveway 5 – would be 80 feet south of Stone Point Driveway/Stone Point Drive and permit full access.

Approximately 50 percent of the site's parking would be located in the southwest corner of the site, with the remaining 50 percent of the site's parking located in the northeast corner.

Figures 5a and 5b display the expected distribution of inbound and outbound project trips, respectively. As shown, trip distribution patterns vary by travel direction. This is due to several factors including driveway turning movement restrictions, parking allocation, and different inbound versus outbound trip purposes. Inbound trips during the AM peak hour are most likely to be from a residence destination, whereas outbound trips during the PM peak hour may also have shopping, recreation, or other travel purposes In addition, delays and queuing caused by ramp metering at the Eureka Road and Douglas Boulevard on-ramps onto westbound Interstate 80 also affect traveler route choice.

Project trips were assigned to the study intersections and driveways in accordance with the trip generation estimates and trip distribution percentages shown in Figure 5a and 5b. The trip assignment also considers the relative travel times for motorists traveling eastbound on Eureka Road who choose to either turn left onto North Sunrise Avenue or continue straight and then turn left into the Stone Point Driveway. Project trips were then added to the existing volumes to yield the existing plus project volumes shown on **Figure 6**.



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Project Site

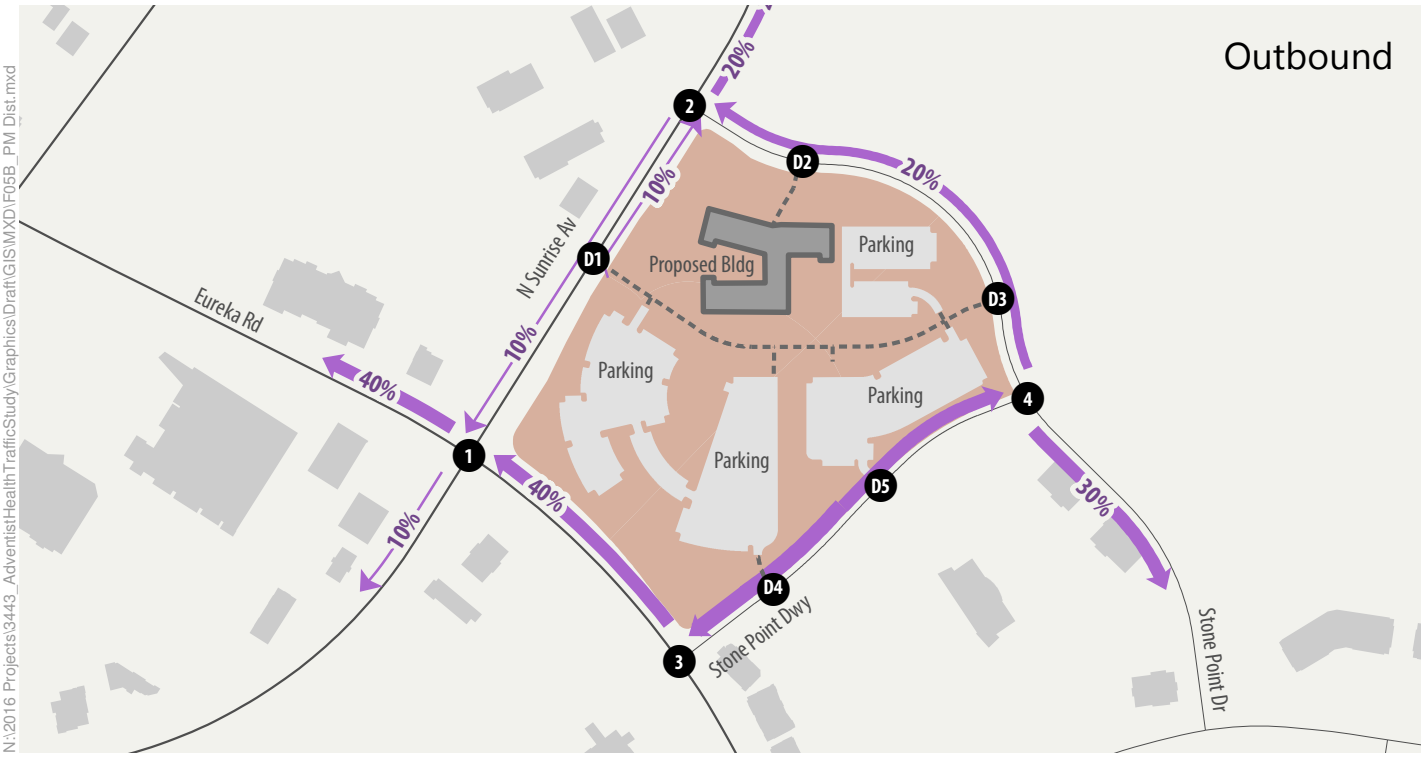
1 Study Intersection/Study Driveway Location

Inbound

Outbound

Figure 5A

Existing Plus Phase 1 Project Conditions AM Peak Hour Distribution By Direction



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Project Site

1 Study Intersection/Study Driveway Location

Inbound

Outbound

Figure 5B

Existing Plus Phase 1 Project Conditions
PM Peak Hour Distribution By Direction

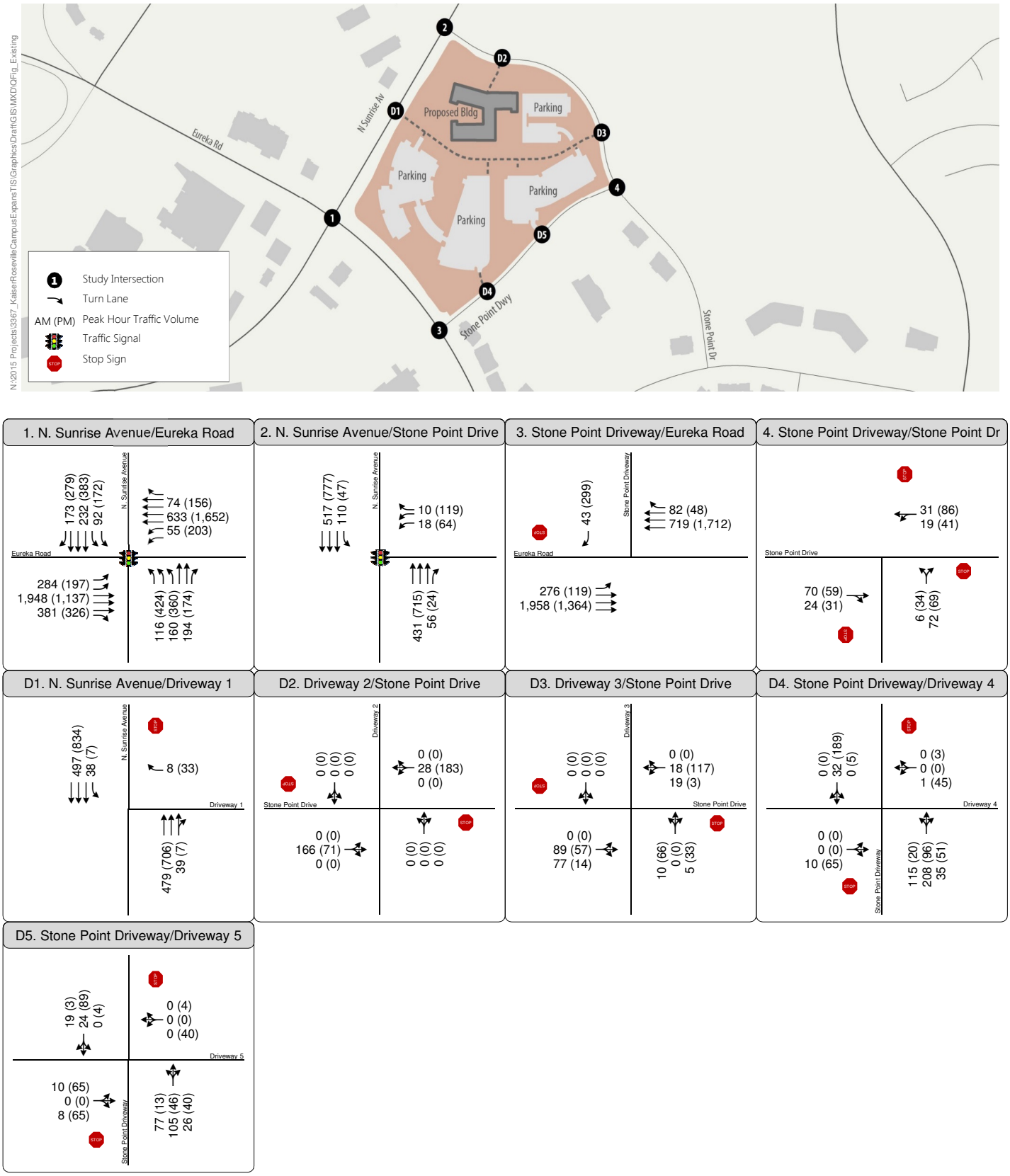


Figure 6

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Phase 1 Conditions

PROJECT ACCESS EVALUATION – VEHICULAR QUEUING ALONG EUREKA ROAD

The eastbound direction of Eureka Road accommodates substantial volumes of traffic during the AM peak hour. Below is a photo of queuing approaching North Sunrise Avenue.

View of Queuing During AM Peak Hour along Eastbound Eureka Road Approaching North Sunrise Avenue

Preliminary analyses by Fehr & Peers of a prior project site plan indicated a strong potential for vehicular queuing issues along Eureka Road based on the access provisions proposed under that plan and existing field conditions. To address these concerns, a meeting was held on July 28, 2016 with Fehr & Peers, City staff, and the applicant, in which agreement was reached for the following steps:

1. Fehr & Peers and the City evaluated potential enhancements in signal timings and physical improvements at the Eureka Road/North Sunrise Avenue intersection to address the imbalanced lane usage in the eastbound Eureka Road left-turn lanes onto North Sunrise Avenue.[1] This evaluation led to the identification of the following feasible improvements:

---

[1] Currently, the outside left-turn lane is used more heavily than the inside left-turn lane during the AM peak hour. This occurs because the lanes turn into the #1 (inside), and #2 (middle) receiving lanes on northbound North Sunrise Avenue. However, those lanes both become "trap" left-turn lanes as they approach East Roseville Parkway. This suggests that motorists using the inside left-turn lane would need to shift over two lanes to either turn right onto eastbound East Roseville Parkway or travel straight into Sutter Roseville Medical Center.

- Restripe northbound North Sunrise Avenue north of Eureka Road to eliminate the inside (#1) receiving lane for a distance of 200 feet.[2] The inside lane would reopen beyond this point so that motorists can access the northbound left-turn ingress lane to the North Sunrise Professional Center.
- Repaint the eastbound left-turn lane markings within the intersection to align with the two remaining lanes.
- Retime the traffic signal so that the eastbound left-turn is given an additional seven seconds of green time during the AM peak hour.[3]

2. Lengthen the eastbound dual left-turn lanes at the North Sunrise Avenue/Eureka Road intersection to provide greater opportunities for left-turning motorists to access the left-turn lanes without being blocked by queued traffic in the adjacent through lane. Aerial imagery suggests that the median is sufficiently wide to enable the dual left-turn lanes to be extended from 225 to 325 feet in length. However, this would require removal of some trees and landscaping in the median.

City staff directed Fehr & Peers to assume these improvements are in place for purposes of reporting the existing plus project analysis results.

This section presents the analysis of the following two particularly critical vehicular queuing considerations, which occur along Eureka Road.

- Unsignalized eastbound left-turn movement from Eureka Road onto Stone Point Driveway.
- Signalized eastbound left-turn and through movements at the Eureka Road/North Sunrise Avenue intersection.

Table 3 displays the maximum expected vehicle queue for each movement under existing and existing plus project conditions.

---

2 Northbound North Sunrise Avenue has two through lanes approaching Eureka Road, meaning that the elimination of one of the three receiving lanes would not necessitate changes on that approach.

3 The eastbound left-turn green (plus yellow and all-red) phase would be increased from 22 to 29 seconds. To maintain the overall 120-second cycle length, the green time at the non-critical westbound left-turn and through movements would decrease by four and three seconds, respectively.

TABLE 3:
VEHICULAR QUEUING ALONG EUREKA ROAD – EXISTING PLUS PROJECT CONDITIONS

Intersection	Movement	Storage Length [1]	Existing Conditions				Existing Plus Project Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]
North Sunrise Avenue/ Eureka Road	Eastbound Left	225 / 325 feet	226	**300 ft.**	187	**250 ft.**	284	325 ft.	197	250 ft.
	Eastbound Through	1,325 feet	1,852	850 ft.	1,124	425 ft.	1,948	1,175 ft.	1,137	500 ft.
Stone Point Driveway/ Eureka Road	Eastbound Left	375 feet	161	150 ft.	99	125 ft.	276	200 ft.	119	175 ft.
	Southbound Right	250 feet	25	50 ft.	169	200 ft.	43	50 ft.	299	**425 ft.**

Notes:
[1] Measured distance is length of turn lane or distance to upstream driveway or intersection.
[2] Maximum queue estimated using SimTraffic model. Queues are expressed on a 'per lane' basis.
- Bolded cells represent queues that exceed the available storage.
- Only critical movements along Eureka Road that would potentially be affected by proposed project are shown.
- All values rounded to the nearest 25 feet.

Source: Fehr & Peers, 2016.

Table 3 indicates the following:

AM Peak Hour

- The eastbound left-turn lanes on Eureka Road would have a maximum queue that equals the proposed storage length. Additional turn lane storage is not feasible due to the width of Eureka Road.
- The maximum queue in the eastbound through lanes would increase from 850 to 1,175 feet. This occurs because the entire additional 154 project-related trips would be in the most inside (31) travel lanes in advance of turning left onto North Sunrise Avenue, or continuing straight or turning left onto the Stone Point Driveway. The queue would not reach the Eureka Road/Taylor Road/I-80 EB Ramps intersection.
- The left-turn movement from eastbound Eureka Road onto the Stone Point Driveway would experience a maximum queue increase from 150 to 200 feet. This queue would not exceed the 325 feet of available storage that is provided.

PM Peak Hour

The southbound right-turn movement from the Stone Point Driveway onto westbound Eureka Road would experience a maximum queue increase from 200 to 425 feet. The queue would extend back beyond the entrance to the Stone Point Retail Center, which is 250 feet from Eureka RoadDue to the especially important conclusions at the Eureka Road/Stone Point Driveway intersection on overall project access and circulation, it was determined that the queuing results shown in Table 3 for this intersection should be supplemented with additional queuing methodologies, as described below:

1. City of Roseville improvements standards recognize a methodology described in *Estimation of Maximum Queue Lengths at Unsignalized Intersections* (ITE Journal, 2001). This methodology was used to estimate the maximum queue for the eastbound left-turn (AM peak hour) movement. As shown in Appendix A, this methodology predicts a maximum queue of 200 feet, which is identical to the SimTraffic micro-simulation estimate.

2. During the morning of Wednesday, September 14, 2016, Fehr & Peers observed vehicles and their associated queues in the eastbound left-turn movement from Eureka Road onto Lava Ridge Court. This movement is made predominantly by motorists who work in the various office buildings on Lava Ridge Court. Between 7:45 and 8:15 AM, 153 vehicles were observed to turn left. Using the same peak hour factor as was measured at Stone Point Driveway, it is estimated that this turn lane accommodates an hourly demand of about 250 vehicles. At 8:05 AM, a maximum queue of 10 vehicles was observed, which occupied the entire 250 feet of vehicle storage. It is worth noting the the westbound right-turn from Douglas Boulevard onto Eureka

Road is a fairly heavy, free-flowing movement, which contributes to fewer available gaps for the Lava Ridge Court eastbound left-turn movement (and longer queues):

- Under existing plus project conditions, the eastbound left-turn volume entering the Stone Point Driveway would be 276 vehicles during the AM peak hour, and the maximum queue would be 200 feet. Although the left-turn volume is comparable, the maximum queue is somewhat less than at Lava Ridge Court due to the specific conditions at Lava Ridge Court cited above, which do not exist at the Stone Point Driveway.

Thus, the field observations and various methodologies all reveal the same conclusion that the available storage in the eastbound left-turn lane on Eureka Road at Stone Point Driveway would be able to accommodate the maximum expected queue under existing plus project conditions. However, the PM peak hour queuing issues exiting this driveway would be problematic and require solutions as is discussed in Chapter 4.

PROJECT ACCESS EVALUATION – VEHICULAR QUEUING ALONG NORTH SUNRISE AVENUE

Vehicular queues at the project accesses on North Sunrise Avenue would occur at the following locations:

- Southbound unsignalized left-turn movement at Driveway 1: As shown on Figure 6, this movement would accommodate 38 left-turns during the (more critical) AM peak hour. The median is sufficiently wide to enable construction of a 200-foot left-turn lane per City improvement standards, which would be able to accommodate this level of traffic.
- Southbound signalized left-turn movement at Stone Point Drive: As shown on Figure 6, this movement would accommodate 110 left-turns during the (more critical) AM peak hour. This turn lane provides 315 feet of storage, which is sufficient to accommodate this volume of traffic.

PROJECT ACCESS EVALUATION – NEED FOR DECELERATION LANES

City of Roseville standards require construction of a right-turn deceleration lane into private driveways located on arterial streets when the right-turn ingress volume is expected to exceed 50 vehicles per hour. When the right-turn volume is expected to range from 10 to 50 vehicles per hour, a right-turn curb flare is required. Deceleration lanes are not required on collector streets such as Stone Point Drive or private driveways such as Stone Point Driveway.

As shown on Figure 6, Driveway 1 is projected to serve 39 AM peak hour right-turning vehicles under existing plus project conditions, but would accommodate 79 AM peak hour right-turns at full project

buildout. Based on design guidance on Plate ST-48 of the *City of Roseville Design Standards,* the following is recommended:

- Extend the acceleration lane on northbound North Sunrise Avenue departing Eureka Road to Driveway 1.

A 240-foot right-turn deceleration lane is already present on westbound Eureka Road at the Stone Point Driveway.

4. EVALUATION OF ON-SITE CIRCULATION

This chapter reviews on-site circulation and presents recommendations to improve travel for all modes.

EVALUATION OF ON-SITE CIRCULATION

On-site circulation was evaluated with respect to the following:

- Driveway Throat Depth Requirements
- Sight Distance Review at Driveways 2 and 3
- Project Driveway Alignments
- Review of On-site Circulation

Each of these items is evaluated below. Refer to **Figure 7** for an illustration of recommendations.

Driveway Throat Depth Requirements

It is important that projects be designed with adequate on-site storage for vehicles desiring to exit. If not provided, internal parking drive aisles can be blocked, which could cause inbound traffic to spill back onto the adjacent public street. **Table 4** displays the available throat depth, and maximum expected vehicle queue at each project driveway under existing plus project conditions. Refer to Appendix A for technical calculations.

TABLE 4:
DRIVEWAY THROAT DEPTH REQUIREMENTS – EXISTING PLUS PROJECT CONDITIONS

Driveway	Movement	Available Storage [1]	Maximum Vehicle Queue [2]
1	Outbound Right	100 ft.	50 ft.
2[3]	Outbound Shared Left/Thru/Right	125 ft.	25 ft.
3	Outbound Shared Left/Thru/Right	100 ft.	75 ft.
4	Outbound Shared Left/Thru/Right	75 ft.	50 ft. [3]
5	Outbound Shared Left/Thru/Right	50 ft.	**100 ft.**

Notes:

[1] Based on project site plan.

[2] Queue lengths estimated based on methodology described in *Estimation of Maximum Queue Lengths at Unsignalized Intersections* (ITE Journal, 2001). One car length is equivalent to 25 feet (Max queue 2 cars = 50 feet).

[3] Table 3 indicates that queuing from the Stone Point Driveway stop sign at Eureka Road would extend beyond this driveway opening, thereby causing greater levels of queuing than is shown here.

Bolded cells represent queues that exceed the available storage.

Source: Fehr & Peers, 2016.

This table indicates that the maximum vehicle queue is not expected to exceed the available storage at any driveways with the exception of Driveway 5. This queuing issue would occur during the PM peak hour, in which the vast majority of traffic is exiting the campus. During this period, very little inbound travel would occur. Furthermore, any queuing issues would not spill onto a public street. For these reasons, this short-term queuing concern is noted, but does not require modifications to the site plan.

The following two options are recommended to address the queuing issue that would occur along the Stone Point Driveway in the vicinity of Driveway 4:

- Option 1: *Construct a new right-turn only driveway on Eureka Road between the Stone Point Driveway and North Sunrise Avenue*. The Stone Point Master Plan contemplated such a driveway. City standards require driveways on arterial streets to be spaced a minimum of 250 feet apart, and at least 185 feet from an intersection. This suggests that there are two potential locations for the new driveway: either east of the elevated utility area (labeled OHW on site plan) or west of the electrical tower.

- Option 2: *Widen the width of Stone Point Driveway from north of Eureka Road to beyond Driveway 4 to enable construction of exclusive left-turn lanes. Stripe markings and/or post signs indicating "Do Not Block Intersection"*. This driveway is about 32 feet wide, and would need to be at least 33 to 36 feet wide to accommodate a three-lane cross-section. All widening would occur along the project frontage.

Sight Distance Review at Driveways 2 and 3

Due to the curvature of Stone Point Drive between Avanti Drive and Vittorio Drive, a detailed sight distance review was found to be necessary. Based on Stone Point Drive's horizontal curve radius of 475 feet, the corresponding design speed would be 45 miles per hour based on Figure 201.6 of the *Highway Design Manual* (December, 2015). A 45 mph design speed is equivalent to a stopping sight distance of approximately 360 feet.

Figure 7 shows the required sight distance triangles for the critical sight lines at each driveway. The following recommendations are offered (refer to Appendix A for aerial imagery showing lines of sight):

- Landscaping should be limited to low shrubs (e.g., less than 2 feet tall) for a distance of 260 feet east of Driveway 2 (within the cross-hatched area).
- Landscaping should be limited to low shrubs (e.g., less than 2 feet tall) for a distance of 300 feet east of Driveway 2 (within the cross-hatched area).

Project Driveway Alignments

The project site plan has been modified to eliminate offset configurations with existing driveways along the Stone Point Driveway. Although Driveway 3 is slightly offset from Vittorio Drive, motorists on each side-street would have adequate visibility of one another. Therefore, no additional recommendations are offered.

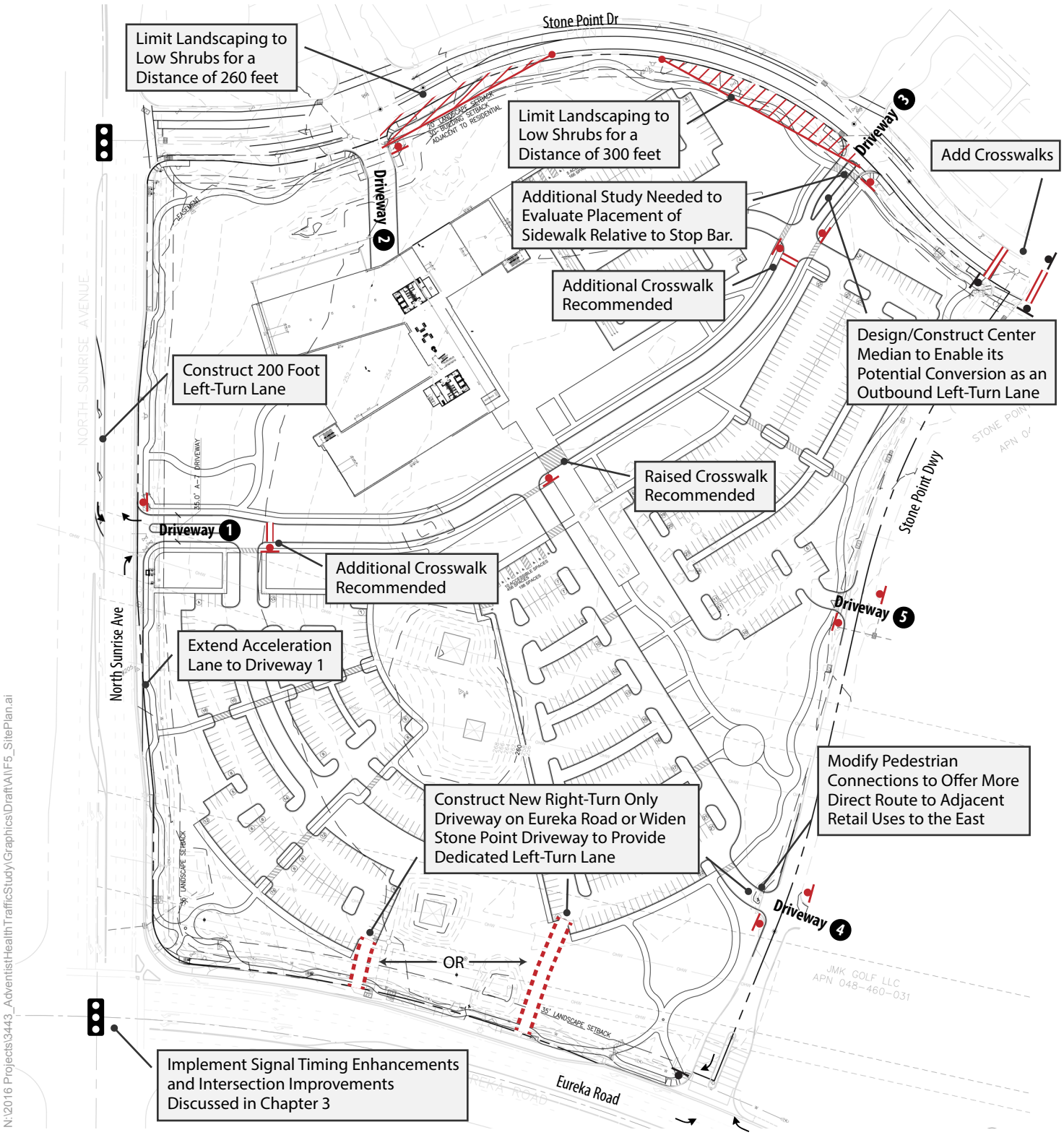
Review of On-Site Circulation

The internal circulation system is designed to allow efficient and convenient travel to/from public streets. The following on-site circulation recommendations are offered (see Figure 7):

- The following recommendations are offered along the main internal circulatory roadway that extends between Driveways 1 and 3:
    - *Install a raised crosswalk at the main crossing in the central portion of the site. This will slow motorists and enhance pedestrian visibility.*
    - *Add two additional crosswalks across the main internal circulatory roadway.*
    - *Install stop signs as shown on Figure 7.*
    - *Design/construct center median at Driveway 3 to enable its potential conversion to an outbound left-turn lane.*
- *Install crosswalks across Stone Point Drive at the all-way-stop Stone Point Driveway intersection.*
- *Additional review is necessary at Driveway 3 to evaluate the proposed location of the multi-use path crossing of the driveway.* The current location is shown to be about 10 to 15 feet beyond the stop bar, which means that vehicles may queue in the path.
- *Revisit the pedestrian connectivity near the Stone Point Driveway / Driveway 4 intersection. The current design does not provide direct connectivity to the adjacent retail/restaurant uses located east of the Stone Point Driveway.*

The proposed project would not disrupt any existing bicycle facilities within the study area. According to the *City of Roseville 2008 Bikeway Master Plan*, no future bicycle facilities are planned in the immediate vicinity of the site.

The proposed project would construct a continuous sidewalk on all four sides of the project frontage, connecting with the existing sidewalks located at the project corners. The project would also provide an extensive internal system of sidewalks and crosswalks that would range from six to ten feet in width. The project would provide sidewalks to enable employees and visitors to access the Route A and B bus route stops located along North Sunrise Avenue.



New Stop Sign

Existing Stop Sign

Existing Traffic Signal

Permitted Turning Movement

Note: All movements allowed at driveways on Stone Point Drive and along Stone Point Driveway.

Figure 7

Phase 1 Recommendations

APPENDIX A:

TECHNICAL CALCULATIONS

Maximum Queue Estimation for:
Major Street Left-Turn

Movement: EB Left-Turn on Eureka Road at Stone Point Driveway
Existing Conditions AM peak Hour

Input Data

Subject Approach	
Traffic Volume (vph) =	161
PHF=	0.79

Major Street	
Conflicting Traffic Volume (vph) =	724
PHF=	0.88
Conflicting Number of Through Lanes	3
Posted Speed Limit (mph)=	40

Is a Traffic Signal Located on Major Street Within 1/4 mi of intersection? (Enter 1 if yes; 0 if no)	1

Output

Estimated Maximum Queue	6	vehicles

Maximum Queue Estimation for:
Major Street Left-Turn

Movement: EB Left-Turn on Eureka Road at Stone Point Driveway
Existing Conditions Plus Phase 1 AM peak Hour

Input Data

Subject Approach	
Traffic Volume (vph) =	276
PHF=	0.79

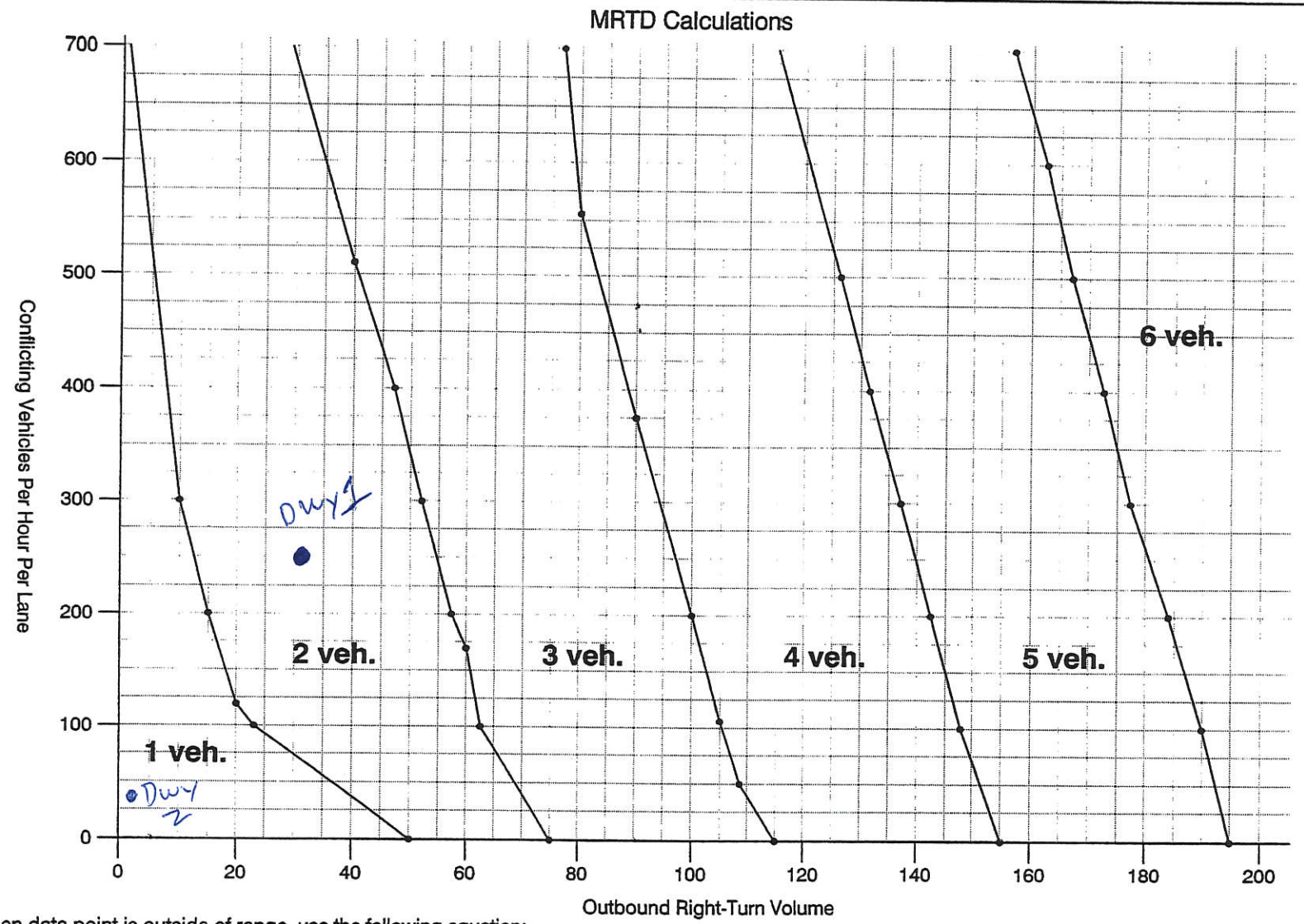
Major Street	
Conflicting Traffic Volume (vph) =	801
PHF=	0.88
Conflicting Number of Through Lanes	3
Posted Speed Limit (mph)=	40

Is a Traffic Signal Located on Major Street Within 1/4 mi of intersection? (Enter 1 if yes; 0 if no)	1

Output

Estimated Maximum Queue	8	vehicles

Existing Plus Project - PM peak hour queuing



NOTE: When data point is outside of range, use the following equation:
Queue = 0.877 + 0.02365 (Approach Volume) + 0.001307 (Conflicting Vehicles Per Lane)

FEHR & PEERS
TRANSPORTATION CONSULTANTS

MAXIMUM QUEUE ESTIMATES FOR UNSIGNALIZED RIGHT-TURN DRIVEWAYS

Jan 14, 2003 MJF
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Maximum Queue Estimation for:
Minor Street Left/Through/Right-Turn

Movement: Egress onto Stone Point Drive from Driveway 3
Existing Plus Project Phase 1 PM Peak Hour

Input Data

Subject Approach	
Total Approach Volume (vph) =	99
PHF=	0.9
%RT's =	0.33
Is a Traffic Signal Located on Major Street Within 1/4 mi of intersection? (Enter 1 if yes; 0 if no)	0

Major Street	
Conflicting Traffic Volume for Left/Through Movements (vph) =	188
PHF=	0.9
Conflicting Traffic Volume for Right-Turn Movements (vph) =	68
PHF=	0.9

Output

Estimated Maximum Queue	3	vehicles

Maximum Queue Estimation for:
Minor Street Left/Through/Right-Turn

Movement: Egress onto Stone Point Driveway from Driveway 4
Existing Plus Project Phase 1 PM Peak Hour

Input Data

Subject Approach	
Total Approach Volume (vph) =	65
PHF=	0.79
%RT's =	1
Is a Traffic Signal Located on Major Street Within 1/4 mi of intersection? (Enter 1 if yes; 0 if no)	0

Major Street	
Conflicting Traffic Volume for Left/Through Movements (vph) =	361
PHF=	0.79
Conflicting Traffic Volume for Right-Turn Movements (vph) =	194
PHF=	0.79

Output

Estimated Maximum Queue	2	vehicles

Maximum Queue Estimation for:
Minor Street Left/Through/Right-Turn

Movement: Egress onto Stone Point Driveway from Driveway 5
Existing Plus Project Phase 1 PM Peak Hour

Input Data

Subject Approach	
Total Approach Volume (vph) =	130
PHF=	0.79
%RT's =	0.5
Is a Traffic Signal Located on Major Street Within 1/4 mi of intersection? (Enter 1 if yes; 0 if no)	0

Major Street	
Conflicting Traffic Volume for Left/Through Movements (vph) =	195
PHF=	0.79
Conflicting Traffic Volume for Right-Turn Movements (vph) =	96
PHF=	0.79

Output

Estimated Maximum Queue	4	vehicles

Southbound Right-Turn From Stone Point Driveway onto Eureka Road

Max Queue = 0.877+ 0.02365* A +0.001307*B

Scenario	"A" Approach Volume	"B" Conflicting Vehicles per Lane	Max Queue	Rounded Max Queue in Feet
Existing	169	582	5.634524	150
Existing Plus Phase 1	299	587	8.715559	225
Existing Plus Phase 2	328	590	9.40533	250
Existing Plus Phase 3	380	592	10.637744	275
Existing Plus Phase 3 Plus Approved Projects	498	592	13.428444	350

Note: this methodology doesn't take into consideration downstream bottlenecks (e.g., congestion on westbound approach to Eureka/N. Sunrise) that may result in less outbound capacity and even greater queuing.

https://www.google.com/maps/@38.757172,-121.2502285,123m/data=!3m1!1e3
Google Maps
city of roseville ca - Yaho...
City of Roseville, Californ...
roseville.ca.us
roseville.ca.us
Stone Point Dr
Vitorio Dr
Vitorio Dr
Dolce Ln
Street light
Measure distance
Click on the map to add to your path.
Total distance: 359.16 ft (109.47 m)
3D
Imagery ©2016 Google, Map data ©2016 Google Terms Send feedback 20 ft

Google Maps

Imagery ©2016 Google, Map data ©2016 Google 20 ft

Measure distance

Total distance: 360.55 ft (109.89 m)

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Adventist Health Access Study
Phase 1 EPP Conditions
AM Peak Hour

Intersection 1 **Eureka Road/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	350	300	36	450	30	350	38	0%	0%
	Through	1,250	750	150	1,125	268	1,175	248	30%	4%
	Right Turn	275	200	41	400	36	300	0	0%	0%
NB	Left Turn	250	75	47	125	77	125	76	0%	0%
	Through	425	100	18	150	37	150	30	0%	0%
	Right Turn	225	50	22	150	44	175	44	0%	0%
SB	Left Turn	1,575	125	14	200	25	175	29	0%	0%
	Through	275	100	13	150	16	150	16	0%	0%
	Right Turn	225	50	7	100	13	100	19	0%	0%
WB	Left Turn	250	50	8	75	20	75	24	0%	0%
	Through	700	100	28	175	44	200	44	0%	0%

Intersection 2 **Stone Point Drive/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	475	75	13	125	25	125	22	0%	0%
	Right Turn	200	25	7	75	19	75	26	0%	0%
SB	Left Turn	325	75	14	125	33	125	43	0%	0%
	Through	825	50	14	75	36	100	43	0%	0%
WB	Left Turn	250	25	8	50	20	50	18	0%	0%
	Right Turn	225	25	4	50	7	50	7	0%	0%
0										

Intersection 3 **Eureka Road/Stone Point Driveway** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	100	18	175	48	200	57	0%	0%
SB	Right Turn	300	25	9	50	13	50	13	0%	0%
WB	Right Turn	250	25	2	25	9	25	12	0%	0%
0										

Intersection 4 **Stone Point Drive/Stone Point Driveway** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	50	5	75	10	75	3	0%	0%
NB	Shared	175	50	5	75	12	75	11	0%	0%
WB	Left/Through	400	50	4	50	10	50	13	0%	0%
0										

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Adventist Health Access Study
Phase 1 EPP Conditions
PM Peak Hour

Intersection 1 **Eureka Road/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	250	200	28	325	30	275	19	0%	0%
	Through	1,250	350	50	475	92	500	110	20%	0%
	Right Turn	275	75	49	225	128	225	115	0%	0%
NB	Left Turn	250	250	17	275	29	275	28	26%	0%
	Through	425	325	54	500	62	450	71	2%	4%
	Right Turn	225	50	22	125	63	150	75	0%	0%
SB	Left Turn	1,575	150	20	225	27	250	37	0%	0%
	Through	300	125	24	225	51	225	83	0%	0%
	Right Turn	225	125	29	225	32	225	30	1%	0%
WB	Left Turn	250	150	25	225	41	250	44	0%	0%
	Through	1,600	325	61	525	126	550	145	31%	0%
	Right Turn	475	150	37	300	46	275	6	0%	0%

Intersection 2 **Stone Point Drive/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	500	100	12	175	24	175	25	0%	0%
	Right Turn	200	25	7	50	12	50	8	0%	0%
SB	Left Turn	325	50	13	100	18	100	22	0%	0%
	Through	825	75	13	150	31	150	39	0%	0%
WB	Left Turn	250	50	9	75	14	75	14	0%	0%
	Right Turn	225	50	9	100	12	100	16	0%	0%
0										

Intersection 3 **Eureka Road/Stone Point Driveway** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	100	21	150	34	175	35	0%	0%
SB	Right Turn	625	275	71	450	99	425	78	0%	0%
WB	Through	875	25	40	75	203	100	282	0%	0%
	Right Turn	250	25	2	25	12	25	17	0%	0%
0										

Intersection 4 **Stone Point Drive/Stone Point Driveway** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	50	9	75	21	75	26	0%	0%
NB	Shared	175	50	4	50	10	75	13	0%	0%
WB	Left/Through	400	50	8	75	16	75	24	0%	0%
0										

SimTraffic Post-Processor | **Adventist Health Access Study**
Average Results from 10 Runs | **Existing Conditions**
Queue Length | **AM Peak Hour**

Intersection 1 **North Sunrise Avenue/Eureka Road** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	250	225	29	325	41	275	51	0%	0%
	Through	1,275	600	135	875	259	850	253	33%	0%
	Right Turn	275	225	53	375	56	300	0	0%	0%
NB	Left Turn	250	100	17	150	46	175	54	0%	0%
	Through	425	100	20	125	39	125	46	0%	0%
	Right Turn	225	50	22	125	48	125	36	0%	0%
SB	Left Turn	1,250	75	13	125	31	125	32	0%	0%
	Through	275	100	14	150	22	150	23	0%	0%
	Right Turn	225	25	12	75	25	100	29	0%	0%
WB	Left Turn	250	50	17	75	30	100	33	0%	0%
	Through	700	150	15	225	34	225	37	1%	0%

Intersection 2 **North Sunrise Avenue/Stone Point Drive** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	475	25	11	75	24	100	27	0%	0%
	Right Turn	200	25	4	50	12	50	14	0%	0%
SB	Left Turn	325	50	6	75	11	75	13	0%	0%
	Through	825	25	12	75	25	75	25	0%	0%
WB	Left Turn	250	25	3	50	11	50	14	0%	0%
	Right Turn	500	50	3	75	8	75	8	0%	0%
0										

Intersection 3 **Stone Point Driveway/Eureka Road** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	100	22	150	36	150	41	0%	0%
SB	Right Turn	300	25	5	50	6	50	8	0%	0%
WBWB	Through	175 175	25 25	0 0	25 25	0 0	25 25	0 0	0% 0%	0% 0%
0										

Intersection 4 **Stone Point Driveway/Stone Point Drive** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	50	4	75	9	75	13	0%	0%
NB	Shared	175	50	5	75	14	75	22	0%	0%
WB	Left/Through	400	25	5	50	7	50	1	0%	0%
0										

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Adventist Health Access Study
Existing Conditions
PM Peak Hour

Intersection 1 **Eureka Road/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	250	175	30	275	42	275	30	0%	0%
	Through	1,250	275	38	400	69	425	83	12%	0%
	Right Turn	275	25	33	100	125	100	133	0%	0%
NB	Left Turn	250	250	20	275	37	275	18	26%	0%
	Through	425	325	56	500	93	425	90	4%	6%
	Right Turn	225	50	26	150	78	175	82	0%	0%
SB	Left Turn	1,250	125	14	175	44	175	49	0%	0%
	Through	275	150	26	200	44	200	63	0%	0%
	Right Turn	225	125	19	200	21	225	26	1%	0%
WB	Left Turn	250	100	18	150	44	150	42	0%	0%
	Through	1,600	250	38	350	85	375	98	11%	0%
	Right Turn	475	100	23	200	66	250	63	0%	0%

Intersection 2 **Stone Point Drive/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	500	75	20	150	41	150	41	0%	0%
	Right Turn	200	25	7	50	18	50	19	0%	0%
SB	Left Turn	325	50	8	75	11	75	15	0%	0%
	Through	825	75	13	125	29	125	37	0%	0%
WB	Left Turn	250	25	12	50	28	50	29	0%	0%
	Right Turn	225	50	5	75	6	75	10	0%	0%
0										

Intersection 3 **Eureka Road/Stone Point Driveway** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	75	15	125	28	150	38	0%	0%
SB	Right Turn	625	125	14	175	45	200	47	0%	0%
WB	Left Turn	175	25	0	25	0	25	0	0%	0%
	Through	875	25	35	75	176	100	244	0%	0%
	Right Turn	250	25	2	25	9	25	11	0%	0%
0										

Intersection 4 **Stone Point Drive/Stone Point Driveway** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	50	5	75	8	75	9	0%	0%
NB	Shared	175	50	5	50	6	50	10	0%	0%
WB	Left/Through	400	50	5	75	9	75	8	0%	0%
0										

APPENDIX B:

ANALYSIS OF BUILDOUT CONDITIONS

EXISTING PLUS PHASE 3 CONDITIONS

TABLE B -1:
AM AND PM PEAK HOUR TRIP GENERATION

Land Use	Quantity	Trip Rate [1]						Trips					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Office – Phase 1	280 ksf[2]	1.37	0.19	1.56	0.24	1.16	1.40	384	52	436	67	325	392
Office – Phase 2	500 ksf[2]	1.22	0.17	1.39	0.22	1.06	1.28	610	83	693	108	530	638
Office – Phase 3	685 ksf[2]	1.14	0.16	1.30	0.21	1.03	1.24	785	107	892	144	702	846

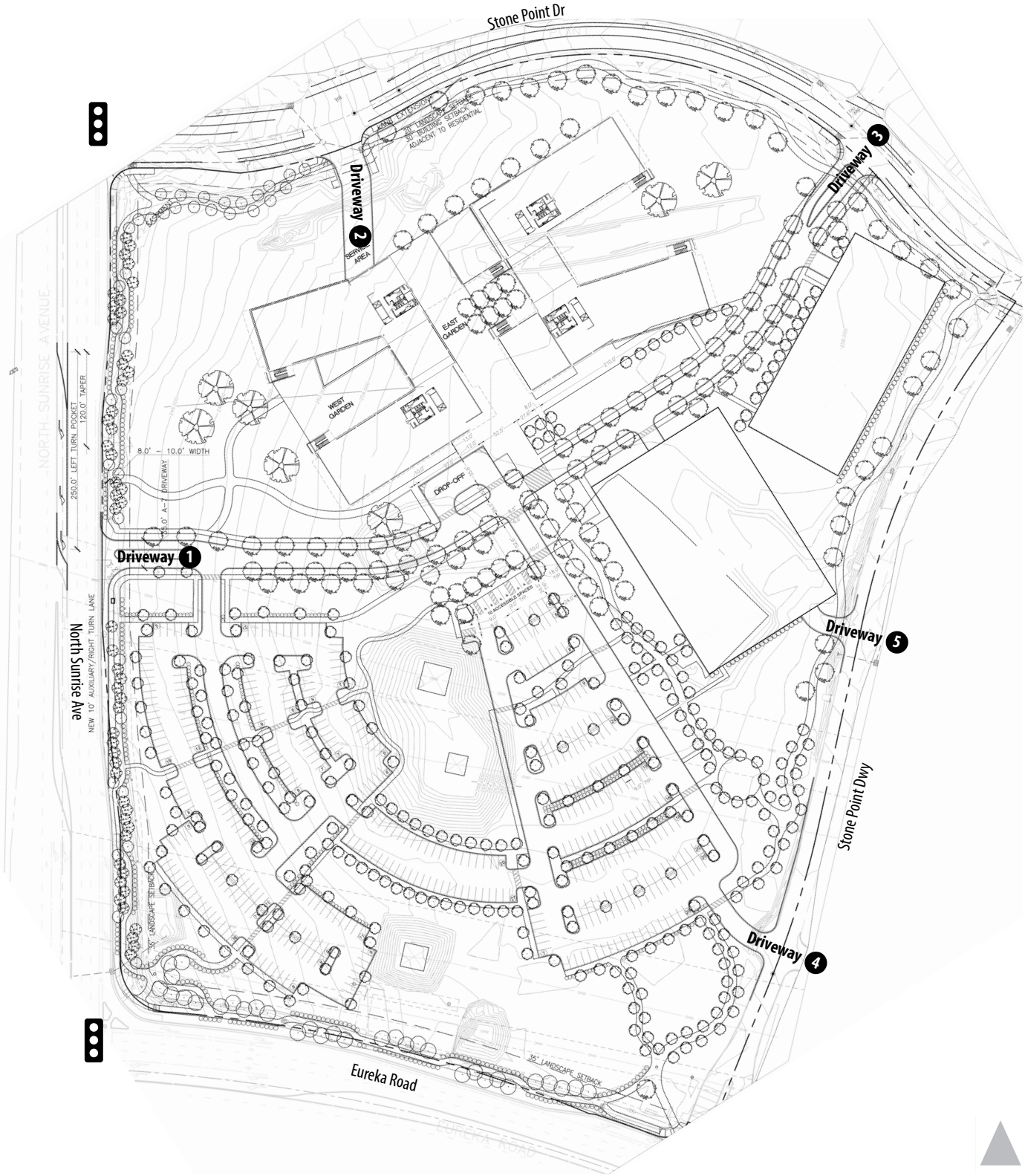
Notes:
[1] Based on fitted curve equations for the General Office land use (Code 710) from the *Trip Generation Manual, 9th Edition* (Institute of Transportation Engineers, 2012).
[2] ksf = Thousand Square Feet
Source: Fehr & Peers, 2016.

TABLE B-2:
VEHICULAR QUEUING ALONG EUREKA ROAD – EXISTING PLUS PHASE 3 CONDITIONS

Intersection	Movement	Storage Length [1]	Existing Conditions				Existing Plus Phase 3 Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]
North Sunrise Avenue/ Eureka Road	Eastbound Left	225 / 325 feet	226	**300 ft.**	187	**250 ft.**	359	325 ft.	211	250 ft.
	Eastbound Through	1,325 feet	1,852	850 ft.	1,124	425 ft.	2,033	1,275 ft.	1,157	550 ft.
Stone Point Driveway/ Eureka Road	Eastbound Left	375 feet	161	150 ft.	99	125 ft.	358 [3]	250 ft.	135	200 ft.
	Southbound Right	250 feet	25	50 ft.	169	200 ft.	57	50 ft.	380	**525 ft.**

Notes:
[1] Measured distance is length of turn lane or distance to upstream driveway or intersection.
[2] Maximum queue estimated using SimTraffic model. Queues are expressed on a 'per lane' basis.
[3] Due to upstream bottlenecks, 86 percent of this demand is served during the peak hour.
- Bolded cells represent queues that exceed the available storage.
- Only critical movements along Eureka Road that would potentially be affected by proposed project are shown.
- All values rounded to the nearest 25 feet.

Source: Fehr & Peers, 2016.



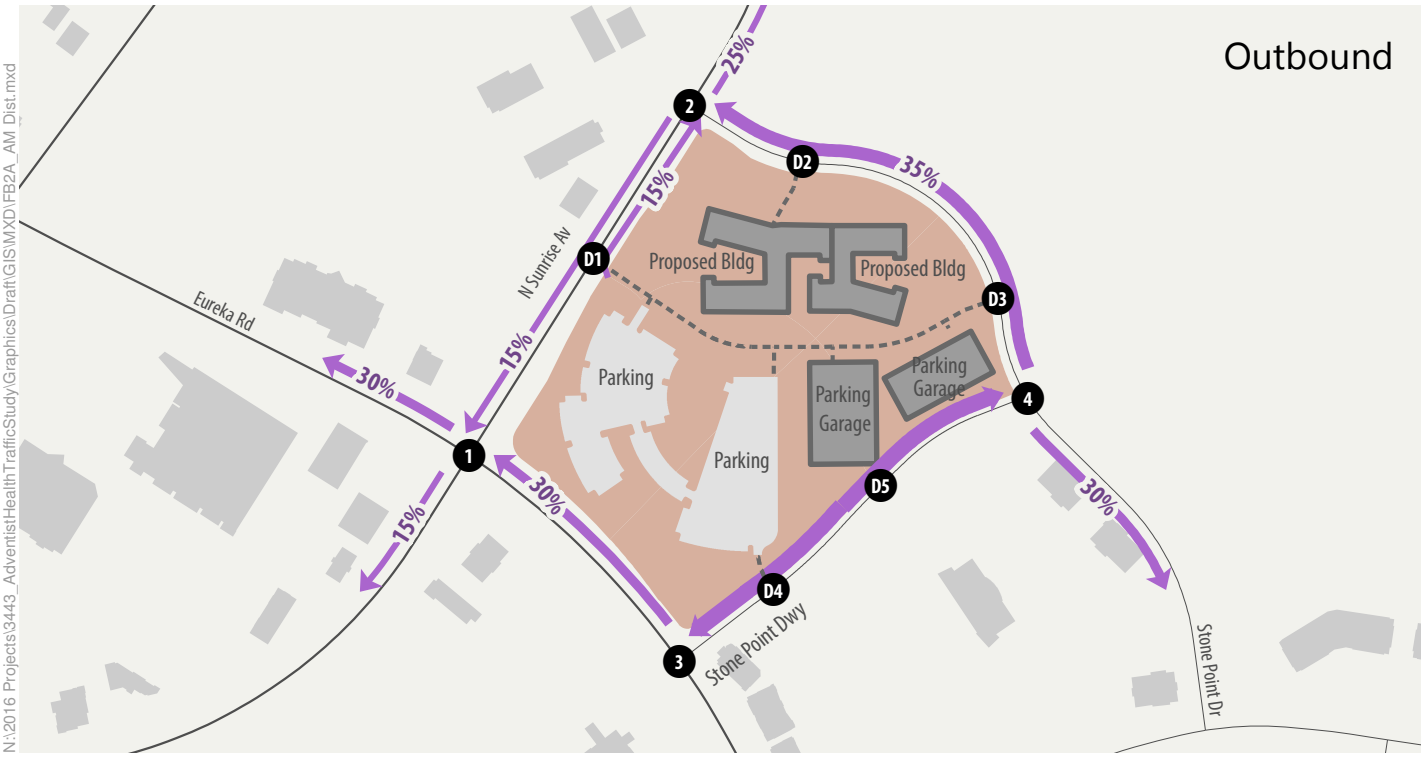
Traffic Signal

Driveway Number

Figure B-1

Phase 3 Project site Plan

N:\2016 Projects\3443_AdventistHealthTrafficStudy\Graphics\Draft\AI\F3_Phase3SitePlan.ai



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Project Site

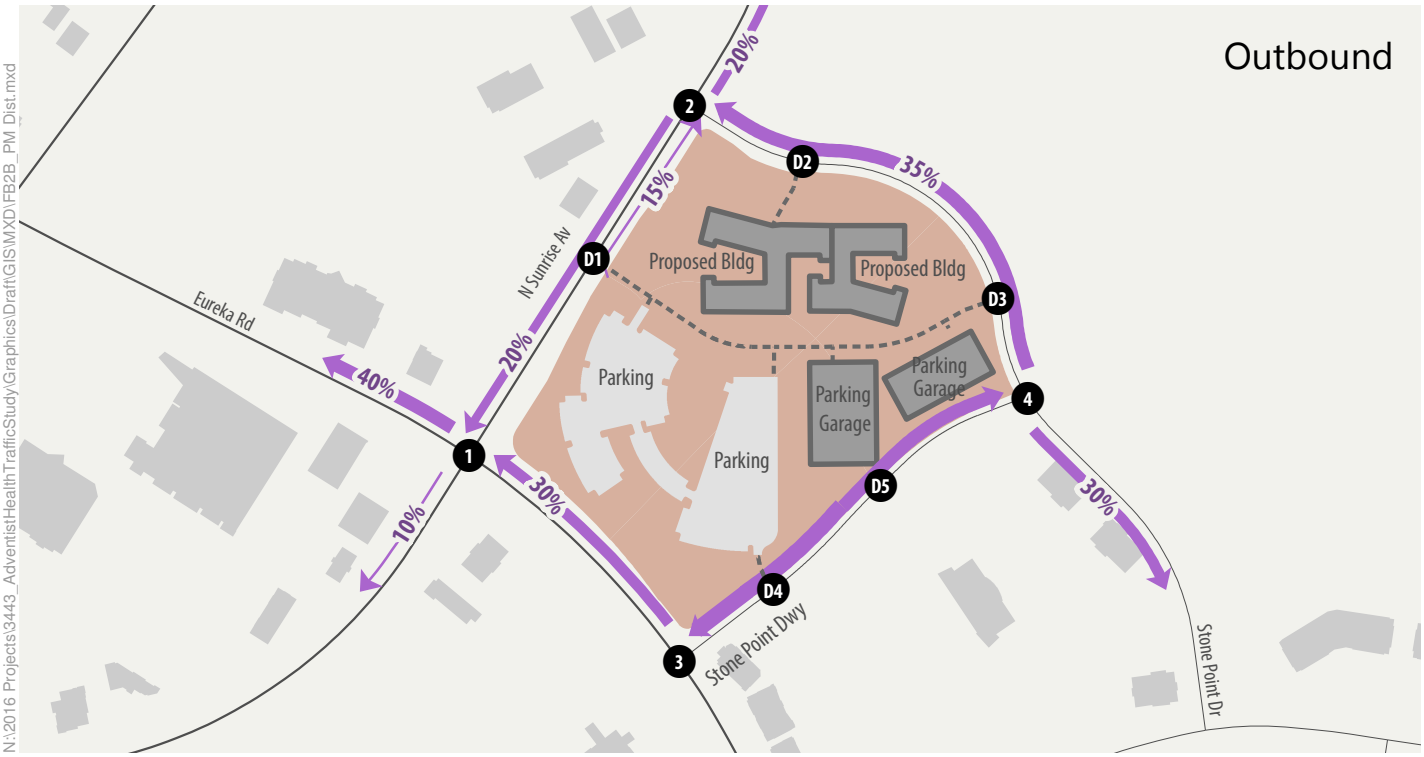
1 Study Intersection/Study Driveway Location

Inbound

Outbound

Figure B-2A

Existing Plus Phase 3 Project Conditions
AM Peak Hour Distribution By Direction



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Project Site

1 Study Intersection/Study Driveway Location

Inbound

Outbound

Figure B-2B

Existing Plus Phase 3 Project Conditions PM Peak Hour Distribution By Direction

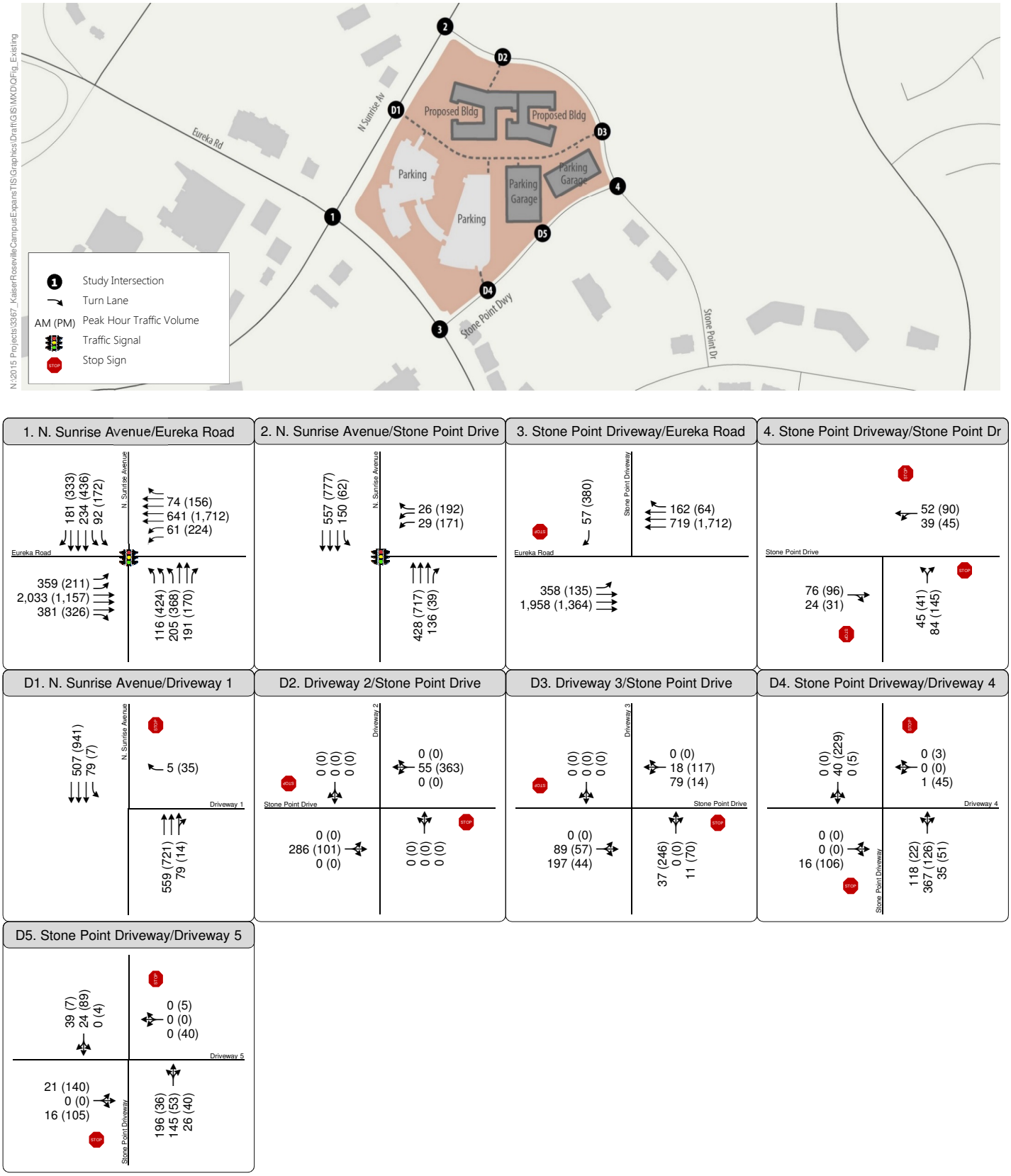

Figure B-3

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Phase 3 Conditions

FUTURE CONSIDERATIONS

The timing of the construction of the remainder of the project is currently unknown. While conceptual plans showing potential buildings and parking structures have been developed, a formal application has not been submitted to the City of Roseville. Therefore, the following actions are recommended with respect to the review of access when development applications for future phases are submitted:

1. Conduct multi-day, peak-hour trip generation studies of the Phase 1 project to determine if its trip generation is less than the estimates in this report (given the applicant's expectation based on the transitory nature of Adventist Health employee travel between different offices).
2. Measure the volume of turning traffic and queuing at the Eureka Road/Stone Point Driveway intersection and note the degree to which approved, but currently not yet built projects have been constructed.
3. Observe the level of queuing that occurs on eastbound Eureka Road approaching North Sunrise Avenue. Based on these observations, determine whether additional signal timing adjustments are necessary, and if a special time-of-day modification of signal phasing to provide an eastbound left-turn lead phase should be considered (per conversations with City staff).
4. Conduct supplemental analyses of the additional project phases to determine which, if any, type of traffic control change (e.g., partial traffic signal) or additional storage is needed at the Eureka Road/Stone Point Driveway intersection.
5. Measure vehicular queuing at proposed project driveways on Eureka Road, North Sunrise Avenue, Stone Point Drive, and Stone Point Driveway, and evaluate how project buildout would affect these queues.

EXISTING PLUS APPROVED PROJECTS PLUS PHASE 3 CONDITIONS

Approved projects consist of 186 dwelling units on Stone Point Parcels 11, 12, 13, and 14 (i.e., east of Stone Point Drive) and 248,000 square feet of office space on the remaining vacant area within Stone Point Parcels 2 and 3 (i.e., south of Stone Point Driveway). Combined, these projects would generate approximately 1,430 AM peak hour trips and 1,390 PM peak hour trips. They would be accessed from Eureka Road, North Sunrise Avenue, and Rocky Ridge Drive.

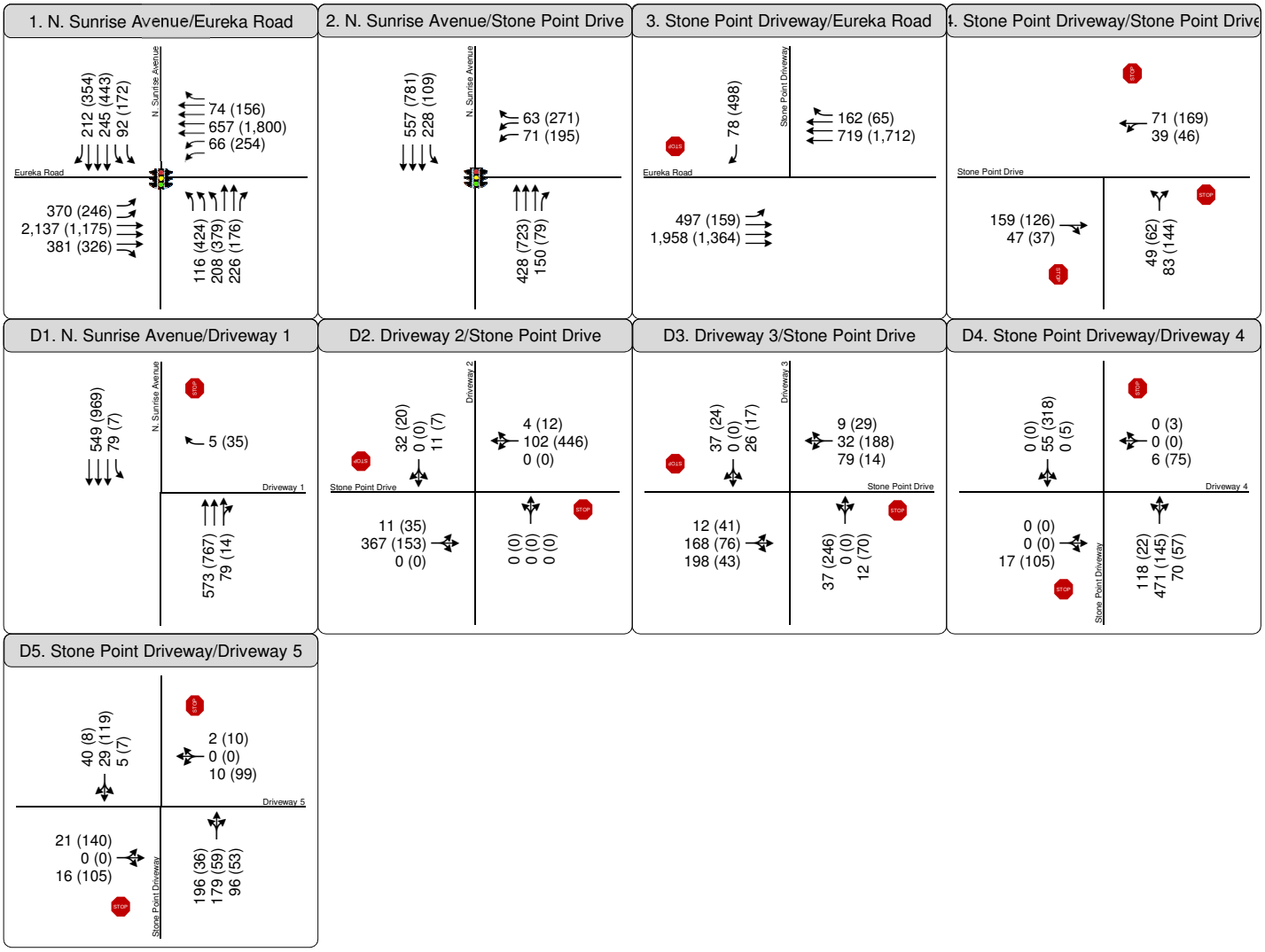

Figure B-4

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Approved Plus Phase 3 Conditions

TABLE B-3:
VEHICULAR QUEUING ALONG EUREKA ROAD – EXISTING PLUS PHASE 3 PLUS APPROVED PROJECTS CONDITIONS

Intersection	Movement	Storage Length [1]	Existing Conditions				Existing Plus Phase 3 Plus Approved Projects Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]	Traffic Volume	Maximum Queue[2]
North Sunrise Avenue/ Eureka Road	Eastbound Left	225 / 325 feet	226	**300 ft.**	187	**250 ft.**	370	325 ft.	246	250 ft.
	Eastbound Through	1,325 feet	1,852	850 ft.	1,124	425 ft.	2,137	1,300 ft.	1,175	575 ft.
Stone Point Driveway/ Eureka Road	Eastbound Left	375 feet	161	150 ft.	99	125 ft.	497 [3]	325 ft.	159	200 ft.
	Southbound Right	250 feet	25	50 ft.	169	200 ft.	78	75 ft.	498	**650 ft.**

Notes:
[1] Measured distance is length of turn lane or distance to upstream driveway or intersection.
[2] Maximum queue estimated using SimTraffic model. Queues are expressed on a 'per lane' basis.
[3] Due to upstream bottlenecks, 82 percent of this demand is served during the peak hour.
- Bolded cells represent queues that exceed the available storage.
- Only critical movements along Eureka Road that would potentially be affected by proposed project are shown.
- All values rounded to the nearest 25 feet.

Source: Fehr & Peers, 2016.

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Adventist Health Access Study
Phase 3 BPP Conditions
AM Peak Hour

Intersection 1 **North Sunrise Avenue/Eureka Road** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	350	325	32	400	52	375	27	0%	0%
	Through	1,275	1,100	183	1,575	293	1,300	111	34%	22%
	Right Turn	275	250	36	375	49	300	0	0%	0%
NB	Left Turn	250	100	38	175	60	175	59	0%	0%
	Through	425	75	16	150	37	150	44	0%	0%
	Right Turn	225	100	19	200	35	200	30	1%	0%
SB	Left Turn	1,250	50	11	100	20	100	21	0%	0%
	Through	275	100	9	150	18	150	23	0%	0%
	Right Turn	225	50	13	100	30	125	41	0%	0%
WB	Left Turn	250	50	14	100	16	75	20	0%	0%
	Through	700	100	16	200	35	200	36	1%	0%

Intersection 2 **North Sunrise Avenue/Stone Point Drive** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	475	100	12	150	23	150	27	0%	0%
	Right Turn	200	50	11	100	22	100	26	0%	0%
SB	Left Turn	325	125	18	200	27	200	29	0%	0%
	Through	825	50	11	100	19	100	21	0%	0%
WB	Left Turn	250	50	15	75	33	75	38	0%	0%
	Right Turn	500	100	7	150	15	150	17	0%	0%
0										

SimTraffic Post-Processor | **Adventist Health Access Study**
Average Results from 10 Runs | **Phase 3 BPP Conditions**
Queue Length | **AM Peak Hour**

Intersection 3 **Stone Point Driveway/Eureka Road** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	225	61	350	95	325	59	4%	0%
SB	Right Turn	300	50	5	50	10	75	16	0%	0%
WB	Through	875	25	1	25	7	25	10	0%	0%
	Right Turn	250	25	5	50	8	50	16	0%	0%
0										

Intersection 4 **Stone Point Driveway/Stone Point Drive** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	75	7	100	18	100	24	0%	0%
NB	Shared	175	50	5	75	9	75	8	0%	0%
WB	Left/Through	400	50	3	75	9	75	11	0%	0%
0										

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Adventist Health Access Study
Phase 3 BPP Conditions
PM Peak Hour

Intersection 1 **Eureka Road/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	250	225	21	325	43	275	53	0%	0%
	Through	1,250	400	67	575	129	575	138	31%	0%
	Right Turn	275	125	45	325	59	300	0	0%	0%
NB	Left Turn	250	250	26	275	50	275	24	24%	0%
	Through	425	325	64	475	68	425	65	3%	6%
	Right Turn	225	50	35	175	83	175	81	0%	0%
SB	Left Turn	1,575	150	17	225	36	225	46	0%	0%
	Through	300	150	36	250	73	275	68	1%	1%
	Right Turn	225	175	35	275	30	250	4	3%	0%
WB	Left Turn	250	175	36	275	56	250	29	0%	0%
	Through	700	350	65	500	134	475	128	42%	0%
	Right Turn	475	175	33	325	19	275	6	0%	0%

Intersection 2 **Stone Point Drive/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	500	150	17	225	38	225	32	1%	0%
	Right Turn	200	50	13	100	62	150	76	0%	0%
SB	Left Turn	325	100	17	125	27	125	23	0%	0%
	Through	825	100	19	150	27	150	34	0%	0%
WB	Left Turn	250	100	9	125	24	125	35	0%	0%
	Right Turn	225	100	19	150	36	175	36	0%	0%
0										

Intersection 3 **Eureka Road/Stone Point Driveway** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	125	41	200	70	200	55	0%	0%
SB	Right Turn	625	525	49	700	62	650	24	0%	25%
WB	Right Turn	250	25	3	25	11	25	12	0%	0%
0										

Intersection 4 **Stone Point Drive/Stone Point Driveway** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	50	7	75	14	75	17	0%	0%
NB	Shared	175	75	5	100	6	100	8	0%	0%
WB	Left/Through	400	75	8	100	12	100	14	0%	0%
0										

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Adventist Health Access Study
Phase 3 EPP Conditions
AM Peak Hour

Intersection 1 **Eureka Road/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	350	325	43	425	46	350	55	0%	0%
	Through	1,250	950	106	1,475	185	1,275	16	32%	13%
	Right Turn	275	225	38	375	51	300	0	0%	0%
NB	Left Turn	250	100	47	150	74	150	73	0%	0%
	Through	425	100	15	150	35	150	41	0%	0%
	Right Turn	225	75	31	175	53	175	42	1%	0%
SB	Left Turn	1,575	150	16	225	22	225	22	0%	0%
	Through	275	100	20	150	25	150	30	0%	0%
	Right Turn	225	50	19	100	32	100	27	0%	0%
WB	Left Turn	250	50	10	75	13	75	19	0%	0%
	Through	700	125	16	200	25	200	38	0%	0%

Intersection 2 **Stone Point Drive/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	725	125	25	175	46	175	46	0%	0%
	Right Turn	200	50	9	100	18	100	19	0%	0%
SB	Left Turn	325	100	16	150	34	150	28	0%	0%
	Through	825	50	12	100	21	100	21	0%	0%
WB	Left Turn	250	25	6	50	12	50	15	0%	0%
	Right Turn	225	25	5	50	9	50	17	0%	0%
0										

Intersection 3 **Eureka Road/Stone Point Driveway** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	150	17	250	31	250	42	0%	0%
SB	Right Turn	300	50	4	50	6	50	7	0%	0%
WB	Left Turn	175	25	0	25	0	25	0	0%	0%
	Through	325	25	0	25	0	25	0	0%	0%
	Right Turn	250	25	6	50	11	50	12	0%	0%
0										

Intersection 4 **Stone Point Drive/Stone Point Driveway** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	50	7	75	12	75	10	0%	0%
NB	Shared	175	50	4	75	8	75	8	0%	0%
WB	Left/Through	400	50	3	75	9	75	11	0%	0%
0										

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Adventist Health Access Study
Phase 3 EPP Conditions
PM Peak Hour

Intersection 1 **Eureka Road/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	250	200	20	325	30	275	33	0%	0%
	Through	1,275	375	53	550	83	550	101	28%	0%
	Right Turn	275	125	55	325	67	275	0	0%	0%
NB	Left Turn	250	225	101	275	115	250	107	18%	0%
	Through	425	300	42	500	61	450	78	3%	4%
	Right Turn	225	50	26	175	72	175	71	0%	0%
SB	Left Turn	1,575	150	19	225	35	225	45	0%	0%
	Through	300	150	25	250	50	275	60	1%	1%
	Right Turn	225	175	21	275	19	250	9	3%	0%
WB	Left Turn	250	175	28	275	50	250	30	0%	0%
	Through	1,600	375	62	525	106	550	111	40%	0%
	Right Turn	475	175	27	325	17	250	5	0%	0%

Intersection 2 **Stone Point Drive/North Sunrise Avenue** **Signal**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
NB	Through	500	125	19	200	34	200	33	1%	0%
	Right Turn	200	25	12	75	40	75	53	0%	0%
SB	Left Turn	325	75	10	100	21	100	28	0%	0%
	Through	825	100	14	150	25	150	32	0%	0%
WB	Left Turn	250	75	12	125	19	125	22	0%	0%
	Right Turn	225	75	12	125	24	125	25	0%	0%
0										

Intersection 3 **Eureka Road/Stone Point Driveway** **Side-street Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Left Turn	375	125	36	200	82	200	84	0%	0%
	Through	700	25	0	25	0	50	111	0%	0%
SB	Right Turn	625	350	59	500	77	525	59	0%	0%
WB	Through	875	25	2	25	9	25	12	0%	0%
	Right Turn	250	25	2	25	9	25	11	0%	0%
0										

Intersection 4 **Stone Point Drive/Stone Point Driveway** **All-way Stop**

Direction	Lane Group	Storage (ft)	Average Queue (ft) Average	Average Queue (ft) Std. Dev.	95th Queue (ft) Average	95th Queue (ft) Std. Dev.	Maximum Queue (ft) Average	Maximum Queue (ft) Std. Dev.	Block Time Pocket	Block Time Upstream
EB	Through/Right	225	50	6	75	10	75	9	0%	0%
NB	Shared	175	50	5	100	13	100	14	0%	0%
WB	Left/Through	400	50	7	75	18	75	17	0%	0%
0										