MacArthur Place Hotel & Spa Guest Room Additions Project

Initial Study – Mitigated Negative Declaration

prepared by

City of Sonoma
Planning Department
No. 1 The Plaza
Sonoma, California 95476
Contact: Kristina Tierney, Associate Planner

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

May 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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Initial Study

1. Project Title

MacArthur Place Hotel & Spa Guest Room Additions Project

2. Contact Person and Phone Number

Kristina Tierney, Associate Planner
707-933-2202

3. Project Location

The project site encompasses 5.08 acres (221,416 square feet) on one parcel at 29 East MacArthur Street (Sonoma County Assessor's Parcel Number 128-091-008-000) in the City of Sonoma. The site is bordered by East Macarthur Street to the north, Broadway (State Route 12) to the west, the Nathanson Creek Preserve to the east, and Sonoma Valley High School to the south. Figure 1 shows the regional location of the project site and Figure 2 shows the project site's immediate location and selected nearby land uses.

4. Project Sponsor's Name and Address

Joe Walsh, Vice President Development
L'Auberge de Sonoma, LLC
7001 North Scottsdale Road, Suite 2050
Scottsdale, Arizona 85253

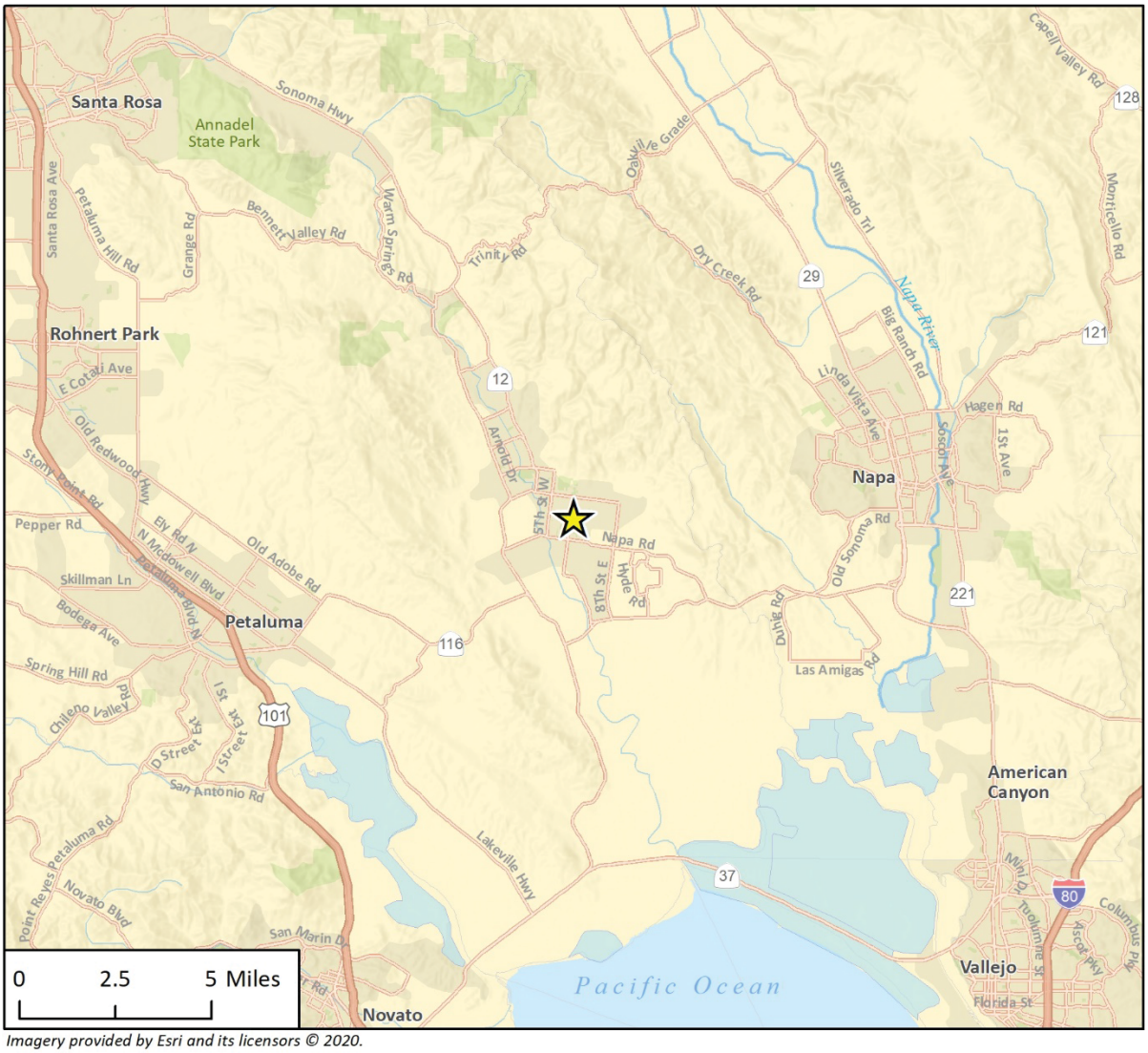
5. General Plan Designation

The project site is designated as Mixed Use in the City of Sonoma 2020 General Plan (City of Sonoma 2006).

6. Zoning

The project site is located within the Mixed Use zoning district, and the western half of the project site is within the Historic Overlay District (City of Sonoma 2018).

Figure 1 Regional Location



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Project Location

N

Figure 2 Project Location

Imagery provided by Microsoft Bing and its licensors © 2021.

7. Surrounding Land Uses and Setting

The project site is located in the southern portion of the City of Sonoma, approximately 0.6 miles south of Sonoma Plaza. The surrounding area is characterized by a mix of uses, including commercial, residential, educational, and open space. Nathanson Creek abuts the project site at its northeast corner and continues northward and southward. The Nathanson Creek Preserve runs along a portion of the creek, including the portion that abuts the project site, and includes a pedestrian and bicycle trail. Nearby commercial uses are located primarily along Broadway and East MacArthur Street, and include restaurants, retail, and other hotel buildings that are between one and two stories in height. The project site is also near several schools, including Sonoma High School, which abuts the site to the south, Adele Harrison Middle School, which abuts Sonoma High School to the south, and Prestwood Elementary School, which is approximately 0.3 miles east of the project site. Nearby residential uses are concentrated north and east of the site, across East MacArthur Street and 2nd Street East. Those residential uses are primarily single-family dwellings that range from one to two stories tall.

The project site is developed with the MacArthur Place Hotel and Spa. The hotel incudes 64 guest rooms, a restaurant and bar, meeting rooms, and a spa, which are distributed in 20 separate buildings. The project site is accessed via two driveways at E MacArthur Street which lead to surface parking lots at the eastern and western edges of the site. The hotel buildings are distributed evenly between the parking areas and are surrounded by gardens and landscaped pathways. The buildings range between one and two stories and include guest houses, a restaurant and reception building, maintenance building, and a Spa and Fitness Center building. The building ages on the site range widely: the oldest building, the Burris House (also called “Building T”) was constructed in 1869, while the majority of the buildings on the site, including most of the guest houses, were constructed between 1999 and 2000. Renovations of the existing spa building (Building L, originally constructed in 1948 and altered between 1998 and 2000), including a two-story addition to the building, were approved in 2020. The style of the buildings is also varied, from Italianate and Greek Revival to Streamline Moderne and Vernacular. An outdoor swimming pool and pool deck are located near the center of the site. Renovations to the spa building are expected to occur in Fall 2021. Figure 3, Figure 4, and Figure 5 show photographs of the project site.

8. Description of Project

The proposed project would involve construction of five new buildings within the project site. The new buildings would accommodate 11 new hotel guest rooms within approximately 6,413 square feet of building area. The new buildings would be distributed between the existing buildings near the center of the project site. The proposed project would also involve approval of a tent structure to support outdoor dining year-round at the existing restaurant building (Building P). The project applicant has applied for and received a Temporary Use Permit for the tent in prior years and intends to make it an annual part of the hotel programming.[1] Figure 6 illustrates the proposed site plan, and Table 1 provides information about the proposed project.

[1] In Winter 2020-21, due to the COVID-19 pandemic, the City did not require Temporary Use Permits for temporary tents on private property.

Figure 3 Photographs of Project Site – Photographs 1 and 2

Photograph 1. View of entrance to hotel, taken from E. MacArthur Street looking south

Photograph 2. View of the existing Burris House (Building T), looking southeast

Figure 4 Photographs of Project Site – Photographs 3 and 4

Photograph 3. View of the existing pool, looking south

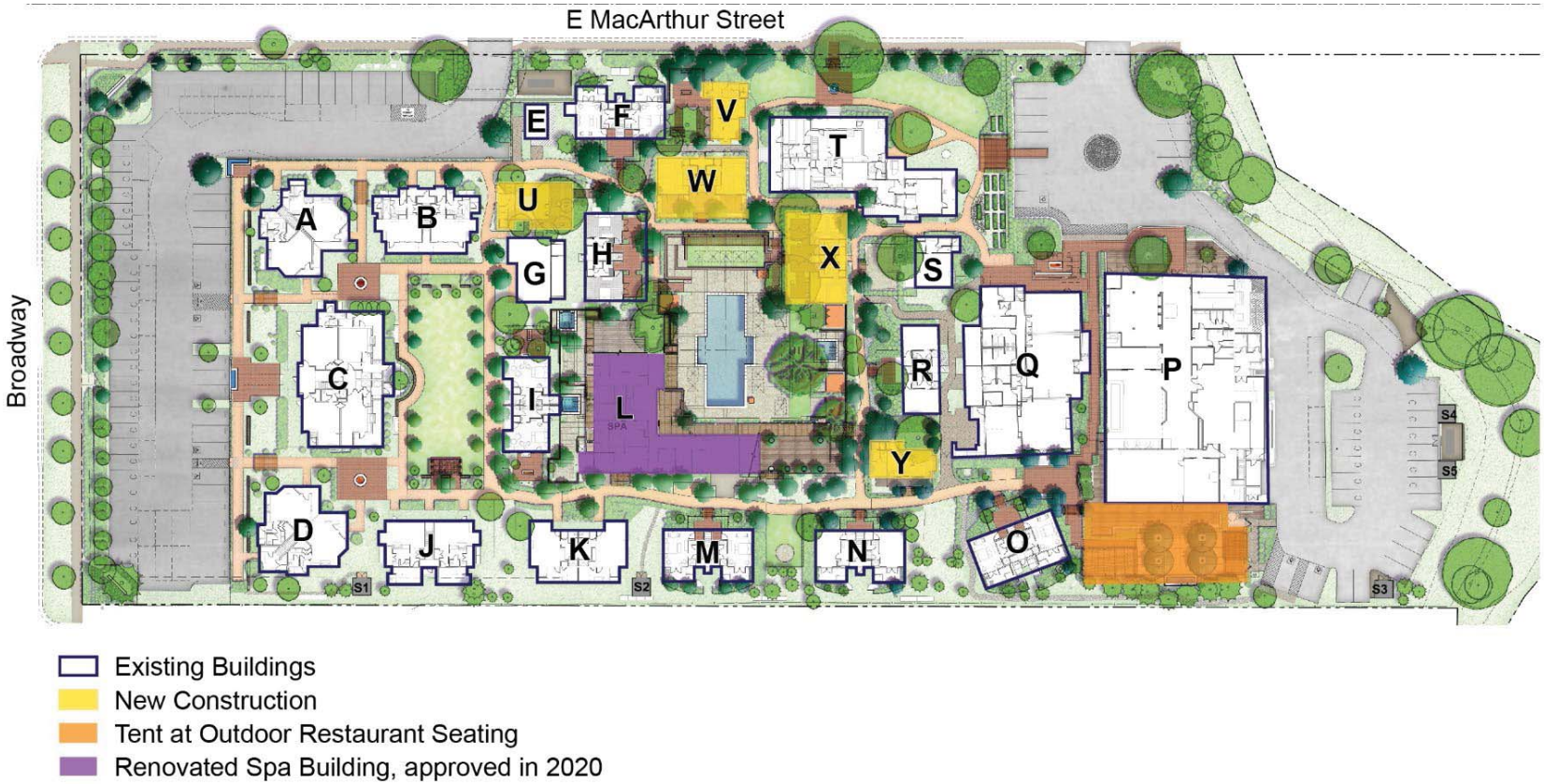
Photograph 4. View of existing Buildings N, M, L, and K, looking west

Figure 5 Photographs of Project Site – Photographs 5 and 6

Photograph 5. View existing Building P, temporary tent, and outdoor seating area, southeast

Photograph 6. View of outdoor seating area and tent, looking southeast

Figure 6 Proposed Site Plan



Source: Ross Drulis Cusenbery Architecture, 2021.

Table 1 Project Summary

Site Feature	Existing	Proposed Change	Proposed Total
Building Area	58,314 sf	+ 6,413 sf	64,727 sf
Number of Employees at Largest Shift	32	+ 2	34
Hotel Guest Rooms	64	+ 11	75
Vehicle Parking Spaces	131	No change	131
Conference Capacity	150 persons	No change	150 persons
Restaurant Capacity (indoor and outdoor)	165 seats	No change	165 seats
Landscaping and Permeable Area	124,200 sf	- 7,300 sf	116,900 sf

sf = square feet

+ = proposed increase

- = proposed decrease

Operation of the new guest rooms would require two additional housekeeping employees. Aside from the proposed new buildings and continued use of the tent, all other existing buildings and uses within the project site would remain the same. Project-related ground disturbance and construction activity would be limited to the areas where the new buildings are proposed and temporary construction access on East MacArthur Street. The existing hours of operation; meeting room, spa, and restaurant capacities; and number of parking spaces would not change as a result of the project.

Guestroom Additions

The proposed project would involve the addition of 11 new guestrooms within five new buildings at the project site, identified as Buildings U, V, W, X, Y in Figure 4. The construction of the new guestrooms would be phased, beginning with Buildings X and U. The buildings would be distributed between existing buildings near the central portion of the project site and would be designed to complement the architecture of the existing structures on the site. Table 2 provides a summary of the proposed buildings.

Table 2 Proposed New Guest Room Buildings

Building Name	Floor Area	Number of Stories	Number of Guestrooms
U	554 sf	1	1
V	536 sf	1	1
W	1,914 sf	2	4
X	1,914 sf	2	4
Y	567 sf	1	1

sf = square feet

Proposed buildings W and X would each be two stories, include four guestrooms, and feature the same general style and massing as existing guestroom buildings F, H, M, N, O, and R. Proposed buildings U, V, and Y would be one-story guest cottages include one guestroom, and feature similar design to existing Buildings G and S. The buildings would be designed with the same gabled roofs, painted wood siding, and metal-clad wood-sash windows as the existing buildings on the project

site. The new two-story buildings would be approximately 28 feet at their tallest points, and the one-story buildings would be approximately 14 feet at their tallest points.

Exterior Restaurant Tent

In addition to construction of the new guestrooms, the project would involve expansion of the MacArthur Place Hotel & Spa's use permit to allow continued year-round use of the tent currently covering the existing exterior seating area for the hotel restaurant, Layla. As shown in Figure 6, the seating area abuts the southern façade of building P. The tent was erected at the restaurant to allow outdoor dining during state-mandated restaurant dining restrictions required because of the coronavirus pandemic. Expansion of the tent permit to allow year-round use would provide the hotel with continued flexibility during any future state-mandated dining restrictions or inclement weather periods.

As shown in Figure 5, the existing tent is approximately 85 feet long and 40 feet wide, and features a gabled transparent roof that is 22 feet at its highest point. Total restaurant seating capacity would remain unchanged under the proposed request. Under existing and proposed conditions, the restaurant would include a maximum total seating capacity of 165 seats, including both indoor and outdoor seats.

Green Building Features

The proposed project would be required to comply with the State of California Cal Green Building Code (CALGreen) and would implement additional sustainable site development strategies, including low flow fixtures and water conserving laundry equipment, energy efficient mechanical and electrical systems, and recycling of waste generated during construction.

Landscaping and Site Features

The project would involve removal of two existing trees on the site to accommodate the new construction, a 28-inch Chinese Juniper and a six-inch Black Pine. Three existing trees would be transplanted to other locations within the project site, including two apple trees and a Japanese Maple tree (Appendix ARB). New landscaping would also be planted surrounding the proposed new buildings. Given the new building floor area, total impermeable area across the project site would increase by approximately 7,300 square feet.

To comply with requirements by the City of Sonoma Fire Marshal, a new underground wet standpipe fire water supply system would be added to portions of the existing hotel campus as an alternate means of protection for the property. The project would tap into the existing City water main in East MacArthur Street to supply the new hydrant and wet standpipe system. Additionally, the project would involve painting a curb red along East MacArthur Street to the east of the west parking lot entry to accommodate a new fire hydrant. The red curb would result in the reduction of approximately one to two on-street parking spaces; as described in the Traffic Initial Study Checklist prepared for the project, the red curb would not impact vehicle circulation or emergency access (Appendix TRA).

Construction

To complete the construction of the project, grading would take place where the new buildings are proposed, including removal of landscape and asphalt walkways, and approximately 500 cubic yards of soil would be hauled off site. Excavation would reach a maximum depth of approximately four

feet. Including grading, site preparation, and construction, project implementation would take approximately ten months. Typical heavy construction equipment during project could include a backhoe, air compressor, and dump truck. It is assumed that diesel engines would power all construction equipment. A temporary construction access path and access gates into the existing site and opening onto East MacArthur Street would be required during construction.

9. Other Public Agencies Whose Approval is Required

The proposed project would require approval of a use permit modification and design review and landscape plan application by the City of Sonoma Planning Commission. No additional discretionary public agency permits or approvals would be required for this project.

10. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

No California Native American Tribes have requested consultation pursuant to Public Resources Code Section 21080.3.1.

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Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	■	Air Quality
■	Biological Resources	■	Cultural Resources	☐	Energy
■	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	■	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	■	Mandatory Findings of Significance

Determination

Based on this initial evaluation:

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

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

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

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

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

KT for David A. Storer — Signature

5/17/21 — Date

KT for David A. Storer, AICP — ~~Printed Name~~

Director — Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

a. Would the project have a substantial adverse effect on a scenic vista?

City of Sonoma Municipal Code (SMC) Section 19.40.130.C defines "scenic vistas" as public views, benefiting the community at large, of significant features, including hillside terrain, ridgelines, canyons, geologic features, and community amenities (e.g., parks, landmarks, permanent open space). This would also include public views from road corridors of the hillsides that adjoin Sonoma Valley. Moreover, the SMC requires that new structures be constructed in a manner that preserves scenic vistas by maintaining view corridors (SMC Section 19.40.130.D), including unbuilt space between buildings, view opportunities created from undeveloped lots, airspace created from public parks and open spaces, and open spaces created from the deliberate spacing of buildings on the same lot or adjacent lots.

The project is in a relatively flat area of the City of Sonoma. Views of hillsides are available looking northward from Broadway and eastward from East MacArthur Street. Given the existing development and vegetation on the project site and adjacent properties, such views of the hills or other features at a distance are not available from or through the project site. Views of the

Nathanson Creek Preserve, a public open space adjacent to the east edge of the site, are available from the parking lot and buildings at the eastern portion of the site.

The project would involve construction of five new buildings and continued use of an existing tent structure on the interior portion of a developed, privately owned site. Given the location of the proposed guestrooms and tent and the existing development within and near the site, the project would not obstruct views of the hillside or the Nathanson Creek Preserve. Moreover, while the new construction would result in a reduction of open space between existing buildings on the site, the proposal would be consistent with the site's existing development pattern and open space design: the height of the tent and the one- and two-story buildings would be consistent with the existing one- and two-story buildings on the site, and the tent is lower than the existing building it abuts and covers an existing outdoor eating area. Moreover, new landscaped pedestrian paths consistent with the design of existing paths would be installed to provide access to and around the new buildings. Impacts related to scenic vistas would therefore be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

State Route 12 crosses through the City of Sonoma, including along the portion of Broadway abutting the project site. A portion of SR 12 is a designated State scenic highway. However, the designated portion extends from Danielli Avenue east of Santa Rosa to London Way near Agua Caliente, which is located approximately three miles to the northwest of the project site (Caltrans 2011). Therefore, the project site is not located within view of a State scenic highway. Moreover, given the existing development and vegetation on the site, the proposed new guestrooms would not be visible from the portion of SR 12 that is adjacent to the site. The project would not involve removal or changes to existing trees on site that are visible from a public viewpoint, such as the Nathanson Creek Preserve. As described in Section 5, *Cultural Resources*, the project would not obscure principal views of the Burris House, which is a historical resource on the project site. Finally, no rock outcroppings are located within the project site or surrounding area. No impact would occur.

NO IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project site is in the City of Sonoma, a non-urbanized area per CEQA Guidelines Section 15387. The visual character surrounding the project site is primarily characterized by one to two-story low-density commercial and residential development with a variety of architectural styles. Most of the residential buildings are located north and east of the site and are one- and two-story single-family dwellings sited on individual lots with generous front and rear yards that tend to include yards, swimming pools, and other landscaping. Educational uses are clustered south and southeast of the site and include one and two-story utilitarian school buildings surrounded by landscaped yards and outdoor sports fields. Commercial uses tend to be clustered west of the site, along Broadway, and are primarily automobile-oriented shopping centers, with one- to two-story buildings surrounded by concrete parking lots.

The existing visual quality of the project site is relatively high. It includes 20 buildings that make up the MacArthur Place Hotel and Spa, including one building that is eligible for listing on the National Register of Historic Places, arranged across a landscaped site with pedestrian pathways, a pool deck, and an event lawn. The buildings range between one and two stories and feature Italianate and Greek Revival architectural styles.

The proposed project would involve construction of five new buildings and continued use of an existing tent at the outdoor restaurant seating area. The project would change the visual quality of the interior of the project site incrementally, resulting in a slightly more densely developed property. However, the proposed height, massing, and materials would be consistent with the existing development on the site. The massing, style, and design of the new construction would match the massing, style, and design of the existing hotel buildings on the project site. In addition, the tent, which is transparent and lower than the existing building it abuts, does not substantially degrade the visual character of the site, nor does it obstruct views available through the project site. In addition, the project would maintain the existing development pattern and scale within the project site.

The western portion of the site is located within the Historic Overlay District. The Historic Overlay District. The Historic Overlay District is intended to preserve structures that are historically and/or culturally significant and also has increased scrutiny and requirements for development. SMC Chapter 19.42 SMC (Historic Preservation and Infill in the Historic Zone) has additional requirements to ensure new development is compatible with the historic nature of the area.

Per SMC Section 19.54.080, the project would be subject to design review by the Design Review and Historic Preservation Commission and Planning Commission. The Design Review and Historic Preservation Commission reviewed the project on March 20, 2021 and unanimously recommended that the Planning Commission approve the project as proposed. Approval of design review of the project would be subject to the following findings:

1. Basic Findings. In order to approve any application for site design and architectural review, the review authority must make the following findings:
    a. The project complies with applicable policies and regulations, as set forth in this development code (except for approved variances and exceptions), other city ordinances, and the general plan;
    b. On balance, the project is consistent with the intent of applicable design guidelines set forth in this development code; and
    c. The project responds appropriately to the context of adjacent development, as well as existing site conditions and environmental features.
2. Projects within the Historic Overlay District or a Local Historic District. In addition to the basic findings set forth in subsection (G)(1) of this section, the review authority must make the following additional findings for any project located within the historic overlay district:
    a. The project will not impair the historic character of its surroundings;
    b. The project substantially preserves the qualities of any significant historic structures or other significant historic features on the site;
    c. The project substantially complies with the applicable guidelines set forth in Chapter 19.42 SMC (Historic Preservation and Infill in the Historic Zone); and

d. The project substantially complies with any applicable preservation plan or other guidelines or requirements pertaining to a local historic district as designated through SMC 19.42.020.

Given required compliance with the above findings, the design of the project would be sensitive to the context of adjacent development, including the existing buildings and landscaping within the project site. The proposed project would involve modifications at the interior portions of the site, which would be minimally visible from public viewpoints, including surrounding streets. Given the location and scale of the proposed modifications, public views of the site and its surroundings would be minimally affected. Additionally, the applicant has submitted a Letter of Consistency from Page & Turnbull confirming that the additional new construction and alterations of the Guest Room Addition Project would not cause an adverse impact to the onsite historic resource (Page & Turnbull, 2021, included in Appendix CR). The Letter of Consistency found that the proposed project as designed would be consistent with all 10 of the Secretary of the Interior's Standards for Rehabilitation. Therefore, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The neighborhood surrounding the project site is a developed area with moderate levels of existing lighting. The adjacent residential, educational, commercial, and roadway uses generate light and glare along the north, west, and south sides of the property; Nathanson Creek Preserve, which abuts the site at the east does not generate substantial light and glare. Primary sources of light adjacent to the project site include lighting associated with the existing residential and commercial buildings, including building-mounted and perimeter lighting as well as interior lighting visible through windows; streetlights; and headlights from vehicles on nearby streets. Sources of light within the site include interior lighting visible through windows, headlights from vehicles, and exterior building lighting to illuminate signage, pathways, and parking areas. The primary source of glare adjacent to the project site is the sun's reflection from metallic and glass surfaces on buildings and on vehicles parked on adjacent streets and in adjacent parking areas. Vehicles parked within the site are the primary source of daytime glare on the project site.

The proposed project would involve new exterior lighting in the form of pedestrian walkway leading to the new buildings and other safety-related lighting. Additionally, new interior lighting would be visible through guestroom windows in the new buildings. These light sources would not have a significant impact on the night sky, as they would only incrementally add to the existing background light levels already present as a result of the surrounding buildings, parking areas, and street lighting. Moreover, the existing lighting within outdoor dining area, all of which shielded downward to prevent light spilling into other areas of the site, would remain under the proposed project Because of the existing moderate ambient lighting levels in the vicinity of the site, project development would not substantially alter this condition. Consistent with surrounding land uses, the project would also incorporate materials, such as wood paneling and grey roof shingles to match existing materials, that reduce the amount of glare reflected off the new buildings.

In addition, all proposed exterior lighting would be subject to the exterior lighting standards of SMC Section 19.40.030, including the following:

- **Exterior Fixtures.** Lighting fixtures shall be architecturally compatible with the character of the surrounding structure(s) and shall be energy efficient. Fixtures shall be appropriate in height, intensity, and scale to the use they are serving. Generally, pole-mounted fixtures shall be low in height (up to 20 feet) and be equipped with light shields to reduce or eliminate light spillage beyond the project's boundaries.
- **Intensity.** The level of parking lot light projected onto any ground or wall surface shall not be less than two footcandles nor more than five footcandles at the base of the light fixture. Pedestrian courts, plazas, and walkways shall have a light level at the ground surface of one footcandle. The electrical or lighting plan shall demonstrate the dispersal of light on the ground surface and compliance with the requirements of this section. Building-mounted decorative lights shall not exceed five footcandles measured five feet from the light source.
- **Shielding.** Where the light source is visible from outside the project boundary, shielding shall be required to reduce glare so that neither the light source nor its image from a reflective surface shall be directly visible from any point five feet or more beyond the property line. This requirement shall not apply to single-family residential uses, traffic safety lighting, or public street lighting.

Given required compliance with the approve requirements and the modest level of additional lighting in the existing context of the site and surroundings, impacts related to light and glare would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
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))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
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?	☐	☐	☐	■

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

c. Would the project 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))?

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project 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?

The project site is located on Urban and Built-Up Land, per the Department of Conservation's (DOC) Important Farmland Finder (DOC 2018). This area is not identified as a farmland type, it is not enrolled in Williamson Act contracts, and it does not support forest land or resources. The project site is not located on or adjacent to agricultural land or forest land and the proposed project would not involve development that could result in the conversion of farmland to non-agricultural uses. The site is occupied by hotel and spa buildings and associated outdoor recreational areas. Therefore, the proposed project would have no impact with respect to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use; conflict with existing agricultural zoning or Williamson Act contracts; result in the loss of forest land or conversion of forest land to non-forest use; or other conversion of farmland to non-agricultural use.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b. 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?	☐	■	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	■

This section incorporates the findings of the Air Quality and Greenhouse Gas Analysis conducted by Yorke Engineering, LLC, dated April 6, 2021. This report is included as Appendix AQ. As described in the *Methodology* section below, the Yorke analysis does not include calculations of emissions related to soil export; therefore, to evaluate air quality impacts related to soil export, additional modeling was completed to calculate emissions associated with hauling trips required for soil export and is included in Appendix AQ.

Overview of Air Pollution

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide (CO), volatile organic compounds (VOC)/reactive organic gases (ROG),[2] nitrogen oxides (NO_X), particulate matter with diameters of ten microns or less (PM_{10}) and 2.5 microns or less ($PM_{2.5}$), sulfur dioxide (SO_2), and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between

[2] CARB defines VOC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term ROG is used in this IS-MND.

ROG and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog).

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.
- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Air Quality Standards and Attainment

The project site is located is located in the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that the NAAQS and CAAQS are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the SFBAAB is classified as being in “attainment” or “nonattainment.” In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these criteria pollutants, presented in Table 3, are already occurring in that area as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. BAAQMD is in non-attainment for the state and federal ozone standards, the state and federal PM2.5 (particulate matter with diameters of up to 2.5 microns) standards and the state PM10 (particulate matter with diameters of up to 10 microns) standards and is required to prepare a plan for improvement (BAAQMD 2017a).

Table 3 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[1]
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.[1]

[1] More detailed discussions on the health effects associated with exposure to suspended particulate matter can be found in the following documents: United States Environmental Protection Agency, Air Quality Criteria for Particulate Matter, October 2004.

Source: United States Environmental Protection Agency 2018

Air Quality Management

The Bay Area 2017 Clean Air Plan (the 2017 Plan) provides a plan to improve Bay Area air quality and protect public health as well as the climate. The legal impetus for the 2017 Plan is to update the most recent ozone plan, the 2010 Clean Air Plan, to comply with state air quality planning requirements as codified in the California Health & Safety Code. Although steady progress in reducing ozone levels in the Basin has been made, the region continues to be designated as non-attainment for both the one-hour and eight-hour state ozone standards. In addition, emissions of ozone precursors in the Bay Area contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the 2017 Plan to include all feasible measures to reduce emissions of ozone precursors and reduce transport of ozone precursors to neighboring air basins (BAAQMD 2017b).

In 2006, the U.S. Environmental Protection Agency (USEPA) reduced the national 24-hour $PM_{2.5}$ standard regarding short-term exposure to fine particulate matter from 65 micrograms per cubic meter ($\mu g/m^3$) to 35 $\mu g/m^3$. Based on air quality monitoring data for the 2006-2008 cycle showing that the region was slightly above the standard, the USEPA designated the Basin as non-attainment for the 24-hour national standard in December 2008. This triggered the requirement for the BAAQMD to prepare a State Implementation Plan (SIP) submittal to demonstrate how the region would attain the standard. However, data for both the 2008-2010 and the 2009-2011 cycles showed that $PM_{2.5}$ levels in the Basin currently meet the standard. On October 29, 2012, the USEPA issued a proposed rule-making to determine that the Basin now attains the 24-hour $PM_{2.5}$ national standard. Based on this, the Basin is required to prepare an abbreviated SIP submittal, which includes an emission inventory for primary (directly-emitted) $PM_{2.5}$, as well as precursor pollutants that contribute to formation of secondary PM in the atmosphere; and amendments to BAAQMD New Source Review (NSR) to address $PM_{2.5}$ (adopted December 2012). However, key SIP requirements to

demonstrate how a region will achieve the standard (i.e., the requirement to develop a plan to attain the standard) will be suspended as long as monitoring data continues to show that the Basin attains the standard.

In addition to preparing the "abbreviated" SIP submittal, the BAAQMD has prepared a report entitled "Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area" (BAAQMD 2012). The report helps guide the BAAQMD's on-going efforts to analyze and reduce PM in the Bay Area in order to better protect public health.[3] The Basin will continue to be designated as nonattainment for the federal 24-hour $PM_{2.5}$ standard until such time as the BAAQMD elects to submit a "redesignation request" and a "maintenance plan" to the USEPA, and the USEPA approves the proposed redesignation.

Air Pollutant Emission Thresholds

This analysis uses the numeric thresholds in the May 2017 *BAAQMD CEQA Air Quality Guidelines* to determine whether the impacts of the project exceed the thresholds identified in Appendix G of the CEQA Guidelines. The BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts. If all the screening criteria are met by a project, the lead agency or applicant does not need to perform a detailed air quality assessment of the project's air pollutant emissions, and air quality impacts would be considered less than significant. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. For infill projects such as the proposed project, emissions would be less than the greenfield-type project on which the screening criteria are based; therefore, use of the screening criteria is a conservative approach (BAAQMD 2017a). The BAAQMD's screening level sizes for hotel developments are 554 guest rooms for construction-related criteria pollutant emissions and 489 guest rooms for operational criteria pollutant emissions (BAAQMD 2017a).

In addition, for construction-related emissions to be considered less than significant, projects must meet the following criteria in addition to being below the applicable screening level (BAAQMD 2017a):

1. All Basic Construction Mitigation Measures would be included in the project design and implemented during construction; and
2. Construction-related activities would not include any of the following:
    - Demolition;
    - Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would not occur simultaneously);
    - Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high-density infill development);
    - Extensive site preparation (i.e., greater than default assumptions used by the Urban Land Use Emissions Model [URBEMIS] for grading, cut/fill, or earth movement); or
    - Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

[3] PM is made up of particles that are emitted directly, such as soot and fugitive dust, as well as secondary particles that are formed in the atmosphere from chemical reactions involving precursor pollutants such as oxides of nitrogen, sulfur oxides, volatile organic compounds, and ammonia.

The project meets the criteria for use of the operational screening size for criteria pollutant emissions; therefore, this analysis utilizes the screening size process to evaluate the significance of the project's operational criteria pollutant emissions. However, the project does not include implementation of all Basic Construction Mitigation Measures. Therefore, the project does not meet all of the screening criteria for construction emissions. For projects that do not meet the screening criteria, the BAAQMD provides numeric significance thresholds to evaluate project impacts. Table 4 presents the BAAQMD quantitative significance thresholds for construction-related criteria air pollutant and precursor emissions. These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. The BAAQMD Guidelines do not include recommended thresholds for CO and SO_2 during construction. However, the air quality analysis in Appendix AQ evaluated project impacts related to these pollutants using thresholds derived from Title 40 Code of Federal Regulations Part 51.166 (40 CFR 51.166). The proposed project would result in a potentially significant impact if construction emissions would exceed any of the thresholds shown in Table 4.

Table 4 Air Quality Thresholds of Significance

Pollutant	Average Daily Emissions (lbs/day)
ROG	54
NO_X	54
CO	548
SO_2	219
PM_{10}	82 (exhaust)
$PM_{2.5}$	54 (exhaust)
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices (BMPs)

ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day, BAAQMD = Bay Area Air Quality Management District

Source: BAAQMD 2017a, 40 CFR 51.166

The BAAQMD also provides a preliminary screening methodology to conservatively determine whether operation of a proposed project would potentially result in a significant impact related to localized CO concentrations. If the following criteria are met, a project would result in a less-than-significant impact:

1. Project is consistent with an applicable congestion management program (CMP) established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
2. Project-related traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
3. Project-related traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The BAAQMD has established the following thresholds of significance for local community risks and hazards associated with toxic air contaminants (TACs) and $PM_{2.5}$ for assessing individual project-level impacts at a local level (BAAQMD 2017a):

- Not to exceed an increased cancer risk of >10 in one million
- Not to exceed increased non-cancer (i.e., Chronic or Acute) risk of >1.0 Hazard Index
- Not to exceed ambient $PM_{2.5}$ concentration increase of >0.3 micrograms per cubic meter ($\mu g/m^3$) annual average

A project would have a cumulatively considerable impact related to local community risks and hazards associated with TACs and $PM_{2.5}$ if the aggregate total of current and proposed TAC sources within a 1,000 feet radius of the project fence line in addition to the proposed project would exceed the following thresholds of significance (BAAQMD 2017a):

- Not to exceed an increased cancer risk of >100 in one million
- Not to exceed increased non-cancer (i.e., Chronic or Acute) risk of >10 Hazard Index
- Not to exceed ambient $PM_{2.5}$ concentration increase >0.8 $\mu g/m^3$ annual average

Methodology

As described in the Air Quality and Greenhouse Gas Analysis, air pollutant emissions generated by project construction were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., hotel), and location, to model a project's construction emissions (Appendix AQ). The Yorke Air Quality and Greenhouse Gas Analysis does not include calculations of emissions related to soil export; therefore, to evaluate air quality impacts related to soil export, an additional CalEEMod model was completed to calculate emissions associated with hauling trips required for soil export (Appendix AQ). The analysis reflects construction of the project as described under the *Description of Project* section. As described previously, this analysis utilizes the screening size process to evaluate the significance of the project's operational criteria pollutant emissions; therefore, operational emissions are not quantified.

Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Construction of the proposed project was analyzed based on the CalEEMod default construction schedule and construction equipment list. It is assumed that all construction equipment used would be diesel-powered. In addition, it was assumed that project construction would comply with all applicable regulatory standards, including BAAQMD Regulation 8, Rule 3 (Architectural Coatings), which restricts the volatile organic compound content of flat coatings to 100 grams per liter and non-flat coatings to 150 grams per liter.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The California Clean Air Act requires that air districts create an air quality plan that describes how the jurisdiction will meet air quality standards. These plans must be updated every three years. The most recently adopted air quality plan in the Basin is the 2017 Plan. As described under *Air Quality Management*, the 2017 Plan updates the most recent ozone plan - the 2010 Clean Air Plan - pursuant to air quality planning requirements defined in the California Health & Safety Code. To

fulfill State ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors (reactive organic gases and nitrogen oxides) and reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants. The 2017 Plan does not include control measures that apply directly to individual development projects. Instead, the control strategy includes measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-greenhouse gas (GHG) pollutants.

The 2017 Plan focuses on two paramount goals (BAAQMD 2017b):

- Protect air quality and health at the regional and local scale by attaining all state and national air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs; and
- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050

Under BAAQMD's methodology, a determination of consistency with the 2017 Plan should demonstrate that a project (BAAQMD 2017c):

- Supports the primary goals of the 2017 Clean Air Plan;
- Includes applicable control measures from the 2017 Clean Air Plan; and
- Would not disrupt or hinder implementation of any control measures in the 2017 Clean Air Plan.

A project that would not support the 2017 Plan's goals would not be considered consistent with the 2017 Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the 2017 Plan's goals. As shown in the discussion under checklist items *b* and *c* (see below), the project would not result in exceedances of BAAQMD thresholds for criteria air pollutants and thus would not conflict with the 2017 Plan's goal to attain air quality standards. Furthermore, as shown in Table 5, the proposed project would include applicable control measures from the 2017 Clean Air Plan and would not disrupt or hinder implementation of such control measures. Therefore, the proposed project would result in a less than significant impact related to consistency with the 2017 Plan.

Table 5 Project Consistency with Applicable Control Strategies of 2017 Clean Air Plan

Control Strategy	Evaluation
Direct new development to areas that are well served by transit, and conducive to bicycling and walking.	**Consistent**. The project would involve construction of additional hotel guestrooms within a developed parcel that is within walking distance of existing transit facilities, including bus stops at East MacArthur Street and 1st Street West, which are served by Sonoma County Transit Route 30, and existing commercial uses, including Sonoma Plaza (approximately 0.6 mile north of the site).
Reduce demand for vehicle travel, and high-carbon goods and services.	**Consistent.** As discussed in Section 17, *Transportation*, the project would have a less than significant impact on vehicle miles traveled (VMT).
Promote energy and water efficiency in both new and existing buildings.	**Consistent.** The proposed project would be required to comply with 2019 CALGreen standards, which include measures for energy and water efficiency.

Source: BAAQMD 2017b

LESS THAN SIGNIFICANT IMPACT

b. Would the project 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?

Construction Emissions

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles in addition to ROG emissions that would be released during the drying phase of architectural coating. Table 6 summarizes the estimated maximum daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed BAAQMD thresholds. Therefore, project construction would not 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.

Table 6 Estimated Daily Construction Emissions

	ROG[1]	NO_X[1]	CO	SO_2	Exhaust PM_{10}[1]	Exhaust $PM_{2.5}$[1]
Maximum Construction Emissions (lbs/day)	13	25	12	<1	<1	<1
BAAQMD Thresholds[1]	54	54	548	219	82	54
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**No**	**No**

ROG = reactive organic gases, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter measuring 10 microns in diameter or less, $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; lbs/day = pounds per day, BAAQMD = Bay Area Air Quality Management District;

[1] The BAAQMD thresholds are in terms of average daily emissions while the project's emissions are presented in terms of maximum daily emissions, thereby providing a conservative estimate of project impacts because the project's average daily emissions would be lower than the maximum daily emissions presented in this table.

Notes: All emissions modeling was completed using CalEEMod in accordance with applicant-provided data. Some numbers may not add up due to rounding. Emissions presented are the highest of the winter and summer modeled emissions.

See Appendix AQ for model output results.

As shown in Table 4, the threshold of significance for fugitive dust impacts is whether the project includes compliance with a construction dust ordinance or implementation of fugitive dust control BMPs. As described in Air Quality and Greenhouse Gas Emissions Analysis, although the project is small, there may be instances in which fugitive dust generated during construction may present a nuisance and thus could result in a significant impact. Because there is no local construction dust ordinance and the project would not include implementation of the BAAQMD Basic Construction Mitigation Measures, impacts related to fugitive dust would be potentially significant, and mitigation would be required.

Operational Emissions

The BAAQMD operational screening level size for a hotel project is 489 guest rooms. The proposed project would include 11 new guest rooms and therefore is well below the screening size. (The entire hotel, including the proposed new guestrooms, would include 75 guestrooms, which is also below the screening size.) As a result, per BAAQMD guidance, a detailed air quality assessment of the project's operational criteria air pollutant emissions is not necessary, and project operation

would not 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. Impacts would be less than significant.

Nevertheless, the Air Quality and Greenhouse Gas Emissions Analysis includes a detailed assessment of the project's operational impacts on air quality (Appendix AQ). As described in that report, emissions during operation would not exceed applicable thresholds, and impacts would be less than significant, as determined by use of the BAAQMD screening size process.

Mitigation Measure

AQ-1 Implementation of BAAQMD Basic Construction Mitigation Measures

Construction activities shall comply with the following Basic Construction Mitigation Measures Recommended for all Proposed Projects in the May 2017 BAAQMD *CEQA Air Quality Guidelines*.

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. Watering operations may be curtailed during wet and inclement weather.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. A publicly visible sign with the telephone number and person to contact at the City of Sonoma regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Significance After Mitigation

The BAAQMD has determined that implementation of the Basic Construction Mitigation Measures described in Mitigation Measure AQ-1 would reduce impacts related to fugitive dust to a less than significant level. Therefore, impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. The nearest sensitive receptors in the project vicinity include a residential uses approximately 50 feet north of the northern boundary of the project site and Sonoma Valley High School, which is immediately adjacent to the south of the project site. Localized air quality impacts to sensitive receptors typically result from CO hotspots and TACs, which are discussed in the following subsections.

Carbon Monoxide Hotspots

As stated in the BAAQMD 2017 *CEQA Air Quality Guidelines,* the proposed project would result in a less than significant impact related to local CO concentrations if the project is consistent with an applicable CMP; would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

There is no CMP for the City or County of Sonoma; therefore, the first criterion in the BAAQMD 2017 CEQA Air Quality Guidelines does not apply to the project.

The highest volume intersection that would accommodate project traffic is the intersection at East MacArthur Street and Broadway. Peak hour traffic volumes at this intersection are approximately 900 to 11,000 vehicles, which is substantially below the 44,000 vehicle-per-hour threshold described above (California Department of Transportation 2021). Moreover, as described in the traffic study prepared for the project, the project would result in a net increase of about five vehicle trips during the AM peak hour and seven vehicle trips during the PM peak hour (W-Trans 2021, Appendix TRA). Therefore, the increase in project trip generation would not exceed the screening threshold of 44,000 vehicles per hour. Furthermore, there are no intersections affected by project-related traffic where vertical and/or horizontal mixing is substantially limited. Therefore, the project would no expose sensitive receptors to substantial localized CO emissions, and impacts would be less than significant.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project's potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2020) and is therefore the focus of this analysis.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately 10 months. The dose to

which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 10 months) is approximately three percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (BAAQMD 2017a).

The maximum PM_{10} and $PM_{2.5}$ emissions would occur during site preparation and grading activities. These activities would last for approximately three days. PM emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with site preparation and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent less than one percent of the total 30-year exposure period for health risk calculation. Therefore, DPM generated by project construction would not create conditions where the probability is greater than one in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

Operation

Sources of TACs include, but are not limited to, land uses such as freeways and high-volume roadways, truck distribution centers, ports, rail yards, refineries, chrome plating facilities, dry cleaners using perchloroethylene, and gasoline dispensing facilities (BAAQMD 2017a). The proposed project does not involve any of these uses. Therefore, project operation would not expose sensitive receptors to elevated concentrations of TAC emissions, and no impact would occur.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be intermittent and temporary and would cease upon completion. Overall, project construction would not generate objectionable odors affecting a substantial number of people. Construction-related odor impacts would be less than significant.

Table 3-3 in the BAAQMD 2017 *CEQA Air Quality Guidelines* provides screening distances for land uses that have the potential to generate substantial odor complaints. The uses in the table include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined

animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017a). Hotels are not included in this list, and operation of the project would not generate objectionable odors that would affect a substantial number of people. No operational odor impacts would occur.

NO IMPACT

4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
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?	☐	☐	☐	■
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	■	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Information contained in this section comes primarily from a Biological Resources Assessment (BRA) report prepared by Lucy Macmillan in 2020, included as Appendix BRA, and an Arborist Report prepared by Johnson's Tree & Garden Service in 2021, included as Appendix ARB.

Environmental Setting

Situated on the valley floor, the project site is topographically flat. The site is in a developed setting within the City of Sonoma, surrounded by residential and commercial development, bordered by East MacArthur Street to the north, Highway 12 to the west, the Sonoma Valley High School to the south, and Nathanson Creek Preserve to the east.

The site does not contain natural vegetation communities and is characterized by ornamental landscape (lawn and trees). Most of the site consists of a mix of ornamental shrubs, trees, and non-native turf grasses including canyon oak (*Quercus chrysolepis*), valley oak (*Quercus lobata*), redwood (*Sequoia sempervirens*), fir (*Abies* sp.), Chinese magnolia (*Magnolia soulangeana*), crepe myrtle (*Lagerstroemia* sp.), and silver maple (*Acer saccharinum*) (Appendix ARB).

Based on the most recent soil survey for Santa Clara Area, California, Western Part (U.S. Department of Agriculture, Natural Resources Conservation Service [USDA, NRCS] 2020), the study area contains two soil map units: Huichica loam 2 to 9 percent slopes and Wright loam 0 to 9 percent slopes. However, the site has been developed since the 1860s; therefore, most of the soils have been disturbed or contain fill (Appendix BRA).

Regulatory Setting

Federal and State

Regulatory authority over biological resources is shared by federal, state, and local agencies under a variety of laws, ordinances, regulations, and statutes. Primary authority for biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Sonoma).

The California Department of Fish and Wildlife (CDFW) is a trustee agency for biological resources throughout the state under CEQA and has direct jurisdiction under the California Fish and Game Code (CFGC). Under the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA), the CDFW and the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), respectively, have direct regulatory authority over species formally listed as threatened or endangered (and listed as rare for CDFW). Native and/or migratory bird species are protected under the federal Migratory Bird Treaty Act (MBTA) and CFGC Sections 3503, 3503.5, and 3511.

Statutes in the Clean Water Act (CWA), CFGC, and the California Code of Regulations (CCR) protect wetlands and riparian habitat. The U.S. Army Corps of Engineers (USACE) has regulatory authority over wetlands and waters of the United States under Section 404 of the CWA. The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) ensure water quality protection in California pursuant to Section 401 of the CWA and Section 13263 of the Porter-Cologne Water Quality Control Act. The CDFW regulates Waters of the State under the CFGC Section 1600 et seq.

Special status species are those plants and animals that are: 1) listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS and NMFS under the FESA; 2) listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the CESA; 3)

recognized as California Species of Special Concern (CSSC) by the CDFW; 4) afforded protection under MBTA or CFGC; and 5) occurring on Lists 1 and 2 of the CDFW California Rare Plant Rank (CRPR) system.

City of Sonoma

The City of Sonoma Municipal Code Section 12.08 (Tree Ordinance) and Section 12.09 (Heritage Tree Ordinance) require a permit for the removal of landscaped trees, heritage trees, significant trees, or in the public right of way or on public property. The City defines a tree under Municipal Code Section 12.08.020 as "any woody plant having a single trunk, or a combination of multiple trunks, with a natural growth pattern that includes a definitely formed branching crown." Trees requiring a permit are defined as follows:

- "Significant tree" means any tree having a single trunk circumference greater than one and one-half feet at a height of four and one-half feet, except for those located on a single-family residential property or a multifamily residential property.
- "Significant tree, private" means any tree having a single trunk circumference greater than four and one-half feet at a height of four and one-half feet, located on a single-family or multifamily residential property within a front yard or street-side yard setback as defined in SMC Title 19.
- "Landscape tree" means any tree required under a landscaping plan, approved by the design review and historic preservation commission, associated with commercial or multifamily development, except for trees located in private yard areas associated with an individual dwelling.
- "heritage tree" means a tree or group of trees specifically designated by official act of the parks and recreation commission that:
  A. The tree or group of trees has historical significance or has taken on the aura of historical appeal; or
  B. The tree or group of trees is mutually dependent upon each other for survival; or
  C. The tree or group of trees is considered an outstanding specimen of its species; or
  D. The tree or group of trees is the size of 50 inches or more in diameter measured at 24 inches above natural grade; and
  E. The tree or group of trees has been recommended as such by the parks and recreation commission and dedicated and accepted by the city council of Sonoma.

The City's Tree Ordinance also requires the preparation of an arborist report, to include a description of all trees on-site; genus and species, the shape, the trunk diameter of each tree and the "nonintrusion zone" around each tree as defined in Section 12.08.020. Replacement trees must be installed on-site to account for tree removal and must, at a minimum, occur at a 1:1 ratio using a 15-gallon box size for each six inches of tree diameter removed. Section 12.08.050 also includes the requirement to obtain a permit to alter or relocate trees.

Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Sixty-five (65) special status plants and 41 special status animal species have been previously documented within five miles of the project site. These species were evaluated for the potential to occur on the project site based on the habitat present and the project site's general condition and location. Based on the analysis in the BRA, the project site only contains suitable habitat for nesting birds, including a variety of passerine birds and raptors protected under the federal Migratory Bird Treaty Act, and special status bats. No special status plants are expected to occur (Appendix BRA).

If nesting birds are present on-site during construction, direct effects could include injury or mortality from construction activity, or nest abandonment from construction noise, dust, and other activities. Mitigation Measures BIO-1(a) and BIO-1(b) would ensure that migratory birds would not be significantly impacted as a result of project development.

If roosting bats are present in trees during construction, direct effects could include injury or mortality from construction activity, or maternal colony abandonment from construction noise, dust, and other activities. Mitigation Measures BIO-1(c) and BIO-1(d) would ensure that special status bats would not be significantly impacted as a result of project development.

Mitigation Measures

The following mitigation measures are required:

BIO-1(a) Nesting Bird Survey

To avoid disturbance of nesting birds protected by Sections 3503, 3503.5, and 3513 of the CFGC, activities related to the project, including, but not limited to, vegetation and/or tree removal shall occur outside of the bird breeding season (February 1st through August 30th) if feasible. If ground disturbance, vegetation removal or heavy equipment work must begin within the breeding season, then a pre-construction nesting bird survey shall be conducted no more than 14 days prior to the start of ground disturbance, site clearing and/or vegetation removal. The nesting bird pre-construction survey shall be conducted within the disturbance footprint and a 150-foot buffer for passerines, and a 300-foot buffer for raptors as feasible. The survey shall be conducted by a qualified biologist familiar with the identification and behavior of avian species.

BIO-1(b) Preconstruction Nesting Bird Avoidance

If nests are found, an avoidance buffer shall be established by a qualified biologist. The buffer shall be established to ensure nesting activity is not disturbed by construction activity and shall be determined by the qualified biologist based on the location of the nest in relation to the work area (e.g., line of site to construction) and specific construction activities to be performed within the vicinity of the nest (e.g., level of noise and vibration). The buffer shall be demarcated by the biologist with bright construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the avoidance buffer, and access into the avoidance buffer while the nest is active is prohibited. No construction activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is

completed, and the young have fledged the nest, or the nest has become otherwise inactive. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

BIO-1(c) *Preconstruction Bat Survey*

A pre-construction roost assessment and emergence survey shall be conducted in suitable habitat on or adjacent to the project site. If a maternity roost is located, that roost must remain undisturbed until September 15 or until a qualified biologist has determined the roost is no longer active.

BIO-1(d) *Bat Avoidance*

Tree removal, tree relocation and construction-related activities shall be conducted between September 15 and April 15 to avoid impacts to pregnant females and active maternity roosts (colonial or solitary). To avoid impacts to solitary roosters, trees should be removed in pieces, rather than felling the entire tree. Felled tree pieces shall be shaken gently to rouse bats and then left overnight prior to removal from the site or on-site chipping to allow bats to exit the roost.

Significance After Mitigation

With implementation of mitigation measures BIO-1(a)-(d), impacts related to special status species would be reduced to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The project site consists of developed areas and ornamental landscape as shown on Figure 6. As described in the BRA prepared for the site, there are no riparian habitats or sensitive natural communities present within the site (Appendix BRA). Nathanson Creek and Preserve abuts the project site to the east; however, the areas where new construction is proposed are at least 250 feet west of the creek and preserve, and the proposed project would not affect the existing vegetation, water quality or habitat located along the creek. Therefore, no impacts would occur as a result of project activities.

NO IMPACT

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The project site consists of developed areas and ornamental landscape. According to the BRA, no federally protected wetlands are located within the project site (Appendix BRA). As described above under criterion (*b*) above, the project would not involve ground disturbance or disturbance of species or vegetation at Nathanson Creek or in the Preserve. Therefore, there would be no impacts to state or federally protected wetlands.

NO IMPACT

d. Would the project 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?

The project site consists of developed areas and ornamental landscape and does not support wildlife movement. The site is within the City of Sonoma and surrounded by existing development. The project would not result in substantive changes to the land use and would not result in a change to locally or regionally important wildlife corridors. The project would not involve changes to Nathanson Creek or the Preserve; no ground disturbance, vegetation or habitat is proposed within approximately 250 feet of the creek corridor. Therefore, no impacts to wildlife movement corridors would occur as a result of project activities.

NO IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project would involve the removal of two trees and the relocation of three trees. SMC Section 12.08.035 requires that trees designated for removal be replaced on-site and at a minimum 1:1 ratio and a 15-gallon box size for each six inches of tree diameter removed, subject to the approval of the review authority. Table 7 below provides the list of trees proposed to be removed and relocated and the replacement trees that would be required.

Table 7 Tree Removal and Relocation

Species	Diameter Size (inches)	Replacement Trees Required (15 gallon)[1]
Removal		
Chinese Juniper	28	5
Black Pine	6	1
Relocation		
Apple	5	N/A[2]
Apple	5	N/A[2]
Japanese Maple	5	N/A[2]

[1] Per SMC Section 12.08.035, the Design Review and Historic Preservation Commission would review and approve tree removal and replacement plans.

[2] Per SMC Section 12.08.065, in the event that a landscape tree, dies or is substantially damaged within one year of its planting, the property owner shall be responsible for replacing the tree within 60 days with a tree of the same or similar species, unless an alternative is approved by the Design Review and Historic Preservation Commission.

Source: Appendix ARB, Johnson's Tree & Garden Service 2021.

Additionally, approximately 18 trees on or adjacent to the site would require delineation of a "nonintrusion zone" as defined in SMC Section 12.08.020. The arborist report does not include nonintrusion areas, but they would be required to be shown on project plans under City ordinance. The arborist report prepared for the project would be reviewed by the City's Tree Committee, and their recommendations would be considered by the Planning Commission as part of their review of the proposed development. With an approved tree removal permit and implementation of Mitigation Measure BIO-2 to protect trees during construction, impacts would be less than significant with mitigation.

Mitigation Measures

BIO-2 Tree Protection

Prior to the start of construction all delineated nonintrusion zones for trees on or adjacent to the site shall be fenced off based on tree size and in accordance with Section 12.08.020 of the City of Sonoma Municipal Code. High visibility fencing and signage shall be applied to indicate the tree protection zone. This fencing shall remain in place for the duration of all work undertaken in connection with the development. The fenced-off area shall not be used as a storage area or altered or disturbed except as may be permitted by the City.

Significance After Mitigation

With implementation of Mitigation Measure BIO-2, impacts related to potential conflicts with applicable ordinances would be reduced to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not within the boundaries of an adopted habitat conservation plan or natural community conservation plan or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would not conflict with adopted habitat conservation plans or natural community conservation plans or other approved local, regional, or state habitat conservation plans. There would be no impact.

NO IMPACT

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5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	■	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

This section incorporates information in the Cultural Resources Technical Study prepared for the proposed project by Rincon Consultants in April 2021. The technical study is included as Appendix CR.

Regulatory Setting

CEQA requires that a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (*CEQA Guidelines*, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts 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 resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b]).

PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

As described in the Cultural Resources Technical Study, the project site has been evaluated for historical resources eligibility, and one building on the property (the Burris House, Building T shown on Figure 6) was found eligible for listing in the National Register of Historic Places (NRHP), the CRHR, and as a City of Sonoma historic resource; it is therefore considered a historical resource under CEQA. The remaining buildings within the project site are not considered historic resources under CEQA. Additionally, project site buildings are not well associated with each other chronologically and the property is not a potential historic district (Appendix CR).

Impacts to a historical resource are considered less than significant when the project conforms to the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards). The goal of the Standards is to preserve the historic materials and distinctive character of a historical resource. Character-defining features are the tangible, visual elements of a building—including its setting, shape, materials, construction, interior spaces, and details—that collectively creates its historic identity and conveys its historic significance. The proposed project would involve continued use of a tent and construction of five new buildings within the project site. The tent is near the southern edge of the project site and is not visible from the Burris Bouse. However, three of the proposed new buildings, Buildings V, W, and X, would be directly adjacent to the Burris house. Therefore, while the project would not involve direct alteration of the Burris House, it would introduce new visual elements to its immediate setting which could result in indirect impacts to the historic resource.

As described in the Cultural Resources Technical Memorandum, the proposed project would not remove or alter any character-defining features of the Burris House, which are largely limited to the building itself and do not include its surroundings due to previous changes in its historical setting. Further, the proposed construction would not obscure principal views of the Burris House and the scale, massing, design, and materials of the new construction would be compatible but differentiated from the historic building. Therefore, the proposed project is consistent with the Standards and would not result in a significant impact to a historical resource under CEQA (Appendix CR). Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Rincon Consultants requested a search of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) located at Sonoma State University on February 25, 2021. The search was performed to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.25-mile radius surrounding it. The CHRIS search included a review of available records at the NWIC, as well as the NRHP, the CRHR, the Office of Historic Preservation Built Environment Resources Directory for Alameda County, the California Inventory of Historic Resources, the Archaeological Determinations of Eligibility list, and historic maps. The NWIC records search identified 16 cultural resources studies conducted within a 0.25-mile radius of the project site, two of which (S-9777 and S-46942) intersect the project site. The NWIC records search identified no archaeological resources in or adjacent to the project site.

Rincon Consultants also conducted a historic map, aerial review, and pedestrian field survey of the project site. Historical maps and aerial photographs did not identify any features, such as privies or wells, that would suggest the possibility of subsurface historic-era archaeological deposits. Historic photographs suggest that the area immediately surrounding the Burris House, where archaeological deposits would be most likely to exist, has been subject to heavy landscaping activities since at least the 1950s. The pedestrian field survey did not identify any archaeological resources within the project site. During the field survey, the areas proposed for construction under the current project appeared to have been subject to continued landscaping activities with paved pathways and irrigation tubing (Appendix CR). Despite the long history of disturbance to the project site, there is still the possibility of encountering subsurface archaeological deposits associated with the historic Burris House. Therefore, this impact is potentially significant, and mitigation is required.

Mitigation Measures

CR-1 Worker's Environmental Awareness Program (WEAP)

The project applicant shall retain an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service 1983) to conduct a Worker's Environmental Awareness Program (WEAP) training for all construction personnel on archaeological sensitivity prior to the commencement of any ground-disturbing activities. The WEAP training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find.

CR-2 Unanticipated Archaeological Resources

If archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, the archaeologist shall determine whether additional work, such as data recovery excavation, is warranted to mitigate any significant impacts to historical resources.

Significance After Mitigation

Mitigation measures CR-1 and CR-2 above would reduce impacts by ensuring that archaeological resources encountered during construction are treated appropriately. Impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

The project would result in a significant impact if it would disturb human remains, including those interred outside of formal cemeteries. The project would include ground disturbing activities during construction, which could potentially disturb human remains. Since the site has been developed in the past, ground disturbing activities are likely to have already disturbed or resulted in the discovery of buried human remains that may exist on the site. Nonetheless, it is possible that unknown human remains could be discovered through ground disturbing construction activities. However, federal and State regulations would minimize the likelihood of disturbance and set procedures in the unlikely event human remains are found.

Sections 7052 and 7050.5 of the California Health and Safety Code state that disturbance of Native American cemeteries is a felony, and that construction or excavation must be stopped in the vicinity of discovered human remains until the County coroner can determined whether the remains are those of Native Americans. If discovered remains are found to be Native American, the coroner must contact the California Native Heritage Commission. Additionally, compliance with Section 15064.5 of the *CEQA Guidelines* would set forth procedures in the event of an unexpected discovery of Native American human remains on non-federal land. Compliance with State and federal regulations would reduce the likelihood of disturbing or discovering human remains and set procedures in the event that human remains are found. For these reasons, impacts would be less than significant

LESS THAN SIGNIFICANT IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

Setting

Electricity and Natural Gas

Most of the electricity generated in California is from natural gas-fired power plants, which provided approximately 34 percent of total electricity generated in 2019 (California Energy Commission [CEC] 2019c). In 2019, California produced 72 percent of the electricity it used and imported the rest from outside the state.

Sonoma County as a whole consumed approximately 111 million therms of natural gas in 2019 in both residential and non-residential uses (CEC 2019a). Sonoma County also consumed approximately 2,928 GWh of electricity in 2018 from residential and non-residential uses (CEC 2019b).

Two electricity providers serve Sonoma County: Sonoma Clean Power (SCP) and Pacific Gas and Electric Company (PG&E). PG&E is also the natural gas provider for the entire county. SCP provides clean energy that is 97 percent carbon free, sourced from renewable energy (25 percent wind, 18 percent geothermal, and 8 percent solar), carbon-free hydroelectric power (46 percent), and general system power (3 percent) (SCP 2021). In conjunction with the utility companies, the California Public Utilities Commission (CPUC) is involved in energy conservation programs.

Petroleum

California is one of the top producers of petroleum in the nation with drilling operations occurring throughout the state but concentrated primarily in Kern and Los Angeles counties. A network of crude oil pipelines connects production areas to oil refineries in the Los Angeles area, the San Francisco Bay area, and the Central Valley. California oil refineries also process Alaskan and foreign crude oil received at ports in Los Angeles, Long Beach, and the San Francisco Bay area (CEC 2021). According to the United States Energy Information Administration, California's field production of crude oil totaled 144.4 million barrels in 2020 (U.S. EIA 2021a).

As shown in Table 8, Sonoma County consumed an estimated 204 million gallons of gasoline and 32 million gallons of diesel fuel in 2019, which was approximately one percent of statewide gasoline consumption and approximately two percent of statewide diesel fuel consumption (CEC 2020).

Table 8 2019 Annual Gasoline and Diesel Consumption

Fuel Type	Sonoma County (gallons)	California (gallons)	Proportion of Statewide Consumption[1]
Gasoline	204,000,000	15,365,000,000	1.3%
Diesel	32,000,000	1,756,000,000	1.8%

[1] For reference, the population of Sonoma County (483,878 persons) is approximately 1.2 percent of the population of California (39,782,870 persons) (California Department of Finance 2020).

Source: CEC 2020

Methodology

Energy consumption is analyzed herein in terms of construction and operational energy. Construction energy demand accounts for anticipated energy consumption during project construction, such as fuel consumed by construction equipment and construction workers' vehicles traveling to and from the project site. Operational energy demand accounts for the anticipated energy consumption during project operation, such as fuel consumed by cars, trucks, and public transit; natural gas consumed for on-site power generation, heating building space, and cooking needs; and electricity consumed for building power needs, including, but not limited to lighting, water conveyance, and air conditioning.

The CalEEMod outputs for the air quality and GHG modeling (Appendix AQ) were used to estimate energy consumption associated with the remainder of the proposed project. The Yorke Air Quality and Greenhouse Gas Analysis does not include calculations of emissions related to soil export; therefore, to evaluate air quality impacts related to soil export, an additional CalEEMod model was completed to calculate emissions associated with hauling trips required for soil export (Appendix AQ). The CalEEMod results provide the average travel distance and trip numbers during construction, and the vehicle fleet mix during operation. The CalEEMod results also provide the estimated gross electricity and natural gas consumption by land use during operation of the proposed project.

Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. The proposed project would require demolition of existing pavement (including stone and concrete walkways); site preparation and grading, including hauling soil on-site; pavement installation; building

construction; architectural coating; and landscaping and hardscaping. In addition, some construction equipment would consume electricity.

The total consumption of gasoline and diesel fuel during project construction was estimated using the assumptions and factors from CalEEMod (see Appendix AQ, Yorke Engineering, LLC, 2021, and additional CalEEMod modeling of hauling trips for soil export) used to estimate construction air emissions in the air quality analysis (Appendix ENG). As shown in Table 9 below, construction of the project would require approximately 184 gallons of gasoline and 7,397 gallons of diesel fuel.

Table 9 Proposed Project Construction Energy Usage

	Fuel Consumption (gallons)	
Source	**Gasoline**	**Diesel**
Construction Equipment & Hauling Trips	–	7,397
Construction Worker Vehicle Trips	184	–

See Appendix AIR for CalEEMod default values for fleet mix and average distance of travel, and Appendix ENG for energy calculation sheets.

Energy use during construction would be temporary, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. EPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. In addition, electrical power would be consumed to construct the project, and the demand, to the extent required, would be supplied from existing electrical infrastructure in the area. However, construction activities would require minimal electricity consumption because the majority of construction equipment would be diesel-powered and would not be expected to have an adverse impact on available electricity supplies or infrastructure. Moreover, SMC Section 14.10.050 incorporates the California Green Building Standards Code, with which the project would be required to comply. This code includes specific requirements related to recycling, construction materials, and energy efficiency standards that would apply to project construction to minimize wasteful, inefficient, and unnecessary energy consumption. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

Operation

Operation of the project would result in energy demand from electricity and natural gas consumption for heating and cooling systems, lighting, appliances, and water use, and gasoline consumption. Table 10 shows the estimated total annual energy consumption associated with operation of the project.

Table 10 Proposed Project Operational Energy Usage

Source	Energy Consumption	
Vehicle Trips		
Gasoline	7,065 gallons	776 MMBtu
Diesel	1,579 gallons	201 MMBtu
Built Environment		
Electricity	41 MWh	138 MMBtu
Natural Gas Usage	2,614 therms	243 MMBtu

MMBtu = Metric Million British Thermal Unit, MWh = megawatt hour

Source: Appendix ENG

As shown in Table 10, project operation would consume approximately 41 MWh of electricity and 2,614 therms of natural gas per year. The project would comply with standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation**.** CALGreen (as codified in CCR Title 24, Part 11). Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to achieve energy efficient performance. The standards are updated every three years, and each iteration increases energy efficiency standards. For example, according to the CEC, under 2019 Title 24 standards residential buildings will use about seven percent less energy than under 2016 Title 24 standards due mainly to lighting upgrades (CEC 2018c). Furthermore, the project would continue to reduce its use of nonrenewable energy resources as the percentage of electricity generated by renewable resources provided by PG&E continues to increase to comply with state requirements through Senate Bill 100, which requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

In addition, vehicle trips associated with the project would require approximately 7,065 gallons of gasoline and 1,580 gallons of diesel fuel annually. However, the proposed project would add hotel guest rooms to an existing hotel development that is in close proximity to existing commercial uses, which would facilitate the use of transit and alternative transportation modes such as walking and biking. As discussed in Section 17, *Transportation*, the project would generate relatively few new vehicle trips, and VMT associated with the proposed project would be less than significant. These factors would minimize the potential of the project to result in the wasteful, inefficient, or unnecessary consumption of vehicle fuels. In addition, in order to comply with federal and State vehicle efficiency standards intended to reduce inefficient use of fuel, new vehicles are increasingly more efficient. Therefore, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Table 11 summarizes the project's consistency with the applicable policies of the City's General Plan related to energy efficiency and renewable energy.

Table 11 Project Compliance with Energy Efficiency Goals and Policies

Energy Efficiency Goal or Policy	Project Consistency
Policy ER-3.2: Encourage construction, building maintenance, landscaping, and transportation practices that promote energy and water conservation and reduce green-house gas emissions. **Policy ER-3.3:** Set an example of sustainability by conserving resources and following green practices in City facilities, services, and projects.	**Consistent.** The project would be required to be constructed to CALGreen standards and 2019 Building Energy Efficiency Standards for building efficiency, which include green building practices that promote energy and water conservation and reduce GHG emissions, including incorporation of water conservation features including low flow fixtures and water conserving laundry equipment.
Policy CE-3.2: Encourage a mixture of uses and higher densities where appropriate to improve the viability of transit and pedestrian and bicycle travel. **Policy CE-3.7:** Ensure that new development mitigates its traffic impacts.	**Consistent.** As described in Section 17, *Transportation,* project operation would result in less than significant impacts related to Vehicle Miles Traveled (VMT). In addition, the project would involve 11 new guestrooms on an already developed hotel development within walking distance of Sonoma Plaza, other nearby commercial and recreational uses, and existing transit facilities, including bus stops at East MacArthur Street and 1st Street West, which are served by Sonoma County Transit Route 30. This location would encourage hotel guests and employees to use modes of transportation other than single-occupancy vehicles.

Source: City of Sonoma 2006

As shown in Table 11, the project would be consistent with applicable energy efficiency goals and policies. Therefore, potential impacts associated with renewable energy and energy efficiency would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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?	☐	☐	☐	■
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	☐	■
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	■	☐	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	■	☐	☐
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?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

Setting

A Soil Investigation Report (soil report) was prepared for the project site by Reese & Associates, dated January 30, 2020 and is included as Appendix GEO. This analysis of geology and soils is based on Appendix GEO and other applicable sources.

The project site is gently sloping, with an approximately one- to two-foot difference in elevation across the site. The site is underlain by discontinuous layers of sandy silts, sandy clays, silty sands, and clayey sands. The upper soils consist of relatively weak, soft to medium stiff sandy silt and loose silty coarse sand. Groundwater occurs at a depth of approximately four feet below the existing ground surface (Appendix GEO).

Impact Analysis

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

There are no known active faults on or adjacent to the project site and the site is not within a designated Alquist-Priolo Earthquake Fault Zone (Appendix GEO). The closest active fault is the Rodgers Creek fault zone located approximately 4.5 miles to the southwest. Therefore, there is no risk of fault rupture at the project site. There would be no impact.

NO IMPACT

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Liquefaction is defined as the sudden loss of soil strength due to a rapid increase in soil pore water pressure resulting from seismic ground shaking. According to Figure P1-1 of the City's General Plan, the project site is located in an area of Very Low Liquefaction Hazard level (City of Sonoma 2006). Therefore, the proposed project is not anticipated to directly or indirectly cause the risk of loss, injury, or death related to liquefaction.

The project site is within a seismically active area in Northern California. As with any site in this region, the project site is susceptible to strong seismic ground shaking in the event of a major earthquake caused by a nearby active fault. However, the 2019 California Building Code (CBC), as adopted in SMC Section 14.10.015, contains requirements for structural design, including seismic design specifications. The 2019 CBC requires that structures be designed and constructed to resist seismic hazards, including through foundation design and the completion of soil investigations prior to construction. The CBC also requires site specific geotechnical investigations to evaluate soil stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction, and expansiveness; and that the report provide recommendations on foundation type and design criteria. The soil report prepared for this site meets these CBC requirements and concludes that "because of the proximity of active faults in the region and the potential for strong ground shaking, it will be necessary to design and construct the project in strict accordance with current standards for earthquake-resistant construction" (Appendix GEO). The City of Sonoma Building Department reviews project plans and soil reports

prior to approval of building permits to ensure compliance with CBC requirements related to earthquake-resistant construction. Compliance with the mandatory building code structural specifications would result in a project that adequately resists adverse effects from seismic ground shaking. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

d. *Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moistures that can trigger this shrink-swell phenomenon include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. The soil report notes that the most significant geotechnical engineering concern for the project is the presence of weak, compressible upper soils: "these soils can undergo considerable strength loss and settlement when loaded in a saturated condition. Where evaporation is inhibited by footings, slabs or fill, eventual saturation of the underlying soils can occur" (Appendix GEO).

In order to address concerns about unstable and weak, compressible soils, the soil report provides several recommendations, including removal of weak, compressible soils from construction areas and replacement with properly compacted fill. The soil report was prepared for a previous project at the project site, which included one- and two-story additions to the spa building (Building L shown on Figure 6), a structure similar to the structures proposed under the project (one- and two-story wood-frame, slab-on-grade structures). Therefore, the recommendations in the soil report would also apply to the proposed project. To ensure that additional recommendations specific to the proposed project are developed and incorporated in the final building plans for the project Mitigation Measure GEO-1 is required.

Mitigation Measures

GEO-1 Soil Investigation Report Recommendations

Final building plans for the proposed project shall be submitted for review to the author of the Soil Investigation Report prepared by Reese & Associates for the site or to a similarly qualified engineer approved by the City. The purpose of the review shall be to verify that the recommendations included in the Soil Investigation Report are understood and reflected on the plans and that any additional needed recommendations are developed and incorporated in the project plans. Such recommendations shall include but not be limited to: removal of weak, compressible soils from construction areas and replacing them as properly compacted fill; establishing excavation depths to provide space for at least 12 inches of properly compacted fill of low expansion potential below all footings and slabs; and other recommendations to ensure stability and safety. The engineer shall also be retained to provide observation and testing services during construction. Observations and tests will allow for verification that materials encountered are consistent with those found during soil testing and will allow for supplemental on-site recommendations, as needed.

Significance After Mitigation

Mitigation Measure GEO-1 would ensure that impacts related to unstable soils would be reduced during project construction. Impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Earthquakes or other natural events can trigger landslides that may cause injuries and damage many types of structures. However, landslides are typically a hazard on or near slopes or hillside areas, rather than generally level areas like the program area and vicinity. According to the DOC Earthquake Hazards Zone Mapping Application, the project site and its surroundings are not at risk for landslides (DOC 2019). The project site is relatively flat and not at risk for a landslide event. There would be no impact.

NO IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

The project site is developed and generally level, which limits the potential for substantial soil erosion. Grading and excavation, when soils are exposed, present the highest potential for erosion. The project applicant would be required to obtain a grading permit, which would require submission of an erosion and sediment control plan. SMC Section 14.20.205 describes requirements for erosion and sediment control plans, which include descriptions of dust control measures and vegetative measures to minimize erosion. Therefore, compliance with existing regulations would reduce impacts related to soil erosion and topsoil loss to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

e. Would the project 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?

The project would be connected to the local wastewater treatment system. Septic systems would not be used. No impact would occur.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Project activities would include excavation at depths of approximately four feet and export of approximately 500 cubic yards of soil. Given the small disturbance area, shallow depth of ground disturbance, and the previously disturbed condition of the site, it is highly unlikely that previously unknown paleontological resources would be encountered during construction activities. However, ground disturbing activities always involve the possibility of such a discovery. Therefore, this impact is potentially significant, and mitigation is required.

Mitigation Measures

GEO-2 Discovery of Paleontological Resources

In the event a fossil is uncovered during project construction, all work shall cease until a certified paleontologist can investigate the find and make appropriate recommendations. The qualified paleontologist shall determine the significance of the discovery and identify whether additional mitigation or treatment is warranted. Measures may include testing, data recovery, reburial, archival review and/or transfer to the appropriate museum or educational institution. All testing, data recovery, reburial, archival review or transfer to research institutions related to monitoring discoveries shall be determined by the qualified paleontologist and shall be reported to the City. Work in the area of the discovery will resume once the find is properly documented and authorization is given to resume construction work.

Significance After Mitigation

Implementation of Mitigation Measure GEO-2 would reduce impacts related to the unanticipated discovery of paleontological resources to a less than significant level.

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8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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 gases?	☐	☐	■	☐

This section incorporates the findings of the Air Quality and Greenhouse Gas Analysis conducted by Yorke Engineering, LLC, dated April 6, 2021. This report is included as Appendix AQ. As described in Section 3, *Air Quality*, above, the Yorke analysis does not include calculations of emissions related to soil export; therefore, to evaluate air quality impacts related to soil export, additional modeling was completed to calculate emissions associated with hauling trips required for soil export and is included in Appendix AQ.

Overview of Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHG emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of

one. By contrast, methane has a GWP of 28, meaning its global warming effect is 28 times greater than CO_2 on a molecule per molecule basis (IPCC 2014).[4]

Anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the concentration of GHGs in the atmosphere that trap heat. Since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (United States Environmental Protection Agency 2021). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

Regulatory Framework

In response to climate change, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006" through subsequent legislation, Senate Bill (SB) 32. AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the California Air Resources Board (CARB) adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as SB 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of carbon dioxide equivalents (CO_2e) by 2030 and two MT of CO_2e by 2050 (CARB 2017).

Other relevant state laws and regulations include:

- **SB 375**: The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Metropolitan Planning Organizations are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the Metropolitan Planning Organization's Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) were assigned targets of a 10 percent reduction in per capita GHG emissions from passenger vehicle sources below 2005

[4] The IPCC's (2014) *Fifth Assessment Report* determined that methane has a GWP of 28. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the IPCC's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

levels by 2020 and a 19 percent reduction in per capita GHG emissions from passenger vehicle sources below 2005 levels by 2035.

- **SB 100**: Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.
- **California Building Standards Code (California Code of Regulations Title 24)**: The California Building Standards Code consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. Part 6 is the Building Energy Efficiency Standards, which establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. Part 12 is the California Green Building Standards Code (CALGreen), which includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures.

Plan Bay Area 2040

Plan Bay Area 2040 is a state-mandated, integrated long-range transportation, land-use, and housing plan prepared in accordance with the requirements of SB 375 that would support a growing economy, provide more housing and transportation choices and reduce transportation-related pollution in the nine-county San Francisco Bay Area (Association of Bay Area Governments [ABAG] 2017). The SCS builds on earlier efforts to develop an efficient transportation network and grow in a financially and environmentally responsible way. Plan Bay Area 2040 would be updated every four years to reflect new priorities. A goal of the SCS is to "reduce vehicles miles traveled (VMT) per capita by 10 percent" (MTC and ABAG 2017).

Sonoma County Community Climate Action Plan

The Sonoma County Regional Climate Action Plan (CAP) was prepared by the Sonoma County Regional Climate Protection Authority, on behalf of the City of Sonoma, Sonoma County, and other incorporated cities and towns in the county. The CAP provides goals and associated measures in the sectors of building energy, transportation and land use, solid waste, water and wastewater, livestock and fertilizer, and advanced climate initiatives (Sonoma County Regional Climate Protection Authority 2016). While the CAP provides suggestions for measures to reduce GHG emissions across the county, it has not been formally adopted by the City of Sonoma.

Methodology

GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2016.3.2, with the assumptions described under Section 3, *Air Quality*, in addition to the following:

- **Nitrous Oxide Emissions from Mobile Sources.** Because CalEEMod does not calculate nitrous oxide emissions from mobile sources, nitrous oxide emissions were quantified separately from the CalEEMod modeling results, based on a ratio of 0.2 MT of nitrous oxide to 1 MT of methane for both gasoline and diesel fuels used in motor vehicles (see Appendix AQ for calculations).

Significance Thresholds

Individual projects do not generate sufficient GHG emissions to influence climate change directly. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

According to CEQA Guidelines Section 15183.5(b), projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions. CEQA Guidelines Section 15183.5 defines the requirements for a plan to qualify as a comprehensive plan for the reduction of GHG emissions:

1. Quantify existing and projected GHG emissions within the plan area
2. Establish a reduction target based on substantial evidence, where GHG emission are not cumulatively considerable)
3. Identify and analyze sector specific GHG emissions from plan activities
4. Specify policies and actions (measures) that local jurisdictions will enact and implement over time to achieve the specified reduction target
5. Establish a tool to monitor progress and amend if necessary
6. Adopt in a public process following environmental review

A key aspect of a "qualified" GHG reduction plan's ability to provide "substantial evidence" is that the identified reduction target establishes a threshold at which GHG emissions would not be cumulatively considerable. The AEP Beyond Newhall white paper identifies this criterion as being a local target that aligns with statewide legislative targets. The Sonoma County Regional CAP sets a 2020-year target to achieve a 25 percent reduction below 1990 emissions and identifies actions to achieve the target (County of Sonoma 2016). However, the CAP was not adopted by the City of Sonoma; instead, the CAP was adopted by a multi-jurisdictional committee that does not have authority over local implementation. Therefore, the CAP does not qualify as a GHG reduction plan, and consistency with the CAP cannot be used as the basis of the CEQA analysis for the proposed project.

The BAAQMD Guidelines outline an approach to determine the significance of project-related GHG emissions. The BAAQMD recommends that lead agencies determine appropriate thresholds of significance for GHG emissions based on substantial evidence in the record. The following significance thresholds established in the BAAQMD Guidelines for operational GHG emissions from land use development projects within the SFBAAB are the most appropriate thresholds for use in determining the significance of project impacts (BAAQMD 2017b). Impacts would be less than significant if the following can be demonstrated:

- Compliance with a qualified GHG Reduction Strategy; or
- Annual emissions less than 1,100 MT of CO_2e per year; or

- Annual emissions less than 4.6 MT of CO_2e per service population (residents and employees) per year.

As discussed above, the County's CAP is not a qualified GHG Reduction Strategy. Therefore, this approach is not currently feasible, and the BAAQMD quantitative thresholds are utilized in this analysis. BAAQMD's thresholds of significance for GHG emissions were established based on achieving the 2020 GHG emission reduction targets set forth in the AB 32 Scoping Plan (BAAQMD 2017). Therefore, because the proposed project would be completed post-2020, the mass emissions or bright-line threshold of significance (1,100 MT of CO_2e per year) was adjusted to a "substantial progress" threshold calculated based on the SB 32 target of a 40 percent reduction in GHG emissions below 1990 levels (AEP 2016). Since the 2020 GHG target in the AB 32 Scoping Plan is designed to reduce GHG emissions to 1990 levels. To account for the 2030 goal of 40 percent below 1990 levels the BAAQMD threshold of 1,100 MT CO_2e per year is decreased by 40 percent for the purposes of this analysis. Therefore, the proposed project's year 2030 GHG emissions would be less than significant if they do not exceed 660 MT of CO_2e per year.

Impact Analysis

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Project construction would generate temporary short-term GHG emissions through travel to and from the worksite and from the operation of construction equipment such as graders, backhoes, and forklifts. Construction activity would generate approximately 69 MT of CO_2e over the entire construction period. Because there is no applicable construction GHG threshold in the BAAQMD, this calculation of construction-related emissions is included for informational purposes. Nonetheless, the project applicant would be required to comply with all BAAQMD rules and regulations regarding emission control measures, including the Basic Construction Mitigation Measures as required under Mitigation Measure AQ-1, which include reducing idling time and imposing speed limits for construction equipment.

Operational GHG emissions would be generated by area sources, energy use, solid waste, water use, and mobile sources (vehicles trips). Table 12 provides the estimated GHG emissions resulting from project operation. Estimated GHG emissions would be approximately 94 MT of CO_2e per year with the primary source of emissions being mobile sources (Appendix AQ). This level of emissions would be below the adjusted BAAQMD significance threshold of 660 MT of CO_2e per year; therefore, the project would not generate GHG emissions that would have a significant impact on the environment. Impacts would be less than significant.

Table 12 Greenhouse Gas Operational Emissions (MT/year)

Greenhouse Gas	Maximum Annual Emissions	Significance Threshold	Significant Impact?
CO_2	91	–	–
CH_4	0.1	–	–
N_2O	<0.1	–	–
CO_2e	**93**	**660**	**No**

Notes: CO_2 = carbon dioxide, CH_4 = methane, N_20 = Nitrous Oxide, CO_{2e} = carbon dioxide equivalent

Source: Appendix AQ, Yorke Engineering, LLC, 2021and additional CalEEMod modeling to quantify hauling trips for soil export completed by Rincon Consultants

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Several plans and policies have been adopted to reduce GHG emissions in the northern California region, including the State's 2017 Scoping Plan, Plan Bay Area 2040, and the City's General Plan. The proposed project's consistency with these plans is discussed in the following subsections. As discussed therein, the proposed project would not conflict with plans and policies aimed at reducing GHG emissions. No impact would occur.

2017 Scoping Plan

The principal state plans and policies are AB 32 (the California Global Warming Solutions Act of 2006), and the subsequent legislation, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's strategies that are applicable to the proposed project include reducing fossil fuel use, energy demand, and vehicle miles traveled (VMT); maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and installing energy-efficient LED lighting, water-efficient faucets and toilets, water efficient landscaping and irrigation, and EV charging stations. The project would be served by PG&E which is required to increase its renewable energy procurement in accordance with SB 100 targets. The project would be located in an area within walking and biking distance of several commercial and recreational destinations, which would reduce future VMT by guests and employees and associated fossil fuel usage. Therefore, the project would be consistent with the 2017 Scoping Plan.

Plan Bay Area 2040

The proposed project would introduce infill development, including 11 new guestrooms, on a site with an existing hotel. The project site is within walking distance of existing commercial and recreational uses within the downtown Sonoma neighborhood. The location of the new guestrooms would reduce vehicle trips and average VMT by guests and employees of the project, thereby reducing mobile source GHG emissions and contributing to achieving the GHG emissions reduction goals set forth by SB 32 and SB 375. Furthermore, as discussed in Section 17, *Transportation*, daily

VMT associated with the proposed project would be less than significant. Therefore, the project would be consistent with Plan Bay Area 2040.

City of Sonoma General Plan

The City's General Plan has several applicable policies related to GHG emissions. Table 13 provides applicable policies and an explanation of the project's consistency with these policies.

Table 13 Consistency with City of Sonoma General Plan

Applicable Goal, Policy, or Measure	Project Consistency
Policy ER-3.2: Encourage construction, building maintenance, landscaping, and transportation practices that promote energy and water conservation and reduce GHG emissions.	**Consistent.** The proposed project would be required to be constructed in accordance with the latest iteration of CALGreen and the California Building Energy Efficiency Standards, which include green building practices that promote energy and water conservation and reduce GHG emissions. The project would incorporate water conservation features including low flow fixtures and water conserving laundry equipment.
Goal CE-3: Minimize vehicle trips while ensuring safe and convenient access to activity centers and maintaining Sonoma's small-town character. **Policy CE-3.4**: Encourage shared and "park once" parking arrangements that reduce vehicle use.	**Consistent.** The proposed project would involve construction and operation of new hotel guestrooms at a site that is within walking distance (0.6-mile) of Sonoma Plaza. Hotel guests could park at the existing hotel and walk to existing services and stores within and around the plaza. Moreover, as described in Section 17, *Transportation,* impacts related to VMT would be less than significant.

Source: Sonoma County Regional Climate Protection Authority 2016 and City of Sonoma 2006

As shown in Table 13, the project would be consistent with the 2017 Scoping Plan, Plan Bay Area 2040, and City General Plan policies adopted for the purpose of reducing GHG emissions. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
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?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material 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 in 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 or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	■

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project 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?

Construction

Project construction would involve the temporary transport, storage, and use of potentially hazardous materials including fuels, lubricating fluids, cleaners, and solvents. Heavy construction equipment would be used in project construction, the operation of which could result in a spill or accidental release of hazardous materials, including fuel, engine oil, engine coolant, and lubricants. If spilled, these substances could pose a risk to the environment and to human health. However, the transport, storage, use, or disposal of hazardous materials is subject to various federal, state, and local regulations designed to reduce risks associated with hazardous materials, including potential risks associated with upset or accident conditions. Hazardous materials would be required to be transported under U.S. Department of Transportation (DOT) regulations (U.S. DOT Hazardous Materials Transport Act, 49 Code of Federal Regulations), which stipulate the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways. In addition, the use, storage, and disposal of hazardous materials are regulated through the Resources Conservation and Recovery Act (RCRA). The California Department of Toxic Substances Control (DTSC) is responsible for implementing the RCRA program, as well as California's own hazardous waste laws. DTSC regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California. It does this primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California H&SC Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, California Code of Regulations, Divisions 4 and 4.5). DTSC also oversees permitting, inspection, compliance, and corrective action programs to ensure that hazardous waste managers follow federal and State requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Compliance with existing regulations would reduce the risk of potential release of hazardous materials during construction. Impacts would be less than significant.

Operation

Typically, operation of hotels does not involve the use or storage of large quantities of hazardous materials. Existing emergency generators would not be altered or used more often under operation of the proposed project; the generators would also continue to be regularly maintained to avoid potential release of fluids. Therefore, operation of the proposed project would not involve the use, storage, transportation, or disposal of hazardous materials other than those used for generators, cleaning, maintenance, and landscaping, the use of which would be subject to applicable state and local regulations. Operation of the hotel under the project would be similar to existing conditions; chemicals used to clean and operate the guestrooms, pool, and spa facilities (including chlorine and other cleaning supplies) would not substantially increase as a result of project operation.

The proposed project would result in less than significant impacts concerning the use of hazardous materials and proximity to known hazardous materials sites.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The nearest school to the project site is Sonoma Valley High School, which abuts the project site to the south. The Little School (a preschool) and Prestwood Elementary School are also within 0.25 mile of the site. As described above, construction activities may involve the use, storage, and transport of hazardous materials. However, as described under criterion (*d*) below, there are no unresolved hazardous materials cleanup sites within the vicinity of the project site; therefore, project construction, including grading and excavation of earth that could be affected by activities at neighboring properties, would not emit hazardous materials near schools. In addition, given required compliance with the rules and regulations described above under criteria (*a*) and (*b*), impacts to schools would be less than significant. Therefore, impacts related to hazardous material use in proximity to schools would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

Hazardous Materials Sites

The following databases compiled pursuant to Government Code Section 65962.5 were checked for known hazardous materials contamination within the vicinity of the project site:

- EnviroStor Database, California Department of Toxic Substances Control (DTSC)
- GeoTracker Database, California State Water Resources Control Board (SWRCB)

According to the database search, there are no known hazardous material sites within the project site (DTSC 2021 and SWRCB 2021). The nearest documented hazardous material cleanup site is a leaking underground storage tank site at 899 Broadway Avenue, approximately 180 feet northwest of the site (case T0609788606). The 899 Broadway site has been used as a service station since at least 1923 and has several underground storage tanks (USTs). Remediation activities were completed during 2000 and 2020, during which contaminated groundwater and soil were removed. On January 9, 2020, the Regional Water Quality Control Board reviewed the remediation at the site, confirmed that all criteria had been met, and closed the case. There are no unresolved hazardous materials cleanup sites within the project site or its immediate vicinity. Therefore, project construction or operation would not result a hazard to the public or environment concerning a known hazardous materials site. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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 or excessive noise for people residing or working in the project area?

The nearest airport to the project site is the Sonoma Skypark, located approximately two miles southeast of the project site. At this distance, the Sonoma Skypark does not result in safety hazards or excessive noise at the project site. The project would not change or intensify the existing hotel and spa land use at the project site, nor add new residents or work sites in close proximity to an airport. There would be no impact.

NO IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction of the proposed project would occur within the boundary of the project site and no street closures would occur. The proposed project would not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, including the Sonoma County Hazard Mitigation Plan (County of Sonoma 2017). Moreover, as described in Section 17, *Transportation*, operation of the project would not result in a substantial increase in traffic on nearby roadways. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The project site is located within a developed area of the City of Sonoma and is surrounded primarily by existing development. The site is not within a Very High Fire Hazard Severity Zone (VHFHSZ) and does not fall within an area of state firefighting responsibility (CAL FIRE 2008). The nearest VHFHSZ is located more than five miles north of the project site. The project site is currently developed with hotel and spa facilities; the project would involve renovations of those existing facilities and would not introduce fire hazards to the project. Therefore, the project would not expose people or structures to a significant risk involving wildland fires. There would be no impact.

NO IMPACT

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	■	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	☐	☐	■	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	■	☐
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	■	☐
(iv) Impede or redirect flood flows?	☐	☐	■	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	■	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	■	☐

Setting

The generally level and fully developed project site is located west-adjacent to Nathanson Creek and the Nathanson Creek Preserve. As Figure 6 illustrates, the creek is adjacent to the western edge of the project site.

The project site is identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Number 06097C0937E (FEMA 2008). The eastern portion of the site is designated "Zone X, 0.2 Percent Annual Chance Flood Hazard" and the western portion of the site, including the project area, is designated "Zone X, Area of Minimal Flood Hazard." Approximately 46 percent of the project site is covered with impermeable surfaces, including the existing hotel and paved parking areas.

Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Construction Impacts

Construction activities for proposed project could cause soil erosion from exposed soil, an accidental release of hazardous materials used for equipment such as vehicle fuels and lubricant, or temporary siltation from storm water runoff. Soil disturbance would occur during excavation and grading, including for improvements to open space and landscaped areas. However, construction activities would be required to comply with state and local water quality regulations designed to control erosion and protect water quality during construction. This includes compliance with Section SMC Section 14.20.205, which requires erosion control measures, and SMC Section 13.32.100, which requires that Best Management Practices (BMPs), including those adopted by the State Water Resources Control Board (SWRCB), be implemented to minimize non-stormwater discharges during construction. Construction BMPs would include scheduling inlet protection, silt fencing, fiber rolls, stabilized construction entrances, stockpile management, solid waste management, and concrete waste management. Post-construction stormwater performance standards are also required to specifically address water quality and channel protection events. Implementation of these BMPs would prevent or minimize environmental impacts and ensure that discharges during construction of the proposed project would not cause or contribute to the degradation of water quality in receiving waters. The proposed project therefore would not result in the degradation of water quality in receiving waters; construction-related water quality impacts would be less than significant.

Operational Impacts

The proposed project would increase the total area of impervious surfaces on the project site by approximately 7,300 square feet. An increase in the total area of impervious surfaces can result in a greater potential to introduce pollutants to receiving waters. Urban runoff can carry a variety of pollutants, including oil and grease, metals, sediment, and pesticide residues from roadways, parking lots, rooftops, and landscaped areas depositing them into adjacent waterways via the storm drain system. However, even with the proposed increase in impervious surfaces, approximately 53

percent of the project site would be covered by landscaping and other permeable surfaces. Therefore, the project site would continue to allow infiltration across the project site.

In addition, during operation and maintenance of the hotel, potential long-term impacts associated with stormwater runoff and discharges that may affect water quality are regulated under the Municipal Storm Water Permitting Program, also administered by the SWRCB and the nine RWQCBs. This program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Municipalities are required to obtain MS4 permits from the SWRCB via the applicable RWQCB(s) to regulate stormwater discharges within their jurisdictions. The proposed project qualifies under Sonoma County's Phase II General MS4 Permit (County of Sonoma 2020).

Compliance with the Phase II General MS4 Permit requires that a Stormwater Management Plan (SWMP) is developed for the project site, and identifies BMPs to control stormwater flows, such as but not limited to the following:

- Stormwater flows shall be conveyed to landscape areas if possible, or directly to the storm drain system, so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- The rate of stormwater flows shall be regulated to minimize erosion potential.
- Sediment shall be removed from stormwater via settling or filtration prior to discharge of the stormwater, and the removed sediment shall be collected and disposed of in a timely manner.
- BMPs such as sandbags and straw wattles shall be applied to prevent erosion and sediment transport within or off the project site.

Through compliance with MS4 requirements, the proposed project would not violate water quality standards or waste discharge requirements, and BMPs implemented during project construction and operation would minimize or avoid potential impacts to water quality. Therefore, potential impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The potential for a project to decrease groundwater supplies or interfere with groundwater recharge is determined by whether a project would meet one of the following criteria:

- Create or increase overdraft conditions due groundwater consumption;
- Reduce groundwater recharge due to increased impervious surfaces; or
- Directly interfere with the groundwater table due to major excavation.

Each of these criteria is addressed below with respect to the proposed project and its potential to result in adverse effects to groundwater resources.

GROUNDWATER CONSUMPTION

Water supply for the proposed project would be provided by the City of Sonoma, which purchases most of its water supply from Sonoma Water, the Sonoma County Water Agency. The county, in turn, sources its water primarily from the Russian River. The City of Sonoma also produces groundwater from five active wells in the Sonoma Valley Subbasin of the Napa-Sonoma Valley Groundwater Basin. Although the City currently produces up to approximately 10 percent of its

annual water supply from local groundwater, the City's intent with groundwater management efforts, including implementation of its Urban Water Management Plan (UWMP), is to only use groundwater for emergency purposes or during drought periods, as back-up supply. To reduce its current use of groundwater resources, the City is working to expand its water supply portfolio to include recycled water.

The proposed project would be consistent with the City of Sonoma 2020 General Plan and UWMP. The project would allow the continued use and minor expansion of an existing hotel and spa facility, which is consistent with the uses intended for the Mixed Use designation in the General Plan. The City's UWMP provides water supply availability and reliability projections based in part on the zoning and development projections provided in the General Plan. The City's current (2015) UWMP determines that the quantity of existing surface water, groundwater, and recycled water supply sources over the next 25 years is expected to be adequate for existing and planned development within the City. Groundwater and surface water will continue to be treated to drinking water standards with no surface water, groundwater, or recycled water quality deficiencies foreseen over the next 25 years (City of Sonoma 2016). Furthermore, although a portion of the project's water supply may ultimately come from groundwater resources, the project itself would not include on-site groundwater pumping. As such, any groundwater consumed for proposed project purposes would occur under the management direction of the City's UWMP. Therefore, although the proposed project would incrementally increase water demand compared to existing conditions, the proposed uses are consistent with the applicable long-range planning documents guiding development in the project site, and the project's potential to adversely affect groundwater resources through direct consumption would be less than significant.

INCREASED IMPERVIOUS SURFACES

The proposed project would increase the area of impervious surfaces on the project site by approximately 7,300 square feet. As described under criteria (*a*) and (*e*) above, the project would be subject to BMPs to minimize or avoid potentially adverse impacts, including as related to increased impervious surfaces. Examples of BMPs include directing surface flows to landscaped areas and using project design features to maintain stormwater drainage across the project site. Furthermore, the proposed increase in impermeable surfaces would be less than 0.01 percent of the Sonoma Valley Subbasin's overall surface area of approximately 44,626 acres; therefore, the project's increased impervious surfaces on this small percentage of the overall subbasin area would have negligible effect on recharge rates and patterns to the overall groundwater basin. Moreover, as described above, approximately 53 percent of the project site would be covered by landscaping and other permeable surfaces under the proposed project, and the site would continue to allow infiltration across the project site. Therefore, impacts would be less than significant.

DIRECT INTERFERENCE

The proposed project would include excavation to a maximum depth of up to four feet for the foundations for the new buildings. It is possible that excavations during construction on the project site could encounter unconfined groundwater resources; should shallow groundwater be encountered, standard construction BMPs would be implemented to remove water from the active work area and discharge or dispose of it. The project's potential to encounter shallow groundwater during construction excavations would not affect overall groundwater in storage, because such effects would be limited to the duration of active excavation activities. Additionally, the surface water and groundwater systems in the project area are largely intertwined, such that the subsurface system is constantly replenished by surface flows in the Russian River and its tributaries. The project

would have no adverse impact on the interconnectedness of these systems and would not result in any substantial interference with the groundwater systems underlying the project site. Therefore, impacts would be less than significant level.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The area surrounding the project site is developed and largely consists of impervious surfaces, including structures, parking lots, and roadways. Stormwater runoff generated by the proposed project would be collected by drainage inlets and conduits and conveyed to into Nathanson Creek, as under current conditions. Nathanson Creek is adjacent to the eastern edge of the project site; the creek does not flow through the site. Project construction and operation would not alter the course of the creeks or any other streams or rivers.

The proposed project would involve minor alteration of the drainage pattern within the project site, but such alteration would not result in substantial adverse effects. As described under criteria (*a*) and (*e*) above, the project would increase the area of impervious surfaces on the project site by approximately 7,300 square feet. Therefore, the project could result in an increase in erosion, siltation, and runoff in the area. However, as described under criteria (*a*) and (*e*) above, the project would be required to implement BMPs to minimize increases in drainage and stormwater runoff on and off the site.

Given the information described above, the proposed project would not substantially alter the existing drainage pattern of the site or area or alter the course of any stream or river, would not result in erosion or siltation, and would not substantially increase the rate of surface runoff in a manner which would result in flooding on- or off-site or exceed capacity of a stormwater system. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

As described in the *Setting* section, the project site is not in proximity to the ocean or other large bodies of water, and thus is not at risk for tsunami or seiche. The site is designated "Zone X, 0.2 Percent Annual Chance Flood Hazard" and "Zone X, Area of Minimal Flood Hazard." The proposed project would involve construction of new buildings on the site but would not alteration of the existing hotel and spa land use. As discussed above, the project would not substantially alter the site's drainage. Therefore, the project would not substantially alter existing conditions in relation to flood hazards. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	■
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	■	☐

a. Would the project physically divide an established community?

The proposed project would involve continued use of an existing tent and construction of five new buildings on an existing parcel that is already developed with a hotel and spa. The project would not separate connected neighborhoods or land uses from each other. No new roads, linear infrastructure, or other development features are proposed that would divide an established community or limit movement, travel, or social interaction between established land uses. No impact would occur.

NO IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Consistency with General Plan

The project site is designated as Mixed Use in the City of Sonoma 2020 General Plan (City of Sonoma 2006). According to the General Plan (City of Sonoma 2006):

> "the Mixed Use designation is intended to accommodate uses that provide a transition between commercial and residential districts, to promote a pedestrian presence in adjacent commercial areas, and to provide neighborhood commercial services to adjacent residential areas…The Mixed Use designation also is intended to recognize the continued existence of uses that contribute to the character or function of their neighborhood and to allow for the possibility of their expansion".

The proposed project, which would allow the continued use and minor expansion of an existing hotel and spa facility, would therefore be consistent with the uses intended for the Mixed Use designation.

The City's General Plan identifies goals and policies to guide land use patterns to strategically accommodate future growth while preserving and enhancing the City as a whole. The proposed project's consistency with selected applicable City goals and policies is described in Table 14.

Table 14 General Plan Consistency

General Plan Goal or Policy	Proposed Project Consistency
Policy 1.1 Focus on the retention and attraction of businesses that reinforce Sonoma's distinctive qualities—such as agriculture, food and wine, history and art—and that offer high-paying jobs.	**Consistent.** The proposed project would involve construction of five new buildings with guestrooms on a parcel with an existing hotel and spa. The existing business would be retained and improved.
Policy 5.1. Preserve and enhance the scale and heritage of the community without imposing rigid stylistic restrictions.	**Consistent.** As described in Section 1, *Aesthetics*, the design of the proposed project would be consistent with the existing scale and design of surrounding development, including the existing hotel and spa structures and neighboring development.
Policy 5.8. Encourage the designation and preservation of local historic structures and landmarks and protect cultural resources.	**Consistent.** As described in Section 5, *Cultural Resources,* the proposed renovation would not adversely affect the historic structures on the project site, including the Burris House.
Policy 2.9. Require development to avoid potential impacts to wildlife habitat, air quality, and other significant biological resources, or to adequately mitigate such impacts if avoidance is not feasible.	**Consistent.** As described in Section 3, *Air Quality*, and Section 4, *Biological Resources*, the project would not result in significant impacts related to air emissions or nearby biological resources.

Source: City of Sonoma 2006

The proposed project would be consistent with these General Plan policies and with the land use designation.

Consistency with Sonoma Municipal Code

The project site is located within the Mixed Use (MX) zoning district. According to SMC Section 19.10.020, within the MX zoning district, "longstanding commercial and industrial uses in otherwise residential areas may be preserved and, subject to use permit review, modified or intensified." The proposed project would involve the addition of new guestrooms to an existing hotel and spa and would therefore be consistent with the allowed uses in the MX district. A use permit amendment is required for the proposed project.

In addition, the proposed project would be consistent with applicable development standards in the SMC, including height (the tent is 22 feet at its highest point and the two-story buildings would be 26 feet at their highest points, below the 30-foot maximum for the district), setbacks (the proposed project would not reduce existing setbacks at the project site), and parking (the existing parking lots accommodate 131 parking spaces, four more than is required to allow operation of the existing hotel, restaurant, spa, and 11 additional proposed guestrooms).

The project would also be subject to the discretionary approval of a Use Permit Modification and a Design Review application by the City of Sonoma Planning Commission. In order to approve such permits, the Planning Commission must make specific findings, including that "the proposed use is allowed with a conditional use permit within the applicable zoning district and complies with all applicable standards and regulations of this development code" (SMC Section 19.54.040). Given that

the project would be required to comply with applicable regulations in the SMC, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	■
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?	☐	☐	☐	■

a. Would the project 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?

b. Would the project 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?

The DOC Geological Survey (CGS) classifies lands into Aggregate and Mineral Resource Zones based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present in areas. Pursuant to Public Resources Code Section 2762(a)(1), lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their General Plans. The City of Sonoma has no General Plan land use designation for mineral resources (City of Sonoma 2006). Therefore, there would be no impact related to the loss of a valuable mineral resource.

NO IMPACT

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	■	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c. For a project located within the vicinity of a private airstrip or 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?	☐	☐	☐	■

This section incorporates the findings of the Noise Analysis conducted by Salter, Inc., dated April 1, 2021. This report is included as Appendix NOI.

Background

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, that is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (Caltrans 2013).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3dB decrease (Crocker 2007).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as

one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Crocker 2007).

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line, the path the sound will travel, site conditions, and obstructions). Noise levels from a point source typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance (e.g., construction, industrial machinery, ventilation units). Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can significantly alter noise levels. Generally, a large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2018). Structures can substantially reduce exposure to noise as well. The FHWA's guidelines indicate that modern building construction generally provides an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows.

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. One of the most frequently used noise metrics is the equivalent noise level (L_{eq}); it considers both duration and sound power level. L_{eq} is defined as the single steady A-weighted level equivalent to the same amount of energy as that contained in the actual fluctuating levels over time. Typically, L_{eq} is summed over a one-hour period. L_{max} is the highest root mean squared (RMS) sound pressure level within the sampling period, and L_{min} is the lowest RMS sound pressure level within the measuring period (Crocker 2007).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{DN}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.); it is also measured using Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013). Noise levels described by L_{DN} and CNEL usually differ by about 1 dBA. The relationship between the peak-hour L_{eq} value and the L_{DN}/CNEL depends on the distribution of traffic during the day, evening, and night. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 dBA, while areas near arterial streets are in the 50 to 60-plus CNEL range. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Some land uses are more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. For example, residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, museums, cultural facilities, parks, and outdoor recreation areas are more sensitive to noise than commercial and industrial land uses.

Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hz. The frequency of a vibrating object describes how rapidly it oscillates. The normal frequency range of most groundborne vibration that can be felt by the human body starts from a low frequency of less than 1 Hz and goes to a high of about 200 Hz (Crocker 2007).

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (Federal Transit Administration [FTA] 2018). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2020). When a building is impacted by vibration, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may actually amplify the vibration level due to structural resonances of the floors and walls.

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or RMS vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (Caltrans 2020).

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Generally, a sensitive receiver is identified as a location where human populations (especially children, senior citizens, and sick persons) are present, and where there is a reasonable expectation of continuous human exposure to noise. Vibration-sensitive receivers, which are similar to noise-sensitive receivers, include residences and institutional uses, such as schools, churches, and hospitals. However, vibration-sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment that is affected by vibration levels that may be well below those associated with human annoyance (e.g., recording studies or medical facilities with sensitive equipment).

The project is in an area with commercial, residential, school, and recreational uses. Residential receivers are located across East MacArthur Street to the north, Nathanson Creek Preserve is

immediately adjacent to the east of the project site, and Sonoma Valley High School immediately adjacent to the south of the project site. Commercial uses are located to the west across Broadway.

Regulatory Setting

City of Sonoma General Plan Noise Element

Goal PS-1: Achieve noise compatibility between existing and new development to preserve the quiet atmosphere of Sonoma and quality of life.

1.1 Apply the following standards for maximum L_{dn} levels to citywide development:

45 L_{dn}: For indoor environments in all residential units.
60 L_{dn}: For outdoor environments around all residential developments and outdoor public facilities.
65 L_{dn}: For outdoor environments around commercial and public buildings (libraries and churches).

1.3 Require adequate mitigation of potential noise from all proposed development.

1.4 Evaluate proposed development using the Noise Assessment Guide and require an acoustical study when it is not certain that a proposed project can adequately mitigation potential noise impacts.

City of Sonoma Municipal Code (SMC)

The SMC (Title 9, Public Peace, Safety and Morals, Chapter 9.56, Noise) includes various noise limits intended to protect community residents from prolonged unnecessary, excessive, and annoying sound levels that are detrimental to the public health, welfare, and safety, or are contrary to the public interest. No person may produce, suffer or allow to be produced by any machine, animal or device, or by any other means, a noise level greater than the noise limits shown in Table 15 for residential, commercial and public properties. For intermittent sound, the one-second rms maximum level (L_{max}) is be used. For constant sound, the average level (L_{eq}) is used. Where two or more noise limits may apply, the more restrictive noise limit governs.

Table 15 City of Sonoma Municipal Code 9.56.040 General Noise Limits

Zone	Daytime Limits	Nighttime Limits
Residential Zones	60 dBA Intermittent 50 dBA Constant	50 dBA Intermittent 40 dBA Constant
Commercial/Mixed Use Zones	65 dBA Intermittent 55 dBA Constant	65 dBA Intermittent 55 dBA Constant
Public Property	Most restrictive noise limit applicable to adjoining private property	

* Subject to provisions of Ord. 03-2006 § 2, 2006

Source: Sonoma 2020

Section 9.56.050 exempts construction noise from the above limits. The section states that construction, alteration, demolition, maintenance of construction equipment, deliveries of materials or equipment, or repair activities shall be allowed as follows: (1) between 8:00 a.m. and 6:00 p.m., Monday through Friday, (2) between 9:00 a.m. and 6:00 p.m. on Saturday, and (3) between 10:00

a.m. and 6:00 p.m. on Sundays and holidays; however, the construction noise level at any point outside of the property plane of the project may not exceed 90 dBA.

Existing Conditions

The primary offsite noise sources in the project area are motor vehicles (e.g., automobiles, buses, and trucks), particularly East MacArthur Street and Broadway (State Route 12). Motor vehicle noise is characterized by a high number of individual events, which often create sustained noise levels. Ambient noise levels would be expected to be highest during the daytime and rush hours unless congestion slows speeds substantially. Noise associated with existing commercial uses in the area also contribute to ambient noise, but to a lesser extent than motor vehicle noise. To determine ambient noise levels in the project site vicinity, Salter Inc. conducted two 24-hour measurements January 5 through 8, 2021 (refer to Appendix NOI for noise measurement data). The long-term noise measurements resulted in average daily noise levels of 62 dBA L_{dn} 40 feet from the centerline of East MacArthur Street and 59 dBA L_{dn} 160 feet from the centerline of East MacArthur Street. The Sonoma Skypark, approximately 2.15 miles southeast of the project site (measured to the edge of the nearest runway), is a noise generator in Sonoma County. The project site is not within the Airport Influence Area Boundary or the airport's noise contours (County of Sonoma 2012).

Methodology

Construction Noise

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM) (FHWA 2006). RCNM predicts demolition and construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction and demolition noise levels were estimated at noise sensitive receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation (FHWA 2018). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some have high-impact noise levels.

Significance Thresholds

The following thresholds are based on City noise standards and Appendix G of the CEQA guidelines. Noise impacts would be significant if:

- **Noise in Excess of Established Standards:** The project would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
  - **Temporary:** Construction noise would be significant if:
    - Daytime construction noise exceeds 90 dBA L_{eq} at any point outside of the property plane of the project;

  - Construction noise is generated outside of allowable construction hours as stated in Section 9.56.050 of the Sonoma Municipal Code.
- **Permanent:** Operational noise would be significant if:
  - Project stationary noise sources generate noise levels at commercial/mixed use property limits that exceed 65 dBA L_{eq} between the hours of 7:00 a.m. and 9:00 p.m. Sunday through Thursday and 7:00 a.m. and 10:00 p.m. Friday and Saturday, or 55 dBA L_{eq} between the hours of 9:00 p.m. and 7:00 a.m. Sunday through Thursday and 10:00 p.m. and 7:00 a.m. Friday and Saturday; or
  - For traffic-related noise, impacts would be significant if project-generated traffic would result in exposure of sensitive receivers to an unacceptable increase in noise levels. For purposes of this analysis, a significant impact would occur if project-related traffic increases the ambient noise environment of noise-sensitive locations by 3 dB or more where the ambient noise level exceeds the City Noise Element land use compatibility standards (i.e., those with-project conditions that fall within the "normally unacceptable" or "clearly unacceptable" land use categories). In addition, a significant impact would also occur if project-related traffic increases the ambient noise environment of noise-sensitive locations by 5 dB or more regardless of the ambient noise level under with-project conditions.

- **Vibration:** The project would result in the generation of excessive ground-borne vibration or ground-borne noise levels.
  - This would occur if the project would subject vibration-sensitive land uses to construction-related ground-borne vibration that exceeds the distinctly perceptible vibration annoyance potential criteria for human receivers of 0.24 in/sec PPV, or the residential structural damage criteria of 0.2 PPV in/sec.

- **Airport Noise:** For a project located in the vicinity of a private airstrip or 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, if the project exposes people residing or working in the project area to excessive noise levels.

Impact Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction Noise

Demolition and construction activity would result in temporary noise in the project area, exposing adjacent sensitive receivers to increased noise levels. The project would involve site demolition and construction of five new buildings on the project site. Construction noise would typically be higher during the heavier periods of initial construction (i.e., excavation) and would be lower during later construction phases (i.e., interior remodeling and construction after building shell is erected). Typical heavy construction equipment during project could include a backhoe, air compressor, and dump truck. It is assumed that diesel engines would power all construction equipment. Construction equipment would not all operate at the same time or location. In addition, construction equipment

would not be in constant use during the 8-hour operating day. RCNM construction equipment noise modeling results are shown in Appendix NOI.

Project construction would occur nearest to Sonoma Valley High School south of the project site and single-family residences north of the project site. Over the course of a typical construction day, construction equipment would be located as close as 75 feet from the properties but would typically be located at an average distance farther away due to the nature of construction and the lot size of the site. For example, during a typical construction day, the equipment may operate across the horizontal distance of the site (75 to 110 feet) from a nearby residential noise receiver. Therefore, it is assumed that over the course of a typical construction day, the construction equipment would operate at an average distance of 85 feet from Sonoma Valley High School playfields. Additionally, construction equipment would operate 120 feet from the nearest single-family residences to the north and at 350 feet from the Nathanson Preserve. Table 16 shows construction noise levels at distances of 85 feet, 120 feet, and 350 feet from the nearest sensitive receivers.

Table 16 Construction Equipment Noise Levels

Receiver	Distance (feet)	Noise Level (dBA L_{eq})
Sonoma Valley High School	85	74
Residents to the north	120	70
Nathanson Preserve	350	61

Note: Noise levels were calculated assuming simultaneous use of a backhoe, air compressor and dump truck.
Appendix NOI shows the modeled construction RCNM results.

At 85 feet, construction and demolition would generate a noise level of 74 dBA L_{eq}, as shown in Table 16. The City's construction noise limit is 90 dBA L_{eq}; therefore, project construction noise levels would not exceed the applicable construction noise limit. In addition, the construction activities would be temporary and consistent with typical suburban construction projects; no unusually loud demolition or construction equipment, such as pile drivers, would be used. Impacts from construction noise would be less than significant.

Operational Noise Sources

Noise sources associated with operation of the proposed project would consist of low speed on-site vehicular noise, landscaping maintenance, general conversations, and mechanical equipment (e.g., heating, ventilation, and air conditioning [HVAC] units). Under the proposed project, noise associated with landscaping maintenance and general conversations would remain similar to existing conditions, as the project would not involve a substantial increase in guest capacity, and the spa and restaurant capacity would not change. In addition, the project would not result in a change in the number of on-site parking spaces and, as described in Section 17, *Transportation,* operation of the project would not generate a substantial increase in vehicle trips. Therefore, noise associated with vehicle traffic would not substantially increase compared to existing conditions.

On-site operational HVAC noise sources were analyzed using documented reference noise levels for operation of HVAC equipment. Based upon one ton of HVAC per 600 sf of building space and the square footage of the proposed guesthouse rooms, one 1-ton Carrier Infinity Variable Speed Air Conditioner Condensing unit would be required (see Appendix NOI for manufacturer's

specifications). This unit would generate an approximate noise level of 60 dBA. All HVAC units were modeled with the center of the noise source as being three feet above elevation, relative to its location.

The nearest off-site noise-sensitive receiver to proposed new HVAC equipment, the residential uses to the north across East MacArthur Street from proposed Building V, would be approximately 95 feet. Because noise from HVAC equipment would attenuate at a rate of approximately 6 dBA per doubling of distance from the source, HVAC equipment would generate noise levels of 35 dBA L_{eq} at 95 feet. Therefore, based on the estimated noise level of 35 dBA L_{eq} at 95 feet for HVAC equipment, noise levels from such equipment would not exceed daytime or nighttime noise levels of 65 dBA L_{eq} and 55 dBA L_{eq}, respectively, as regulated by Section 9.56 of the SMC. Therefore, operational noise impacts associated with HVAC equipment would be less than significant.

Land Use Compatibility

Analysis of impacts of the environment on a project is generally not required for CEQA compliance (*Ballona Wetlands Land Trust et al. v. City of Los Angeles*). Therefore, noise exposure to new noise-sensitive land uses from transportation noise sources has been analyzed only for consistency with the City's land use compatibility standards. The project would be subject to transportation noise levels from vehicles on Broadway (SR-12) and East MacArthur Street. Traffic noise modeling was conducted based on traffic volumes assumed in the MacArthur Place Hotel Expansion Noise Analysis performed by Salter Inc. for this project (Salter 2021). The Noise Analysis assumed a 25 percent increase in future average daily traffic volumes (Salter 2021).

The most predominant source of noise on and around the project site is vehicular traffic on Broadway (SR-12) and East MacArthur Street. Based on the acoustical analysis, nine of the guestrooms would be exposed to noise levels below 60 dBA L_{dn} (Salter 2021). The Noise Element in the City of Sonoma General Plan 2020 considers noise exposures below 60 dBA L_{dn} acoustically compatible for the guestroom additions without special considerations. Guestroom V would be exposed to a noise level of 62 dBA L_{dn} and Guestroom W would be exposed to a noise level of 60 dBA L_{dn} (Slater 2021). The Noise Element in the City of Sonoma General Plan 2020 considers noise exposures between 60 dBA L_{dn} and 65 dBA L_{dn} as conditionally acceptable. The indicated noise levels may cause slight interference with indoor activities if windows are open (Salter 2021). To avoid disturbance of speech or sleep, the Noise Analysis recommends that these units (guestrooms V and W) include HVAC units so windows may remain closed to achieve interior noise levels consistent with City standards (Salter 2021). With implementation of this recommendation, the project would be consistent with City land use noise compatibility standards.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Operation of the proposed project would not include substantial vibration sources. Thus, construction activities have the greatest potential to generate ground-borne vibration affecting nearby receivers, especially during excavation of the project site.

Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted by the project. The greatest anticipated source of vibration during general project construction activities would be from a large bulldozer, which may operate within 75 feet of the nearest off-site residential uses to the north of the site, when accounting for setbacks.

Construction vibration estimates are based on vibration levels reported by Caltrans and the FTA (Caltrans 2020, FTA 2018). A large bulldozer would create approximately 0.089 in/sec PPV at 25 feet (Caltrans 2020). The modeled vibration level created by a large bulldozer at 75 feet would generate a level of 0.121 in/sec PPV. This would be lower than what is considered a distinctly perceptible impact for humans of 0.24 in/sec PPV, and the structural damage impact of 0.20 in/sec PPV. Therefore, a large bulldozer would not be perceptible to nearby human receptors; temporary impacts associated with a small dozer (and other potential equipment) would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. For a project located within the vicinity of a private airstrip or 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?

The Napa County Airport is the nearest public airport, located approximately 10.5 miles southeast of the project site. According to the noise compatibility contours figure for Napa County Airport on the Airport Land Use Compatibility Plan (Napa County Airport Land Use Commission 2004), the project site is located outside the airport's 55 CNEL noise contour. The nearest private airport is the Sonoma Skypark, approximately 2.15 miles southeast of the site. According to Figure AT-7 of the Sonoma County General Plan Air Transportation Element, the site is located outside the airport's 55 CNEL noise contour (Sonoma County 2012). Therefore, no substantial noise exposure from airport noise would occur. There would be no impact.

NO IMPACT

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14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	■	☐

a. Would the project induce substantial unplanned 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)?

The project would not involve the construction of new residences. Therefore, the project would not directly induce localized residential growth. As described in the *Description of Project* section, operation of the proposed new guest rooms would require two additional housekeeping employees that could indirectly generate population growth and a greater need for employee housing. However, this incremental increase in employment opportunities in the city would not substantially induce population growth through the provision of new jobs. According to the Association of Bay Area Governments (ABAG), the number of employees in Sonoma is expected to grow from 7,305 in 2020 to 7,495 in 2025, which would represent a net increase of 190 jobs (ABAG 2017). The employment increase associated with the proposed project, two employees, would therefore be well within ABAG's population forecast for the City. The project would not induce substantial unplanned population growth in the area. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

There are no existing housing units on the project site. As described above in criterion (*a*) above, the project would not involve a significant increase to the number of full-time employees who would require housing. Therefore, the project would not displace existing housing units or people, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1 Fire protection?	☐	☐	■	☐
	2 Police protection?	☐	☐	■	☐
	3 Schools?	☐	☐	■	☐
	4 Parks?	☐	☐	■	☐
	5 Other public facilities?	☐	☐	■	☐

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project site is located within City of Sonoma, where fire protection services are provided by Sonoma Valley Fire District (SVFD) staff and facilities. The project would involve the addition of 11 new guestrooms, which would require the addition of two new housekeeping employees. This increase in guestrooms and employees would not result in a substantial increase in intensity of use at the site which would require increased fire service. Moreover, the project would not result in a substantial increase in the use of hazardous materials that could cause a fire hazard at the site. The project would be required to comply with the California Fire Code and California Building Code and would be reviewed by City staff to verify code compliance and adequate fire access. The project would not result in the need for new or physically altered fire protection facilities and impacts would be less than significant.

The proposed project was preliminarily reviewed during a pre-application meeting with the SVFD Fire Marshal and a subsequent site walk on January 12, 2021. While the project would typically require installation of a new fire apparatus road under the CBC, the Fire Marshal determined that such a road would be infeasible given the current configuration of the project site, and an alternate

means of protection would be required, as described in the CBC and approved by the Fire Marshal. The project applicant proposes the following measures to meet the requirements of the Fire Marshal and CBC:

- Sprinkler systems within all new buildings
- Fire alarm systems within all new buildings
- Additional fire hydrant and standpipes to serve all new buildings.
- Automatic smoke and attic heat vents in all new buildings
- Updates to all campus maps and directories within the site, include escape plans posted in guestrooms

The proposed project would be reviewed by the Fire Marshal again before City approval of building permits to ensure that the above measures would allow the site to be adequately served by the SVFRA. The project would also be required to comply with the California Fire Code and California Building Code and would be reviewed by City staff to verify code compliance and adequate fire access. Given this required compliance, the project would not require new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities. Impacts related to fire protection facilities associated with the proposed project would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The proposed project would not create excessive demand for police services or introduce development to areas outside of normal service range that would necessitate new police protection facilities; the project site is within the Sonoma County Sheriff's Office service area and is currently serviced by the Sonoma County Sheriff's Office. Moreover, as described in Section 14, *Population and Housing,* the project would not induce substantial population growth, and the employment generated by the project would within the range of the forecasts for the City. The proposed project would therefore not create the need for new or expanded police protection facilities and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The Sonoma Valley Unified School District (SVUSD) serves the K-12 student population within the County of Sonoma and City of Sonoma. SVUSD operates five elementary schools, two middle schools, two K-8 charter schools, and two high schools (SVUSD 2020).

The project would involve the addition of 11 new guestrooms, which would require two new employees within the project site. This incremental increase in employment opportunities in the city would not substantially induce population growth through the provision of new jobs nor would it

induce a substantial increase in students. The proposed project would therefore not create the need for new or expanded schools, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Refer to Section 16, *Recreation.* Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

As discussed in Section 10, *Hydrology and Water Quality,* impacts related to stormwater facilities would be less than significant. As discussed in Section 19, *Utilities and Service Systems,* impacts related to water and wastewater water facilities would be less than significant. No significant impacts to other public services are anticipated. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
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?	☐	☐	■	☐

Setting

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

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?

The City of Sonoma Parks Division (SPD) administers and maintains 17 parks encompassing nearly 40 acres, nine play structures, two public restrooms, four miles of Class I bike trails, hiking trails, a duck pond, and a rose garden (City of Sonoma 2020b). Parks nearest the project site include Nathanson Creek Preserve Demonstration Garden, which abuts the site to the east, Nathanson Creek Park, approximately 0.4-mile south of the project site, Jean K.T. Carter Park, approximately 0.3-mile southwest of the project site, Hertenstein Park, approximately 0.5-mile west of the project site, and Sonoma Garden Park, approximately 0.8-mile southeast of the project site.

The proposed project would not involve the development of new recreational facilities. Moreover, as described above in Section 14, *Population and Housing*, the project would not induce substantial population growth within the City of Sonoma; the increase of two employees within the site would be an incremental increase in employment opportunities. Therefore, the project would not result in substantially increased use of recreational facilities by City residents. The project would also result in increased guest capacity at the hotel facility. However, existing outdoor open space within the site, including an outdoor pool, seating areas and courtyards, and landscaped walking paths, would provide adequate recreational facilities for residents. Therefore, the project would not result in a substantial increase in the use of nearby public recreational facilities by guests. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	■	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	■	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	■	☐
d. Result in inadequate emergency access?	☐	☐	■	☐

This section is based on the Initial Study Checklist (traffic study) prepared by W-Trans in January 2021. The traffic study is included in this report as Appendix TRA.

Impact Analysis

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Roadway Facilities

As shown in Table 17 below, operation of the proposed project is expected to generate a net increase of 92 daily vehicle trips, including five AM peak hour trips and seven PM peak hour trips. As described in the traffic study prepared for the project, this increase in traffic would not substantially affect operations of roadways and intersections in the vicinity of the project site. Impacts to roadway facilities would be less than significant.

Table 17 Proposed Project Trip Generation

Land Use	Weekday Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
Hotel (11 new guestrooms)[1]	92	3	2	5	3	4	7

[1] Trip rates based on Land Use 310 in the Institute of Transportation Engineers (ITE) Trip Generation Manual

Source: Appendix TRA

Pedestrian, Bicycle, and Transit Facilities

East MacArthur Street is a collector roadway, characterized by continuous sidewalks and street lighting along the project frontage. The site is located adjacent to the signalized intersection with Broadway, which includes pedestrian crossing facilities. Most streets in the vicinity of the site also have continuous sidewalks along both sides of the street, with the exception of some local residential streets. There are no bicycle facilities along East MacArthur Street, but there are existing bike lanes on West MacArthur Street and the General Plan has identified Broadway for a "road diet," which would remove travel lanes and add bike lanes. There is a transit stop for Sonoma County Transit Routes 30 and 32 at Broadway and East MacArthur Street, the nearest intersection to the project site, but there is no service on East MacArthur Street.

Regarding transit users, bicyclists, and pedestrians, there are no notable gaps in the multimodal circulation network near the project site. Since the project would not involve off-site improvements, it would not conflict with the existing or planned facilities. Therefore, the project would be consistent with adopted policies and plans regarding public transit, bicycle, and pedestrian facilities, including City of Sonoma General Plan Circulation Element Policy 1.1, "Ensure that the City's circulation network is a well-connected system that effectively accommodates vehicular and non-vehicular traffic in a manner that considers the context of surrounding land uses and the needs of all roadway users." Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3, subdivision (b) indicates that land use projects would have a significant impact if the project resulted in vehicle miles traveled (VMT) exceeding an applicable threshold of significance. As described in the traffic study, since the City of Sonoma has not adopted a threshold of significance for VMT, guidance from the state Office of Planning and Research, as presented in Technical Advisory on Evaluating Transportation Impacts in CEQA (2018), was applied to analyze potential impacts of the project. The guidance indicates that projects expected to generate fewer than 110 trips per day may generally be assumed to cause a less than significant impact. As shown in above in Table 17, the proposed project would generate an average of 92 new trips per day. Therefore, the proposed project would have a less-than-significant impact related to VMT.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The proposed project does not include modifications to the existing transportation and street network or changes to existing driveway geometrics that would increase hazards. All new construction would be located entirely on-site, and site access would continue to be via the existing driveways. Therefore, on-site vehicle circulation would not be impacted by project operation. A temporary access to MacArthur Street would be needed during construction, and it would have adequate sight distance along roadway and be consistent with applicable design standards. Impacts would be less than significant impact.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

The proposed project would not include modifications to the existing transportation and street network. The only transportation-related element of the project would involve painting a curb red along E MacArthur Street to the east of the west parking lot entry to accommodate a new fire hydrant, which would be required by the City of Sonoma Fire Marshal. This on-site modification would not impact vehicle circulation or emergency access. The project would therefore be consistent with City of Sonoma General Plan Policy CE-8, Review of Development Impacts, which states, "As part of the development review process, the Planning and Public Works Departments shall review development projects to ensure that developers provide adequate emergency vehicle access."

Moreover, the minimal number of additional trips generated by the proposed project would not result in a substantial effect on traffic in the area surrounding the project site; therefore, the project would not substantially affect emergency vehicle response times. Impacts would be less than significant.

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18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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:				
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), or	☐	■	☐	☐
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.	☐	■	☐	☐

Regulatory Setting

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is 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?

The City of Sonoma prepared and mailed an AB 52 notification letter to Cloverdale Rancheria of Pomo Indians, Dry Creek Rancheria of Pomo Indians, Federated Indians of Graton Rancheria, Guidiville Indian Rancheria, Lytton Rancheria, Middletown Rancheria of Pomo Indians, Mishewal-Wappo Tribe of Alexander, and Pinoleville Pomo Nation on April 30, 2021. No requests for consultation have been received at the date of publication of this document. At this time, no specific tribal cultural resources have been identified. Therefore, for the purposes of this analysis, the City assumes that no tribal resources are present on the project site. However, because the project involves ground disturbance, there is the possibility of encountering undisturbed subsurface tribal cultural resources during construction. Therefore, the project could result in potentially significant impacts to tribal cultural resources and mitigation is required.

Mitigation Measure

TCR-1 Unanticipated Discovery of Tribal Cultural Resources

If cultural resources of Native American origin are identified during construction, all earth-disturbing work in the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the City determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The plan would include avoidance of the resource or, if avoidance of the resource is infeasible, the plan would outline the appropriate treatment of the resource in coordination with the archeologist and the appropriate Native American tribal representative.

Significance After Mitigation

Mitigation Measure TCR-1 above would reduce impacts by ensuring that tribal cultural resources encountered during construction are treated appropriately. Impacts would be less than significant with mitigation incorporated.

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19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	■	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	■	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	■	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

Setting

Potable Water

Potable water is provided to the project site by the City of Sonoma Water Division. According to the City of Sonoma Water Division Urban Water Management Plan (UWMP), the City supplies potable water from Sonoma County Water Agency (SWCA) purchased water and water pumped from groundwater wells owned and operated by the City (City of Sonoma 2016). The City operates and maintains 4,404 water service connections/meters, 1,437 valves, 476 fire hydrants, six water tanks, eight wells, two booster pump stations, and 58 miles of underground water main pipes (City of Sonoma 2021).

Wastewater

The Sonoma Valley Sanitation District (SVSD) collects and disposes of City of Sonoma wastewater, which is treated at the SVSD Treatment Plant in unincorporated Sonoma on 8th Street East. The SVSD treatment plant has a treatment capacity of approximately three million gallons of wastewater per day and 11 million gallons per day of winter flow (Sonoma Valley County Sanitation District 2016).

Stormwater

The site currently drains to existing storm drains in the adjacent roadways on Broadway to the west and East MacArthur Street to the north, where the flow joins with the City of Sonoma stormwater system. Stormwater runoff is collected and disposed of by an integrated system of storm drains. Ultimately, stormwater that enters the City's system drains into three creeks: the Nathanson Creek, Sonoma Creek, and Fryer Creek (City of Sonoma 2020c).

Solid Waste

Sonoma Garbage Collectors manages the trash and recycling services for the City of Sonoma. Table 18 provides the active solid waste disposal sites and transfer stations that would accept waste from construction and operation of the project site, and the permitted and remaining capacities of each site. Nearly all solid waste generated in the County of Sonoma is transported to and disposed of at the Central Disposal Site, which is southwest of Cotati, and operated by Republic Services of Sonoma County, Inc. The landfill and facility site comprise 398 acres. Approximately 173 acres of the site are permitted for disposal (California Department of Resources Recycling and Recovery [CalRecycle] 2020).

Table 18 Estimated Landfill Capacities and Closure Dates

Landfill Facility	Permitted Capacity	Remaining Capacity	Anticipated Closure Date
Central Disposal Site	32,650,000 cy	9,181,519 cy	2043

cy = cubic yards
Source: CalRecycle 2020

Impact Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Wastewater

As described in the *Setting* section above, the SVSD treatment plant has a treatment capacity of approximately three million gallons of wastewater per day. As shown in Table 19 below, the proposed project would generate a net increase of approximately 1,430 gallons of wastewater per day. The increase in wastewater generation associated with the project would be approximately

0.05 percent of the current capacity at the SVSD'S treatment plant. Therefore, with the additional wastewater from the project, the daily treated wastewater would be well within the treatment plant's capacity.

Table 19 Estimated Project Wastewater Generation

Type of Use	Quantity	Generation Factor (daily gallons per unit)	Amount (gallons per day)
Hotel	11 guestrooms	130	1,430

Source: City of Los Angeles CEQA Thresholds Guidelines (2006)

The proposed project would involve installation of a new lateral connection to the City's existing sewer system. If the SVSD determines that the new wastewater infrastructure would result in lack of capacity, the project would be subject to the following standard condition:

> Development shall cause no net increase in overflow, or threat of overflow, in the collection system. Prior to building permit issuance, and sewer permit issuance, this shall be accomplished by any manner that is selected by the owner, with Sonoma Water's concurrence. The method could include wet weather inflow/infiltration adequate reductions in the sewer-shed, dry weather (regular sewer discharge) reductions in the sewer-shed, or by completing a portion of the future project, as needed to maintain pre-development hydraulic grade-lines.

While it is not anticipated that significant changes to the existing wastewater infrastructure would be needed within the project site, prior to approval of building permits, the SVSD would evaluate the project and require the above condition to ensure capacity is adequate to serve the project. If the SVSD determines it the condition required, the project applicant would be required implement measures that would ensure no net increase in overflow would occur. Therefore, impacts related to wastewater infrastructure capacity would be less than significant.

Water

The project site is currently served by the City's existing water service areas. The City's Urban Water Management Plan (UWMP) assesses Sonoma's water supply reliability, and describes the City's anticipated water demand, water shortage contingency plans, and water conservation strategies. The UWMP is based on the growth projections in the City's General Plan. The City's current (2015) UWMP determines that the quantity of existing surface water, groundwater, and recycled water supply sources over the next 25 years is expected to be adequate for existing and planned development within the City (City of Sonoma 2016b). Groundwater and surface water will continue to be treated to drinking water standards with no surface water, groundwater, or recycled water quality deficiencies foreseen over the next 25 years (City of Sonoma 2016).

As described in Section 11, *Land Use Planning*, the proposed project is consistent with the General Plan's Mixed Use land use designation and is consistent with the development potential on the project site. Moreover, as described in Section 13, *Population and Housing,* the project would not generate growth beyond current projections. Therefore, while operation of the project would generate increased water demand, such increase would be within the increases anticipated in the City's General Plan and UWMP. In addition, the proposed new buildings would include water conservation features including low flow fixtures and water conserving laundry equipment, which would reduce the amount of water demand generated by project operation. Therefore, there would

be sufficient potable water supply to accommodate the anticipated demand increases resulting from the proposed project. Impacts would be less than significant.

Stormwater

The proposed project would reduce the total area of impervious surfaces within the project site by approximately 7,300 square feet. This reduction would increase the potential for groundwater recharge and reduce stormwater runoff from the site. However, as discussed in Section 10, *Hydrology and Water Quality,* the proposed project would be required to comply with all applicable stormwater management requirements, including the City's Municipal Regional Stormwater Permit. Moreover, even with the proposed increase of impervious surfaces, approximately 53 percent of the site would be covered by landscaping and other permeable surfaces, which would continue to allow infiltration across the site. Therefore, the proposed project would not result in the need for new off-site storm water drainage facilities. Site runoff would continue to be directed to the City's existing municipal storm drainage system, which was designed to accommodate flows resulting from buildout in the project area. Impacts would be less than significant.

Electricity, Natural Gas, and Telecommunications

Electricity and natural gas would be provided to the project site by PG&E. Telecommunications services would be provided by AT&T, SBC Telecom, or other providers, at the discretion of future tenants. Telecommunications are generally available within and near the project site, and facility upgrades would not likely be necessary. Moreover, as described in Section 6, *Energy*, the proposed project would have sufficient supplies of energy and natural gas. Therefore, the proposed project would have a less than significant impact on local electricity, natural gas, and telecommunications providers.

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b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The project site receives potable water service from the City of Sonoma Water Division. As described above under criterion (*a*) above, the City's current (2015) UWMP determines that existing water supply sources over the next 25 years are expected to be adequate for existing and planned development within the City (City of Sonoma 2016b). Since the proposed project would be consistent with the General Plan land use designation for the project site and would not induce substantial population growth, there is adequate water supply to serve operation of the project. Therefore, there would be no substantial permanent effect on water demand. Impacts would be less than significant.

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d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As described in the *Setting* section above, solid waste collection in the City of Sonoma is provided by Sonoma Garbage Collectors and landfill service is provided by the Republic Services of Sonoma County Landfill.

The project would generate solid waste during construction and operation. Handling of debris and waste generated during construction would be subject to the 2019 CalGreen code which requires that 65 percent of construction and demolition debris be diverted. Construction activities would generate substantial waste; however, compliance with the 2019 CalGreen code would aid in reaching state goals and diversion requirements. Therefore, construction activities would not impair the attainment of solid waste reduction goals.

Operation of the proposed new guestrooms would increase solid waste generation in Sonoma. CalRecycle estimates that hotel uses generate an average of two pounds of solid waste per guestroom per day (Cal Recycle 2019). As shown in Table 20 below, prior to implementation of recycling programs or State-mandated diversion requirements, operation of the proposed project would generate an estimated 44 net pounds per day of solid waste, or 0.02 tons per day. In accordance with California's Integrated Waste Management Act of 1989, cities and counties are required to divert 50 percent of all solid wastes from landfills. Given this required diversion rate, the project would generate an additional 0.01 tons per day of solid waste for disposal at landfills. This total need for waste disposal would represent less than 0.01 percent of the current total remaining landfill capacity for the landfill that serves the City of Sonoma. Therefore, solid waste generated by the project would not exceed the capacity of local solid waste infrastructure, and anticipated rates of solid waste disposal from the proposed project would have a less than significant impact related to solid waste disposal facilities.

Table 20 Estimated Solid Waste Generation

Land Use	Size	Generation Rate*	Total (lbs/day)	Total (tons/day)
Hotel	11 guestrooms	4 lbs/gr/day	44	0.02
Total Assuming 50% Diversion Rate			**22**	**0.01**

Notes: lbs= pounds; gr = guest room

Source: CalRecycle Waste Generation Rates 2019. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	■
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	■
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	■

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project site is located within a developed area of the City of Sonoma and is surrounded primarily by existing urban development. The site is not within a Very High Fire Hazard Severity Zone (VHFHSZ) and does not fall within an area of state firefighting responsibility (CAL FIRE 2008). Therefore, there would be no impacts related to wildfire.

NO IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. Have 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	■	☐	☐
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	■	☐	☐

a. Does the project have 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As noted in Section 4, *Biological Resources*, impacts to special status plants and wildlife could be potentially significant and therefore mitigation measures BIO-1(a-d) and BIO-2 would be required to reduce potential impacts to migratory nesting birds and special status bat species. Incorporation of this mitigation measure would reduce impacts to wildlife to a less than significant level. As noted under Section 5, *Cultural Resources*, the proposed project would not impact known cultural or historic resources. Moreover, mitigation measures CR-1, CR-2, and TCR-1 would ensure that unanticipated archaeological resources encountered during construction activities would be

properly protected. In addition, as noted under Section 7, *Geology and Soils*, Mitigation Measure GEO-2 would ensure that unanticipated paleontological resources encountered during construction activities would be properly protected. These measures would reduce the potentially significant impact related to cultural and tribal cultural resources to a less than significant level. Impacts would therefore be less than significant with mitigation.

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b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Implementation of the project would result in less than significant environmental impacts with implementation of mitigation measures. Cumulative impacts associated with some of the resource areas are addressed in the individual resource sections above, including air quality, greenhouse gas emissions, noise, and traffic. With the exception of air quality, impacts would be less than significant or less than significant for these topics. As described in Section 3, *Air Quality,* Mitigation Measure AQ-1 would require implementation of the Basic Construction Mitigation Measures, which would reduce impacts related to fugitive dust to a less than significant level. Other impacts associated with the project would generally be localized at the project site and would not combine with other projects to cause cumulatively considerable environmental impacts. Moreover, as described in the discussion of environmental checklist Sections 1 through 20, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. Therefore, cumulative impacts would also be less than significant within mitigation (not cumulatively considerable).

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c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Effects to human beings are generally associated with air quality, noise, traffic safety, geology/soils and hazards/hazardous materials. As discussed in this Initial Study, implementation of the proposed project would result in less than significant environmental impacts with respect to these issue areas with mitigation incorporated. Mitigation Measure GEO-1 would reduce health and safety risks to human beings and would result in less than significant impacts. With mitigation, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant with mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the City of Sonoma. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

Abe Leider, AICP CEP, Principal
Lucy Sundelson, Project Manager
Gianna Meschi, Environmental Planner
Chris Shields, Senior Environmental Scientist
Annaliese Miller, Associate Environmental Planner
Audrey Brown, GIS Analyst
Allysen Valencia, GIS Analyst
Debra Jane Seltzer, Formatting/Production Specialist

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Appendix AQ

Air Quality and Greenhouse Emissions Gas Analysis

Yorke
ENGINEERING, LLC
www.YorkeEngr.com

April 6, 2021

Mr. Joe Walsh
Vice President Development
L'Auberge de Sonoma, LLC
7001 North Scottsdale Road, Suite 2050
Scottsdale, AZ 85253
Main: (480) 840-8400
Direct: (480) 840-8540
Fax: (480) 840-8401
Mobile: (775) 742-0374
E-mail: JWalsh@IMHFC.com

Subject: Air Quality and Greenhouse Gas Analysis for the MacArthur Place Hotel & Spa Guest Room Expansion Project in Sonoma, California

Dear Mr. Walsh:

Yorke Engineering, LLC (Yorke) is pleased to provide this letter Air Quality (AQ) and Greenhouse Gas (GHG) Report. This AQ/GHG Report includes CalEEMod emissions estimates, criteria pollutant analysis, and GHG analysis for the proposed 11 guest room expansion at the MacArthur Place Hotel & Spa in Sonoma, California, which is in Sonoma County and the Bay Area Air Quality Management District. This analysis supports a CEQA Initial Study/Negative Declaration (IS/ND) or Mitigated Negative Declaration (MND) from the City of Sonoma Planning Department (Lead Agency).

PROJECT DESCRIPTION

L'Auberge de Sonoma, LLC is applying for approval from the City of Sonoma, CA (the City) to amend the existing conditional use permit to allow for the addition of 11 new guest rooms – the MacArthur Place Hotel Guest Room Expansion Project. The current proposed project is independent of the MacArthur Place Spa and Pool expansion that was approved in 2020.

The project site is located on 5.1 acres at 29 East MacArthur Street. The proposed project includes the entitlement for 11 additional guest rooms in 5 new buildings (cottages) on ground-floor footprints totaling 3,571 square feet. Total indoor room area (excluding exterior decks, outdoor showers, ramps and stairs) is 5,485 square feet. The hotel parking lot was expanded to 131 spaces in early 2020, prior to the Spa and Pool project approval, and covers the parking space requirement for the 11-room Entitlement Project, as well as the Spa and Pool project. For the analysis, the CalEEMod default lot acreage of 0.37 acres (16,117 square feet) was used for the 11 guest rooms to be added to the facility.

ASSUMPTIONS

The following basic assumptions were used in developing the emission estimates for the proposed project using CalEEMod:

- Project design features including square footage of the expanded hotel area were defined by the Applicant.
- Default construction equipment horsepower ratings and load factors contained in CalEEMod were applied to all phases of the project.
- Consumer product usage as applicable to land use for maintenance during project operation.
- Energy efficiency and water conservation measures generally required by codes are implemented.
- Use of low-volatile organic compound (VOC) architectural coatings (rule-compliant).

The CalEEMod output files for this analysis are contained in Attachment 1.

LIST OF TABLES

The project analyses and results are summarized in the following tables:

AIR QUALITY AND GREENHOUSE GAS IMPACTS ANALYSES

The Air Quality Section of Appendix G of the California Environmental Quality Act (CEQA) Guidelines (Environmental Checklist Form) contains air quality and GHG significance criteria. Where applicable, quantitative significance criteria established by the local air quality management district (AQMD) or air pollution control district (APCD) may be relied upon to make significance determinations based on mass emissions of criteria pollutants and GHGs, as determined in this report.

Project Emissions Estimation

The construction and operation analysis was performed using California Emissions Estimation Model® (CalEEMod), version 2016.3.2, the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and GHG emissions associated with both construction and operations of land use projects under CEQA. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The mobile source emission factors used in the model –

published by the California Air Resources Board (CARB) – include the Pavley standards and Low Carbon Fuel standards. The model also identifies project design features, regulatory measures, and mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from the selected measures. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the South Coast Air Quality Management District (SCAQMD), the Bay Area Air Quality Management District (BAAQMD), the San Joaquin Valley Air Pollution Control District (SJVAPCD), and other California air districts. Default land use data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) were provided by the various California air districts to account for local requirements and conditions. As the official assessment methodology for land use projects in California, CalEEMod is relied upon herein for construction and operational emissions quantification, which forms the basis for the impact analysis.

Based on information received from the Applicant, land use data used for CalEEMod input is presented in Table 1. The BAAQMD quantitative significance thresholds shown in Table 2 were used to evaluate project emissions impacts (BAAQMD 2017).

Table 1: Land Use Data for CalEEMod Input - MacArthur Place Hotel & Spa

Project Element	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Hotel Units	Recreational	Hotel	11.0	Rooms	0.37	5,485
Project Site					**0.37**	**5,485**

Source: Applicant 2020, CalEEMod version 2016.3.2

Notes:

Utility PG&E

Climate Zone 4

1 acre = 43,560 sf

Lot acreage is CalEEMod default value for 11 hotel rooms

Table 2: BAAQMD CEQA Thresholds of Significance - May 2017			
Criteria Pollutants, Precursors, GHGs, Risks and Odors	**Construction**	**Operation**	
	lbs/day	**lbs/day**	**tons/yr**
Reactive Organic Gases (ROG)	54	54	10
Nitrogen Oxides (NO_X)	54	54	10
Sulfur Dioxide (SO_2)[1]	None	None	40
PM_{10}	82 (exhaust)	82 (total)	15 (total)
$PM_{2.5}$	54 (exhaust)	54 (total)	10 (total)
PM_{10} / $PM_{2.5}$ (fugitive dust)[2]	BMPs	None	
Local Carbon Monoxide (CO)[3]	None	CAAQS: 9 ppmv (8-hr); 20 ppmv (1-hr)	
GHGs - Stationary Sources	None	10,000 MT CO_2e/year	
GHGs - Other than Stationary Sources (Land Use Projects)	None	Compliance with GHG Reduction Strategy OR 1,100 MT of CO_2e/yr OR 4.6 MT CO_2e/SP/yr (residents + employees)	
Risks & Hazards (individual project within 1,000-foot zone of influence)	Compliance with Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million; Increased non-cancer risk of >1.0 Hazard Index (Chronic or Acute); Ambient $PM_{2.5}$ increase: >0.3 µg/m^3 annual average		
Risks & Hazards (cumulative threshold within 1,000-foot zone of influence)	Compliance with Community Risk Reduction Plan OR Increased cancer risk of >100.0 in a million; Increased non-cancer risk of >10.0 Hazard Index (Chronic or Acute); Ambient $PM_{2.5}$ increase: >0.8 µg/m^3 annual average		
Accidental Release of Acutely Hazardous Air Pollutants/Materials	None	Storage or use of acutely hazardous materials located near receptors or new receptors locating near stored or used AHMs are considered significant	
Odors	None	5 confirmed complaints per year averaged over 3 years	

Source: BAAQMD 2017, 40 CFR 51.166 (see note 1)

Notes:

[1] Prevention of Significant Deterioration (PSD), annual only

[2] BMPs - Best Management Practices for control of fugitive dust

[3] Not to exceed California Ambient Air Quality Standards for CO

Criteria Pollutants from Project Construction

A project's construction phase produces many types of emissions, but PM_{10} (including $PM_{2.5}$) in fugitive dust and diesel engine exhaust are the pollutants of greatest concern. Fugitive dust emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM_{10}, as well as affecting PM_{10} compliance with ambient air quality standards on a regional basis. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces. The use of diesel-powered construction equipment emits ozone precursors oxides of nitrogen (NO_x) and reactive organic gases (ROG), and diesel particulate matter (DPM), the latter being a composite of toxic air contaminants (TACs) containing a variety of hazardous substances. Large construction projects using multiple large earthmoving equipment are evaluated to determine if operations may exceed the District's daily threshold for NO_x emissions and could temporarily expose area residents to hazardous levels of DPM. Use of architectural coatings and other materials associated with finishing buildings may also emit ROG and TACs. CEQA significance thresholds address the impacts of construction activity emissions on local and regional air quality. Thresholds are also provided for other potential impacts related to project construction, such as odors and TACs.

The BAAQMD's approach to CEQA analyses of fugitive dust impacts is to require implementation of effective and comprehensive dust control measures rather than to require detailed quantification of emissions. PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are several feasible control measures that can be reasonably implemented to significantly reduce fugitive dust emissions from construction.

Although the project is small, with building footprints totaling 3,571 square feet, there could be instances where fugitive dust could be generated that could present a nuisance, and thus could cause a significant impact. The BAAQMD has determined that implementing Best Management Practices (BMPs), primarily through frequent water application, constitutes sufficient mitigation to reduce PM_{10} impacts to a level considered less than significant. Refer to Mitigation Measure AQ-1 at the end of this section.

Criteria Pollutants from Project Operation

The term "project operations" refers to the full range of activities that can or may generate criteria pollutant, GHG, and TAC emissions when the project is functioning in its intended use. For projects such as office parks, shopping centers, apartment buildings, residential subdivisions, hotels, and other indirect sources, motor vehicles traveling to and from the project represents the primary source of air pollutant emissions. For industrial projects and some commercial projects, equipment operation and manufacturing processes, i.e., permitted stationary sources, can be of greatest concern from an emissions standpoint. CEQA significance thresholds address the impacts of operational emission sources on local and regional air quality. Thresholds are also provided for other potential impacts related to project operations, such as odors.

Results of Criteria Emissions Analyses

The San Francisco Bay Area Air Basin (SFBAAB) is in state and federal attainment for SO_2 and CO (BAAQMD 2021). As shown in Table 2 for project operation, the BAAQMD (2017) specifies the 40 ton per year Prevention of Significant Deterioration (PSD)[1] threshold for SO_2 (SO_X), which is equivalent to 219 pounds per day. For internal consistency in Tables 3 and 4 below, this daily mass threshold for SO_X is used to assess numerical significance for construction and operation (SO_X emissions are negligible for this project). Also shown in Table 2 for project operation, the BAAQMD (2017) specifies 9 ppmv (8-hr) and 20 ppmv (1-hr) ambient CO concentrations as thresholds. Since the SFBAAB is in attainment for CO, in lieu of dispersion modeling, the PSD threshold of 100 tons per year (548 pounds per day) is used as an internally consistent numerical threshold for assessing CO significance for construction and operation (CO emissions are very low for this project).

Table 3 shows mitigated criteria construction emissions and evaluates mitigated emissions against BAAQMD and PSD significance thresholds.

Table 4 shows mitigated criteria operational emissions and evaluates mitigated emissions against BAAQMD and PSD significance thresholds.

Table 3: Construction Emissions Summary and Significance Evaluation

Criteria Pollutants	Unmitigated	Threshold	Significance
	lbs/day	lbs/day	
ROG (VOC)	11.66	54	LTS
NO_X	8.09	54	LTS
CO	7.81	548	LTS
SO_X	0.01	219	LTS
Exhaust PM_{10}	0.45	82	LTS
Exhaust $PM_{2.5}$	0.41	54	LTS

Sources: BAAQMD 2017, 40 CFR 51.166, CalEEMod version 2016.3.2

Table 4: Operational Emissions Summary and Significance Evaluation

Criteria Pollutants	Unmitigated	Threshold	Significance
	lbs/day	lbs/day	
ROG (VOC)	0.26	54	LTS
NO_X	0.53	54	LTS
CO	1.23	548	LTS
SO_X	0.00	219	LTS
Total PM_{10}	0.37	82	LTS
Total $PM_{2.5}$	0.11	54	LTS

Sources: BAAQMD 2017, 40 CFR 51.166, CalEEMod version 2016.3.2

Notes:

lbs/day are winter or summer maxima for planned land use

[1] Title 40 Code of Federal Regulations Part 51.166 (40 CFR 51.166)

Conforming CO and SO_X mass thresholds equivalent to 100 tpy PSD & 40 tpy PSD, respectively (see discussion above)

LTS - Less Than Significant

As shown in Tables 3 and 4, mass emissions of criteria pollutants from construction and operation are below applicable BAAQMD and PSD significance thresholds.

PROJECTED IMPACT: Less Than Significant (LTS)

MITIGATION MEASURE (MM) AQ-1:

Basic Construction Mitigation Measures Recommended for all Proposed Projects (BAAQMD 2017). Due to the small size of the proposed project and associated types of construction activities, not all measures may apply as BMPs:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. Watering operations may be curtailed during wet and inclement weather.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Greenhouse Gas Emissions from Project Operation

Greenhouse gases – primarily carbon dioxide (CO_2), methane (CH_4), and nitrous (N_2O) oxide, collectively reported as carbon dioxide equivalents (CO_2e) – are directly emitted from stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources such as on-road vehicles and off-road construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied). Indirect GHG emissions result from electric power generated elsewhere (i.e., power plants) used to operate process equipment, lighting, and utilities at a facility. Also,

included in GHG quantification is electric power used to pump the water supply (e.g., aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills. (CARB 2017)

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards improved upon the 2016 standards for new construction of, and additions and alterations to, residential, commercial, and industrial buildings. The 2019 standards went into effect on January 1, 2020 (CEC 2019).

Since the Title 24 standards require energy conservation features in new construction (e.g., high-efficiency LED[2] lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures, etc.), they indirectly regulate and reduce GHG emissions.

Using CalEEMod, direct on-site and off-site GHG emissions were estimated for construction and operation, and indirect off-site GHG emissions were estimated to account for electric power used by the proposed project, water conveyance, and solid waste disposal.

Results of Greenhouse Gas Emissions Analyses

The BAAQMD has adopted a stationary source (industrial facility) mass emissions threshold of 10,000 metric tons (MT) CO_2e per year and a land use project (e.g., residential, commercial, or recreational) mass emissions threshold of 1,100 MT CO_2e per year. Alternatively, land use projects can be evaluated against a criterion of 4.6 MT CO_2e per service population (residents + employees) per year. (BAAQMD 2017)

Senate Bill (SB) 32 (2016) amended provisions of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (Health and Safety Code Division 25.5), to require CARB to reduce statewide GHG emissions to 40% below 1990 levels by 2030, which supports the long-term target of carbon neutrality by 2045 (Executive Order B-55-18). Thus, as shown in Table 5, the 2017 BAAQMD land use threshold is discounted from 1,100 to 660 MT CO_2e per year.

Tables 5 and 6 show mitigated construction and operational GHG emissions and evaluates mitigated emissions against the discounted BAAQMD GHG significance threshold. Operational mitigation measures incorporate typical code-required energy and water conservation features. Off-site traffic impacts are included in these emissions estimates. Although there are no significance thresholds for temporary construction GHG emissions in the BAAQMD (Table 2), construction GHGs are evaluated here for transparency.

CalEEMod does not calculate N_2O emissions from operational mobile sources; therefore, these emissions were calculated separately outside of CalEEMod and added to the results reported by CalEEMod. For motor fuels (40 CR 98 Subpart C, Table C-2) the ratio of N_2O to CH_4 is 0.2 for either gasoline or diesel fuel. Operational CalEEMod mobile source CH_4 is 0.0023 MT/year; thus, N_2O is 0.00046 MT/yr (i.e., 0.0023 x 0.2 = 0.00046). Per 40 CR 98 Subpart A, Table A-1, the Global Warming Potential (GWP) of N_2O is 298; thus, N_2O is 0.13708 MT CO_2e/year (i.e., 0.00046 x 298 = 0.13708). Rounding to the nearest 0.01 MT, the result of 0.14 MT CO_2e/year was added to the CalEEMod result, as shown in Table 6, an increase of 0.15%. The same methodology

[2] Where used, light emitting diode (LED) lamps use approximately 23-31% less electrical energy than equivalent fluorescent lamps with the same light output, e.g., 9-10 watts versus 13 watts for an 800 lumen output.

was used to include N_2O in construction CO_2e emissions, which are predominantly mobile sources, i.e., off-road equipment and on-road vehicles.

Table 5: Construction GHG Emissions Summary and Significance Evaluation

Greenhouse Gases	Unmitigated	Threshold	Significance
	MT/yr	MT/yr	
CO_2	62.38	—	—
CH_4	0.02	—	—
N_2O	0.00	—	—
CO_2e	63.93	660	LTS

Sources: BAAQMD 2017, CalEEMod version 2016.3.2, SB 32

Table 6: Operational GHG Emissions Summary and Significance Evaluation

Greenhouse Gases	Unmitigated	Threshold	Significance
	MT/yr	MT/yr	
CO_2	90.69	—	—
CH_4	0.08	—	—
N_2O	0.00	—	—
CO_2e	93.11	660	LTS

Sources: BAAQMD 2017, CalEEMod version 2016.3.2, SB 32

Notes:

Annual operational GHG emissions comprise direct area + direct stationary + direct mobile + indirect energy + indirect waste + indirect water usage

LTS - Less Than Significant

As shown in Tables 5 and 6, GHG mass emissions are below the discounted GHG significance threshold for a land use project.

PROJECTED IMPACT: Less Than Significant (LTS)

ADDITIONAL MITIGATION: None required

CLOSING

Thank you very much for the opportunity to be of assistance to L'Auberge De Sonoma, LLC. Should you have any questions, please contact me at (805) 217-4947 (mobile) or James Yorke at (949) 482-8528 (mobile).

Sincerely,

Bradford Boyes, BSEnvE, MBA, QEP | Ventura Office
Principal Engineer
Yorke Engineering, LLC
BBoyes@YorkeEngr.com

cc: James Yorke, Yorke Engineering, LLC

Enclosures/Attachments:
1. CalEEMod Outputs

REFERENCES

Bay Area Air Quality Management District (BAAQMD). 2021. Air Quality Standards and Attainment Status. Website (Air Quality Standards and Attainment Status (baaqmd.gov)) accessed March 31, 2021.

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ATTACHMENT 1 – CALEEMOD OUTPUTS

L'Auberge de Sonoma Hotel Rooms

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	11.00	Room	0.37	5,485.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Applicant

Land Use Change -

Sequestration -

Area Mitigation - Per applicant

Energy Mitigation - Per Applicant

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblLandUse	LandUseSquareFeet	15,972.00	5,485.00

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					
2021	11.6604	8.0921	7.8148	0.0128	0.8349	0.4479	1.2428	0.4356	0.4120	0.8247	0.0000	1,226.6297	1,226.6297	0.3585	0.0000	1,232.0200
Maximum	**11.6604**	**8.0921**	**7.8148**	**0.0128**	**0.8349**	**0.4479**	**1.2428**	**0.4356**	**0.4120**	**0.8247**	**0.0000**	**1,226.6297**	**1,226.6297**	**0.3585**	**0.0000**	**1,232.0200**

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					
2021	11.6604	8.0921	7.8148	0.0128	0.8349	0.4479	1.2428	0.4356	0.4120	0.8247	0.0000	1,226.6297	1,226.6297	0.3585	0.0000	1,232.0200
Maximum	**11.6604**	**8.0921**	**7.8148**	**0.0128**	**0.8349**	**0.4479**	**1.2428**	**0.4356**	**0.4120**	**0.8247**	**0.0000**	**1,226.6297**	**1,226.6297**	**0.3585**	**0.0000**	**1,232.0200**

	ROG	NOx	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	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Mobile	0.1223	0.4430	1.1443	4.2100e-003	0.3636	3.2900e-003	0.3669	0.0973	3.0700e-003	0.1004		425.8314	425.8314	0.0146		426.1961
Total	**0.2627**	**0.5083**	**1.2003**	**4.6000e-003**	**0.3636**	**8.2500e-003**	**0.3719**	**0.0973**	**8.0300e-003**	**0.1053**		**504.1708**	**504.1708**	**0.0161**	**1.4400e-003**	**505.0011**

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	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Mobile	0.1223	0.4430	1.1443	4.2100e-003	0.3636	3.2900e-003	0.3669	0.0973	3.0700e-003	0.1004		425.8314	425.8314	0.0146		426.1961
Total	**0.2627**	**0.5083**	**1.2003**	**4.6000e-003**	**0.3636**	**8.2500e-003**	**0.3719**	**0.0973**	**8.0300e-003**	**0.1053**		**504.1708**	**504.1708**	**0.0161**	**1.4400e-003**	**505.0011**

	ROG	NOx	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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2021	1/18/2021	5	10	
2	Site Preparation	Site Preparation	1/19/2021	1/19/2021	5	1	
3	Grading	Grading	1/20/2021	1/21/2021	5	2	
4	Building Construction	Building Construction	1/22/2021	6/10/2021	5	100	
5	Paving	Paving	6/11/2021	6/17/2021	5	5	
6	Architectural Coating	Architectural Coating	6/18/2021	6/24/2021	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,228; Non-Residential Outdoor: 2,743; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

L'Auberge de Sonoma Hotel Rooms - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**		**0.4073**	**0.4073**		**0.3886**	**0.3886**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.2 Demolition - 2021

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	0.0322	0.0188	0.2456	7.9000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		79.1960	79.1960	1.7700e-003		79.2402
Total	**0.0322**	**0.0188**	**0.2456**	**7.9000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**79.1960**	**79.1960**	**1.7700e-003**		**79.2402**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**		**0.4073**	**0.4073**		**0.3886**	**0.3886**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.2 Demolition - 2021

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	0.0322	0.0188	0.2456	7.9000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		79.1960	79.1960	1.7700e-003		79.2402
Total	**0.0322**	**0.0188**	**0.2456**	**7.9000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**79.1960**	**79.1960**	**1.7700e-003**		**79.2402**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

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	0.0161	9.4000e-003	0.1228	4.0000e-004	0.0411	2.6000e-004	0.0413	0.0109	2.4000e-004	0.0111		39.5980	39.5980	8.9000e-004		39.6201
Total	**0.0161**	**9.4000e-003**	**0.1228**	**4.0000e-004**	**0.0411**	**2.6000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**39.5980**	**39.5980**	**8.9000e-004**		**39.6201**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

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	0.0161	9.4000e-003	0.1228	4.0000e-004	0.0411	2.6000e-004	0.0413	0.0109	2.4000e-004	0.0111		39.5980	39.5980	8.9000e-004		39.6201
Total	**0.0161**	**9.4000e-003**	**0.1228**	**4.0000e-004**	**0.0411**	**2.6000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**39.5980**	**39.5980**	**8.9000e-004**		**39.6201**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.4 Grading - 2021

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	0.0322	0.0188	0.2456	7.9000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		79.1960	79.1960	1.7700e-003		79.2402
Total	**0.0322**	**0.0188**	**0.2456**	**7.9000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**79.1960**	**79.1960**	**1.7700e-003**		**79.2402**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.4 Grading - 2021

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	0.0322	0.0188	0.2456	7.9000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		79.1960	79.1960	1.7700e-003		79.2402
Total	**0.0322**	**0.0188**	**0.2456**	**7.9000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**79.1960**	**79.1960**	**1.7700e-003**		**79.2402**

3.5 Building Construction - 2021

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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

3.5 Building Construction - 2021

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	3.1000e-003	0.1033	0.0244	2.7000e-004	6.7700e-003	2.2000e-004	6.9900e-003	1.9500e-003	2.1000e-004	2.1600e-003		28.8959	28.8959	1.3600e-003		28.9298
Worker	6.4300e-003	3.7600e-003	0.0491	1.6000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	1.0000e-004	4.4500e-003		15.8392	15.8392	3.5000e-004		15.8480
Total	**9.5300e-003**	**0.1071**	**0.0735**	**4.3000e-004**	**0.0232**	**3.2000e-004**	**0.0235**	**6.3100e-003**	**3.1000e-004**	**6.6100e-003**		**44.7350**	**44.7350**	**1.7100e-003**		**44.7778**

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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

3.5 Building Construction - 2021

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	3.1000e-003	0.1033	0.0244	2.7000e-004	6.7700e-003	2.2000e-004	6.9900e-003	1.9500e-003	2.1000e-004	2.1600e-003		28.8959	28.8959	1.3600e-003		28.9298
Worker	6.4300e-003	3.7600e-003	0.0491	1.6000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	1.0000e-004	4.4500e-003		15.8392	15.8392	3.5000e-004		15.8480
Total	**9.5300e-003**	**0.1071**	**0.0735**	**4.3000e-004**	**0.0232**	**3.2000e-004**	**0.0235**	**6.3100e-003**	**3.1000e-004**	**6.6100e-003**		**44.7350**	**44.7350**	**1.7100e-003**		**44.7778**

3.6 Paving - 2021

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	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**		**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

3.6 Paving - 2021

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	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

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	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**	**0.0000**	**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

3.6 Paving - 2021

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	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
Total	**0.0579**	**0.0338**	**0.4421**	**1.4300e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**142.5527**	**142.5527**	**3.1900e-003**		**142.6324**

3.7 Architectural Coating - 2021

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	11.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**11.6604**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	11.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**11.6604**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1223	0.4430	1.1443	4.2100e-003	0.3636	3.2900e-003	0.3669	0.0973	3.0700e-003	0.1004		425.8314	425.8314	0.0146		426.1961
Unmitigated	0.1223	0.4430	1.1443	4.2100e-003	0.3636	3.2900e-003	0.3669	0.0973	3.0700e-003	0.1004		425.8314	425.8314	0.0146		426.1961

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	89.87	90.09	65.45	164,178	164,178
Total	89.87	90.09	65.45	164,178	164,178

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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	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	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
NaturalGas Unmitigated	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025

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					
Hotel	665.864	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Total		**7.1800e-003**	**0.0653**	**0.0548**	**3.9000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**		**78.3369**	**78.3369**	**1.5000e-003**	**1.4400e-003**	**78.8025**

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					
Hotel	0.665864	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Total		**7.1800e-003**	**0.0653**	**0.0548**	**3.9000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**		**78.3369**	**78.3369**	**1.5000e-003**	**1.4400e-003**	**78.8025**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Unmitigated	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0157					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	**0.1332**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.4100e-003**	**2.4100e-003**	**1.0000e-005**		**2.5700e-003**

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	0.0157					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	**0.1332**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.4100e-003**	**2.4100e-003**	**1.0000e-005**		**2.5700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

L'Auberge de Sonoma Hotel Rooms

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	11.00	Room	0.37	5,485.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Applicant

Land Use Change -

Sequestration -

Area Mitigation - Per applicant

Energy Mitigation - Per Applicant

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblLandUse	LandUseSquareFeet	15,972.00	5,485.00

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					
2021	11.6604	8.0938	7.7989	0.0127	0.8349	0.4479	1.2428	0.4356	0.4121	0.8247	0.0000	1,220.3874	1,220.3874	0.3586	0.0000	1,225.7747
Maximum	**11.6604**	**8.0938**	**7.7989**	**0.0127**	**0.8349**	**0.4479**	**1.2428**	**0.4356**	**0.4121**	**0.8247**	**0.0000**	**1,220.3874**	**1,220.3874**	**0.3586**	**0.0000**	**1,225.7747**

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					
2021	11.6604	8.0938	7.7989	0.0127	0.8349	0.4479	1.2428	0.4356	0.4121	0.8247	0.0000	1,220.3874	1,220.3874	0.3586	0.0000	1,225.7747
Maximum	**11.6604**	**8.0938**	**7.7989**	**0.0127**	**0.8349**	**0.4479**	**1.2428**	**0.4356**	**0.4121**	**0.8247**	**0.0000**	**1,220.3874**	**1,220.3874**	**0.3586**	**0.0000**	**1,225.7747**

	ROG	NOx	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	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Mobile	0.1043	0.4632	1.1712	3.9400e-003	0.3636	3.3100e-003	0.3669	0.0973	3.0900e-003	0.1004		398.6426	398.6426	0.0150		399.0174
Total	**0.2447**	**0.5285**	**1.2271**	**4.3300e-003**	**0.3636**	**8.2700e-003**	**0.3719**	**0.0973**	**8.0500e-003**	**0.1053**		**476.9820**	**476.9820**	**0.0165**	**1.4400e-003**	**477.8225**

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	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Mobile	0.1043	0.4632	1.1712	3.9400e-003	0.3636	3.3100e-003	0.3669	0.0973	3.0900e-003	0.1004		398.6426	398.6426	0.0150		399.0174
Total	**0.2447**	**0.5285**	**1.2271**	**4.3300e-003**	**0.3636**	**8.2700e-003**	**0.3719**	**0.0973**	**8.0500e-003**	**0.1053**		**476.9820**	**476.9820**	**0.0165**	**1.4400e-003**	**477.8225**

	ROG	NOx	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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2021	1/18/2021	5	10	
2	Site Preparation	Site Preparation	1/19/2021	1/19/2021	5	1	
3	Grading	Grading	1/20/2021	1/21/2021	5	2	
4	Building Construction	Building Construction	1/22/2021	6/10/2021	5	100	
5	Paving	Paving	6/11/2021	6/17/2021	5	5	
6	Architectural Coating	Architectural Coating	6/18/2021	6/24/2021	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,228; Non-Residential Outdoor: 2,743; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

L'Auberge de Sonoma Hotel Rooms - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**		**0.4073**	**0.4073**		**0.3886**	**0.3886**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.2 Demolition - 2021

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	0.0341	0.0232	0.2298	7.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		72.9537	72.9537	1.6500e-003		72.9949
Total	**0.0341**	**0.0232**	**0.2298**	**7.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**72.9537**	**72.9537**	**1.6500e-003**		**72.9949**

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	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**		**0.4073**	**0.4073**		**0.3886**	**0.3886**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.2 Demolition - 2021

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	0.0341	0.0232	0.2298	7.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		72.9537	72.9537	1.6500e-003		72.9949
Total	**0.0341**	**0.0232**	**0.2298**	**7.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**72.9537**	**72.9537**	**1.6500e-003**		**72.9949**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

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	0.0170	0.0116	0.1149	3.7000e-004	0.0411	2.6000e-004	0.0413	0.0109	2.4000e-004	0.0111		36.4768	36.4768	8.3000e-004		36.4975
Total	**0.0170**	**0.0116**	**0.1149**	**3.7000e-004**	**0.0411**	**2.6000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**36.4768**	**36.4768**	**8.3000e-004**		**36.4975**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

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	0.0170	0.0116	0.1149	3.7000e-004	0.0411	2.6000e-004	0.0413	0.0109	2.4000e-004	0.0111		36.4768	36.4768	8.3000e-004		36.4975
Total	**0.0170**	**0.0116**	**0.1149**	**3.7000e-004**	**0.0411**	**2.6000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**36.4768**	**36.4768**	**8.3000e-004**		**36.4975**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.4 Grading - 2021

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	0.0341	0.0232	0.2298	7.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		72.9537	72.9537	1.6500e-003		72.9949
Total	**0.0341**	**0.0232**	**0.2298**	**7.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**72.9537**	**72.9537**	**1.6500e-003**		**72.9949**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

3.4 Grading - 2021

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	0.0341	0.0232	0.2298	7.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		72.9537	72.9537	1.6500e-003		72.9949
Total	**0.0341**	**0.0232**	**0.2298**	**7.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**72.9537**	**72.9537**	**1.6500e-003**		**72.9949**

3.5 Building Construction - 2021

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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

3.5 Building Construction - 2021

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	3.2900e-003	0.1042	0.0280	2.7000e-004	6.7700e-003	2.3000e-004	7.0000e-003	1.9500e-003	2.2000e-004	2.1700e-003		28.1627	28.1627	1.4700e-003		28.1994
Worker	6.8100e-003	4.6400e-003	0.0460	1.5000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	1.0000e-004	4.4500e-003		14.5907	14.5907	3.3000e-004		14.5990
Total	**0.0101**	**0.1089**	**0.0740**	**4.2000e-004**	**0.0232**	**3.3000e-004**	**0.0235**	**6.3100e-003**	**3.2000e-004**	**6.6200e-003**		**42.7534**	**42.7534**	**1.8000e-003**		**42.7984**

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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

3.5 Building Construction - 2021

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	3.2900e-003	0.1042	0.0280	2.7000e-004	6.7700e-003	2.3000e-004	7.0000e-003	1.9500e-003	2.2000e-004	2.1700e-003		28.1627	28.1627	1.4700e-003		28.1994
Worker	6.8100e-003	4.6400e-003	0.0460	1.5000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	1.0000e-004	4.4500e-003		14.5907	14.5907	3.3000e-004		14.5990
Total	**0.0101**	**0.1089**	**0.0740**	**4.2000e-004**	**0.0232**	**3.3000e-004**	**0.0235**	**6.3100e-003**	**3.2000e-004**	**6.6200e-003**		**42.7534**	**42.7534**	**1.8000e-003**		**42.7984**

3.6 Paving - 2021

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	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**		**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

3.6 Paving - 2021

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	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

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	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**	**0.0000**	**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

3.6 Paving - 2021

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	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
Total	**0.0613**	**0.0418**	**0.4137**	**1.3200e-003**	**0.1479**	**9.3000e-004**	**0.1488**	**0.0392**	**8.6000e-004**	**0.0401**		**131.3166**	**131.3166**	**2.9700e-003**		**131.3909**

3.7 Architectural Coating - 2021

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	11.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**11.6604**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	11.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**11.6604**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1043	0.4632	1.1712	3.9400e-003	0.3636	3.3100e-003	0.3669	0.0973	3.0900e-003	0.1004		398.6426	398.6426	0.0150		399.0174
Unmitigated	0.1043	0.4632	1.1712	3.9400e-003	0.3636	3.3100e-003	0.3669	0.0973	3.0900e-003	0.1004		398.6426	398.6426	0.0150		399.0174

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	89.87	90.09	65.45	164,178	164,178
Total	89.87	90.09	65.45	164,178	164,178

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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	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	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
NaturalGas Unmitigated	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025

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					
Hotel	665.864	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Total		**7.1800e-003**	**0.0653**	**0.0548**	**3.9000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**		**78.3369**	**78.3369**	**1.5000e-003**	**1.4400e-003**	**78.8025**

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					
Hotel	0.665864	7.1800e-003	0.0653	0.0548	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003		78.3369	78.3369	1.5000e-003	1.4400e-003	78.8025
Total		**7.1800e-003**	**0.0653**	**0.0548**	**3.9000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**		**78.3369**	**78.3369**	**1.5000e-003**	**1.4400e-003**	**78.8025**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Unmitigated	0.1332	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0157					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	**0.1332**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.4100e-003**	**2.4100e-003**	**1.0000e-005**		**2.5700e-003**

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	0.0157					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	**0.1332**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.4100e-003**	**2.4100e-003**	**1.0000e-005**		**2.5700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

L'Auberge de Sonoma Hotel Rooms

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	11.00	Room	0.37	5,485.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Applicant

Land Use Change -

Sequestration -

Area Mitigation - Per applicant

Energy Mitigation - Per Applicant

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblLandUse	LandUseSquareFeet	15,972.00	5,485.00

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					
2021	0.0756	0.4730	0.4388	7.1000e-004	2.9900e-003	0.0261	0.0291	9.7000e-004	0.0241	0.0251	0.0000	62.3834	62.3834	0.0183	0.0000	62.8411
Maximum	**0.0756**	**0.4730**	**0.4388**	**7.1000e-004**	**2.9900e-003**	**0.0261**	**0.0291**	**9.7000e-004**	**0.0241**	**0.0251**	**0.0000**	**62.3834**	**62.3834**	**0.0183**	**0.0000**	**62.8411**

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					
2021	0.0756	0.4730	0.4388	7.1000e-004	2.9900e-003	0.0261	0.0291	9.7000e-004	0.0241	0.0251	0.0000	62.3833	62.3833	0.0183	0.0000	62.8411
Maximum	**0.0756**	**0.4730**	**0.4388**	**7.1000e-004**	**2.9900e-003**	**0.0261**	**0.0291**	**9.7000e-004**	**0.0241**	**0.0251**	**0.0000**	**62.3833**	**62.3833**	**0.0183**	**0.0000**	**62.8411**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-5-2021	4-4-2021	0.2808	0.2808
2	4-5-2021	7-4-2021	0.2642	0.2642
		Highest	0.2808	0.2808

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	0.0243	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004
Energy	1.3100e-003	0.0119	0.0100	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	25.1284	25.1284	8.0000e-004	3.5000e-004	25.2531
Mobile	0.0184	0.0795	0.1942	6.9000e-004	0.0611	5.7000e-004	0.0617	0.0164	5.4000e-004	0.0169	0.0000	63.7771	63.7771	2.3100e-003	0.0000	63.8348
Waste						0.0000	0.0000		0.0000	0.0000	1.2220	0.0000	1.2220	0.0722	0.0000	3.0275
Water						0.0000	0.0000		0.0000	0.0000	0.0885	0.4708	0.5593	9.1100e-003	2.2000e-004	0.8525
Total	**0.0440**	**0.0914**	**0.2044**	**7.6000e-004**	**0.0611**	**1.4800e-003**	**0.0626**	**0.0164**	**1.4500e-003**	**0.0178**	**1.3105**	**89.3765**	**90.6871**	**0.0844**	**5.7000e-004**	**92.9681**

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	0.0243	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004
Energy	1.3100e-003	0.0119	0.0100	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	24.7534	24.7534	7.8000e-004	3.5000e-004	24.8767
Mobile	0.0184	0.0795	0.1942	6.9000e-004	0.0611	5.7000e-004	0.0617	0.0164	5.4000e-004	0.0169	0.0000	63.7771	63.7771	2.3100e-003	0.0000	63.8348
Waste						0.0000	0.0000		0.0000	0.0000	1.2220	0.0000	1.2220	0.0722	0.0000	3.0275
Water						0.0000	0.0000		0.0000	0.0000	0.0708	0.3830	0.4538	7.2900e-003	1.8000e-004	0.6883
Total	**0.0440**	**0.0914**	**0.2044**	**7.6000e-004**	**0.0611**	**1.4800e-003**	**0.0626**	**0.0164**	**1.4500e-003**	**0.0178**	**1.2928**	**88.9137**	**90.2065**	**0.0826**	**5.3000e-004**	**92.4275**

	ROG	NOx	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**	**1.35**	**0.52**	**0.53**	**2.18**	**7.02**	**0.58**

3.0 Construction Detail

Construction Phase

L'Auberge de Sonoma Hotel Rooms - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2021	1/18/2021	5	10	
2	Site Preparation	Site Preparation	1/19/2021	1/19/2021	5	1	
3	Grading	Grading	1/20/2021	1/21/2021	5	2	
4	Building Construction	Building Construction	1/22/2021	6/10/2021	5	100	
5	Paving	Paving	6/11/2021	6/17/2021	5	5	
6	Architectural Coating	Architectural Coating	6/18/2021	6/24/2021	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,228; Non-Residential Outdoor: 2,743; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

L'Auberge de Sonoma Hotel Rooms - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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	3.9800e-003	0.0363	0.0379	6.0000e-005		2.0400e-003	2.0400e-003		1.9400e-003	1.9400e-003	0.0000	5.2047	5.2047	9.7000e-004	0.0000	5.2289
Total	**3.9800e-003**	**0.0363**	**0.0379**	**6.0000e-005**		**2.0400e-003**	**2.0400e-003**		**1.9400e-003**	**1.9400e-003**	**0.0000**	**5.2047**	**5.2047**	**9.7000e-004**	**0.0000**	**5.2289**