

GREENHOUSE GAS ANALYSIS

**516 La Costa Boutique Hotel
516 La Costa Avenue Encinitas, California 92024**

Prepared For

DM La Costa Avenue, LLC

Attention: Lindsay Brown
1144 North Coast Highway 101
Encinitas, California 92024

Prepared By

James Westbrook

BlueScape Environmental

16870 W. Bernardo Dr., Suite 400
San Diego, California 92127



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GLOSSARY OF ACRONYMS

Acronym	Description
ACC	Advanced Clean Cars
APCD	Air Pollution Control District
AB 32	Assembly Bill 32, Global Warming Solutions Act of 2006
BAU	Business-as-Usual
CAAP	Climate Adaptation Advisory Panel
Cal EMA	California Emergency Management Agency
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CAS	Climate Adaptation Strategy
CAT	Climate Action Team
CCAR	California Climate Action Registry
CCC	California Coastal Commission
CCCC	California Climate Change Center
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH ₄	Methane
CNRA	California Natural Resources Agency
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CRVP	Clean Vehicle Rebate Project
DOE	Department of Energy
DOT	Department of Transportation
EIR	Environmental Impact Report
EMFAC	EMission FACTor
EPA	U.S. Environmental Protection Agency
EPIC	University of San Diego School of Law Energy Policy Initiative Center
EVCS	Electric Vehicle Charging Station
°F	Degrees Fahrenheit
GBO	Green Building Ordinance
GCC	Global Climate Change
GHG	Greenhouse Gas
GGRP	Greenhouse Gas Reduction Plan
GP	General Plan
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
ICLEI	Local Governments for Sustainability
IPCC	Intergovernmental Panel on Climate Change
LEED	Leadership in Energy and Environmental Design
MMT	Million Metric Tons
MOU	Memorandum of Understanding
mpg	Miles per gallon
MPO	Metropolitan Planning Organization
MT	Metric Tons
MW	Megawatts
NF ₃	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration

GLOSSARY OF ACRONYMS

Acronym	Description
N ₂ O	Nitrous Oxide
O ₃	Ozone
OPR	State Office of Planning and Research
PFCs	Perfluorocarbons
PV	Photovoltaic
RFS	Renewable Fuel Standard
RPS	Renewable Portfolio Standards
SAFE	Safer Affordable Fuel-Efficient
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDCGHGI	San Diego County Greenhouse Gas Inventory
SDG&E	San Diego Gas & Electric Company
SF ₆	Sulfur Hexafluoride
SRA	Scientific Resources Associated
TDV	Time Dependent Valuation
UNFCCC	United Nations Framework Convention on Climate Change
USBGC	U.S. Green Building Council
USEPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
ZEVs	Zero-Emission Vehicles
ZNE	Zero Net Energy

1.0 INTRODUCTION

The purpose of this report is to evaluate potential greenhouse gas (GHG) emissions associated with the construction and operation of the proposed La Costa Hotel and Restaurant (Project). This report is an update to the original GHG report completed in February 2022 by Scientific Resources Associated (SRA)¹ and revises their analysis to address the City of Encinitas (the "City") Green Building Ordinance (GBO) requirements for new construction projects (City of Encinitas 2022). The GBO was adopted in October 2021 and updated in October 2022 to advance the City of Encinitas' Climate Action Plan, and it requires new construction projects to construct all-electric buildings, with a few exceptions (such as restaurants that require the use of gas-fueled appliances for cooking purposes). The GBO also requires new buildings to install a solar photovoltaic (PV) system and comply with certain building energy efficiency and electrification regulations.

In April 2023, after the GBO was adopted, in *California Restaurant Association v. City of Berkeley* Case No. 21-16278 (Ninth Circuit 2023), the Ninth Circuit Court of Appeals struck down Berkeley Ordinance No. 7,672-N.S. titled "Prohibition of Natural Gas Infrastructure in New Buildings." The Court ruled that any direct or indirect attempt to regulate energy infrastructure is preempted by federal statute. The ruling can be interpreted to mean that no entity other than an authorized agency within the federal government, including California lead agencies acting under the CEQA environmental review process, can legally prohibit the use of natural gas for new projects. Project developers can still voluntarily decide whether to eliminate natural gas use. The City of Berkeley may appeal this ruling to the U.S. Supreme Court.

On June 14, 2023, in response to this ruling, Encinitas City Council temporarily suspended Encinitas Municipal Code (EMC) 23.12.110.B and EMC 23.12.110.C, which regulate the use of fuel gas infrastructure in new buildings. If the Ninth Circuit's ruling is overturned or modified in the future, the City Council may consider reinstating the regulation. As a result, the Project's conformance with the City's GHG significance thresholds will be addressed as a Project design consideration for the option to eliminate the use of natural gas by electrifying appliances, should this decision be reversed in the future. In addition, the Project with and without natural gas usage in the restaurant will be analyzed (per GBO 2022-14, Exception #2) as was required by the City prior to the Ninth Circuit ruling, in case the GBO's all-electric requirement for new construction is reinstated in the future.

This report is an update to the GHG report submitted to the City on April 19, 2023, to respond to City comments received on May 30, 2023.²

1.1 Project Description

The Project is proposing to construct a 17-room boutique hotel with a restaurant including 1,165 square feet of indoor and outdoor dining space (including 345 square feet of outdoor dining) and a 451 square foot kitchen; a 17,375 square foot parking

¹ Greenhouse Gas Analysis for 516 La Costa Boutique Hotel, Scientific Resources Associated, February 15, 2022.

² Email received from I. Zepeda of The Brown Studio, May 30, 2023 at 1:26 pm.

lot with 41 parking spaces; and a pool and spa deck at a site in the City of Encinitas. The total Project development will be 12,434 square feet. The site is located at 516 La Costa Avenue in Encinitas. The site is currently vacant. The restaurant will use natural gas for cooking purposes and would, therefore, need to request Exception #2 of the GBO. Although the GBO’s all-electric requirement is now in conflict with the Ninth Circuit’s ruling, the Project is analyzed as if the GBO’s all-electric requirement was still in effect, along with an analysis of the Project if its proponents were to decide to build with natural gas usage in the hotel as well as the restaurant. Project construction is expected to start no earlier than December 2024.

GHG impacts will be attributable to emissions associated with the construction and operational emissions associated with traffic and energy use. This report presents an evaluation of existing conditions at the site, thresholds of significance, and potential GHG impacts associated with the construction and operation of the Project.



FIGURE 1 516 LA COSTA BOUTIQUE HOTEL SITE PLAN

Figure 1 is a site plan of the La Costa Hotel and Restaurant.

Methodology. To gauge the potential significance of global climate change impacts associated with the proposed Project, emissions associated with the construction and operation of the Project were estimated using the CalEEMod Model, Version 2020.4.0, which is the land use emissions model developed by the SCAQMD (CAPCOA 2021) and accepted by the City of Encinitas to model emissions for completed and proposed

construction.³ With respect to operational-related activities, the emissions inventory considered three options:

- Option 1 - Project buildout with natural gas usage in the hotel and restaurant;
- Option 2 - Project buildout with consideration to the 2022-14 GBO Exception #2 for the use of natural gas at the restaurant only; and
- Option 3 – Project buildout with no natural gas usage at the hotel or restaurant (all electric).

Emissions were evaluated based on their consistency with the goals of Assembly Bill (AB) 32.

1.2 General Principles and Existing Conditions

Global Climate Change (GCC) refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. GCC may result from natural factors, natural processes, and/or human activities that change the composition of the atmosphere and alter the surface and features of land. Historical records indicate that global climate changes have occurred in the past due to natural phenomena (such as during previous ice ages). Some data indicate that the current global conditions differ from past climate changes in rate and magnitude.

Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), which are known as greenhouse gases (GHGs). These gases allow solar radiation (sunlight) into the Earth's atmosphere but prevent radiative heat from escaping, thus warming the Earth's atmosphere, much like a greenhouse. GHGs are emitted by both natural processes and human activities. Without these natural GHGs, the Earth's temperature would be about 61° Fahrenheit cooler (California Environmental Protection Agency 2006). Emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere. For example, data from ice cores indicate that CO₂ concentrations remained steady prior to the current period for approximately 10,000 years; however, concentrations of CO₂ have increased in the atmosphere since the industrial revolution.

State law defines greenhouse gases as any of the following compounds: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (California Health and Safety Code Section 38505(g)). CO₂, followed by CH₄ and N₂O, are the most common GHGs that result from human activity.

³ CalEEMod has been updated to a new web-based interface (version 2022.1.1) since this GHG study was originally modeled in November 2022. Updated CalEEMod modeling was done using the 2020.4.0 version to be consistent with prior reports submitted to the City. Nevertheless, use of the 2022.1.1 version is not expected to change the conclusions of this study or of the GHG study.

1.3 Sources and Global Warming Potentials of GHG

Anthropogenic sources of CO₂ include the combustion of fossil fuels (coal, oil, natural gas, gasoline, and wood). CH₄ is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Accordingly, anthropogenic sources of CH₄ include landfills, fermentation of manure, and cattle farming. Anthropogenic sources of N₂O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid. Other GHGs are present in trace amounts in the atmosphere and are generated from various industrial or other uses.

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the “cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas” (USEPA 2023). The reference gas for GWP is CO₂; therefore, CO₂ has a GWP of 1. The other main greenhouse gases that have been attributed to human activity include CH₄, which has a GWP of 25, and N₂O, which has a GWP of 298. Table 1 presents the GWP and atmospheric lifetimes of common GHGs. In order to account for each GHG's respective GWP, all types of GHG emissions are expressed in terms of CO₂ equivalents (CO₂e) and are typically quantified in metric tons (MT) or millions of metric tons (MMT).

GHG	Formula	100-Year Global Warming Potential	Atmospheric Lifetime (Years)
Carbon Dioxide	CO ₂	1	Variable
Methane	CH ₄	25	12
Nitrous Oxide	N ₂ O	298	114
Sulfur Hexafluoride	SF ₆	22,800	3,200
Hydrofluorocarbons	HFCs	124 to 14,800	1 to 270
Perfluorocarbons	PFCs	7,390 to 12,200	2,600 to 50,000
Nitrogen Trifluoride	NF ₃	17,200	740

Source: California Air Resources Board, <https://www.arb.ca.gov/cc/inventory/background/gwp.htm>

The California Air Resources Board (CARB) compiled a statewide inventory of anthropogenic GHG emissions and sinks that includes estimates for CO₂, CH₄, N₂O, SF₆, HFCs, and PFCs (CARB 2022). The current inventory covers the years 2000 to 2020 and is summarized in Table 2. Data sources used to calculate this GHG inventory include California and federal agencies, international organizations, and industry associations. The calculation methodologies are consistent with guidance from the IPCC. The 2000 emissions level is the sum total of sources and sinks from all sectors and categories in the inventory. The inventory is divided into seven broad sectors and categories in the inventory. These sectors include Agriculture, Commercial, Electricity Generation, Industrial, Residential, and Transportation.

Sector	Total 2000 Emissions (MMTCO_{2e})	Percent of Total 2000 Emissions	Total 2020 Emissions (MMTCO_{2e})	Percent of Total 2020 Emissions
Agriculture	30.8	6.7%	31.6	8.6%
Commercial	14.2	3.1%	13.5	3.6%
Electricity Generation	104.7	22.7%	59.5	16.1%
Industrial	93.0	20%	73.3	19.9%
Residential	30.0	6.5%	25.3	6.8%
Transportation	175.7	38%	135.8	36.8%
Recycling and Waste	7.1	1.5%	8.9	2.4%
High GWP Gases	6.3	1.4%	21.3	5.8%

1.4 Regulatory Framework

All levels of government have some responsibility for the protection of air quality, and each level (federal, state, and regional/local) has specific responsibilities relating to air quality regulation. GHG emissions and the regulation of GHGs are relatively new components of this air quality regulatory framework.

1.4.1 National and International Efforts

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of global climate change. The U.S. Supreme Court rules in *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007), that USEPA has the ability to regulate GHG emissions. In addition to the national and international efforts described above, many local jurisdictions have adopted climate change policies and programs.

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (USEPA) has authority under the Clean Air Act to regulate CO₂ emissions if those emissions pose an endangerment to public health or welfare.

In 2009, the USEPA issued an “endangerment finding” under the Clean Air Act, concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to GHG emissions. These findings provide the basis for adopting national regulations to mandate GHG emission reductions under the Clean Air Act.

To date, the USEPA has exercised its authority to regulate mobile sources that reduce GHG emissions via the control of vehicle manufacturers, as discussed immediately below.

Federal Vehicle Standards. In response to the U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order 13432 in 2007 directing the USEPA, the Department of Transportation (DOT), and the Department of Energy (DOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the same federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In 2023, the USEPA and NHTSA proposed to amend certain existing fuel economy and GHG emissions standards for passenger cars and light trucks and establish new standards, covering model years 2027 through 2032 (NHTSA 2023). Compared to maintaining the post-2022 standards now in place, the 2023 proposal would increase the fuel efficiency for cars and light trucks to an average of 58 miles per gallon by 2032. In addition to the regulations applicable to cars and light-duty trucks, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2030–2035. As a result, U.S. fuel consumption would be reduced which would prevent up to 900 million tons of CO₂ emissions – the equivalent of taking more than 233 million vehicles off the road from 2022 - 2050. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other

countries to implement global climate change initiatives. Thus, the timing and consequences of the 2023 federal proposal are speculative at this time.

Energy Independence and Security Act. The Energy Independence and Security Act of 2007 facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020;
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and to create a separate fuel economy standard for trucks.

Additional provisions of this Act address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

1.4.2 State Regulations and Standards

The following subsections describe regulations and standards that have been adopted by the state of California to address GCC issues.

Executive Orders and Legislation Establishing Overarching State Climate Policies

Executive Order S-3-05. In 2005, former Governor Schwarzenegger signed Executive Order S- 3-05, which established the following GHG emission reduction goals for California: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32. Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020 (Health & Safety Code, §38550). In order to achieve this reduction mandate, AB 32 requires the CARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-

effective GHG reductions.

In response to the adoption of AB 32, in 2007, the CARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline. The CARB's adoption of this limit is in accordance with Health & Safety Code section 38550.

Further, in 2008, the CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (Scoping Plan) in accordance with Health & Safety Code section 38561. The Scoping Plan, which was last updated on November 16, 2022, establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 85 percent below 1990 levels by 2045.

In 2014, the CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework (First Update)*.⁴ The stated purpose of the *First Update* is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."⁵ The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32. The *First Update* also noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.⁶

In conjunction with the *First Update*, the CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050."⁷ Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and, (6) natural and working lands. The *First Update* identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on the CARB's research efforts, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050."⁸ Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

In December 2022, the CARB released the *2022 Scoping Plan for Achieving Carbon Neutrality* (CARB 2022). There have been three previous Scoping Plans which focused on specific GHG reduction targets, first to meet 1990 levels by 2020, then to meet

⁴ Health & Safety Code section 38561(h) requires the CARB to update the Scoping Plan every five years.

⁵ CARB, *First Update* (May 2014), p. 4.

⁶ *Id.* at p. 34.

⁷ *Id.* at p. 6.

⁸ *Id.* at p. 32.

the more aggressive target of 40 percent below 1990 levels by 2030. This update addresses more recent legislation signed by California Governor Gavin Newsom, which expands on the earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. This plan also outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target. The major elements of this 2022 update include (but are not limited to) achieving the following milestones: adding four times the solar and wind capacity by 2045; all new passenger vehicles sold in California will be zero-emissions by 2045, and all other fleets transitioning to zero-emissions by 2045; and all electric appliances will be installed in residences by the beginning of 2026 and in commercial buildings by 2029. As mentioned throughout this report, the all-electric building requirements in the 2022 Scoping Plan are now in conflict with the April 2023 ruling made by the Ninth Circuit Court of Appeals' Berkeley Ordinance (Ninth Circuit 2023), making this element of the Scoping Plan unenforceable for now. However, the City of Berkeley may appeal this ruling to the U.S. Supreme Court in the future. Meanwhile, projects such as this can voluntarily plan for all-electric appliances in the event that the Ninth Circuit ruling is overturned.

2015 State of the State Address. In his January 2015 inaugural address, Governor Brown identified key climate change strategy pillars, including: (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing the amount of electricity derived from renewable sources from one-third to 50 percent; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy. As discussed below, the second and third pillars have been codified via legislation (SB 350).

Executive Order B-30-15. In April 2015, Governor Brown signed Executive Order B-30-15, which established the following GHG emission reduction goal for California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This Executive Order also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in Executive Order S-3-05 (see discussion above). Additionally, the Executive Order directed the CARB to update its Scoping Plan (see discussion above) to address the 2030 goal.

2016 State of the State Address. In his January 2016 inaugural address, Governor Brown identified a statewide goal to bring per capita GHGs down to two tons per person. The origin of this goal is the Global Climate Leadership Memorandum of Understanding (Under 2 MOU), which established limiting global warming to less than two degrees Celsius as the guiding principle for the reduction of GHG emissions by 2050. The parties to the Under 2 MOU have agreed to pursue emissions reductions consistent with a trajectory of 80 to 95 percent below 1990 levels by 2050 and/or achieve a per capita annual emissions goal of less than two metric tons by 2050. The Under 2 MOU has been signed or endorsed by 127 jurisdictions (including California) that represent 27 countries and six continents.

Senate Bill 32, and Assembly Bill 197. Enacted in 2016, SB 32 codifies the 2030 emissions reduction goal of Executive Order B-30-15 by requiring the CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. SB 32 was coupled with a companion bill: AB 197. Designed to improve the transparency of the CARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies, and investments related to climate change. AB 197 also requires the CARB to make certain GHG emissions inventory data publicly available on its website; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

Energy-Related Sources

Renewable Portfolio Standard. California's Renewable Portfolio Standard requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. Further, as amended in 2015 by SB 350, retail sellers of electric services must increase procurement from eligible renewable energy resources to 40 percent of total retail sales by 2024, 45 percent of total retail sales by 2027, and 50 percent of total retail sales by 2030. As amended in 2018 by SB 100, retail sellers of electric services must increase procurement from eligible renewable energy resources to 44 percent of total retail sales by 2024, to 50% of total retail sales by 2026, to 52% of total retail sales by 2027, and to 60% of total retail sales by 2030.

Building Energy Efficiency Standards (Title 24). Title 24, Part 6, of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission's (CEC) 2022 Building Energy Efficiency Standards became effective on January 1, 2023.

The California Public Utilities Commission, CEC, and the CARB also have a shared, established goal of achieving Zero Net Energy (ZNE) for new construction in California. The key policy timelines include: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030.

The ZNE goal generally means that new buildings must use a combination of improved efficiency and renewable energy generation to meet 100 percent of their annual energy need, as specifically defined by the CEC: "A ZNE Code Building is one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single 'project' seeking development entitlements and building code permits, measured using the [CEC]'s Time Dependent Valuation (TDV) metric. A ZNE Code Building meets an Energy Use Intensity value designated in the Building Energy Efficiency

Standards by building type and climate zone that reflect best practices for highly efficient buildings.”⁹

In addition to the CEC’s efforts, in 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11 of Title 24) are commonly referred to as CALGreen and establish voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. The mandatory standards require the following:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources’ Model Water Efficient Landscape Ordinance;
- Sixty-five (65) percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations; and,
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

CALGreen is periodically amended; and the 2016 standards became effective on January 1, 2017. The CALGreen 2022 standards that became effective on January 1, 2023 will continue to improve upon the 2016 and 2019 standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

Mobile Sources

Pavley Standards. AB 1493 required the CARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016, which are often times referred to as the “Pavley I” standards. The CARB obtained a waiver from the USEPA that allows for implementation of these regulations notwithstanding possible federal preemption concerns. After adopting these initial GHG standards for passenger vehicles, CARB adopted continuing standards for future model years (CARB 2010).

Low Carbon Fuel Standard. Executive Order S-1-07 requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by the CARB by 2020.¹⁰ In 2009, the CARB approved the Low

⁹ CEC, 2015 Integrated Energy Policy Report (2015), p. 41.

¹⁰ Carbon intensity is a measure of the GHG emissions associated with the various production, distribution and use steps in the “lifecycle” of a transportation fuel.

Carbon Fuel Standard regulations, which became fully effective in April 2010. The regulations were subsequently re-adopted in September 2015 in response to related litigation. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero-emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

Advanced Clean Cars Program. In 2012, the CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2017–2025. (This program is sometimes referred to as “Pavley II.”) The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer greenhouse gases. In October 2023, staff launched a new effort to consider potential amendments to the Advanced Clean Cars II regulations, including updates to the tailpipe greenhouse gas emission standard and limited revisions to the low-emission vehicle and zero-emission vehicle regulations.

Senate Bill 375. The Sustainable Communities and Climate Protection Act of 2008 (SB 375) coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options.¹¹ SB 375 specifically requires the Metropolitan Planning Organization (MPO) relevant to the Project area (here, the San Diego Association of Governments [SANDAG]) to include a Sustainable Communities Strategy in its Regional Transportation Plan that will achieve GHG emission reduction targets set by the CARB by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SANDAG’s jurisdiction, including the Project site, the CARB adopted regional targets for reduction of mobile source-related GHG emissions by 7 percent for 2020 and by 13 percent for 2035. These targets are expressed by the CARB as a percent change in per capita GHG emissions relative to 2005 levels.

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city’s or county’s land use policies and regulations, including those in a general plan, be consistent with it.

Zero-Emission Vehicles. Zero-emission vehicles (ZEVs) include plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles.

In 2012, Governor Brown issued Executive Order B-16-2012, which calls for the

¹¹ CARB, First Update (May 2014), pp. 49-50.

increased penetration of ZEVs into California's vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of that statewide target for the transportation sector, the Executive Order also calls upon the CARB, CEC and the California Public Utilities Commission to establish benchmarks that will: (1) allow over 1.5 million ZEVs to be on California roadways by 2025, and (2) provide the state's residents with easy access to ZEV infrastructure.

In its *First Update*, the CARB recognized that the light-duty vehicle fleet "will need to become largely electrified by 2050 in order to meet California's emission reduction goals."¹² Accordingly, the CARB's ACC program – summarized above – requires about 15 percent of new cars sold in California in 2025 to be a plug-in hybrid, battery electric or fuel cell vehicle. The CARB's draft *Second Update* also identified, as a "major element" of its framework to achieve the statewide 2030 emissions reduction target codified by SB 32, the objective to put 4.2 million ZEVs on the road by 2030.

The proliferation of zero-emission vehicles is being supported in multiple ways. For example, California is incentivizing the purchase of ZEVs through implementation of the Clean Vehicle Rebate Project (CVRP), which is administered by a non-profit organization (The Center for Sustainable Energy) for the CARB and currently subsidizes the purchase of passenger near-zero- and zero-emission vehicles. Additionally, CALGreen requires new residential and non-residential construction to be pre-wired to facilitate the future installation and use of electric vehicle chargers (see Section 4.106.4 and Section 5.106.5.3 of 2022 CALGreen Standards for the residential and non-residential pre-wiring requirements, respectively). As a final example, in January 2017, San Diego Gas & Electric Company (SDG&E) applied to the California Public Utilities Commission for authority to implement numerous programs intended to accelerate the electrification of the transportation sector. SDG&E's application includes, but is not limited to, proposals to: (i) install up to 90,000 charging stations at single-family homes throughout the company's service area; (ii) install charging infrastructure at various park-and-ride locations; (iii) provide incentives for electric taxis and shuttles; and (iv) provide educational programs and financial incentives for the sale of electric vehicles.

Solid Waste Sources. The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) diversion of 75 percent of all solid waste on or after 2020, and annually thereafter. The California Department of Resources Recycling and Recovery (CalRecycle) is required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

CalRecycle published a discussion document, entitled *California's New Goal: 75 Percent Recycling*, which identified concepts that would assist the state in reaching the 75 percent goal by 2020. Subsequently, in August 2015, CalRecycle released the

¹² Id. at p. 48.

AB 341 Report to the Legislature, which identifies five priority strategies for achievement of the 75 percent goal: (1) moving organics out of landfills; (2) expanding recycling/manufacturing infrastructure; (3) exploring new approaches for state and local funding of sustainable waste management programs; (4) promoting state procurement of post-consumer recycled content products; and, (5) promoting extended producer responsibility.

1.4.3 Local Regulations and Standards

In March of 2011, the City of Encinitas adopted the *City of Encinitas Climate Action Plan* (2011 CAP) to provide guidance to the City to achieve statewide reduction targets and to respond and adapt to the impacts of climate change. In 2009, the City partnered with members of the San Diego Regional Climate Protection Initiative, local governments in the County of San Diego, and Local Governments for Sustainability (ICLEI) to discuss how the region was going to monitor and address global climate change. This partnership facilitated the City's initial GHG inventory for the year 2005, which served as the 2011 CAP's baseline year. The 2005 baseline totaled 548,993 metric tons of carbon dioxide equivalent (MTCO_{2e}) emissions per year, or 8.78 MTCO_{2e} per year per capita. Under a business-as-usual (BAU) scenario which assumes the continuation of conventional behaviors without the inclusion of any additional efforts or legislative actions to reduce GHG emissions, the 2011 CAP determined that the City's GHG inventory for 2020 would be 646,947 MTCO_{2e} per year or 9.5 MTCO_{2e} per year per capita. To achieve consistency with federal and state GHG reduction goals, the CAP specified that the City would reduce emissions 12 percent below 2005 levels by 2020, equivalent to reducing emissions by 164,159 MTCO_{2e} in 2020.

On January 17, 2018, the City of Encinitas adopted its updated final 2018 Climate Action Plan (2018 CAP). The 2018 CAP builds upon the goals of the 2011 CAP and provides a more recent inventory for the City (2012). The GHG inventory performed for 2012 demonstrated that the activities within the City emitted 483,773 MTCO_{2e}. Consistent with recommendations from the Assembly Bill (AB) 32 2008 Scoping Plan, the City must achieve a 13 percent reduction from 2012 levels by 2020 and a 41 percent reduction by 2030 to be in line with the statewide targets discussed in Section 1.3. This equates to reducing emissions by 53,232 MTCO_{2e} by 2020 and 197,724 MTCO_{2e} by 2030. The 2018 CAP organizes strategies, goals, and actions based on the sectors evaluated in the 2012 inventory (i.e., on-road transportation, electricity, natural gas, solid waste, water, off-road transportation, and wastewater). Strategies were developed to target improving the GHG efficiency of citywide community and municipal activities.

The CAP was revised in 2020 and was adopted by the City Council on November 18, 2020. Adoption of the CAP update was the culmination of a year-long process that included reevaluation of the City's 2030 greenhouse gas emissions projection to include anticipated increased housing units, establishment of more ambitious emissions reduction targets, and the development of more effective emissions reduction CAP measures and complimentary supporting measures. The CAP sets a target of reducing GHG emissions by 44% below 2012 levels in 2030. To meet the GHG reduction targets set by the 2020 CAP, the City of Encinitas adopted Green

Building Ordinances 2022-13 and 2022-14 (GBO) in October of 2022 (City of Encinitas 2022). The new GBO is effective as of January 1, 2023, and requires reduction of GHG emissions through energy efficiency, solar energy, and building decarbonization. Under GBO 2022-14, all new residential and nonresidential buildings are required to be all-electric unless an exception applies. This all-electric requirement was recently temporarily suspended by the City due to the Ninth Circuit's ruling (Ninth Circuit 2023), but could be reinstated if the ruling is overturned or modified. Also under GBO 2022-14, all new hotel/motel projects greater than 10,000 square feet in size are required to provide fully operational Level 2 electric vehicle charging stations (EVCS) for at least 8% of parking spaces provided, but no less than one space. Under GBO 2022-13, new project construction is required to include installation of solar photovoltaic (PV) equipment sized according to the gross floor area of the site or based on the building's Time Dependent Valuation (TDV) energy on an annual basis.

On May 27, 2023, the City of Encinitas requested the use of the CAPCOA screening-level threshold of 900 metric tons per year of CO_{2e} to evaluate this Project. Prior to that, the City had requested the use of the guidance developed by the Bay Area Air Quality Management District (BAAQMD) to evaluate GHG emission impacts (BAAQMD 2022, "Justification Report"). Both of these methods are used in this updated report.

2.0 POTENTIAL CLIMATE CHANGE IMPACTS TO PROJECT SITE

2.1 Existing Conditions

The site is currently vacant and in a disturbed state. As it currently exists, the site is not a source of GHG emissions.

2.2 Typical Adverse Effects

The Climate Scenarios Report (CCCC 2006) uses a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century. Three warming ranges were identified: lower warming range (3.0 to 5.5 degrees Fahrenheit (°F)); medium warming range (5.5 to 8.0 °F); and higher warming range (8.0 to 10.5 °F). The Climate Scenarios Report then presents an analysis of the future projected climate changes in California under each warming range scenario.

According to the report, substantial temperature increases would result in a variety of impacts on the people, economy, and environment of California. These impacts would result from a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. These impacts are described below.

Public Health. Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone (O₃) formation are projected to increase by 25 to 35 percent under the lower warming range and 75 to 85 percent

under the medium warming range. In addition, if global background O₃ levels increase as is predicted in some scenarios, it may become impossible to meet local air quality standards. An increase in wildfires could also occur, and the corresponding increase in the release of pollutants including PM_{2.5} could further compromise air quality. The Climate Scenarios Report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

Potential health effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases (such as malaria, dengue fever, yellow fever, and encephalitis) may increase, such as those spread by mosquitoes and other disease-carrying insects.

Water Resources. A vast network of reservoirs and aqueducts capture and transport water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada mountain snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. In addition, if temperatures continue to rise more precipitation would fall as rain instead of snow, further reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. The state's water resources are also at risk from rising sea levels. An influx of seawater would degrade California's estuaries, wetlands, and groundwater aquifers.

Agriculture. Increased GHG and associated increases in temperature are expected to cause widespread changes to the agricultural industry, reducing the quantity and quality of agricultural products statewide. Significant reductions in available water supply to support agriculture would also impact production. Crop growth and development will change as will the intensity and frequency of pests and diseases.

Ecosystems/Habitats. Continued global warming will likely shift the ranges of existing invasive plants and weeds, thus alternating competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Continued global warming is also likely to increase the populations of and types of pests. Continued global warming would also affect natural ecosystems and biological habitats throughout the state.

Wildland Fires. Global warming is expected to increase the risk of wildfire and alter the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state.

Rising Sea Levels. Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the state's coastal regions. Under the high warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. A sea level risk of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten levees and inland water systems, and disrupt wetlands and natural habitats.

2.3 California Climate Adaptation Strategy

As part of its climate change planning process, the California Natural Resources Agency (CNRA) prepared its California Climate Adaptation Strategy (CNRA 2009) to summarize the best-known science on climate change impacts in California, with the goal of assessing vulnerability to climate change impacts. The Climate Adaptation Strategy also outlines possible solutions that can be implemented within and across state agencies to promote resiliency.

The California Climate Adaptation Strategy (CAS) takes into account the long-term, complex, and uncertain nature of climate change and establishes a proactive foundation for an ongoing adaptation process. The strategy made preliminary recommendations as a first step in addressing responses to impacts of global climate change within the state. Key recommendations include:

1. A Climate Adaptation Advisory Panel (CAAP) will be appointed to assess the greatest risks to California from climate change and recommend strategies to reduce those risks building on California's Climate Adaptation Strategy.
2. Identify necessary changes to California's water management and uses.
3. Consider project alternatives that avoid significant new development in areas that cannot be adequately protected (planning, permitting, development, and building) from flooding, wildfire and erosion due to climate change.
4. All state agencies responsible for the management and regulation of public health, infrastructure or habitat subject to significant climate change should prepare as appropriate agency-specific adaptation plans, guidance, or criteria by September 2010.
5. To the extent required by CEQA Guidelines Section 15126.2, all significant state projects, including infrastructure projects, must consider the potential impacts of locating such projects in areas susceptible to hazards resulting from climate change.
6. The California Emergency Management Agency (Cal EMA) will collaborate with the California Natural Resources Agency, the Climate Action Team, the Energy Commission, and the CAAP to assess California's vulnerability to climate change, identify impacts to state assets, and promote climate adaptation/mitigation awareness through the Hazard Mitigation Web Portal and My Hazards Website as well as other appropriate sites.

7. Using existing research the state should identify key California land and aquatic habitats that could change significantly during this century due to climate change. Based on this identification, the state should develop a plan for expanding existing protected areas or altering land and water management practices to minimize adverse effects from climate change induced phenomena.
8. The best long-term strategy to avoid increased health impacts associated with climate change is to ensure communities are healthy to build resilience to increased spread of disease and temperature increases.
9. Communities with General Plans and Local Coastal Plans should begin, when possible, to amend their plans to assess climate change impacts, identify areas most vulnerable to these impacts, and develop reasonable and rational risk reduction strategies using the CAS as guidance.
10. State firefighting agencies should begin immediately to include climate change impact information into fire program planning to inform future planning efforts.
11. State agencies should meet projected population growth and increased energy demand with greater energy conservation and an increased use of renewable energy.
12. Existing and planned climate change research can and should be used for state planning and public outreach purposes; new climate change impact research should be broadened and funded.

In 2018, the California Natural Resources Agency updated its Climate Adaptation Strategy in *Safeguarding California Plan: 2018 Update* (CNRA 2018). This plan, which updates the previous California Climate Adaptation Strategy documents, highlights climate risks in nine sectors in California, discusses progress to date, and makes realistic sector-specific recommendations. The California Natural Resources Agency is in the process of preparing an update to the 2018 strategy.

3.0 CLIMATE CHANGE SIGNIFICANCE CRITERIA

According to the California Natural Resources Agency¹³, “due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis.” Significance criteria were developed in Appendix G of the CEQA Guidelines.

The project would have a significant impact if it would:

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

¹³ California Natural Resources Agency, Initial Statement of Reasons for Regulatory Action, Proposed Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gases Pursuant to SB 97. July 2009.

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

As discussed in Section 15064.4 of the CEQA Guidelines, the determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency, consistent with the provisions in Section 15064. Section 15064.4 further provides that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

1. Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
2. Rely on a qualitative analysis or performance-based standards.

Section 15064.4 also advises a lead agency to consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

3.1 City of Encinitas Significance Thresholds

In April 2023, in *California Restaurant Association v. City of Berkeley* Case No. 21-16278 (Ninth Circuit 2023), the Ninth Circuit Court of Appeals struck down Berkeley Ordinance No. 7,672-N.S. titled "Prohibition of Natural Gas Infrastructure in New Buildings." The Court ruled that any direct or indirect attempt to regulate energy infrastructure is preempted by federal statute. The ruling can be interpreted to mean that no entity other than an authorized agency within the federal government, including California lead agencies acting under the CEQA environmental review process, can legally prohibit the use of natural gas for new projects. Project developers can still voluntarily decide whether to eliminate natural gas use. The City of Berkeley may appeal this ruling to the U.S. Supreme Court.

On June 14, 2023, in response to this ruling, Encinitas City Council temporarily suspended Encinitas Municipal Code (EMC) 23.12.110.B and EMC 23.12.110.C, which

regulate the use of fuel gas infrastructure in new buildings. If the Ninth Circuit's ruling is overturned or modified in the future, the City Council may consider reinstating the regulation. As a result, the Project's conformance with the City's GHG significance thresholds will be addressed as a Project design consideration for the option to eliminate the use of natural gas by electrifying appliances, should this decision be reversed in the future. In addition, the Project with and without natural gas usage in the restaurant will be analyzed (per GBO 2022-14, Exception #2) as was required by the City prior to the Ninth Circuit ruling, in case the GBO's all-electric requirement for new construction is reinstated in the future.

The significance thresholds used in this GHG analysis are used with the recent Ninth Circuit Court of Appeals decision in mind.

3.1.1 CAPCOA Significance Threshold

On May 27, 2023, the City of Encinitas requested the use of the screening-level threshold as recommended by the CAPCOA Report, *CEQA and Climate Change – Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, which proposes a screening-level threshold of 900 metric tons (MT) of CO₂e to evaluate whether a project must conduct further analysis. For the purpose of this analysis and as requested, the CAPCOA screening threshold of 900 MT of CO₂e has been used as one measure to evaluate the potential significance of GHG emissions associated with the Project. An additional measure is use of the BAAQMD 2022 CEQA Guidelines as described in the next section.

3.1.2 BAAQMD Significance Thresholds

Prior to the City's request to use the CAPCOA threshold, the City had asked for the Project to be evaluated using the guidance developed by the Bay Area Air Quality Management District (BAAQMD) to evaluate GHG emission impacts (BAAQMD 2022). If a land use project incorporates each of the design elements necessary for it to be carbon neutral by 2045, then it would contribute its portion of what is needed to achieve the state's climate goals by making a less than cumulatively-considerable climate impact. Because this guidance supports how a project would contribute its "fair share" of the statewide long-term GHG reduction goals, it is not specific to the BAAQMD region and can also be applied in the San Diego region. The information provided in the BAAQMD Guidelines is intended to provide the substantial evidence that lead agencies need to support their determinations about significance using these thresholds.

The BAAQMD Guidelines Chapter 3 provides the framework to analyze what would be required of new land use development projects to achieve California's long-term climate goal of carbon neutrality by 2045. As stated in Table 3-2, a new land use development project being built today needs to incorporate either A) or B) of the following design elements to do its "fair share" of implementing the goal of carbon neutrality by 2045:

A) Projects must include, at a minimum, the following project design elements:

1) Buildings

- a) The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
- b) The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2) Transportation

- a) The project will achieve a reduction in project-generated vehicle miles travelled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory on Evaluating Transportation Impacts in CEQA*:
 - (i) Residential projects: 15 percent below the existing VMT per capita
 - (ii) Office projects: 15 percent below the existing VMT per employee
 - (iii) Retail projects: no net increase in existing VMT
- b) The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B) Projects must be consistent with the local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

The City's GBOs require local reduction strategies that meet the state's CEQA Guidelines Section 15183.5(b) to be implemented into projects within the City of Encinitas, so the Project will be analyzed using BAAQMD Guidelines Chapter 3, Item B) for this study. The GBO requirement that all new construction shall be all-electric is now in conflict with the Ninth Circuit Court of Appeals' April 2023 decision, but this analysis will allow for flexibility in the use of natural gas vs. all-electric, in case this decision is reversed in the future.

In summary, this Project has been evaluated per the City's May 27, 2023 request, using the 900 MT CO₂e threshold, and the BAAQMD significance thresholds have also been used.

4.0 GREENHOUSE GAS IMPACTS

GHG emissions related to the construction and operation of the Project were estimated considering three operational options, to allow for flexibility in Project design:

- Option 1 - Project buildout with natural gas usage in the hotel and restaurant;

- Option 2 - Project buildout with consideration to the 2022-14 GBO Exception #2 for the use of natural gas at the restaurant only; and
- Option 3 – Project buildout with no natural gas usage at the hotel or restaurant (all electric).

Six categories of emissions were analyzed for each of these three scenarios: (1) construction; (2) area sources; (3) energy use, including electricity and natural gas usage; (4) water consumption, use, and treatment; (5) solid waste management; and (6) vehicles. The analysis for the three scenarios also includes an estimate of GHG emissions from energy use that assumes 2019 Title 24-compliant buildings as a baseline within the CalEEMod Model.¹⁴

Construction emissions are not affected by any of these three options as the only difference between the three options is the operational use of natural gas. Therefore, construction GHG emissions are reported in one table for all operational options.

4.1 Construction Greenhouse Gas Emissions

Construction GHG emissions include emissions from heavy construction equipment, truck traffic, and worker trips. Emissions were calculated using the CalEEMod Model, which is the land use emissions model developed by the SCAQMD (CAPCOA 2021) and accepted by the City of Encinitas to model emissions for completed and proposed construction. The conservative assumption was made that project construction will start prior to 2024.¹⁵ Table 3 presents the emissions associated with construction of the Project.

TABLE 3 CONSTRUCTION GHG EMISSIONS TOTAL METRIC TONS	
Construction Phase	CO₂e Emissions (Metric Tons)
Grading	33.1
Building Construction	395
Paving	41.8
Architectural Coating	6.17
Total Construction CO₂e Emissions	476
CO₂e emissions amortized over 30 years	15.9

Per guidance from the SCAQMD (SCAQMD 2008), construction emissions are amortized over a 30-year period to account for the contribution of construction emissions over the lifetime of the Project. Amortizing the emissions from construction of the Proposed Project over a 30-year period would result in an annual contribution of 15.9 metric tons of CO₂e. These emissions are added to operational emissions to account for the contribution of construction to GHG emissions for the lifetime of the

¹⁴ Although the 2022 Title 24 Building Energy Standards are now in effect, the version of CalEEMod used for this study assumes 2019 Title 24-compliant buildings.

¹⁵ Construction equipment and onroad mobile sources will be cleaner if the Project begins after calendar year 2024, due to advances in equipment and automotive technology.

Project.

4.2 Operational Greenhouse Gas Emissions

The development would involve the construction of a 17-room (11,269 square foot) boutique hotel, along with a quality restaurant with 1,165 square feet of seating (indoor and outdoor) and 17,375 square feet of parking lot area. The total hotel/restaurant development would be 12,434 square feet.

4.2.1 Area Sources

The CalEEMod model assumes that area source emissions associated with the Project would include minor emissions from landscaping equipment and maintenance of the building.

4.2.2 Energy Use

As discussed above, the CalEEMod Model assumes a baseline of 2019 Title 24 standards. The baseline energy use provides a conservative estimate of current energy requirements relative to future energy requirements.

For Project Option 2, electricity usage has been estimated at 101.4 MWh/year, with 86% of the usage for hotel, and the rest for restaurant usage. For Project Options 1 and 3, electricity usage values were proportioned based on information from Fard Engineers.¹⁶

A solar PV system that will offset a portion of total electricity use will be installed to conform to the City's GBO requirements for energy use. Because each option has different electricity usages, the percent offset of the solar PV system varies between Options 1 – 3. The following parameters were applied in CalEEMod for each option: Option 1: 49.3% solar offset; Option 2: 30.6% solar offset; and Option 3: 29.1% solar offset.

4.2.2.1 Option 1 – Natural Gas Usage in Hotel and Restaurant

This option assumes that both the hotel and the restaurant would use natural gas. The following parameters were entered into CalEEMod for Option 1:

- The hotel would use natural gas for non-Title 24 uses, such as appliances, and for Title 24 uses, such as for heating water and for comfort heating. Default values for non-Title 24 and Title 24 natural gas usage in a 11,269 square foot hotel were assumed in CalEEMod.
- The restaurant's non-Title 24 natural gas usage for the cooking appliances is estimated to be 6,205 therms/year, so this value was entered for the restaurant's non-Title 24 natural gas usage in CalEEMod. Default natural gas usage was assumed for a 1,165 square foot quality restaurant's Title 24 natural

¹⁶ The electricity usage allocations to the hotel and the restaurant are based on information from Fard Engineers received via emails in March 2024.

gas usage.

4.2.2.2 Option 2 – Natural Gas Used in Restaurant Kitchen Only

Prior to the decision by the Ninth Circuit, the City's GBO required all new construction to be all-electric unless an exception applies. Exception 2 of the GBO allows non-residential buildings containing a for-profit restaurant to install gas-fueled cooking appliances – this could apply to the La Costa Hotel restaurant, which is proposed to use natural gas for food preparation in the restaurant, if the GBO is reinstated. To allow for the possible reinstatement of the GBO's all-electric requirement in the future (with Exception #2), this option assumes that natural gas will be used only for cooking purposes at the restaurant. Annual natural gas usage for the restaurant is estimated to be 6,205 therms/year. In this option, energy for the La Costa Hotel would be all electric, except for restaurant cooking appliances.

4.2.2.3 Option 3 – No Natural Gas Usage – All Electric

La Costa will have the option to design for electric-only cooking appliances should the no natural gas requirement be reinstated. To allow for Project design flexibility, and to provide an analysis to compare to the Option 2 analysis for the purpose of proposing options for mitigating GHG emissions due to natural gas usage in the restaurant, this option assumes that no natural gas would be used by the hotel and restaurant. All appliances, comfort heating, etc., would be electric.

4.2.3 Water Usage

Water usage was estimated based on the CalEEMod Model. The GHG emissions associated with water usage, conveyance, treatment, and wastewater disposal are included within the CalEEMod model calculations. For the purpose of this analysis, it was assumed that the Project would be equipped with low-flow fixtures. The Project will include low-flow fixtures as a condition of Project approval.

4.2.4 Vehicle Emissions

The analysis of GHG emissions from vehicles is based on total vehicle miles traveled annually. According to the traffic impact studies (Mizuta Traffic Consulting 2023; CR Associates 2024), the hotel would generate 10 daily trips per room, and the restaurant would generate 100 trips per 1,000 square feet. These trip generation rates were included in the analysis.

To comply with the City's GBO 2022-14, the Project will install four (4) EVCS (9.75% of the 41 total parking spaces) as a condition of Project approval. Because CalEEMod does not offer an EVCS option within the model, the reduction in CO₂e emissions due to the 4 EVCS is accounted for in both scenarios using a CO₂e per EVCS calculation based on the City's CAP (City of Encinitas 2020) and deducted from the GHG emissions calculated with CalEEMod. According to the City's CAP, the City would increase the number of EVCS by 866 from residential and commercial development by 2030 and reduce GHG emissions by 3,146 MT CO₂e, which is equivalent to approximately 3.63 MT CO₂e per EVCS. Therefore, the 4 EVCS that are required by

the GBO would reduce total GHG emissions of both scenarios by 14.5 MT CO₂e. This amount of GHG emissions is deducted from the CalEEMod-modeled GHG emissions for all Project options in Tables 4, 5 and 6.

4.2.5 Solid Waste

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, transportation of waste, and disposal. Solid waste generation rates were estimated from CalEEMod Model, and GHG emissions from solid waste management were estimated using the model, assuming landfilling of solid waste with flaring. It was assumed based on statewide solid waste reduction goals that solid waste generation would be reduced by 50%.

4.2.6 Greenhouse Gas Emissions: Operational Options 1 - 3

Modeled operational GHG emissions for Project Options 1 – 3 are presented in Tables 4, 5, and 6 below. CalEEMod output files are included in Appendix A.

4.2.7 Operational Emissions Summary

The results of the inventory for operational emissions for Option 1 of the proposed Project are presented in Table 4. These include GHG emissions associated with buildings (natural gas, purchased electricity), water consumption (energy embodied in potable water), solid waste management (including transport and landfill gas generation), and vehicles.

TABLE 4 OPTION 1: NATURAL GAS USAGE IN HOTEL AND RESTAURANT SUMMARY OF ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS				
Emission Source	Annual Emissions (Metric tons/year)			
	CO₂	CH₄	N₂O	CO₂e
Operational Emissions				
Area Sources	6.40E-04	0	0	6.80E-04
Electricity Use	8.00	3.20E-04	6.00E-05	8.03
Natural Gas Use	69.8	1.34E-03	1.28E-03	70.2
Water Use	2.45	0.02	5.00E-04	3.12
Solid Waste Management	1.05	0.06	0	2.61
Vehicle Emissions	152	0.01	8.01E-03	155
Global Warming Potential Factor	1	25	298	--
CO₂ Equivalent Emissions				239
Amortized Construction Emissions				15.9
Total				255
EVCS Reduction				-14.5
Total CO₂e Emissions				241
CAPCOA Threshold				900
Exceeds Threshold?				No

As shown in Table 4, the total CO₂e emissions from the Project for Option 1 would be 241 metric tons per year, which does not exceed the CAPCOA threshold of 900 MT CO₂e/yr.

The results of the inventory for operational emissions for Project Option 2 are presented in Table 5.

TABLE 5				
OPTION 2: NATURAL GAS USAGE IN RESTAURANT ONLY				
SUMMARY OF ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS				
Emission Source	Annual Emissions (Metric tons/year)			
	CO₂	CH₄	N₂O	CO₂e
Operational Emissions				
Area Sources	6.40E-04	0	0	6.80E-04
Electricity Use	17.7	7.00E-04	1.30E-04	17.7
Natural Gas Use	33.1	6.30E-04	6.10E-04	33.3
Water Use	2.45	0.02	5.00E-04	3.12
Solid Waste Management	1.05	0.06	0	2.61
Vehicle Emissions	152	0.01	8.01E-03	155
Global Warming Potential Factor	1	25	298	--
CO₂ Equivalent Emissions				212
Amortized Construction Emissions				15.9
Total				228
EVCS Reduction				-14.5
Total CO₂e Emissions				214
CAPCOA Threshold				900
Exceeds Threshold?				No

As shown in Table 5, the total CO₂e emissions from the Project for Option 2 would be 214 metric tons per year, which does not exceed the CAPCOA threshold of 900 MT CO₂e/yr.

The results of the inventory for operational emissions for Project Option 3 are presented in Table 6.

TABLE 6				
OPTION 3: NO NATURAL GAS USAGE (ALL ELECTRIC)				
SUMMARY OF ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS				
Emission Source	Annual Emissions (Metric tons/year)			
	CO₂	CH₄	N₂O	CO₂e
Operational Emissions				
Area Sources	6.40E-04	0	0	6.80E-04
Electricity Use	19.0	7.50E-04	1.40E-04	19.0
Natural Gas Use	0	0	0	0
Water Use	2.45	0.02	5.00E-04	3.12
Solid Waste Management	1.05	0.06	0	2.61
Vehicle Emissions	152	0.01	8.01E-03	155
Global Warming Potential Factor	1	25	298	--
CO₂ Equivalent Emissions				180
Amortized Construction Emissions				15.9
Total				196
EVCS Reduction				-14.5
Total CO₂e Emissions				182
CAPCOA Threshold				900
Exceeds Threshold?				No

As shown in Table 6, the total CO₂e emissions from the Project for Option 3 would be 182 metric tons per year, which does not exceed the CAPCOA threshold of 900 MT CO₂e/yr.

For Options 1 – 3, the sum of amortized construction emissions and operational emissions are well below the CAPCOA threshold of 900 MT CO₂e/yr and are therefore not significant.

4.3 BAAQMD Significance Thresholds

To evaluate the Project's GHG impacts using the significance thresholds listed in BAAQMD Guidelines Chapter 3, Item B), the City's GBO requirements, some of which now conflict with the City's CAP because of the Ninth Circuit Court of Appeals decision, are used.

4.3.1 Building Energy Use

Energy use emissions are generated by activities within non-residential buildings that utilize electricity and natural gas as energy sources. GHGs are emitted during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in association with a building's overall operation. Natural gas usage emits GHGs directly when it is burned for space heating, cooking, hot water heating and similar uses, whereas electricity usage emits GHGs

indirectly to the extent that it is generated by burning carbon-based fuels.

The Project would result in GHG emissions from energy used within the restaurant and hotel, especially natural gas or propane-fueled appliances. This hotel/restaurant development would be designed with the option to run on all electric energy sources, without the use of natural gas or propane fuels. By designing the Project with an option to fully utilize electric energy within the hotel/restaurant, the Project would not conflict with the ultimate implementation of the City's GBOs and CAP.

Construction and operation of the Project is not expected to result in the wasteful or inefficient use of energy. All new construction would be required to comply with the GBOs and building ordinances in effect at the time of construction, which ensures efficient building construction. Additional measures such as efficient water usage of fixtures and landscaping, along with energy efficient lighting, and recycling, would be incorporated for the Project. GHG emissions associated with electricity use would later be eliminated as California decarbonizes the electrical generation infrastructure as committed to by 2045 through SB 100, the 100 percent Clean Energy Act of 2018. Therefore, the Project would be designed to contribute its "fair share" of what is required to achieve carbon neutrality of buildings by 2045. As such, the construction and operation of the Project is not expected to result in the wasteful or inefficient use of energy, and impacts would be less than significant.

4.3.2 Transportation

GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. Decarbonization of the transportation infrastructure serving land use development will come from shifting the motor vehicle fleet to electric vehicle (EV), coupled with a shift to carbon-free electricity to power those vehicles. Land use projects cannot directly control whether and how fast these shifts are implemented, but they can, and do, have an important indirect influence on California's transition to a zero-carbon transportation system. The *Justification Report* to the 2022 BAAQMD GHG Guidelines states that "Motor vehicle transportation does not need to be eliminated entirely in order for the land use sector to achieve carbon neutrality, as carbon-free vehicle technology can be used (e.g., EVs powered by carbon-free electricity sources). But for that goal to be realistically implemented by 2045, California will need to reduce its per-capita VMT. How land use development is designed and sited can have a significant influence on how much VMT the project would generate." (BAAQMD 2022) New land use development can influence transportation-related emissions in two areas related to how it is designed and built. First, new land-use projects need to provide sufficient electric vehicle EV charging infrastructure to serve the needs of project users who would be driving EVs. Second, new land use projects can influence transportation-related GHG emissions by reducing the amount of VMT associated with the project.

The City's GBOs and the 2022 CALGreen went into effect on January 1, 2023, and the Project would be subject to these requirements (CALGreen 2022). The Project would meet the GBO 2022-14 mandatory requirements for new non-residential buildings which surpass the 2022 CALGreen Tier I and Tier 2 mandatory and

voluntary requirements for EV charging for new construction detailed in Section 5.106.5.3 of the 2022 California Green Building Standards Code (Title 24, Part 11, CALGreen, with Jan. 2023 errata). As such, the Project would install a minimum of four (4) parking spaces with Level 2 electric vehicle supply equipment (EVSE), which accounts for 9.7% of the 41 parking spaces planned. In addition, as demonstrated in the next section of this report, the addition of six (6) EVSE spaces is proposed to help offset some of the restaurant's natural gas usage. This makes a total of ten (10) EVSE parking spaces. Even without the six additional EVSE spaces, the Project would meet the City's GBO mandatory requirement and the 2022 CALGreen mandatory and voluntary requirement of providing sufficient EV charging for new non-residential construction.

The Office of Planning and Research (OPR) has provided thresholds for evaluating transportation impacts based on VMT in a Technical Advisory for CEQA (OPR 2018). The OPR recommends a 15% reduction for VMT. Vehicle miles traveled is a metric that takes the number of vehicle trips generated and the length/distance of those trips. VMT is a function of population or employment and is expressed as VMT per resident or VMT per employee.

The City of Encinitas requires that all land developments conduct VMT analysis unless the project meets any of the listed screening criteria provided by the City (City of Encinitas 2023). Based on the Technical Memorandums, prepared by CR Associates, dated January 18, 2024, the Project is expected to generate a total of 287 average daily trips (ADT): 170 ADTs for the hotel and 117 ADTs for the restaurant. The screening VMT analysis determined that a detailed VMT analysis is not required because the Project does not exceed 500 ADT, which is the Small Project Daily Vehicle Trip Screening threshold in the ITE Guidelines that CR Associates followed. The conclusion of this VMT analysis is that "...the Project would be presumed to have a less than significant transportation-related impact under CEQA, and no additional analysis would be required." (CR Associates 2024)

The Project's less than significant impact related to VMT demonstrates that the Project would not make a cumulatively considerable contribution to GHG emissions. **Therefore, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment, and impacts would be less than significant.**

4.4 Mitigation of Operational Greenhouse Gas Emissions Due to Natural Gas Usage

Prior to the decision by the Ninth Circuit, the City's GBO for restaurants that claim Exception #2 require measures to be put into place to mitigate the emissions of CO₂e due to natural gas usage at the restaurant only. This section addresses this GBO requirement, in case the GBO is reinstated in the future and natural gas usage is not allowed (except for restaurant usage per Exception #2).

To determine the amount of CO₂e emissions per year that would need mitigation under the GBO, the difference in CO₂e emissions between the Project with natural gas usage in the restaurant (Option 2) and the Project with no natural gas usage

(Option 3) is determined. This difference is 32.0 metric tons per year. This is the amount of CO₂e that must be mitigated to zero in order to build the project in compliance with the City's GBO, should it be reinstated.

Mitigation options that could be considered include adding more solar panels, planting more trees, and adding more EV parking spaces.

Standard Design Measures Not Related to Mitigation of Natural Gas Usage

The Project already includes the following design features that would reduce operational GHG emissions:

- Installation of water-efficient fixtures in compliance with the 2022 CALGreen Code;
- Installation of high-efficiency lighting in compliance with 2022 Title 24 standards;
- Installation of a 19 kWdc solar PV system that would account for 29.1% to 49.3% of expected electricity usage (depending on the chosen option);
- Include recycling services per Assembly Bill 341, which would divert at least 50% of solid waste generated on-site away from local landfills;
- Plant 18 deciduous trees and 23 evergreen trees; and
- Installation of EV charging stations in four parking stalls.

All of these design features have been included in the CalEEMod modeling for both scenarios, except for the four EV charging stations because CalEEMod does not offer an EV charging station mitigation option.

Proposed Mitigation Measures to Offset GHG Emissions Due to Natural Gas Usage

The installation of additional solar panels on-site that would produce an additional 19 kW of solar power (for a total of 38 kW of solar power) is proposed. According to the City's CAP, the City intends to increase solar capacity by 1.9 megawatts (MW) from residential and commercial development by 2030 and reduce GHG emissions by 1,066 MT CO₂e, which is equivalent to approximately 561 MT CO₂e per MW. Therefore the proposed additional on-site solar panels (19 kW) would reduce GHG emissions by approximately 10.6 MT CO₂e/year. Furthermore, the Project would include an additional 6 EV charging stations (EVCS) on-site beyond the 4 EVCS required, for a total of 10 EVCS. According to the City's CAP, the City would increase the number of EVCS by 866 from residential and commercial development by 2030 and reduce GHG emissions by 3,146 MT CO₂e, which is equivalent to approximately 3.63 MT CO₂e per EVCS. Therefore, the additional 6 EVCS would reduce GHG emissions by approximately 21.8 MT CO₂e per year.

Together, the additional solar panels and EVCS would mitigate approximately 32.4

MT CO₂e per year, which will mitigate the 32.0 MT CO₂e per year from the restaurant's usage of natural gas.

5.0 CONCLUSIONS

The City has taken action to eliminate any conflict between the recent Ninth Circuit Court decision that no non-federal authority can require all-electric buildings for new construction and the City's CAP and GBO 2022-14 requirements. The Project will be built to be compliant with the City's requirements at the time of approval.

Net emissions of GHGs were quantified for both the construction and operation of the 516 La Costa Boutique Hotel Project. Of the three Project options analyzed, Option 1 has the highest CO₂e emissions. For Option 1, the Project's total GHG emissions are estimated to be 241 metric tons of CO₂e, which does not exceed the CAPCOA threshold of 900 MT CO₂e/yr. The other two options have CO₂e emissions that are lower than Option 1, so they also do not exceed the CAPCOA threshold.

If the GBO is reinstated in the future, the addition of more solar panels that would produce an additional 19 kW of solar power for a total of 38 kW and the addition of 6 more EVCSs for a total of 10 stations would fully offset the GHG emissions due to the restaurant's natural gas usage.

Because the Project is proposing to offset all GHG emissions due to the restaurant's usage of natural gas by installing mitigating design features, the Project is contributing its "fair share" of what would be required to meet California's long-term climate goals.

The Project will comply with the City of Encinitas CAP and will adopt the following measures:

Number	Measure	Implementation
BE-3	Adopt Higher Energy Efficiency Standards for Commercial Buildings: Meet 2022 California Green Building Standards Code Nonresidential Tier 1 Voluntary Measures.	The Project will adopt the 2022 California Green Building Standards Code Nonresidential Tier 1 Voluntary Measures
BE-4	Require Decarbonization of New Commercial Buildings: All new commercial buildings must install wiring and install all electric appliances.	The Project will comply with the Green Building Ordinances (2022-13 and 2022-14), including the exception of natural gas cooking appliances in the restaurant (Exception #2), if it is reinstated in the future.
RE-3	Require Commercial Buildings to Install Solar Photovoltaic Systems	The Project will install a rooftop solar photovoltaic system on the roof of the restaurant as shown in the architectural plans, plus an additional 19 kW of solar PV panels for a total of 38 kW.
CET-5	Require Commercial Electric Vehicle Charging Stations	The Project will include ten electric vehicle charging stations in the parking area.
CS-1	Develop and Implement an Urban Tree Planting Program: When new parking lots are part of a development, trees are required to be planted at a ratio of one tree per every 5 parking spaces.	The Project is proposing to include 18 deciduous trees and 23 evergreen trees as part of its landscaping plan.

The Project would not conflict with or obstruct the implementation of the City of Encinitas’ CAP. **Therefore, the Proposed Project would not result in a cumulatively considerable global climate change impact.**

6.0 REFERENCES

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APPENDIX A
GREENHOUSE GAS EMISSION CALCULATIONS

OPTION 1:
NATURAL GAS USAGE IN HOTEL AND RESTAURANT

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage
San Diego County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.38	1000sqft	0.40	17,375.00	0
Hotel	17.00	Room	0.57	11,269.00	0
Quality Restaurant	1.17	1000sqft	0.03	1,165.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	556.22	CH4 Intensity (lb/MWhr)	0.022	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per client info

Land Use - Land usage from site plan. Restaurant square footage updated from 1,235 sq. ft. to 1,165 sq. ft. in June 2023

Construction Phase - Same as Feb 2022 GHG report except date changes for grading/construction provided by client: GRADING START: FEBRUARY 2023, END APRIL 2023. CONSTRUCTION START: JUNE 2023. CONSTRUCTION FINISH: DECEMBER 2024

Off-road Equipment -

Off-road Equipment - From previous GHG report.

Off-road Equipment -

Off-road Equipment - Per previous GHG report.

Trips and VMT - Per 2022 GHG study, with default haul trips for material export.

Grading - Exported material provided in site plan. Total area graded is from previous GHG report.

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - SDAPCD Rule 67.0.1. Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic markings paints are listed as 100 g/L VOC.

Vehicle Trips - From traffic impact study (Mizuta Traffic Consultants 2023)

Area Coating - SDAPCD Rule 67.0.1. Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic markings paints are listed as 100 g/L VOC.

Energy Use - Per client - Restaurant NG usage =6,205 therms/yr; CalEEMod default NG usage assumed for hotel and for restaurant T-24 NG.

Land Use Change -

Sequestration - Project will plant 18 deciduous trees and 23 evergreen trees.

Construction Off-road Equipment Mitigation -

Area Mitigation - SDAPCD Rule 67.0.1 Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic marking paints are listed as 100 g/L VOC.

Energy Mitigation - Per GBO requirements, a minimum 19kWDC PV system must be installed.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	45.00
tblConstructionPhase	NumDays	100.00	393.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	5.00	66.00

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblEnergyUse	LightingElect	4.50	0.21
tblEnergyUse	LightingElect	6.78	0.31
tblEnergyUse	NT24E	3.67	2.02
tblEnergyUse	NT24E	23.69	5.25
tblEnergyUse	NT24NG	138.46	532.62
tblEnergyUse	T24E	4.27	2.40
tblEnergyUse	T24E	7.35	3.64
tblGrading	AcresOfGrading	33.00	1.17
tblGrading	MaterialExported	0.00	1,160.00
tblLandUse	LandUseSquareFeet	17,380.00	17,375.00
tblLandUse	LandUseSquareFeet	24,684.00	11,269.00
tblLandUse	LandUseSquareFeet	1,170.00	1,165.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.022
tblProjectCharacteristics	CO2IntensityFactor	539.98	556.22
tblSequestration	NumberOfNewTrees	0.00	23.00
tblSequestration	NumberOfNewTrees	0.00	18.00
tblVehicleTrips	ST_TR	8.19	10.00
tblVehicleTrips	ST_TR	90.04	100.00
tblVehicleTrips	SU_TR	5.95	10.00
tblVehicleTrips	SU_TR	71.97	100.00
tblVehicleTrips	WD_TR	8.36	10.00
tblVehicleTrips	WD_TR	83.84	100.00

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2023											0.0000	184.6156	184.6156	0.0329	2.0000e-003	186.0353
2024											0.0000	287.9817	287.9817	0.0498	2.0600e-003	289.8416
Maximum											0.0000	287.9817	287.9817	0.0498	2.0600e-003	289.8416

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					
2023											0.0000	184.6154	184.6154	0.0329	2.0000e-003	186.0351
2024											0.0000	287.9814	287.9814	0.0498	2.0600e-003	289.8413
Maximum											0.0000	287.9814	287.9814	0.0498	2.0600e-003	289.8413

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	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)
		Highest		

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											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Energy											0.0000	86.0095	86.0095	1.9700e-003	1.4000e-003	86.4760
Mobile											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Waste											2.1071	0.0000	2.1071	0.1245	0.0000	5.2201
Water											0.2495	2.7812	3.0307	0.0257	6.3000e-004	3.8603
Total											2.3565	241.2212	243.5777	0.1654	0.0100	250.7027

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Energy											0.0000	77.8396	77.8396	1.6600e-003	1.3400e-003	78.2797
Mobile											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Waste											1.0535	0.0000	1.0535	0.0623	0.0000	2.6101
Water											0.1996	2.2525	2.4520	0.0206	5.0000e-004	3.1158
Total											1.2531	232.5225	233.7756	0.0977	9.8500e-003	239.1518

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.82	3.61	4.02	40.93	1.89	4.61

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	26.8060
Total	26.8060

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/6/2023	4/6/2023	5	44	
2	Building Construction	Building Construction	6/1/2023	12/2/2024	5	393	
3	Paving	Paving	9/2/2024	12/2/2024	5	66	
4	Architectural Coating	Architectural Coating	10/1/2024	12/2/2024	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.17

Acres of Paving: 0.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,651; Non-Residential Outdoor: 6,217; Striped Parking Area: 1,043 (Architectural Coating – sqft)

OffRoad Equipment

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

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
Grading	3	8.00	0.00	145.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	13.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584
Total											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	4.3511	4.3511	2.2000e-004	6.9000e-004	4.5627
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.1168	1.1168	3.0000e-005	3.0000e-005	1.1269
Total											0.0000	5.4679	5.4679	2.5000e-004	7.2000e-004	5.6897

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584
Total											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	4.3511	4.3511	2.2000e-004	6.9000e-004	4.5627
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.1168	1.1168	3.0000e-005	3.0000e-005	1.1269
Total											0.0000	5.4679	5.4679	2.5000e-004	7.2000e-004	5.6897

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	138.0153	138.0153	0.0234	0.0000	138.6012
Total											0.0000	138.0153	138.0153	0.0234	0.0000	138.6012

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	7.6247	7.6247	2.3000e-004	1.1000e-003	7.9597
Worker											0.0000	6.2694	6.2694	1.9000e-004	1.7000e-004	6.3262
Total											0.0000	13.8942	13.8942	4.2000e-004	1.2700e-003	14.2859

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	138.0152	138.0152	0.0234	0.0000	138.6011
Total											0.0000	138.0152	138.0152	0.0234	0.0000	138.6011

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	7.6247	7.6247	2.3000e-004	1.1000e-003	7.9597
Worker											0.0000	6.2694	6.2694	1.9000e-004	1.7000e-004	6.3262
Total											0.0000	13.8942	13.8942	4.2000e-004	1.2700e-003	14.2859

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	218.8416	218.8416	0.0365	0.0000	219.7527
Total											0.0000	218.8416	218.8416	0.0365	0.0000	219.7527

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	11.8786	11.8786	3.7000e-004	1.7200e-003	12.4008
Worker											0.0000	9.6148	9.6148	2.7000e-004	2.6000e-004	9.6988
Total											0.0000	21.4935	21.4935	6.4000e-004	1.9800e-003	22.0996

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	218.8413	218.8413	0.0365	0.0000	219.7524
Total											0.0000	218.8413	218.8413	0.0365	0.0000	219.7524

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	11.8786	11.8786	3.7000e-004	1.7200e-003	12.4008
Worker											0.0000	9.6148	9.6148	2.7000e-004	2.6000e-004	9.6988
Total											0.0000	21.4935	21.4935	6.4000e-004	1.9800e-003	22.0996

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	38.8544	38.8544	0.0123	0.0000	39.1624
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	38.8544	38.8544	0.0123	0.0000	39.1624

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561
Total											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	38.8544	38.8544	0.0123	0.0000	39.1623
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	38.8544	38.8544	0.0123	0.0000	39.1623

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561
Total											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179
Total											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179
Total											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Unmitigated											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	170.00	170.00	170.00	322,988	322,988
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	117.00	117.00	117.00	138,782	138,782
Total	287.00	287.00	287.00	461,770	461,770

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Other Asphalt Surfaces	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Quality Restaurant	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	8.0015	8.0015	3.2000e-004	6.0000e-005	8.0266
Electricity Unmitigated											0.0000	15.8678	15.8678	6.3000e-004	1.1000e-004	15.9175
NaturalGas Mitigated											0.0000	69.8381	69.8381	1.3400e-003	1.2800e-003	70.2531
NaturalGas Unmitigated											0.0000	70.1417	70.1417	1.3400e-003	1.2900e-003	70.5585

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	652475											0.0000	34.8186	34.8186	6.7000e-004	6.4000e-004	35.0255
Other Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	661930											0.0000	35.3231	35.3231	6.8000e-004	6.5000e-004	35.5330
Total												0.0000	70.1417	70.1417	1.3500e-003	1.2900e-003	70.5585

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	647201											0.0000	34.5371	34.5371	6.6000e-004	6.3000e-004	34.7424
Other Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	661515											0.0000	35.3010	35.3010	6.8000e-004	6.5000e-004	35.5108
Total												0.0000	69.8381	69.8381	1.3400e-003	1.2800e-003	70.2531

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	52175.5	13.1637	5.2000e-004	9.0000e-005	13.2050
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10718	2.7041	1.1000e-004	2.0000e-005	2.7126
Total		15.8678	6.3000e-004	1.1000e-004	15.9175

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	26303.8	6.6364	2.6000e-004	5.0000e-005	6.6572
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	5410.7	1.3651	5.0000e-005	1.0000e-005	1.3694
Total		8.0015	3.1000e-004	6.0000e-005	8.0266

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Unmitigated											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Total											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Total											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

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
- Use Water Efficient Irrigation System

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.4520	0.0206	5.0000e-004	3.1158
Unmitigated	3.0307	0.0257	6.3000e-004	3.8603

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.431235 / 0.047915	1.6878	0.0141	3.4000e-004	2.1428
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.355134 / 0.0226682	1.3429	0.0116	2.8000e-004	1.7175
Total		3.0307	0.0257	6.2000e-004	3.8603

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.344988 / 0.0449922	1.3689	0.0113	2.7000e-004	1.7330
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.284108 / 0.0212854	1.0831	9.3000e-003	2.3000e-004	1.3828
Total		2.4520	0.0206	5.0000e-004	3.1158

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0535	0.0623	0.0000	2.6101
Unmitigated	2.1071	0.1245	0.0000	5.2201

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	9.31	1.8899	0.1117	0.0000	4.6820
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.07	0.2172	0.0128	0.0000	0.5381
Total		2.1071	0.1245	0.0000	5.2201

GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	4.655	0.9449	0.0558	0.0000	2.3410
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.535	0.1086	6.4200e-003	0.0000	0.2691
Total		1.0535	0.0623	0.0000	2.6101

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

User Defined Equipment

Equipment Type	Number
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GHG Analysis for Boutique Hotel_with Hotel/Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	26.8060	0.0000	0.0000	26.8060

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Pine	23	14.6740	0.0000	0.0000	14.6740
Spruce	18	12.1320	0.0000	0.0000	12.1320
Total		26.8060	0.0000	0.0000	26.8060

OPTION 2:
NATURAL GAS USAGE IN RESTAURANT ONLY

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**GHG Analysis for Boutique Hotel_with Restaurant NG Usage
San Diego County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.38	1000sqft	0.40	17,375.00	0
Hotel	17.00	Room	0.57	11,269.00	0
Quality Restaurant	1.17	1000sqft	0.03	1,165.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	556.22	CH4 Intensity (lb/MWhr)	0.022	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per client info

Land Use - Land usage from site plan. Restaurant square footage updated from 1,235 sq. ft. to 1,165 sq. ft. in June 2023

Construction Phase - Same as Feb 2022 GHG report except date changes for grading/construction provided by client: GRADING START: FEBRUARY 2023, END APRIL 2023. CONSTRUCTION START: JUNE 2023. CONSTRUCTION FINISH: DECEMBER 2024

Off-road Equipment -

Off-road Equipment - From previous GHG report.

Off-road Equipment -

Off-road Equipment - Per previous GHG report.

Trips and VMT - Per 2022 GHG study, with default haul trips for material export.

Grading - Exported material provided in site plan. Total area graded is from previous GHG report.

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - SDAPCD Rule 67.0.1. Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic markings paints are listed as 100 g/L VOC.

Vehicle Trips - From traffic impact study (Mizuta Traffic Consultants 2023)

Area Coating - SDAPCD Rule 67.0.1. Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic markings paints are listed as 100 g/L VOC.

Energy Use - Per client - Restaurant NG usage =6,205 therms/yr.

Land Use Change -

Sequestration - Project will plant 18 deciduous trees and 23 evergreen trees.

Construction Off-road Equipment Mitigation -

Area Mitigation - SDAPCD Rule 67.0.1 Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic marking paints are listed as 100 g/L VOC.

Energy Mitigation - Per GBO requirements, a minimum 19kWDC PV system must be installed.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	45.00
tblConstructionPhase	NumDays	100.00	393.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	5.00	66.00

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblEnergyUse	LightingElect	4.50	0.21
tblEnergyUse	LightingElect	6.78	0.31
tblEnergyUse	NT24E	3.67	3.46
tblEnergyUse	NT24E	23.69	5.25
tblEnergyUse	NT24NG	11.10	0.00
tblEnergyUse	NT24NG	138.46	532.62
tblEnergyUse	T24E	4.27	4.11
tblEnergyUse	T24E	7.35	6.24
tblEnergyUse	T24NG	46.80	0.00
tblEnergyUse	T24NG	35.56	0.00
tblGrading	AcresOfGrading	33.00	1.17
tblGrading	MaterialExported	0.00	1,160.00
tblLandUse	LandUseSquareFeet	17,380.00	17,375.00
tblLandUse	LandUseSquareFeet	24,684.00	11,269.00
tblLandUse	LandUseSquareFeet	1,170.00	1,165.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.022
tblProjectCharacteristics	CO2IntensityFactor	539.98	556.22
tblSequestration	NumberOfNewTrees	0.00	23.00
tblSequestration	NumberOfNewTrees	0.00	18.00
tblVehicleTrips	ST_TR	8.19	10.00
tblVehicleTrips	ST_TR	90.04	100.00
tblVehicleTrips	SU_TR	5.95	10.00

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	71.97	100.00
tblVehicleTrips	WD_TR	8.36	10.00
tblVehicleTrips	WD_TR	83.84	100.00

2.0 Emissions Summary

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2023											0.0000	184.6156	184.6156	0.0329	2.0000e-003	186.0353
2024											0.0000	287.9817	287.9817	0.0498	2.0600e-003	289.8416
Maximum											0.0000	287.9817	287.9817	0.0498	2.0600e-003	289.8416

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					
2023											0.0000	184.6154	184.6154	0.0329	2.0000e-003	186.0351
2024											0.0000	287.9814	287.9814	0.0498	2.0600e-003	289.8413
Maximum											0.0000	287.9814	287.9814	0.0498	2.0600e-003	289.8413

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	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)
		Highest		

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											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Energy											0.0000	58.7003	58.7003	1.6500e-003	7.9000e-004	58.9772
Mobile											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Waste											2.1071	0.0000	2.1071	0.1245	0.0000	5.2201
Water											0.2495	2.7812	3.0307	0.0257	6.3000e-004	3.8603
Total											2.3565	213.9120	216.2685	0.1651	9.4300e-003	223.2039

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Energy											0.0000	50.7718	50.7718	1.3300e-003	7.3000e-004	51.0239
Mobile											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Waste											1.0535	0.0000	1.0535	0.0623	0.0000	2.6101
Water											0.1996	2.2525	2.4520	0.0206	5.0000e-004	3.1158
Total											1.2531	205.4547	206.7078	0.0974	9.2400e-003	211.8960

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.82	3.95	4.42	41.02	2.01	5.07

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	26.8060
Total	26.8060

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/6/2023	4/6/2023	5	44	
2	Building Construction	Building Construction	6/1/2023	12/2/2024	5	393	
3	Paving	Paving	9/2/2024	12/2/2024	5	66	
4	Architectural Coating	Architectural Coating	10/1/2024	12/2/2024	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.17

Acres of Paving: 0.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,651; Non-Residential Outdoor: 6,217; Striped Parking Area: 1,043 (Architectural Coating – sqft)

OffRoad Equipment

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

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
Grading	3	8.00	0.00	145.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	13.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584
Total											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	4.3511	4.3511	2.2000e-004	6.9000e-004	4.5627
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.1168	1.1168	3.0000e-005	3.0000e-005	1.1269
Total											0.0000	5.4679	5.4679	2.5000e-004	7.2000e-004	5.6897

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584
Total											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	4.3511	4.3511	2.2000e-004	6.9000e-004	4.5627
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.1168	1.1168	3.0000e-005	3.0000e-005	1.1269
Total											0.0000	5.4679	5.4679	2.5000e-004	7.2000e-004	5.6897

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	138.0153	138.0153	0.0234	0.0000	138.6012
Total											0.0000	138.0153	138.0153	0.0234	0.0000	138.6012

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	7.6247	7.6247	2.3000e-004	1.1000e-003	7.9597
Worker											0.0000	6.2694	6.2694	1.9000e-004	1.7000e-004	6.3262
Total											0.0000	13.8942	13.8942	4.2000e-004	1.2700e-003	14.2859

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	138.0152	138.0152	0.0234	0.0000	138.6011
Total											0.0000	138.0152	138.0152	0.0234	0.0000	138.6011

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	7.6247	7.6247	2.3000e-004	1.1000e-003	7.9597
Worker											0.0000	6.2694	6.2694	1.9000e-004	1.7000e-004	6.3262
Total											0.0000	13.8942	13.8942	4.2000e-004	1.2700e-003	14.2859

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	218.8416	218.8416	0.0365	0.0000	219.7527
Total											0.0000	218.8416	218.8416	0.0365	0.0000	219.7527

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	11.8786	11.8786	3.7000e-004	1.7200e-003	12.4008
Worker											0.0000	9.6148	9.6148	2.7000e-004	2.6000e-004	9.6988
Total											0.0000	21.4935	21.4935	6.4000e-004	1.9800e-003	22.0996

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	218.8413	218.8413	0.0365	0.0000	219.7524
Total											0.0000	218.8413	218.8413	0.0365	0.0000	219.7524

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	11.8786	11.8786	3.7000e-004	1.7200e-003	12.4008
Worker											0.0000	9.6148	9.6148	2.7000e-004	2.6000e-004	9.6988
Total											0.0000	21.4935	21.4935	6.4000e-004	1.9800e-003	22.0996

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	38.8544	38.8544	0.0123	0.0000	39.1624
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	38.8544	38.8544	0.0123	0.0000	39.1624

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561
Total											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	38.8544	38.8544	0.0123	0.0000	39.1623
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	38.8544	38.8544	0.0123	0.0000	39.1623

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561
Total											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179
Total											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179
Total											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Unmitigated											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	170.00	170.00	170.00	322,988	322,988
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	117.00	117.00	117.00	138,782	138,782
Total	287.00	287.00	287.00	461,770	461,770

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Other Asphalt Surfaces	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Quality Restaurant	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	17.6594	17.6594	7.0000e-004	1.3000e-004	17.7147
Electricity Unmitigated											0.0000	25.5879	25.5879	1.0100e-003	1.8000e-004	25.6681
NaturalGas Mitigated											0.0000	33.1124	33.1124	6.3000e-004	6.1000e-004	33.3091
NaturalGas Unmitigated											0.0000	33.1124	33.1124	6.3000e-004	6.1000e-004	33.3091

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	620502											0.0000	33.1124	33.1124	6.3000e-004	6.1000e-004	33.3091
Total												0.0000	33.1124	33.1124	6.3000e-004	6.1000e-004	33.3091

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	620502											0.0000	33.1124	33.1124	6.3000e-004	6.1000e-004	33.3091
Total												0.0000	33.1124	33.1124	6.3000e-004	6.1000e-004	33.3091

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	87672.8	22.1196	8.7000e-004	1.6000e-004	22.1889
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	13747	3.4683	1.4000e-004	2.0000e-005	3.4792
Total		25.5879	1.0100e-003	1.8000e-004	25.6681

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	60507.1	15.2658	6.0000e-004	1.1000e-004	15.3136
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	9487.46	2.3937	9.0000e-005	2.0000e-005	2.4012
Total		17.6594	6.9000e-004	1.3000e-004	17.7147

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Unmitigated											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Total											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Total											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

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
- Use Water Efficient Irrigation System

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.4520	0.0206	5.0000e-004	3.1158
Unmitigated	3.0307	0.0257	6.3000e-004	3.8603

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.431235 / 0.047915	1.6878	0.0141	3.4000e-004	2.1428
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.355134 / 0.0226682	1.3429	0.0116	2.8000e-004	1.7175
Total		3.0307	0.0257	6.2000e-004	3.8603

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.344988 / 0.0449922	1.3689	0.0113	2.7000e-004	1.7330
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.284108 / 0.0212854	1.0831	9.3000e-003	2.3000e-004	1.3828
Total		2.4520	0.0206	5.0000e-004	3.1158

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0535	0.0623	0.0000	2.6101
Unmitigated	2.1071	0.1245	0.0000	5.2201

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	9.31	1.8899	0.1117	0.0000	4.6820
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.07	0.2172	0.0128	0.0000	0.5381
Total		2.1071	0.1245	0.0000	5.2201

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	4.655	0.9449	0.0558	0.0000	2.3410
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.535	0.1086	6.4200e-003	0.0000	0.2691
Total		1.0535	0.0623	0.0000	2.6101

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
----------------	--------

GHG Analysis for Boutique Hotel_with Restaurant NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	26.8060	0.0000	0.0000	26.8060

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Pine	23	14.6740	0.0000	0.0000	14.6740
Spruce	18	12.1320	0.0000	0.0000	12.1320
Total		26.8060	0.0000	0.0000	26.8060

OPTION 3:
NO NATURAL GAS USAGE (ALL ELECTRIC)

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**GHG Analysis for Boutique Hotel - No NG Usage
San Diego County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.38	1000sqft	0.40	17,375.00	0
Hotel	17.00	Room	0.57	11,269.00	0
Quality Restaurant	1.17	1000sqft	0.03	1,165.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	556.22	CH4 Intensity (lb/MWhr)	0.022	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per client info

Land Use - Land usage from site plan. Restaurant square footage updated from 1,235 sq. ft. to 1,165 sq. ft. in June 2023

Construction Phase - Same as Feb 2022 GHG report except date changes for grading/construction provided by client: GRADING START: FEBRUARY 2023, END APRIL 2023. CONSTRUCTION START: JUNE 2023. CONSTRUCTION FINISH: DECEMBER 2024

Off-road Equipment -

Off-road Equipment - From previous GHG report.

Off-road Equipment -

Off-road Equipment - Per previous GHG report.

Trips and VMT - Per 2022 GHG study, with default haul trips for material export.

Grading - Exported material provided in site plan. Total area graded is from previous GHG report.

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - SDAPCD Rule 67.0.1. Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic markings paints are listed as 100 g/L VOC.

Vehicle Trips - From traffic impact study (Mizuta Traffic Consultants 2023)

Area Coating - SDAPCD Rule 67.0.1. Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic markings paints are listed as 100 g/L VOC.

Energy Use - Per client - No NG.

Land Use Change -

Sequestration - Project will plant 18 deciduous trees and 23 evergreen trees.

Construction Off-road Equipment Mitigation -

Area Mitigation - SDAPCD Rule 67.0.1 Architectural Coatings: 50 g/L VOC will be applied for interior and exterior paint. Traffic marking paints are listed as 100 g/L VOC.

Energy Mitigation - Per GBO requirements, a minimum 19kWDC PV system must be installed.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	45.00
tblConstructionPhase	NumDays	100.00	393.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	5.00	66.00

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblEnergyUse	LightingElect	4.50	0.21
tblEnergyUse	LightingElect	6.78	0.31
tblEnergyUse	NT24E	3.67	3.46
tblEnergyUse	NT24E	23.69	9.67
tblEnergyUse	NT24NG	11.10	0.00
tblEnergyUse	NT24NG	138.46	0.00
tblEnergyUse	T24E	4.27	4.11
tblEnergyUse	T24E	7.35	6.24
tblEnergyUse	T24NG	46.80	0.00
tblEnergyUse	T24NG	35.56	0.00
tblGrading	AcresOfGrading	33.00	1.17
tblGrading	MaterialExported	0.00	1,160.00
tblLandUse	LandUseSquareFeet	17,380.00	17,375.00
tblLandUse	LandUseSquareFeet	24,684.00	11,269.00
tblLandUse	LandUseSquareFeet	1,170.00	1,165.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.022
tblProjectCharacteristics	CO2IntensityFactor	539.98	556.22
tblSequestration	NumberOfNewTrees	0.00	23.00
tblSequestration	NumberOfNewTrees	0.00	18.00
tblVehicleTrips	ST_TR	8.19	10.00
tblVehicleTrips	ST_TR	90.04	100.00
tblVehicleTrips	SU_TR	5.95	10.00

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	71.97	100.00
tblVehicleTrips	WD_TR	8.36	10.00
tblVehicleTrips	WD_TR	83.84	100.00

2.0 Emissions Summary

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2023											0.0000	184.6156	184.6156	0.0329	2.0000e-003	186.0353
2024											0.0000	287.9817	287.9817	0.0498	2.0600e-003	289.8416
Maximum											0.0000	287.9817	287.9817	0.0498	2.0600e-003	289.8416

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					
2023											0.0000	184.6154	184.6154	0.0329	2.0000e-003	186.0351
2024											0.0000	287.9814	287.9814	0.0498	2.0600e-003	289.8413
Maximum											0.0000	287.9814	287.9814	0.0498	2.0600e-003	289.8413

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	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)
		Highest		

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											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Energy											0.0000	26.8871	26.8871	1.0600e-003	1.9000e-004	26.9713
Mobile											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Waste											2.1071	0.0000	2.1071	0.1245	0.0000	5.2201
Water											0.2495	2.7812	3.0307	0.0257	6.3000e-004	3.8603
Total											2.3565	182.0988	184.4553	0.1645	8.8300e-003	191.1980

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Energy											0.0000	18.9622	18.9622	7.5000e-004	1.4000e-004	19.0216
Mobile											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Waste											1.0535	0.0000	1.0535	0.0623	0.0000	2.6101
Water											0.1996	2.2525	2.4520	0.0206	5.0000e-004	3.1158
Total											1.2531	173.6451	174.8982	0.0968	8.6500e-003	179.8937

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.82	4.64	5.18	41.16	2.04	5.91

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	26.8060
Total	26.8060

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/6/2023	4/6/2023	5	44	
2	Building Construction	Building Construction	6/1/2023	12/2/2024	5	393	
3	Paving	Paving	9/2/2024	12/2/2024	5	66	
4	Architectural Coating	Architectural Coating	10/1/2024	12/2/2024	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.17

Acres of Paving: 0.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,651; Non-Residential Outdoor: 6,217; Striped Parking Area: 1,043 (Architectural Coating – sqft)

OffRoad Equipment

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

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
Grading	3	8.00	0.00	145.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	13.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584
Total											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	4.3511	4.3511	2.2000e-004	6.9000e-004	4.5627
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.1168	1.1168	3.0000e-005	3.0000e-005	1.1269
Total											0.0000	5.4679	5.4679	2.5000e-004	7.2000e-004	5.6897

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584
Total											0.0000	27.2382	27.2382	8.8100e-003	0.0000	27.4584

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	4.3511	4.3511	2.2000e-004	6.9000e-004	4.5627
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.1168	1.1168	3.0000e-005	3.0000e-005	1.1269
Total											0.0000	5.4679	5.4679	2.5000e-004	7.2000e-004	5.6897

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	138.0153	138.0153	0.0234	0.0000	138.6012
Total											0.0000	138.0153	138.0153	0.0234	0.0000	138.6012

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	7.6247	7.6247	2.3000e-004	1.1000e-003	7.9597
Worker											0.0000	6.2694	6.2694	1.9000e-004	1.7000e-004	6.3262
Total											0.0000	13.8942	13.8942	4.2000e-004	1.2700e-003	14.2859

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	138.0152	138.0152	0.0234	0.0000	138.6011
Total											0.0000	138.0152	138.0152	0.0234	0.0000	138.6011

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	7.6247	7.6247	2.3000e-004	1.1000e-003	7.9597
Worker											0.0000	6.2694	6.2694	1.9000e-004	1.7000e-004	6.3262
Total											0.0000	13.8942	13.8942	4.2000e-004	1.2700e-003	14.2859

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	218.8416	218.8416	0.0365	0.0000	219.7527
Total											0.0000	218.8416	218.8416	0.0365	0.0000	219.7527

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	11.8786	11.8786	3.7000e-004	1.7200e-003	12.4008
Worker											0.0000	9.6148	9.6148	2.7000e-004	2.6000e-004	9.6988
Total											0.0000	21.4935	21.4935	6.4000e-004	1.9800e-003	22.0996

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	218.8413	218.8413	0.0365	0.0000	219.7524
Total											0.0000	218.8413	218.8413	0.0365	0.0000	219.7524

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	11.8786	11.8786	3.7000e-004	1.7200e-003	12.4008
Worker											0.0000	9.6148	9.6148	2.7000e-004	2.6000e-004	9.6988
Total											0.0000	21.4935	21.4935	6.4000e-004	1.9800e-003	22.0996

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	38.8544	38.8544	0.0123	0.0000	39.1624
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	38.8544	38.8544	0.0123	0.0000	39.1624

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561
Total											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	38.8544	38.8544	0.0123	0.0000	39.1623
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	38.8544	38.8544	0.0123	0.0000	39.1623

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561
Total											0.0000	2.6331	2.6331	7.0000e-005	7.0000e-005	2.6561

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179
Total											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total											0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179
Total											0.0000	0.4143	0.4143	1.0000e-005	1.0000e-005	0.4179

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456
Unmitigated											0.0000	152.4298	152.4298	0.0132	8.0100e-003	155.1456

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	170.00	170.00	170.00	322,988	322,988
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	117.00	117.00	117.00	138,782	138,782
Total	287.00	287.00	287.00	461,770	461,770

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	87672.8	22.1196	8.7000e-004	1.6000e-004	22.1889
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	18896.3	4.7675	1.9000e-004	3.0000e-005	4.7824
Total		26.8871	1.0600e-003	1.9000e-004	26.9713

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	61814.9	15.5957	6.2000e-004	1.1000e-004	15.6446
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	13343.4	3.3665	1.3000e-004	2.0000e-005	3.3770
Total		18.9622	7.5000e-004	1.3000e-004	19.0216

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Unmitigated											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Total											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004
Total											0.0000	6.4000e-004	6.4000e-004	0.0000	0.0000	6.8000e-004

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
- Use Water Efficient Irrigation System

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.4520	0.0206	5.0000e-004	3.1158
Unmitigated	3.0307	0.0257	6.3000e-004	3.8603

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.431235 / 0.047915	1.6878	0.0141	3.4000e-004	2.1428
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.355134 / 0.0226682	1.3429	0.0116	2.8000e-004	1.7175
Total		3.0307	0.0257	6.2000e-004	3.8603

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.344988 / 0.0449922	1.3689	0.0113	2.7000e-004	1.7330
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.284108 / 0.0212854	1.0831	9.3000e-003	2.3000e-004	1.3828
Total		2.4520	0.0206	5.0000e-004	3.1158

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0535	0.0623	0.0000	2.6101
Unmitigated	2.1071	0.1245	0.0000	5.2201

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	9.31	1.8899	0.1117	0.0000	4.6820
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.07	0.2172	0.0128	0.0000	0.5381
Total		2.1071	0.1245	0.0000	5.2201

GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	4.655	0.9449	0.0558	0.0000	2.3410
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.535	0.1086	6.4200e-003	0.0000	0.2691
Total		1.0535	0.0623	0.0000	2.6101

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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GHG Analysis for Boutique Hotel - No NG Usage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	26.8060	0.0000	0.0000	26.8060

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Pine	23	14.6740	0.0000	0.0000	14.6740
Spruce	18	12.1320	0.0000	0.0000	12.1320
Total		26.8060	0.0000	0.0000	26.8060