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MEMORANDUM

DATE: December 29, 2021

TO: City of Menifee

FROM: Ronald Brugger, LSA

SUBJECT: River Walk Village Project Air Quality, Greenhouse Gas Emissions, and Energy Analysis (LSA Project No. CIM2105)

INTRODUCTION

This Air Quality and Greenhouse Gas Emissions Analysis has been prepared to evaluate the impacts associated with the proposed River Walk Village Project (project). The analysis includes modeling of air pollutant and greenhouse gas (GHG) emissions using the latest version of the California Emissions Estimator Model (CalEEMod version 2020.4.0) and follows the South Coast Air Quality Management District's (SCAQMD) *CEQA Air Quality Handbook* guidelines. The results of the modeling have been compared to SCAQMD emissions thresholds. (References cited are included as Attachment A.)

The 14.31-acre (gross) project site is located along the west side of Bradley Road north of Lazy Creek Road in the City of Menifee in Riverside County, California, as shown in Figure 1 (all figures are included as Attachment B).

The project includes development of 198 detached single-family residential units and a 2,800-square foot recreation building with kitchenette and bathroom that includes a common area with swimming pool and two tot lots, as shown in Figure 2, Site Plan. Four two-story floor plans are proposed, ranging in size from 1,716 square feet (Plan 1) to 1,864 square feet (Plan 4). Each unit would include a two-car garage and private back yard space. Solar panels will be installed on every residence and all house electrical panels will be sized to accommodate future electric charging units in the individual private garages (200 amp panels). Public electric vehicle charging stations will also be placed near the recreation building. The individual residence solar power systems will each have a DC rating of 4.10 KW, AC rating of 2.80 KW, and AC output current of 11.7 amps. The recreation building will also be equipped with solar power generation to assist in common area electrical needs.

The project would not have to import or export soil during grading. Project construction would include removal of existing on-site fencing and vegetation, excavation, grading, paving, construction of the residential buildings, clubhouse, and parking areas, and the installation of lighting, landscaping, and utility connections. Project construction is expected to start in July 2022 and complete by April 2024.

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Sensitive receptors include residences, schools, hospitals, and similar uses sensitive to air quality. The nearest sensitive receptors in proximity to the project site include single-family residential uses across Bradley Road to the east, the Church of Jesus Christ of Latter Day Saints to the south, and the single-family residential uses across the Bradley Road Channel to the west of the project site.

REGULATORY SETTING

Federal Regulations/Standards

Pursuant to the Federal Clean Air Act (CAA) of 1970, the United States Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM) (both PM less than 10 microns in size [PM_{10}] and PM less than 2.5 microns in size [$PM_{2.5}$]), and lead. Criteria pollutants are defined as those pollutants for which the federal and state governments have established Ambient Air Quality Standards (AAQS), or criteria, for outdoor concentrations to protect public health.

On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—constitute a threat to public health and welfare and that the combined emissions from motor vehicles cause and contribute to global climate change.

In 2012, the EPA and the National Highway Traffic Safety Administration promulgated new rules to set GHG emission and fuel economy standards for new motor vehicles. The rules created requirements for model years 2017–2021 and 2022–2025, which would become more stringent each year, achieving greater GHG reductions over time. On March 31, 2020, the agencies issued the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule that increases the stringency of Corporate Average Fuel Economy Standard (CAFE) and CO_2 emissions standards by 1.5 percent each year through model year 2026.

State Agencies, Regulations, and Standards

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the California Air Resources Board (CARB). Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to the State's air pollution problems. California adopted the California Clean Air Act (CCAA) in 1988. CARB administers the California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. These 10 State air pollutants are the six criteria pollutants designated by the CAA as well as four others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

The California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32, requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed to set a statewide GHG emissions limit and set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

In 2016, the Legislature passed and Governor Jerry Brown signed, Senate Bill (SB) 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order (EO) B-30-15. SB 32 builds on AB 32 and keeps California on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million (ppm) of carbon dioxide equivalent (CO_2e) and reduce the likelihood of catastrophic impacts from climate change. The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions.

In December 2017, CARB adopted "California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target" (CARB 2017) that describes the actions the State will take to achieve the SB 32 climate goal of reducing GHG emissions at least 40 percent below 1990 levels by 2030. The 2017 Scoping Plan includes input from a range of State agencies and is the result of a 2-year development process, including extensive public and stakeholder outreach, designed to ensure that California's climate and air quality efforts continue to improve public health and drive development of a more sustainable economy. It outlines an approach that cuts across economic sectors to combine GHG reductions with reductions of smog-causing pollutants, while also safeguarding public health and economic goals. The 2017 Scoping Plan reflects the direction from the Legislature on the Cap-and-Trade Program, as described in AB 398, the need to extend key existing emissions reductions programs, and acknowledges the parallel actions required under AB 617 to strengthen monitoring and reduce air pollution at the community level.

The actions identified in the 2017 Scoping Plan can reduce overall GHG emissions in California and deliver strong policy signals that will continue to drive investment and certainty in a low-carbon economy. The 2017 Scoping Plan builds upon the successful framework established by the original Scoping Plan and the 2014 Scoping Plan, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

Although the 2017 Scoping Plan does not impose any specific mandates or policies that specifically apply to individual development projects such as the proposed project, the Scoping Plan encourages local municipalities to update building codes and establish sustainable development practices for accommodating future growth. Key policies that involve the residential and commercial building sectors that are indirectly applicable to the proposed project include the implementation of SB 275 (promoting infill development and high density housing in high quality transit areas), implementing green building practices (i.e., the California Green Building Standards Code), energy efficiency and water conservation policies, and waste diversion efforts.

Senate Bill 97 and CEQA Guidelines

In August 2007, the Legislature adopted SB 97, requiring the Office of Planning and Research (OPR) to prepare and transmit new California Environmental Quality Act (CEQA) guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the California Natural Resources Agency. OPR submitted its proposed guidelines to the Secretary for Natural Resources on April 13, 2009, and the *CEQA Guidelines* amendments were adopted on December 30, 2009, and became effective on March 18, 2010.

The *CEQA Guidelines* amendments do not specify a threshold of significance for GHG emissions or prescribe assessment methodologies or specific mitigation measures. Instead, the amendments encourage lead agencies to consider many factors in performing a CEQA analysis but rely on the lead agencies in making their own significance determinations based upon substantial evidence. The *CEQA Guidelines* amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

The *CEQA Guidelines* amendments require a lead agency to make a good-faith effort based on the extent possible on scientific and factual data to describe, calculate or estimate the amount of GHG emissions resulting from a project. The *CEQA Guidelines* amendments give discretion to the lead agency whether to (1) use a model or methodology to quantify GHG emissions resulting from a project and which model or methodology to use and/or (2) rely on a qualitative analysis or performance-based standards. The California Natural Resources Agency is required to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to AB 32.

California Green Building Standards Code

The California Green Building Standards Code, which is Part 11 of the California Code of Regulations (CCR), is commonly referred to as the CALGreen Code. The first edition of the CALGreen Code was released in 2008 and contained only voluntary standards. The 2019 CALGreen Code was updated in 2019, became effective on January 1, 2020, and applies to non-residential and residential developments. The CALGreen Code contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning, which is a process for the verification that all building systems, such as heating and cooling equipment and lighting systems, function at their maximum efficiency.

Regional Air Quality Planning Framework

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization responsible for ensuring compliance with the requirements of the CAA for the Basin. SCAG is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is a regional planning agency and a forum for regional issues relating to transportation, the economy and community development, and the environment.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality.

On September 3, 2020, the Regional Council of SCAG adopted *Connect SoCal*, also known as the *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and High Quality of Life* (2020–2045 RTP/SCS). The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions (CTCs), tribal governments, non-profit organizations, businesses and local stakeholders within the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura.

South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with SCAG, county transportation commissions and local governments, and cooperates actively with State and federal government agencies. The SCAQMD develops air quality-related rules and regulations, establishes permitting requirements, inspects emissions sources, and provides regulatory enforcement through such measures as educational programs or fines, when necessary.

Regional Air Quality Management Plan

SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. SCAQMD prepares a new AQMP every 3 years, updating the previous plan and a 20-year horizon.

The latest plan is the 2016 AQMP (SCAQMD 2017), which incorporates the latest scientific and technological information and planning assumptions, including the 2016 RTP/SCS and emission inventory methodologies for various source categories. The 2016 AQMP includes the integrated strategies and measures needed to meet the NAAQS, implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour O_3 NAAQS as well as the latest 24-hour and annual $PM_{2.5}$ standards. Key elements of the 2016 AQMP include the following:

- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation);
- A strategy with fair-share emission reductions at the federal, State, and local levels;
- Investment in strategies and technologies meeting multiple air quality objectives;
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near-zero technologies;
- Enhanced socioeconomic assessment, including an expanded environmental-justice analysis;
- Attainment of the 24-hour $PM_{2.5}$ standard in 2019 with no additional measures;

- Attainment of the annual $PM_{2.5}$ standard by 2025 with implementation of a portion of the O_3 strategy; and
- Attainment of the 1-hour O_3 standard by 2022 with no reliance on "black box" future technology (CAA Section 182(e)(5) measures).

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operation. For example, SCAQMD Rule 403 requires implementation of the best-available fugitive dust control measure during active construction periods capable of generating fugitive dust emissions from on-site earthmoving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with new development projects within the Basin, such as the proposed project. Instead, SCAQMD published the *CEQA Air Quality Handbook* (SCAQMD 1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties in evaluating potential air quality impacts of projects proposed in the Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in Environmental Impact Reports and was used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* (1993) with the *Air Quality Analysis Guidance Handbook* (SCAQMD 2021).

To assist the CEQA practitioner in conducting an air quality analysis in the interim while the replacement *Air Quality Analysis Guidance Handbook* is being prepared, supplemental guidance/ information is provided on the SCAQMD website and includes (1) on-road vehicle emission factors, (2) background CO concentrations, (3) localized significance thresholds (LSTs), (4) mitigation measures and control efficiencies, (5) mobile-source toxics analysis, (6) off-road mobile-source emission factors, (7) $PM_{2.5}$ significance thresholds and calculation methodology, and (8) updated SCAQMD Air Quality Significance Thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

The following SCAQMD rules and regulations would apply to the proposed project:

- SCAQMD Rule 403 (SCAQMD 2005) requires projects to incorporate fugitive dust control measures; and
- SCAQMD Rule 1113 (SCAQMD 2016) limits the VOC content of architectural coatings.

Local Regulations

City of Menifee General Plan

The *City of Menifee General Plan* (City of Menifee 2018) includes the following actions applicable to the Project:

- **Action OSC-24, Energy and Mineral.** Develop and Implement strategies, in coordination with Southern California Edison and the Southern California Gas Company, to reduce residential and

nonresidential energy use. These strategies could include requiring new development to utilize energy reduction strategies during construction and operation.

- **Action OSC-25, Energy and Mineral.** Use the project review process to ensure that all new development complies with California State Energy Regulation requirements.
- **Action OSC-61, Air Quality.** Require new development projects and substantial redevelopment projects subject to CALGreen to provide proof of submittal of a Construction Waste Management Plan (CWMP).
- **Action CD-25, Community Design Amenities.** Require that new development utilize drought-tolerant landscaping and incorporate adequate drought-conscious irrigation systems.

THRESHOLDS OF SIGNIFICANCE

Certain air districts (e.g., SCAQMD) have created guidelines and requirements to conduct air quality analyses. The SCAQMD's current guidelines, the *CEQA Air Quality Handbook* (SCAQMD 1993) with associated updates, were followed in this assessment of air quality impacts for the proposed project.

Based on the *State CEQA Guidelines*, Appendix G (Public Resources Code Sections 15000–15387), a project would normally be considered to have a significant effect on air quality if it would violate any CAAQS, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

Pollutants with Regional Effects

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (SCAQMD 2017), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Regional Emissions Thresholds

Table A lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table A: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Thresholds (lbs/day)					
	VOCs	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: South Coast AQMD Air Quality Significance Thresholds (SCAQMD 2021)

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compound

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and which apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

Localized Impacts Analysis

SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008 (SCAQMD 2008), recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the CAAQS for CO, NO_2, PM_{10} and $PM_{2.5}$. LSTs are based on the ambient concentrations of that pollutant within the project's Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is the Perris Valley area (SRA 24). Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. The closest sensitive receptors are single-family residential uses across the Bradley Road Channel to the west of the project site approximately 80 feet from the boundary of construction.

If the total acreage disturbed is less than or equal to 5 acres per day, then the SCAQMD's screening look-up tables can be used to determine if a project has the potential to result in a significant impact. The project site is approximately 14.31 acres. Per the SCAQMD LST surveys, the typical maximum daily disturbed area for a site of this size would be 4 acres. Therefore, the 4-acre LSTs at 80 feet distance (derived by interpolation) were used for construction emissions.

On-site operational emissions would occur from stationary and mobile sources. On-site vehicle emissions are the largest source of emissions, and the on-site travel for the proposed project would be would be restricted to the onsite roadways. Therefore, the 5 acres LSTs at 80 feet distance (derived by interpolation) were used for operational emissions. Table B lists the emissions thresholds that apply during project construction and operation.

Table B: SCAQMD Localized Significance Thresholds

Emissions Source Category	Pollutant Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction (4 acres, 80 feet distance)	237	1,346	11	7
Operations (5 acres, 80 feet distance)	270	1,577	4	2

Source: *Final Localized Significance Threshold Methodology* (SCAQMD 2008).

CO = carbon monoxide
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Global Climate Change

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further states that

an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

Appendix G of the *State CEQA Guidelines* includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would do either of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Currently, there is no statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are still being developed and revised by air districts in California.

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group (Working Group) in 2008. This Working Group proposed a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency. The applicable tier for this project is Tier 3, which states that if GHG emissions are less than 3,000 metric tons (MT) of CO_2e per year, project-level and cumulative GHG emissions would be less than significant. However, this threshold was developed to meet the 2020 GHG emissions goals.

To be consistent with State goals detailed in SB 32, EO B-30-15, and EO S-3-05 to reduce GHG emissions by 40 percent below 1990 levels by 2030, a scaled screening GHG threshold can be developed for an assumed opening year of 2024, which is when the proposed project is anticipated to be operational. Though the SCAQMD has not published a quantified threshold beyond 2020, a threshold of 2,520 MT CO_2e per year would be the appropriate scaled GHG threshold for the build-out year of 2024 based on the GHG reduction goals of SB 32 and EO B-30-15. This is calculated as: 2,520 = 3,000 - ((2024 - 2020) × {[3,000 - 3,000 × (1 - 40%)] ÷ 10}).

CONSTRUCTION IMPACT ANALYSIS

The CalEEMod is designed to model construction emissions for land development projects and allows for the input of project-specific information, such as the number of equipment, hours of operations, duration of construction activities, and selection of emission control measures. Construction would require heavy equipment during mass grading, utility installations, building construction and paving. Construction is planned to start in July 2022 and complete by April 2024. Other than the construction dates, CalEEMod defaults were used in the analysis.

Table C shows the anticipated peak daily construction emissions. These results are from the CalEEMod output tables listed as "Mitigated Construction," even though the only measures that have been applied to the analysis are the SCAQMD required construction emissions control measures, or standard conditions. CalEEMod outputs are included as Attachment C.

Table C: Estimated Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	3	33	20	<1	10	5
Grading	4	39	30	<1	6	3
Building Construction	2	19	24	<1	2	<1
Architectural Coating	56	1	3	<1	<1	<1
Paving	1	10	15	<1	<1	<1
Peak Daily Emissions	**56**	**39**	**30**	**<1**	**10**	**5**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Significant Emissions?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (December 2021).

CO = carbon monoxide
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compound

Construction emissions can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors. The anticipated peak daily construction emissions shown in Table C indicate the construction emissions from the proposed project would not exceed the corresponding SCAQMD daily emission thresholds for criteria pollutants. Therefore, construction air quality impacts would be less than significant.

Fugitive Dust

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction.

The construction calculations prepared for this project assumed that dust control measures (watering a minimum of two times daily) would be employed to reduce emissions of fugitive dust during site grading. Furthermore, all construction would need to comply with SCAQMD Rule 403 regarding the emission of fugitive dust. Table C lists total construction emissions (i.e., fugitive dust emissions and construction equipment exhausts) that have incorporated the following Rule 403 measures that would be implemented to significantly reduce PM_{10} emissions from construction:

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

These Rule 403 measures were incorporated in the CalEEMod analysis.

Architectural Coatings

Architectural coatings contain VOCs that are part of the O_3 precursors. Based on the proposed project, it is estimated that application of the architectural coatings for the proposed peak construction day would result in a peak of 56 pounds per day (lbs/day) of VOCs. Therefore, VOC emissions from architectural-coating application would not exceed the SCAQMD VOC threshold of 75 lbs/day.

Localized Impacts Analysis

The SCAQMD has issued guidance on applying CalEEMod results to localized impacts analyses. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the CAAQS for CO, NO_2, PM_{10}, and $PM_{2.5}$. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. The closest are the existing residences across Bradley Road to the east, the closest of which is approximately 80 feet from the project site boundary.

If the total acreage disturbed is less than or equal to 5 acres per day, then the SCAQMD's screening look-up tables can be used to determine if a project has the potential to result in a significant impact. The project site is approximately 14.31 acres. Per the SCAQMD LST surveys, the typical maximum daily disturbed area for a site of this size would be 4 acres. Therefore, the 4-acre LSTs at 80 feet distance (derived by interpolation) were used for LSTs.

Table D shows that the on-site emissions of the pollutants on the peak day of construction will result in concentrations of pollutants at these nearest residences that are all below the SCAQMD thresholds of significance.

Table D: Construction Localized Impacts Analysis

Emissions Sources	NO_x	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions (pounds per day)	39	29	9	5
LST Thresholds (pounds per day)	**237**	**1,346**	**11**	**7**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (December 2021).

Note: LST Thresholds based on SRA – Perris Valley, 4 acres, 80-foot distance

CO = carbon monoxide
LST = local significance threshold
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SRA = Source Receptor Area

Odors from Construction Activities

Heavy-duty equipment in the project area during construction would emit odors, primarily from the equipment exhaust. However, the construction-produced odors would cease to occur after individual construction is completed. No other sources of objectionable odors have been identified for the proposed project, and no mitigation measures are required.

SCAQMD Rule 402, regarding nuisances, states:

> *A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.*

The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the proposed project.

Naturally Occurring Asbestos

The proposed project site is in Riverside County, which is among the counties found to have serpentine and ultramafic rock in their soils (California Department of Conservation 2021). However, according to the California Geological Survey, no such rock has been identified in the project vicinity. Therefore, the potential risk for naturally occurring asbestos during project construction is small and less than significant.

Construction Emissions Conclusions

Tables C and D show that daily regional construction emissions would not exceed the daily thresholds of any criteria pollutant emission thresholds established by SCAQMD; thus, during construction, there would be no regional or localized impacts.

OPERATIONAL IMPACT ANALYSIS

Operational emissions from area sources include the combustion of natural gas for food preparation, heating, and hot water and engine emissions from landscape maintenance equipment. Mobile source emissions are associated with project-related vehicle trip generation. Based on the Traffic Impact Analysis prepared for the project (LSA 2021), at full buildout the project would generate 1,869 average daily trips (ADT). The CalEEMod default vehicle fleet mix was used for the purpose of this analysis. Table E presents the estimated operational emissions for the proposed project.

Table E: Operational Emissions

Source	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	8	<1	16	<1	<1	<1
Energy Sources	<1	1	<1	<1	<1	<1
Mobile Sources	5	6	45	<1	10	3
Total Project Emissions	**14**	**8**	**62**	**<1**	**10**	**3**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (December 2021).

CO = carbon monoxide
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

As shown in Table E, criteria pollutant emissions from operational activities associated with the proposed project would be below the SCAQMD thresholds. Therefore, project-related regional operational emissions would be less than significant.

Localized Impacts Analysis

Table F shows the calculated emissions for the proposed operational activities compared with the appropriate LSTs. By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in Table F include all on-site project-related stationary sources and 5 percent of the project-related new mobile sources, which is an estimate of the amount of project-related new vehicle traffic that will occur on site. All off-site emissions are subtracted from the total emissions.

Table F: Long-Term Operational Localized Impacts Analysis

Emissions Sources	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	<1	19	<1	<1
LST Thresholds	**270**	**1,577**	**4**	**2**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (December 2021).

Note: LST Thresholds based on SRA – Perris Valley, 5 acres, 80-foot distance, on-site traffic would be 5 percent of total mobile source trips.

CO = carbon monoxide
LST = Local Significance Thresholds
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SRA = Source Receptor Area

A total of 5 percent is considered conservative because the average round-trip lengths assumed are 16.6 miles for home-work trips, 8.4 miles for home-shopping trips, and 6.9 miles for other types of trips. It is unlikely that the average on-site distance driven will be even ¼ mile, which is approximately 2.66 percent of the total miles traveled. Considering the total trip length included in the CalEEMod, the 5 percent assumption is conservative.

Table F shows that the operational emission rates would not exceed the LSTs for receptors at 80 feet. Therefore, the proposed operational activity would not result in a locally significant air quality impact.

Odors from Operational Activities

Land uses that are associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project would be residential and no sources of objectionable odors have been identified for the proposed project; therefore, the impacts associated with odors would be less than significant and no mitigation measures are required.

CO Hot-Spot Analysis

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when

emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the closest CARB station, the Lake Elsinore Station, show a highest recorded 1-hour concentration of 1.6 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 0.8 ppm (the State standard is 9 ppm) during the past 3 years.[1] The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

The project is expected to add approximately 196 vehicle trips per hour during the peak hour to local roads. This low level of traffic would not substantially alter the existing traffic flow. Therefore, the project can be implemented in an existing setting with no significant peak-hour intersection impacts. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

A consistency determination plays an essential role in local-agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local-agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The proposed project is a residential development that would not house more than 1,000 persons, occupy more than 40 acres of land, or encompass more than 650,000 square feet of floor area. Thus, the proposed project would not be defined as a regionally significant project under CEQA; therefore, it does not meet SCAG's Intergovernmental Review criteria.

The site is designated 8.1-14 R in the City's General Plan and Zoned MDR-Medium Density Residential. The MDR zone allows development of single-family attached and detached residences, including townhouses, stacked flats, courtyard homes, patio homes, and zero lot line homes with a

[1] Ambient CO levels from CARB's iADAM: Air Quality Data Statistics, www.arb.ca.gov/adam (accessed December 2021).

density range of 8 to 14 dwelling units per acre (Menifee Development Code Chapter 9.130 Residential Zones). Development of 198 single-family homes on 14.34 net acres (13.8 dwelling units per acre) conforms to the intent of the City's General Plan land use designation and zone. Thus, the proposed project, as analyzed, would result in air pollutant emissions that are consistent with the City's plans. The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD *CEQA Air Quality Handbook*, consistency with the Basin 2016 AQMP is affirmed when a project would not increase the frequency or severity of an air quality standards violation or cause a new violation, and is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, as demonstrated above. Therefore, the project would not result in an increase in the frequency or severity of an air quality standard violation or cause a new air quality standard violation.
2. The *CEQA Air Quality Handbook* (SCAQMD 1993) indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electricity-generating facilities, petroleum and gas refineries, designation of oil-drilling districts, water ports, solid-waste disposal sites, and offshore-drilling facilities; therefore, the proposed project is not defined as significant.

Based on the consistency analysis presented above, the proposed project would be consistent with the regional AQMP.

GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

Construction and operation of the project would result in the emission of GHG emissions as described below.

Construction Greenhouse Gas Emissions

Construction activities produce combustion emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from these construction activities would vary daily as construction activity levels change.

The construction emissions, calculated using CalEEMod using the same methodology as described above for the criteria pollutant emissions, are shown in Table G. Results indicate that project construction would generate approximately 980 MT of CO_2e. Based on SCAQMD guidance, construction emissions were amortized over 30 years (a typical project lifetime) to be added to the total project operational emissions. Thus, annual construction emissions would be approximately 33 MT of CO_2e per year. (See the CalEEMod output in Attachment C for details.)

Table G: Construction GHG Emissions

Construction Phase	Total Emissions per Phase (MT)			Total Emissions per Phase (MT CO_2e)
	CO_2	CH_4	N_2O	
Site Preparation	18	<1	<1	18
Grading	84	<1	<1	85
Building Construction	834	<1	<1	846
Architectural Coating	10	<1	<1	10
Paving	21	<1	<1	21
Total Emissions for the Entire Construction Process				**980 MT CO_2e**
Total Construction Emissions Amortized over 30 Years				**33 MT CO_2e**

Source: Compiled by LSA (December 2021).

CH_4 = methane
CO_2 = carbon dioxide
MT CO_2e = metric tons of carbon dioxide equivalent
N_2O = nitrous oxide

Operational Greenhouse Gas Emissions

Long-term operation of the proposed project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. Mobile-source emissions of GHGs would include project-generated vehicle trips. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas for heating, and other minor sources. Increases in stationary-source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed uses.

Table H shows the GHG emissions associated with the level of development envisioned by the proposed project at opening. The planned solar panels on every residence and the recreation building were included. Area sources include architectural coatings, consumer products, and landscaping. Energy sources include natural gas consumption for space heating.

Table H: Estimated Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	CO_2e
Construction emissions amortized over 30 years				33
Operational Emissions				
Area Sources	3	<1	0	3
Energy Sources	581	<1	<1	584
Mobile Sources	1,578	<1	<1	1,605
Waste Sources	47	3	0	117
Water Usage	30	<1	<1	41
Total Project Emissions	**2,272**	**3**	**<1**	**2,383**
SCAQMD GHG Threshold	—	—	—	**2,520**
Significant Emissions?	—	—	—	**No**

Source: Compiled by LSA (December 2021).

CH_4 = methane
N_2O = nitrous oxide
CO_2e = carbon dioxide equivalent
CO_2 = carbon dioxide

As shown in Table H, the project will result in a net increase of 2,382 MT of CO_2e per year. The emissions level of 2,382 MT CO_2e per year is less than the SCAQMD Tier 3 threshold of 3,000 MT CO_2e per year and less than the post-2020-adjusted Tier 3 threshold of 2,520 MT CO_2e per year; therefore, project-level and cumulative GHG emissions would be less than significant. (Attachment C includes the model outputs.)

ENERGY

The proposed project would increase the demand for electricity, natural gas, and gasoline when compared to the existing condition of the site. The discussion and analysis provided below is based on the data included in the CalEEMod output, which is included as Attachment C.

Construction-Period Energy Use

The anticipated construction schedule assumes that the proposed project would be built over approximately 21 months. The proposed project would require site preparation, grading, building construction, paving, and architectural coating during construction.

Construction of the proposed project would require energy for the manufacture and transportation of building materials and for preparation of the site for grading activities and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities.

Construction activities are not anticipated to result in an inefficient use of energy, as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the proposed project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant and no mitigation would be required.

Operational Energy Use

Energy use includes both direct and indirect sources of emissions. Direct sources of emissions include on-site natural gas usage for heating, while indirect sources include electricity generated by off-site power plants. Natural gas use in CalEEMod is measured in units of a thousand British thermal units (kBTU) per year; however, this analysis converts the results to natural gas in units of therms. Electricity use in CalEEMod is measured in kilowatt hours (kWh) per year.

CalEEMod divides building electricity and natural gas use into uses that are subject to Title 24 standards and those that are not. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24, such as space heating, space cooling, water heating, and ventilation. Non-Title 24 uses include all other end uses, such as appliances, electronics, and other miscellaneous plug-in uses. Because some lighting is not considered as part of the building envelope energy budget, CalEEMod considers lighting as a separate electricity use category.

For natural gas, uses are likewise categorized as Title 24 or Non-Title 24. Title 24 uses include building heating and hot water end uses. Non-Title 24 natural gas uses include appliances.

Table I shows the estimated potential increased electricity, natural gas, gasoline, and diesel demand associated with the proposed project. The electricity and natural gas rates are from the CalEEMod analysis, while the gasoline and diesel rates are based on the traffic analysis (see Attachment D) in conjunction with United States Department of Transportation fuel efficiency data.

Table I: Estimated Annual Energy Use of the Proposed Project

Land Use	Electricity Use (kWh per year)	Natural Gas Use (kBTU per year)	Gasoline (gallons per year)	Diesel (gallons per year)
Single-Family Residential	1,576,730	5,600,810	233,468	140,965

Source: Compiled by LSA (December 2021).
kBTU = thousand British thermal units
kWh = kilowatt hours

As shown in Table I, the estimated potential increased electricity demand associated with the proposed project is 1,576,730 kWh per year. In 2019, California consumed approximately 277,750 gigawatt hours (GWh) or 277,750,000,000 kWh. Of this total, Riverside County consumed 16,858 GWh or 16,858,000,000 kWh.[1] Therefore, electricity demand associated with the proposed project would be approximately 0.009 percent of Riverside County's total electricity demand.

Also shown in Table I, the estimated potential increased natural gas demand associated with the proposed project is 5,600,810 kBTU per year or 1,453 therms.[2] In 2019, California consumed approximately 12,571,000,000 therms, while Riverside County consumed approximately 436,942,000 therms. Therefore, natural gas demand associated with the proposed project would be approximately 1.3 percent of Riverside County's total natural gas demand.

Furthermore, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 mpg in 1980 to 22.2 mpg in 2019 (DOT 2021). The average fuel economy for heavy-duty trucks in the United States has also steadily increased, from 5.7 mpg in 2013 to a projected 8.0 mpg in 2021 (CEC 2015).

Using the EPA gasoline fuel economy estimates for 2019, the California diesel fuel economy estimates for 2021, and the traffic data from the project traffic analyses, the proposed project would result in the annual consumption of approximately 233,468 gallons of gasoline and 140,965 gallons of diesel fuel. In 2019, vehicles in California consumed approximately 15.6 billion gallons of gasoline and 3.8 billion gallons of diesel fuel (CEC 2021). Therefore, gasoline and diesel demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California and, by extension, in Riverside County.

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1 California Energy Commission. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed December 2021).

2 California Energy Commission. Gas Consumption by County. Website: www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed December 2021).

In addition, automobiles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. As such, the fuel efficiency of vehicles associated with project operations would increase throughout the life of the proposed project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

Operational Energy Use Summary

As described above, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Impacts would be less than significant and no mitigation measures would be necessary.

Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impacts to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's *2020 Integrated Energy Policy Report Update*. In addition, the proposed project would comply with Title 24 and CALGreen standards and be consistent with Municipal Code requirements. Thus, as shown above, the proposed project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant and no mitigation measures would be necessary.

STANDARD CONDITIONS

Construction

The project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with the best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source (SCAQMD 2005). In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors (SCAQMD Rule 403). As shown in Table C, implementation of Rule 403 measures results in dust emissions below SCAQMD thresholds.

The applicable Rule 403 measures are as follows:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Pave construction access roads at least 100 feet (30 meters) onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.

The applicable California Department of Resources Recycling and Recovery (CalRecycle) Sustainable (Green) Building Program Measures are:

- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) (CalRecycle 2019a).
- Use "green building materials" such as those materials that are rapidly renewable or resource-efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project, as specified on the CalRecycle website (CalRecycle 2019b).

Operations

The proposed project is required to comply with the CalGreen and Title 24 of the California Code of Regulations established by the California Energy Commission regarding energy conservation and green building standards.

CUMULATIVE IMPACTS

The project would temporarily contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with SCAQMD's standard construction measures. The proposed project's short-term construction emissions would not exceed the significance thresholds. Therefore, it would not have a significant short-term cumulative air quality impact.

Similarly, the project's long-term operational emissions would not exceed SCAQMD's criteria pollutant thresholds. Again, all projects would be required to comply with SCAQMD's operational emissions thresholds, which are designed to accomplish regional emissions goals. Therefore, the proposed project would not have a significant long-term cumulative air quality impact.

Lastly, the project would produce GHG emissions at a level less than the SCAQMD Tier 3 threshold. The proposed project's design would be consistent with the City's General Plan, thus ensuring project consistency with the all City and State policies and goals. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the GHG emissions. Given this consistency, it is concluded that the proposed project's impact to the climate from GHG emissions would not be cumulatively considerable.

ATTACHMENTS

- Attachment A: References
- Attachment B: Figures
- Attachment C: CalEEMod Output
- Attachment D: Fuel Usage Worksheet

ATTACHMENT A:

REFERENCES

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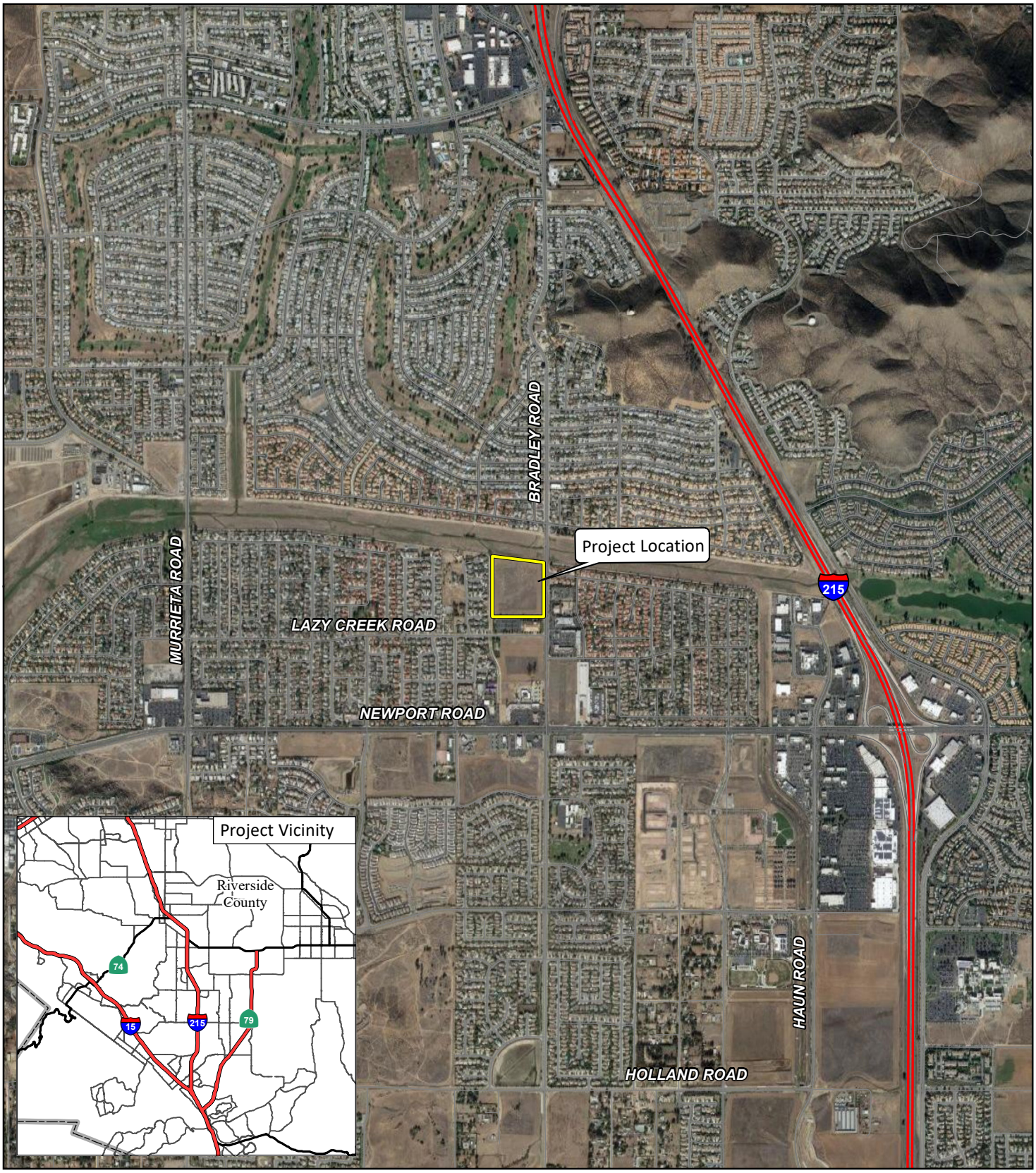
ATTACHMENT B:

FIGURES



LSA

FIGURE 1

N

0 1000 2000

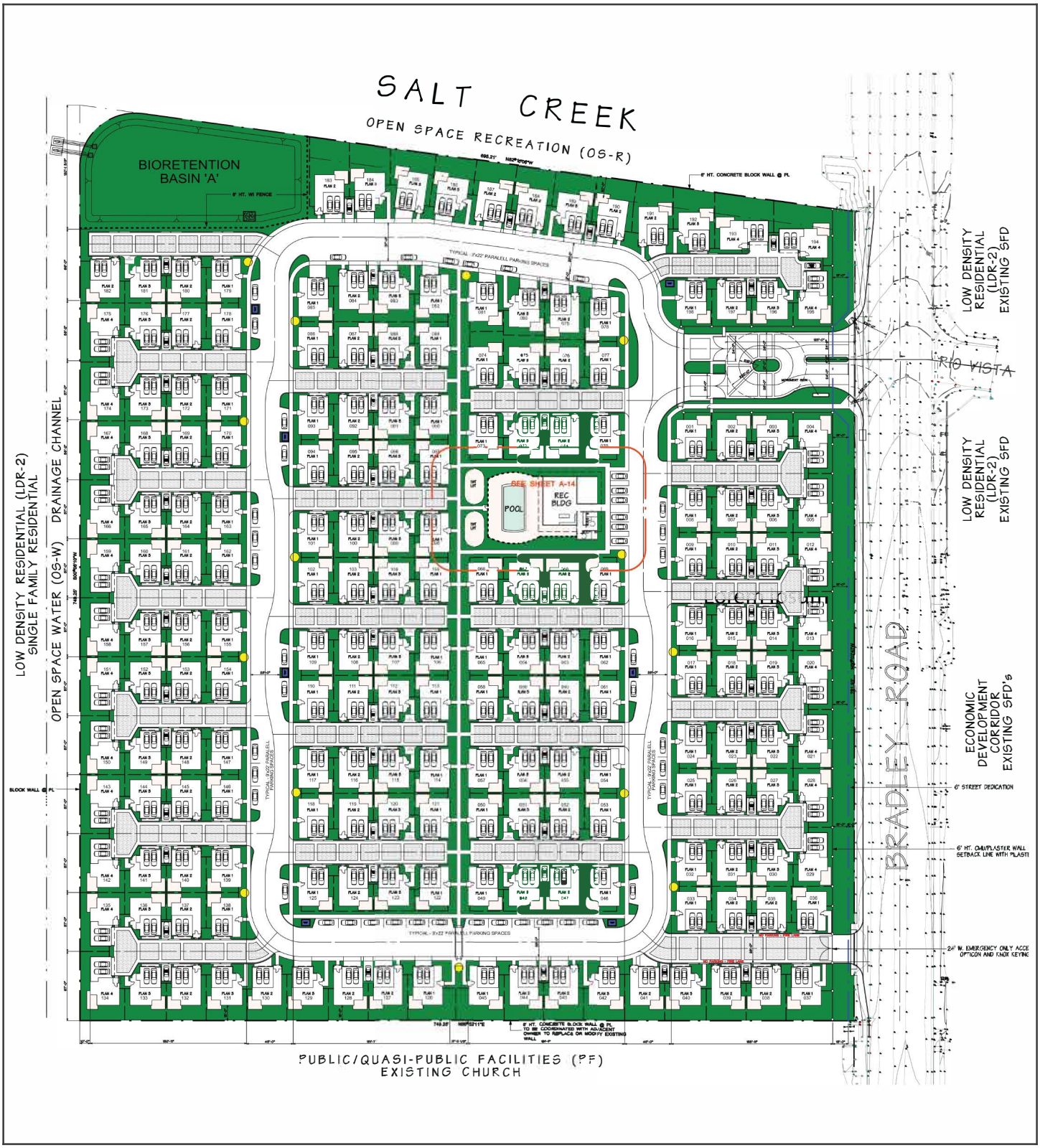
FEET

Riverwalk Townhomes

Regional and Project Location

SOURCE: ESRI Streetmap, 2021; Google Earth, 2019.

R:\CIM2105_Riverwalk Townhomes\Traffic\GIS\Reports\fig1_Reg_ProjLoc.mxd (10/20/2021)



LSA

FIGURE 2

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0 70 140

FEET

Riverwalk Townhomes

Site Plan

SOURCE: Randy Morris Architect, October 2021

R:\CIM2105_Riverwalk Townhomes\Technical Studies\Traffic\GIS\Reports\fig2_SitePlan.ai (10/20/2021)

ATTACHMENT C:

CALEEMOD PRINTOUTS

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Riverwalk Townhomes

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	172.78	1000sqft	4.06	172,778.00	0
Parking Lot	95.00	Space	0.86	38,000.00	0
Single Family Housing	198.00	Dwelling Unit	9.39	348,703.00	566

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Areas from site plan

Construction Phase - Project plans are for construction to start in July 2022 and finish in April 2024.

Woodstoves - There would not be any woodstoves or fireplaces.

Sequestration - Estimated the number of new trees from the site plan.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Both the homes and recreational building will have solar panels.

Water Mitigation -

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	360.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	PhaseEndDate	10/20/2023	1/12/2024
tblConstructionPhase	PhaseEndDate	11/17/2023	2/9/2024
tblConstructionPhase	PhaseEndDate	12/15/2023	4/5/2024
tblConstructionPhase	PhaseStartDate	10/21/2023	1/13/2024
tblConstructionPhase	PhaseStartDate	11/18/2023	2/10/2024
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	168.30	0.00
tblFireplaces	NumberNoFireplace	19.80	198.00
tblFireplaces	NumberWood	9.90	0.00
tblLandUse	LandUseSquareFeet	172,780.00	172,778.00
tblLandUse	LandUseSquareFeet	356,400.00	348,703.00
tblLandUse	LotAcreage	3.97	4.06
tblLandUse	LotAcreage	64.29	9.39
tblSequestration	NumberOfNewTrees	0.00	30.00
tblWoodstoves	NumberCatalytic	9.90	0.00
tblWoodstoves	NumberNoncatalytic	9.90	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2022	0.1775	1.5833	1.5667	3.5100e-003	0.3357	0.0710	0.4066	0.1321	0.0661	0.1982	0.0000	312.8936	312.8936	0.0591	8.3700e-003	316.8659
2023	0.2799	2.1697	2.8641	6.6700e-003	0.2746	0.0941	0.3687	0.0740	0.0886	0.1626	0.0000	599.8695	599.8695	0.0773	0.0227	608.5740
2024	1.1474	0.1999	0.3138	6.1000e-004	0.0193	9.1300e-003	0.0284	5.1500e-003	8.5600e-003	0.0137	0.0000	54.4982	54.4982	9.8600e-003	1.0100e-003	55.0463
Maximum	**1.1474**	**2.1697**	**2.8641**	**6.6700e-003**	**0.3357**	**0.0941**	**0.4066**	**0.1321**	**0.0886**	**0.1982**	**0.0000**	**599.8695**	**599.8695**	**0.0773**	**0.0227**	**608.5740**

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					
2022	0.1775	1.5833	1.5667	3.5100e-003	0.1915	0.0710	0.2625	0.0678	0.0661	0.1339	0.0000	312.8934	312.8934	0.0591	8.3700e-003	316.8657
2023	0.2799	2.1697	2.8641	6.6700e-003	0.2746	0.0941	0.3687	0.0740	0.0886	0.1626	0.0000	599.8692	599.8692	0.0773	0.0227	608.5737
2024	1.1474	0.1999	0.3138	6.1000e-004	0.0193	9.1300e-003	0.0284	5.1500e-003	8.5600e-003	0.0137	0.0000	54.4982	54.4982	9.8600e-003	1.0100e-003	55.0463
Maximum	**1.1474**	**2.1697**	**2.8641**	**6.6700e-003**	**0.2746**	**0.0941**	**0.3687**	**0.0740**	**0.0886**	**0.1626**	**0.0000**	**599.8692**	**599.8692**	**0.0773**	**0.0227**	**608.5737**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**22.90**	**0.00**	**17.94**	**30.42**	**0.00**	**17.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-4-2022	10-3-2022	1.0775	1.0775
2	10-4-2022	1-3-2023	0.6851	0.6851
3	1-4-2023	4-3-2023	0.6067	0.6067
4	4-4-2023	7-3-2023	0.6109	0.6109
5	7-4-2023	10-3-2023	0.6177	0.6177
6	10-4-2023	1-3-2024	0.6191	0.6191
7	1-4-2024	4-3-2024	1.2747	1.2747
8	4-4-2024	7-3-2024	0.0411	0.0411
		Highest	1.2747	1.2747

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4474	0.0236	2.0445	1.1000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	3.3421	3.3421	3.2200e-003	0.0000	3.4225
Energy	0.0302	0.2581	0.1098	1.6500e-003		0.0209	0.0209		0.0209	0.0209	0.0000	580.9139	580.9139	0.0295	8.3600e-003	584.1449
Mobile	0.9027	1.4594	9.3988	0.0225	2.3867	0.0182	2.4049	0.6376	0.0170	0.6546	0.0000	2,109.9435	2,109.9435	0.1072	0.1033	2,143.4033
Waste						0.0000	0.0000		0.0000	0.0000	47.1061	0.0000	47.1061	2.7839	0.0000	116.7033
Water						0.0000	0.0000		0.0000	0.0000	4.0927	45.8144	49.9071	0.4242	0.0104	63.6104

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**2.3803**	**1.7410**	**11.5531**	**0.0242**	**2.3867**	**0.0504**	**2.4371**	**0.6376**	**0.0492**	**0.6868**	**51.1988**	**2,740.0138**	**2,791.2126**	**3.3480**	**0.1220**	**2,911.2845**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4474	0.0236	2.0445	1.1000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	3.3421	3.3421	3.2200e-003	0.0000	3.4225
Energy	0.0302	0.2581	0.1098	1.6500e-003		0.0209	0.0209		0.0209	0.0209	0.0000	580.7699	580.7699	0.0295	8.3600e-003	584.0002
Mobile	0.7910	1.1582	7.4271	0.0168	1.7690	0.0138	1.7828	0.4726	0.0129	0.4855	0.0000	1,578.1661	1,578.1661	0.0885	0.0815	1,604.6783
Waste						0.0000	0.0000		0.0000	0.0000	47.1061	0.0000	47.1061	2.7839	0.0000	116.7033
Water						0.0000	0.0000		0.0000	0.0000	3.2742	26.6762	29.9504	0.3385	8.2100e-003	40.8615
Total	**2.2686**	**1.4398**	**9.5814**	**0.0186**	**1.7690**	**0.0460**	**1.8150**	**0.4726**	**0.0451**	**0.5177**	**50.3803**	**2,188.9542**	**2,239.3345**	**3.2437**	**0.0981**	**2,349.6659**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.69**	**17.30**	**17.07**	**23.37**	**25.88**	**8.66**	**25.53**	**25.88**	**8.33**	**24.62**	**1.60**	**20.11**	**19.77**	**3.12**	**19.61**	**19.29**

2.3 Vegetation

Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	CO2e
Category	MT
New Trees	21.2400
Total	**21.2400**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/4/2022	7/15/2022	5	10	
2	Grading	Grading	7/16/2022	8/26/2022	5	30	
3	Building Construction	Building Construction	8/27/2022	1/12/2024	5	360	
4	Paving	Paving	1/13/2024	2/9/2024	5	20	
5	Architectural Coating	Architectural Coating	2/10/2024	4/5/2024	5	40	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 4.92

Residential Indoor: 706,124; Residential Outdoor: 235,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 12,647

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	160.00	56.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	3.0700e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7822	0.7822	2.0000e-005	2.0000e-005	0.7892
Total	**3.1000e-004**	**2.4000e-004**	**3.0700e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.7822**	**0.7822**	**2.0000e-005**	**2.0000e-005**	**0.7892**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Fugitive Dust					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0383**	**8.0600e-003**	**0.0464**	**0.0197**	**7.4200e-003**	**0.0271**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	3.0700e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7822	0.7822	2.0000e-005	2.0000e-005	0.7892
Total	**3.1000e-004**	**2.4000e-004**	**3.0700e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.7822**	**0.7822**	**2.0000e-005**	**2.0000e-005**	**0.7892**

3.3 Grading - 2022

Unmitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Fugitive Dust					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1381**	**0.0245**	**0.1626**	**0.0548**	**0.0226**	**0.0774**	**0.0000**	**81.8019**	**81.8019**	**0.0265**	**0.0000**	**82.4633**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	8.2000e-004	0.0102	3.0000e-005	3.3000e-003	2.0000e-005	3.3100e-003	8.8000e-004	2.0000e-005	8.9000e-004	0.0000	2.6074	2.6074	7.0000e-005	7.0000e-005	2.6306
Total	**1.0500e-003**	**8.2000e-004**	**0.0102**	**3.0000e-005**	**3.3000e-003**	**2.0000e-005**	**3.3100e-003**	**8.8000e-004**	**2.0000e-005**	**8.9000e-004**	**0.0000**	**2.6074**	**2.6074**	**7.0000e-005**	**7.0000e-005**	**2.6306**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Fugitive Dust					0.0538	0.0000	0.0538	0.0214	0.0000	0.0214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.0538**	**0.0245**	**0.0784**	**0.0214**	**0.0226**	**0.0439**	**0.0000**	**81.8018**	**81.8018**	**0.0265**	**0.0000**	**82.4632**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	8.2000e-004	0.0102	3.0000e-005	3.3000e-003	2.0000e-005	3.3100e-003	8.8000e-004	2.0000e-005	8.9000e-004	0.0000	2.6074	2.6074	7.0000e-005	7.0000e-005	2.6306
Total	**1.0500e-003**	**8.2000e-004**	**0.0102**	**3.0000e-005**	**3.3000e-003**	**2.0000e-005**	**3.3100e-003**	**8.8000e-004**	**2.0000e-005**	**8.9000e-004**	**0.0000**	**2.6074**	**2.6074**	**7.0000e-005**	**7.0000e-005**	**2.6306**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Off-Road	0.0768	0.7027	0.7364	1.2100e-003		0.0364	0.0364		0.0343	0.0343	0.0000	104.2764	104.2764	0.0250	0.0000	104.9009
Total	**0.0768**	**0.7027**	**0.7364**	**1.2100e-003**		**0.0364**	**0.0364**		**0.0343**	**0.0343**	**0.0000**	**104.2764**	**104.2764**	**0.0250**	**0.0000**	**104.9009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-003	0.1119	0.0377	4.6000e-004	0.0159	1.5400e-003	0.0175	4.5900e-003	1.4700e-003	6.0600e-003	0.0000	44.1296	44.1296	4.6000e-004	6.5500e-003	46.0926
Worker	0.0252	0.0196	0.2453	6.8000e-004	0.0791	4.0000e-004	0.0795	0.0210	3.7000e-004	0.0214	0.0000	62.5765	62.5765	1.6700e-003	1.7300e-003	63.1344
Total	**0.0292**	**0.1315**	**0.2830**	**1.1400e-003**	**0.0951**	**1.9400e-003**	**0.0970**	**0.0256**	**1.8400e-003**	**0.0274**	**0.0000**	**106.7061**	**106.7061**	**2.1300e-003**	**8.2800e-003**	**109.2271**

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Off-Road	0.0768	0.7027	0.7364	1.2100e-003		0.0364	0.0364		0.0343	0.0343	0.0000	104.2762	104.2762	0.0250	0.0000	104.9008
Total	**0.0768**	**0.7027**	**0.7364**	**1.2100e-003**		**0.0364**	**0.0364**		**0.0343**	**0.0343**	**0.0000**	**104.2762**	**104.2762**	**0.0250**	**0.0000**	**104.9008**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-003	0.1119	0.0377	4.6000e-004	0.0159	1.5400e-003	0.0175	4.5900e-003	1.4700e-003	6.0600e-003	0.0000	44.1296	44.1296	4.6000e-004	6.5500e-003	46.0926
Worker	0.0252	0.0196	0.2453	6.8000e-004	0.0791	4.0000e-004	0.0795	0.0210	3.7000e-004	0.0214	0.0000	62.5765	62.5765	1.6700e-003	1.7300e-003	63.1344
Total	**0.0292**	**0.1315**	**0.2830**	**1.1400e-003**	**0.0951**	**1.9400e-003**	**0.0970**	**0.0256**	**1.8400e-003**	**0.0274**	**0.0000**	**106.7061**	**106.7061**	**2.1300e-003**	**8.2800e-003**	**109.2271**

3.4 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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8900e-003	0.2496	0.0994	1.2700e-003	0.0460	2.0700e-003	0.0481	0.0133	1.9800e-003	0.0153	0.0000	122.4864	122.4864	1.2400e-003	0.0181	127.9146
Worker	0.0675	0.0500	0.6530	1.9000e-003	0.2286	1.0900e-003	0.2297	0.0607	1.0000e-003	0.0617	0.0000	176.0370	176.0370	4.3400e-003	4.6200e-003	177.5212
Total	**0.0754**	**0.2996**	**0.7524**	**3.1700e-003**	**0.2746**	**3.1600e-003**	**0.2778**	**0.0740**	**2.9800e-003**	**0.0770**	**0.0000**	**298.5233**	**298.5233**	**5.5800e-003**	**0.0227**	**305.4357**

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					

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8900e-003	0.2496	0.0994	1.2700e-003	0.0460	2.0700e-003	0.0481	0.0133	1.9800e-003	0.0153	0.0000	122.4864	122.4864	1.2400e-003	0.0181	127.9146
Worker	0.0675	0.0500	0.6530	1.9000e-003	0.2286	1.0900e-003	0.2297	0.0607	1.0000e-003	0.0617	0.0000	176.0370	176.0370	4.3400e-003	4.6200e-003	177.5212
Total	**0.0754**	**0.2996**	**0.7524**	**3.1700e-003**	**0.2746**	**3.1600e-003**	**0.2778**	**0.0740**	**2.9800e-003**	**0.0770**	**0.0000**	**298.5233**	**298.5233**	**5.5800e-003**	**0.0227**	**305.4357**

3.4 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	7.3600e-003	0.0672	0.0808	1.3000e-004		3.0700e-003	3.0700e-003		2.8800e-003	2.8800e-003	0.0000	11.5925	11.5925	2.7400e-003	0.0000	11.6610

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**7.3600e-003**	**0.0672**	**0.0808**	**1.3000e-004**		**3.0700e-003**	**3.0700e-003**		**2.8800e-003**	**2.8800e-003**	**0.0000**	**11.5925**	**11.5925**	**2.7400e-003**	**0.0000**	**11.6610**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	9.6000e-003	3.7800e-003	5.0000e-005	1.7700e-003	8.0000e-005	1.8500e-003	5.1000e-004	8.0000e-005	5.9000e-004	0.0000	4.6384	4.6384	5.0000e-005	6.8000e-004	4.8438
Worker	2.4200e-003	1.7100e-003	0.0235	7.0000e-005	8.7900e-003	4.0000e-005	8.8300e-003	2.3300e-003	4.0000e-005	2.3700e-003	0.0000	6.6084	6.6084	1.5000e-004	1.6000e-004	6.6614
Total	**2.7200e-003**	**0.0113**	**0.0273**	**1.2000e-004**	**0.0106**	**1.2000e-004**	**0.0107**	**2.8400e-003**	**1.2000e-004**	**2.9600e-003**	**0.0000**	**11.2469**	**11.2469**	**2.0000e-004**	**8.4000e-004**	**11.5051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3600e-003	0.0672	0.0808	1.3000e-004		3.0700e-003	3.0700e-003		2.8800e-003	2.8800e-003	0.0000	11.5924	11.5924	2.7400e-003	0.0000	11.6610
Total	**7.3600e-003**	**0.0672**	**0.0808**	**1.3000e-004**		**3.0700e-003**	**3.0700e-003**		**2.8800e-003**	**2.8800e-003**	**0.0000**	**11.5924**	**11.5924**	**2.7400e-003**	**0.0000**	**11.6610**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	9.6000e-003	3.7800e-003	5.0000e-005	1.7700e-003	8.0000e-005	1.8500e-003	5.1000e-004	8.0000e-005	5.9000e-004	0.0000	4.6384	4.6384	5.0000e-005	6.8000e-004	4.8438
Worker	2.4200e-003	1.7100e-003	0.0235	7.0000e-005	8.7900e-003	4.0000e-005	8.8300e-003	2.3300e-003	4.0000e-005	2.3700e-003	0.0000	6.6084	6.6084	1.5000e-004	1.6000e-004	6.6614
Total	**2.7200e-003**	**0.0113**	**0.0273**	**1.2000e-004**	**0.0106**	**1.2000e-004**	**0.0107**	**2.8400e-003**	**1.2000e-004**	**2.9600e-003**	**0.0000**	**11.2469**	**11.2469**	**2.0000e-004**	**8.4000e-004**	**11.5051**

3.5 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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	1.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.2000e-004	4.4100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2391	1.2391	3.0000e-005	3.0000e-005	1.2490
Total	**4.5000e-004**	**3.2000e-004**	**4.4100e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.2391**	**1.2391**	**3.0000e-005**	**3.0000e-005**	**1.2490**

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	1.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.2000e-004	4.4100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2391	1.2391	3.0000e-005	3.0000e-005	1.2490
Total	**4.5000e-004**	**3.2000e-004**	**4.4100e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.2391**	**1.2391**	**3.0000e-005**	**3.0000e-005**	**1.2490**

3.6 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	1.1203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6200e-003	0.0244	0.0362	6.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	5.1065	5.1065	2.9000e-004	0.0000	5.1137
Total	**1.1239**	**0.0244**	**0.0362**	**6.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**5.1065**	**5.1065**	**2.9000e-004**	**0.0000**	**5.1137**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9400e-003	1.3700e-003	0.0188	6.0000e-005	7.0300e-003	3.0000e-005	7.0700e-003	1.8700e-003	3.0000e-005	1.9000e-003	0.0000	5.2867	5.2867	1.2000e-004	1.3000e-004	5.3291
Total	**1.9400e-003**	**1.3700e-003**	**0.0188**	**6.0000e-005**	**7.0300e-003**	**3.0000e-005**	**7.0700e-003**	**1.8700e-003**	**3.0000e-005**	**1.9000e-003**	**0.0000**	**5.2867**	**5.2867**	**1.2000e-004**	**1.3000e-004**	**5.3291**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6200e-003	0.0244	0.0362	6.0000e-005		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	5.1065	5.1065	2.9000e-004	0.0000	5.1137
Total	**1.1239**	**0.0244**	**0.0362**	**6.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**5.1065**	**5.1065**	**2.9000e-004**	**0.0000**	**5.1137**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9400e-003	1.3700e-003	0.0188	6.0000e-005	7.0300e-003	3.0000e-005	7.0700e-003	1.8700e-003	3.0000e-005	1.9000e-003	0.0000	5.2867	5.2867	1.2000e-004	1.3000e-004	5.3291
Total	**1.9400e-003**	**1.3700e-003**	**0.0188**	**6.0000e-005**	**7.0300e-003**	**3.0000e-005**	**7.0700e-003**	**1.8700e-003**	**3.0000e-005**	**1.9000e-003**	**0.0000**	**5.2867**	**5.2867**	**1.2000e-004**	**1.3000e-004**	**5.3291**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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Category	tons/yr										MT/yr					
Mitigated	0.7910	1.1582	7.4271	0.0168	1.7690	0.0138	1.7828	0.4726	0.0129	0.4855	0.0000	1,578.1661	1,578.1661	0.0885	0.0815	1,604.6783
Unmitigated	0.9027	1.4594	9.3988	0.0225	2.3867	0.0182	2.4049	0.6376	0.0170	0.6546	0.0000	2,109.9435	2,109.9435	0.1072	0.1033	2,143.4033

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	1,869.12	1,888.92	1692.90	6,310,708	4,677,386
Total	1,869.12	1,888.92	1,692.90	6,310,708	4,677,386

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Single Family Housing	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	281.8891	281.8891	0.0238	2.8800e-003	283.3433
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	282.0331	282.0331	0.0238	2.8900e-003	283.4881
NaturalGas Mitigated	0.0302	0.2581	0.1098	1.6500e-003		0.0209	0.0209		0.0209	0.0209	0.0000	298.8808	298.8808	5.7300e-003	5.4800e-003	300.6569
NaturalGas Unmitigated	0.0302	0.2581	0.1098	1.6500e-003		0.0209	0.0209		0.0209	0.0209	0.0000	298.8808	298.8808	5.7300e-003	5.4800e-003	300.6569

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	5.60081e+006	0.0302	0.2581	0.1098	1.6500e-003		0.0209	0.0209		0.0209	0.0209	0.0000	298.8808	298.8808	5.7300e-003	5.4800e-003	300.6569

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total		**0.0302**	**0.2581**	**0.1098**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**298.8808**	**298.8808**	**5.7300e-003**	**5.4800e-003**	**300.6569**

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	5.60081e+006	0.0302	0.2581	0.1098	1.6500e-003		0.0209	0.0209		0.0209	0.0209	0.0000	298.8808	298.8808	5.7300e-003	5.4800e-003	300.6569
Total		**0.0302**	**0.2581**	**0.1098**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**298.8808**	**298.8808**	**5.7300e-003**	**5.4800e-003**	**300.6569**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	13300	2.3587	2.0000e-004	2.0000e-005	2.3709

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Single Family Housing	1.577e+006	279.6744	0.0236	2.8600e-003	281.1172
Total		**282.0331**	**0.0238**	**2.8800e-003**	**283.4881**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	-270.6	-0.0480	0.0000	0.0000	-0.0482
Parking Lot	13029.4	2.3107	2.0000e-004	2.0000e-005	2.3226
Single Family Housing	1.57673e+006	279.6264	0.0236	2.8600e-003	281.0690
Total		**281.8891**	**0.0238**	**2.8800e-003**	**283.3434**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.4474	0.0236	2.0445	1.1000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	3.3421	3.3421	3.2200e-003	0.0000	3.4225
Unmitigated	1.4474	0.0236	2.0445	1.1000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	3.3421	3.3421	3.2200e-003	0.0000	3.4225

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	0.1120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0617	0.0236	2.0445	1.1000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	3.3421	3.3421	3.2200e-003	0.0000	3.4225
Total	**1.4474**	**0.0236**	**2.0445**	**1.1000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**3.3421**	**3.3421**	**3.2200e-003**	**0.0000**	**3.4225**

Mitigated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0617	0.0236	2.0445	1.1000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	3.3421	3.3421	3.2200e-003	0.0000	3.4225
Total	**1.4474**	**0.0236**	**2.0445**	**1.1000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**3.3421**	**3.3421**	**3.2200e-003**	**0.0000**	**3.4225**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated	29.9504	0.3385	8.2100e-003	40.8615
Unmitigated	49.9071	0.4242	0.0104	63.6104

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	12.9005 / 8.13292	49.9071	0.4242	0.0104	63.6104
Total		**49.9071**	**0.4242**	**0.0104**	**63.6104**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	10.3204 / 1.4435	29.9504	0.3385	8.2100e-003	40.8615
Total		**29.9504**	**0.3385**	**8.2100e-003**	**40.8615**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	47.1061	2.7839	0.0000	116.7033
Unmitigated	47.1061	2.7839	0.0000	116.7033

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	232.06	47.1061	2.7839	0.0000	116.7033
Total		**47.1061**	**2.7839**	**0.0000**	**116.7033**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	232.06	47.1061	2.7839	0.0000	116.7033
Total		**47.1061**	**2.7839**	**0.0000**	**116.7033**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	21.2400	0.0000	0.0000	21.2400

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	30	21.2400	0.0000	0.0000	21.2400

Riverwalk Townhomes - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total		**21.2400**	**0.0000**	**0.0000**	**21.2400**

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Riverwalk Townhomes

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	172.78	1000sqft	4.06	172,778.00	0
Parking Lot	95.00	Space	0.86	38,000.00	0
Single Family Housing	198.00	Dwelling Unit	9.39	348,703.00	566

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Areas from site plan

Construction Phase - Project plans are for construction to start in July 2022 and finish in April 2024.

Woodstoves - There would not be any woodstoves or fireplaces.

Sequestration - Estimated the number of new trees from the site plan.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Both the homes and recreational building will have solar panels.

Water Mitigation -

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	360.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	PhaseEndDate	10/20/2023	1/12/2024
tblConstructionPhase	PhaseEndDate	11/17/2023	2/9/2024
tblConstructionPhase	PhaseEndDate	12/15/2023	4/5/2024
tblConstructionPhase	PhaseStartDate	10/21/2023	1/13/2024
tblConstructionPhase	PhaseStartDate	11/18/2023	2/10/2024
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	168.30	0.00
tblFireplaces	NumberNoFireplace	19.80	198.00
tblFireplaces	NumberWood	9.90	0.00
tblLandUse	LandUseSquareFeet	172,780.00	172,778.00
tblLandUse	LandUseSquareFeet	356,400.00	348,703.00
tblLandUse	LotAcreage	3.97	4.06
tblLandUse	LotAcreage	64.29	9.39
tblSequestration	NumberOfNewTrees	0.00	30.00
tblWoodstoves	NumberCatalytic	9.90	0.00
tblWoodstoves	NumberNoncatalytic	9.90	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.7036	38.8946	29.8388	0.0641	19.8582	1.6360	21.4718	10.1558	1.5051	11.6403	0.0000	6,218.1184	6,218.1184	1.9493	0.2009	6,268.3667
2023	2.2204	16.5757	22.8671	0.0525	2.1471	0.7241	2.8712	0.5776	0.6814	1.2590	0.0000	5,202.6524	5,202.6524	0.6552	0.1909	5,275.9052
2024	56.3033	15.5954	22.4077	0.0518	2.1471	0.6372	2.7843	0.5776	0.5994	1.1770	0.0000	5,148.3069	5,148.3069	0.7171	0.1856	5,219.8296
Maximum	**56.3033**	**38.8946**	**29.8388**	**0.0641**	**19.8582**	**1.6360**	**21.4718**	**10.1558**	**1.5051**	**11.6403**	**0.0000**	**6,218.1184**	**6,218.1184**	**1.9493**	**0.2009**	**6,268.3667**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.7036	38.8946	29.8388	0.0641	7.8674	1.6360	9.4810	3.9933	1.5051	5.4778	0.0000	6,218.1184	6,218.1184	1.9493	0.2009	6,268.3667
2023	2.2204	16.5757	22.8671	0.0525	2.1471	0.7241	2.8712	0.5776	0.6814	1.2590	0.0000	5,202.6524	5,202.6524	0.6552	0.1909	5,275.9052
2024	56.3033	15.5954	22.4077	0.0518	2.1471	0.6372	2.7843	0.5776	0.5994	1.1770	0.0000	5,148.3069	5,148.3069	0.7171	0.1856	5,219.8296
Maximum	**56.3033**	**38.8946**	**29.8388**	**0.0641**	**7.8674**	**1.6360**	**9.4810**	**3.9933**	**1.5051**	**5.4778**	**0.0000**	**6,218.1184**	**6,218.1184**	**1.9493**	**0.2009**	**6,268.3667**

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**49.65**	**0.00**	**44.20**	**54.48**	**0.00**	**43.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813
Energy	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
Mobile	5.8830	7.6876	57.8641	0.1339	13.6380	0.1022	13.7402	3.6384	0.0958	3.7342		13,857.3690	13,857.3690	0.6508	0.6235	14,059.4345
Total	**14.1348**	**9.2901**	**74.8215**	**0.1437**	**13.6380**	**0.3071**	**13.9451**	**3.6384**	**0.3007**	**3.9391**	**0.0000**	**15,692.0994**	**15,692.0994**	**0.7138**	**0.6566**	**15,905.6020**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813
Energy	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mobile	5.2483	6.1138	45.2108	0.1001	10.1082	0.0777	10.1859	2.6967	0.0728	2.7695		10,358.7297	10,358.7297	0.5325	0.4924	10,518.7702
Total	**13.5000**	**7.7163**	**62.1682**	**0.1099**	**10.1082**	**0.2826**	**10.3908**	**2.6967**	**0.2777**	**2.9744**	**0.0000**	**12,193.4600**	**12,193.4600**	**0.5955**	**0.5255**	**12,364.9376**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.49**	**16.94**	**16.91**	**23.51**	**25.88**	**8.00**	**25.49**	**25.88**	**7.67**	**24.49**	**0.00**	**22.30**	**22.30**	**16.57**	**19.97**	**22.26**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/4/2022	7/15/2022	5	10	
2	Grading	Grading	7/16/2022	8/26/2022	5	30	
3	Building Construction	Building Construction	8/27/2022	1/12/2024	5	360	
4	Paving	Paving	1/13/2024	2/9/2024	5	20	
5	Architectural Coating	Architectural Coating	2/10/2024	4/5/2024	5	40	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 4.92

Residential Indoor: 706,124; Residential Outdoor: 235,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 12,647

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	160.00	56.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0709	0.0460	0.7176	1.8300e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		186.0370	186.0370	4.6100e-003	4.5800e-003	187.5158
Total	**0.0709**	**0.0460**	**0.7176**	**1.8300e-003**	**0.2012**	**1.0000e-003**	**0.2022**	**0.0534**	**9.2000e-004**	**0.0543**		**186.0370**	**186.0370**	**4.6100e-003**	**4.5800e-003**	**187.5158**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**7.6662**	**1.6126**	**9.2788**	**3.9400**	**1.4836**	**5.4235**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0709	0.0460	0.7176	1.8300e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		186.0370	186.0370	4.6100e-003	4.5800e-003	187.5158
Total	**0.0709**	**0.0460**	**0.7176**	**1.8300e-003**	**0.2012**	**1.0000e-003**	**0.2022**	**0.0534**	**9.2000e-004**	**0.0543**		**186.0370**	**186.0370**	**4.6100e-003**	**4.5800e-003**	**187.5158**

3.3 Grading - 2022

Unmitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0788	0.0511	0.7973	2.0300e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		206.7078	206.7078	5.1200e-003	5.0800e-003	208.3509
Total	**0.0788**	**0.0511**	**0.7973**	**2.0300e-003**	**0.2236**	**1.1100e-003**	**0.2247**	**0.0593**	**1.0300e-003**	**0.0603**		**206.7078**	**206.7078**	**5.1200e-003**	**5.0800e-003**	**208.3509**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**3.5894**	**1.6349**	**5.2243**	**1.4250**	**1.5041**	**2.9291**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0788	0.0511	0.7973	2.0300e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		206.7078	206.7078	5.1200e-003	5.0800e-003	208.3509
Total	**0.0788**	**0.0511**	**0.7973**	**2.0300e-003**	**0.2236**	**1.1100e-003**	**0.2247**	**0.0593**	**1.0300e-003**	**0.0603**		**206.7078**	**206.7078**	**5.1200e-003**	**5.0800e-003**	**208.3509**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

Date: 12/10/2021 12:14 PM

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0911	2.3680	0.8234	0.0102	0.3587	0.0341	0.3928	0.1033	0.0327	0.1359		1,080.4939	1,080.4939	0.0114	0.1602	1,128.5291
Worker	0.6305	0.4086	6.3785	0.0163	1.7884	8.9100e-003	1.7973	0.4743	8.2100e-003	0.4825		1,653.6626	1,653.6626	0.0410	0.0407	1,666.8070
Total	**0.7217**	**2.7766**	**7.2019**	**0.0265**	**2.1471**	**0.0431**	**2.1902**	**0.5776**	**0.0409**	**0.6185**		**2,734.1565**	**2,734.1565**	**0.0524**	**0.2009**	**2,795.3360**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0911	2.3680	0.8234	0.0102	0.3587	0.0341	0.3928	0.1033	0.0327	0.1359		1,080.4939	1,080.4939	0.0114	0.1602	1,128.5291
Worker	0.6305	0.4086	6.3785	0.0163	1.7884	8.9100e-003	1.7973	0.4743	8.2100e-003	0.4825		1,653.6626	1,653.6626	0.0410	0.0407	1,666.8070
Total	**0.7217**	**2.7766**	**7.2019**	**0.0265**	**2.1471**	**0.0431**	**2.1902**	**0.5776**	**0.0409**	**0.6185**		**2,734.1565**	**2,734.1565**	**0.0524**	**0.2009**	**2,795.3360**

3.4 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

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0631	1.8296	0.7533	9.7800e-003	0.3587	0.0159	0.3746	0.1033	0.0152	0.1185		1,037.5176	1,037.5176	0.0106	0.1533	1,083.4697
Worker	0.5846	0.3612	5.8697	0.0157	1.7884	8.3900e-003	1.7968	0.4743	7.7200e-003	0.4820		1,609.9248	1,609.9248	0.0368	0.0375	1,622.0295
Total	**0.6477**	**2.1908**	**6.6231**	**0.0255**	**2.1471**	**0.0243**	**2.1714**	**0.5776**	**0.0230**	**0.6005**		**2,647.4424**	**2,647.4424**	**0.0473**	**0.1909**	**2,705.4992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0631	1.8296	0.7533	9.7800e-003	0.3587	0.0159	0.3746	0.1033	0.0152	0.1185		1,037.5176	1,037.5176	0.0106	0.1533	1,083.4697
Worker	0.5846	0.3612	5.8697	0.0157	1.7884	8.3900e-003	1.7968	0.4743	7.7200e-003	0.4820		1,609.9248	1,609.9248	0.0368	0.0375	1,622.0295
Total	**0.6477**	**2.1908**	**6.6231**	**0.0255**	**2.1471**	**0.0243**	**2.1714**	**0.5776**	**0.0230**	**0.6005**		**2,647.4424**	**2,647.4424**	**0.0473**	**0.1909**	**2,705.4992**

3.4 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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0621	1.8297	0.7447	9.6300e-003	0.3587	0.0158	0.3745	0.1033	0.0151	0.1184		1,021.5272	1,021.5272	0.0110	0.1507	1,066.7167
Worker	0.5450	0.3219	5.4962	0.0152	1.7884	8.0200e-003	1.7964	0.4743	7.3800e-003	0.4817		1,571.0807	1,571.0807	0.0333	0.0349	1,582.3052
Total	**0.6071**	**2.1516**	**6.2409**	**0.0249**	**2.1471**	**0.0239**	**2.1709**	**0.5776**	**0.0225**	**0.6001**		**2,592.6080**	**2,592.6080**	**0.0442**	**0.1856**	**2,649.0219**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0621	1.8297	0.7447	9.6300e-003	0.3587	0.0158	0.3745	0.1033	0.0151	0.1184		1,021.5272	1,021.5272	0.0110	0.1507	1,066.7167
Worker	0.5450	0.3219	5.4962	0.0152	1.7884	8.0200e-003	1.7964	0.4743	7.3800e-003	0.4817		1,571.0807	1,571.0807	0.0333	0.0349	1,582.3052
Total	**0.6071**	**2.1516**	**6.2409**	**0.0249**	**2.1471**	**0.0239**	**2.1709**	**0.5776**	**0.0225**	**0.6001**		**2,592.6080**	**2,592.6080**	**0.0442**	**0.1856**	**2,649.0219**

3.5 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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1008**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0511	0.0302	0.5153	1.4300e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		147.2888	147.2888	3.1200e-003	3.2700e-003	148.3411
Total	**0.0511**	**0.0302**	**0.5153**	**1.4300e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**147.2888**	**147.2888**	**3.1200e-003**	**3.2700e-003**	**148.3411**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1008**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0511	0.0302	0.5153	1.4300e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		147.2888	147.2888	3.1200e-003	3.2700e-003	148.3411
Total	**0.0511**	**0.0302**	**0.5153**	**1.4300e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**147.2888**	**147.2888**	**3.1200e-003**	**3.2700e-003**	**148.3411**

3.6 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	lb/day										lb/day					
Archit. Coating	56.0136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**56.1943**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1090	0.0644	1.0992	3.0500e-003	0.3577	1.6000e-003	0.3593	0.0949	1.4800e-003	0.0963		314.2162	314.2162	6.6600e-003	6.9700e-003	316.4611
Total	**0.1090**	**0.0644**	**1.0992**	**3.0500e-003**	**0.3577**	**1.6000e-003**	**0.3593**	**0.0949**	**1.4800e-003**	**0.0963**		**314.2162**	**314.2162**	**6.6600e-003**	**6.9700e-003**	**316.4611**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.0136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**56.1943**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1090	0.0644	1.0992	3.0500e-003	0.3577	1.6000e-003	0.3593	0.0949	1.4800e-003	0.0963		314.2162	314.2162	6.6600e-003	6.9700e-003	316.4611
Total	**0.1090**	**0.0644**	**1.0992**	**3.0500e-003**	**0.3577**	**1.6000e-003**	**0.3593**	**0.0949**	**1.4800e-003**	**0.0963**		**314.2162**	**314.2162**	**6.6600e-003**	**6.9700e-003**	**316.4611**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day											lb/day				
Mitigated	5.2483	6.1138	45.2108	0.1001	10.1082	0.0777	10.1859	2.6967	0.0728	2.7695		10,358.7297	10,358.7297	0.5325	0.4924	10,518.7702
Unmitigated	5.8830	7.6876	57.8641	0.1339	13.6380	0.1022	13.7402	3.6384	0.0958	3.7342		13,857.3690	13,857.3690	0.6508	0.6235	14,059.4345

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	1,869.12	1,888.92	1692.90	6,310,708	4,677,386
Total	1,869.12	1,888.92	1,692.90	6,310,708	4,677,386

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Single Family Housing	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
NaturalGas Unmitigated	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15344.7	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
Total		**0.1655**	**1.4141**	**0.6018**	**9.0300e-003**		**0.1143**	**0.1143**		**0.1143**	**0.1143**		**1,805.2584**	**1,805.2584**	**0.0346**	**0.0331**	**1,815.9861**

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15.3447	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
Total		**0.1655**	**1.4141**	**0.6018**	**9.0300e-003**		**0.1143**	**0.1143**		**0.1143**	**0.1143**		**1,805.2584**	**1,805.2584**	**0.0346**	**0.0331**	**1,815.9861**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813
Unmitigated	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4935	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906		29.4720	29.4720	0.0284		30.1813
Total	**8.0863**	**0.1884**	**16.3557**	**8.6000e-004**		**0.0906**	**0.0906**		**0.0906**	**0.0906**	**0.0000**	**29.4720**	**29.4720**	**0.0284**	**0.0000**	**30.1813**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4935	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906		29.4720	29.4720	0.0284		30.1813
Total	**8.0863**	**0.1884**	**16.3557**	**8.6000e-004**		**0.0906**	**0.0906**		**0.0906**	**0.0906**	**0.0000**	**29.4720**	**29.4720**	**0.0284**	**0.0000**	**30.1813**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Riverwalk Townhomes - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Riverwalk Townhomes

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	172.78	1000sqft	4.06	172,778.00	0
Parking Lot	95.00	Space	0.86	38,000.00	0
Single Family Housing	198.00	Dwelling Unit	9.39	348,703.00	566

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Areas from site plan

Construction Phase - Project plans are for construction to start in July 2022 and finish in April 2024.

Woodstoves - There would not be any woodstoves or fireplaces.

Sequestration - Estimated the number of new trees from the site plan.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Both the homes and recreational building will have solar panels.

Water Mitigation -

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	360.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	PhaseEndDate	10/20/2023	1/12/2024
tblConstructionPhase	PhaseEndDate	11/17/2023	2/9/2024
tblConstructionPhase	PhaseEndDate	12/15/2023	4/5/2024
tblConstructionPhase	PhaseStartDate	10/21/2023	1/13/2024
tblConstructionPhase	PhaseStartDate	11/18/2023	2/10/2024
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	168.30	0.00
tblFireplaces	NumberNoFireplace	19.80	198.00
tblFireplaces	NumberWood	9.90	0.00
tblLandUse	LandUseSquareFeet	172,780.00	172,778.00
tblLandUse	LandUseSquareFeet	356,400.00	348,703.00
tblLandUse	LotAcreage	3.97	4.06
tblLandUse	LotAcreage	64.29	9.39
tblSequestration	NumberOfNewTrees	0.00	30.00
tblWoodstoves	NumberCatalytic	9.90	0.00
tblWoodstoves	NumberNoncatalytic	9.90	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6985	38.8965	29.6877	0.0639	19.8582	1.6360	21.4718	10.1558	1.5051	11.6403	0.0000	6,198.6453	6,198.6453	1.9493	0.2022	6,248.9287
2023	2.1791	16.7000	21.7890	0.0510	2.1471	0.7241	2.8712	0.5776	0.6815	1.2590	0.0000	5,054.0389	5,054.0389	0.6549	0.1922	5,127.6980
2024	56.2968	15.7182	21.4019	0.0504	2.1471	0.6372	2.7843	0.5776	0.5995	1.1771	0.0000	5,003.5847	5,003.5847	0.7171	0.1869	5,075.4905
Maximum	**56.2968**	**38.8965**	**29.6877**	**0.0639**	**19.8582**	**1.6360**	**21.4718**	**10.1558**	**1.5051**	**11.6403**	**0.0000**	**6,198.6453**	**6,198.6453**	**1.9493**	**0.2022**	**6,248.9287**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6985	38.8965	29.6877	0.0639	7.8674	1.6360	9.4810	3.9933	1.5051	5.4778	0.0000	6,198.6453	6,198.6453	1.9493	0.2022	6,248.9287
2023	2.1791	16.7000	21.7890	0.0510	2.1471	0.7241	2.8712	0.5776	0.6815	1.2590	0.0000	5,054.0389	5,054.0389	0.6549	0.1922	5,127.6979
2024	56.2968	15.7182	21.4019	0.0504	2.1471	0.6372	2.7843	0.5776	0.5995	1.1771	0.0000	5,003.5847	5,003.5847	0.7171	0.1869	5,075.4905
Maximum	**56.2968**	**38.8965**	**29.6877**	**0.0639**	**7.8674**	**1.6360**	**9.4810**	**3.9933**	**1.5051**	**5.4778**	**0.0000**	**6,198.6453**	**6,198.6453**	**1.9493**	**0.2022**	**6,248.9287**

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**49.65**	**0.00**	**44.20**	**54.48**	**0.00**	**43.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813
Energy	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
Mobile	5.0158	8.1535	51.1089	0.1243	13.6380	0.1023	13.7403	3.6384	0.0959	3.7343		12,866.3117	12,866.3117	0.6652	0.6365	13,072.6202
Total	**13.2676**	**9.7560**	**68.0663**	**0.1342**	**13.6380**	**0.3072**	**13.9452**	**3.6384**	**0.3008**	**3.9392**	**0.0000**	**14,701.0420**	**14,701.0420**	**0.7282**	**0.6696**	**14,918.7876**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813
Energy	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mobile	4.3932	6.4834	40.5229	0.0930	10.1082	0.0777	10.1859	2.6967	0.0728	2.7695		9,625.6202	9,625.6202	0.5508	0.5029	9,789.2626
Total	**12.6450**	**8.0859**	**57.4803**	**0.1029**	**10.1082**	**0.2827**	**10.3909**	**2.6967**	**0.2778**	**2.9745**	**0.0000**	**11,460.3506**	**11,460.3506**	**0.6138**	**0.5360**	**11,635.4301**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.69**	**17.12**	**15.55**	**23.33**	**25.88**	**7.99**	**25.49**	**25.88**	**7.67**	**24.49**	**0.00**	**22.04**	**22.04**	**15.71**	**19.95**	**22.01**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/4/2022	7/15/2022	5	10	
2	Grading	Grading	7/16/2022	8/26/2022	5	30	
3	Building Construction	Building Construction	8/27/2022	1/12/2024	5	360	
4	Paving	Paving	1/13/2024	2/9/2024	5	20	
5	Architectural Coating	Architectural Coating	2/10/2024	4/5/2024	5	40	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 4.92

Residential Indoor: 706,124; Residential Outdoor: 235,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 12,647

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	160.00	56.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0663	0.0477	0.5816	1.6600e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		168.5113	168.5113	4.5800e-003	4.6800e-003	170.0216
Total	**0.0663**	**0.0477**	**0.5816**	**1.6600e-003**	**0.2012**	**1.0000e-003**	**0.2022**	**0.0534**	**9.2000e-004**	**0.0543**		**168.5113**	**168.5113**	**4.5800e-003**	**4.6800e-003**	**170.0216**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**7.6662**	**1.6126**	**9.2788**	**3.9400**	**1.4836**	**5.4235**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0663	0.0477	0.5816	1.6600e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		168.5113	168.5113	4.5800e-003	4.6800e-003	170.0216
Total	**0.0663**	**0.0477**	**0.5816**	**1.6600e-003**	**0.2012**	**1.0000e-003**	**0.2022**	**0.0534**	**9.2000e-004**	**0.0543**		**168.5113**	**168.5113**	**4.5800e-003**	**4.6800e-003**	**170.0216**

3.3 Grading - 2022

Unmitigated Construction On-Site

Date: 12/10/2021 12:15 PM

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0736	0.0530	0.6462	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		187.2348	187.2348	5.0800e-003	5.2000e-003	188.9129
Total	**0.0736**	**0.0530**	**0.6462**	**1.8400e-003**	**0.2236**	**1.1100e-003**	**0.2247**	**0.0593**	**1.0300e-003**	**0.0603**		**187.2348**	**187.2348**	**5.0800e-003**	**5.2000e-003**	**188.9129**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**3.5894**	**1.6349**	**5.2243**	**1.4250**	**1.5041**	**2.9291**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0736	0.0530	0.6462	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		187.2348	187.2348	5.0800e-003	5.2000e-003	188.9129
Total	**0.0736**	**0.0530**	**0.6462**	**1.8400e-003**	**0.2236**	**1.1100e-003**	**0.2247**	**0.0593**	**1.0300e-003**	**0.0603**		**187.2348**	**187.2348**	**5.0800e-003**	**5.2000e-003**	**188.9129**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0872	2.4948	0.8550	0.0102	0.3587	0.0342	0.3929	0.1033	0.0328	0.1360		1,081.6723	1,081.6723	0.0113	0.1605	1,129.7927
Worker	0.5890	0.4242	5.1694	0.0147	1.7884	8.9100e-003	1.7973	0.4743	8.2100e-003	0.4825		1,497.8781	1,497.8781	0.0407	0.0416	1,511.3029
Total	**0.6762**	**2.9189**	**6.0244**	**0.0249**	**2.1471**	**0.0431**	**2.1903**	**0.5776**	**0.0410**	**0.6185**		**2,579.5504**	**2,579.5504**	**0.0519**	**0.2022**	**2,641.0956**

Mitigated Construction On-Site

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0872	2.4948	0.8550	0.0102	0.3587	0.0342	0.3929	0.1033	0.0328	0.1360		1,081.6723	1,081.6723	0.0113	0.1605	1,129.7927
Worker	0.5890	0.4242	5.1694	0.0147	1.7884	8.9100e-003	1.7973	0.4743	8.2100e-003	0.4825		1,497.8781	1,497.8781	0.0407	0.0416	1,511.3029
Total	**0.6762**	**2.9189**	**6.0244**	**0.0249**	**2.1471**	**0.0431**	**2.1903**	**0.5776**	**0.0410**	**0.6185**		**2,579.5504**	**2,579.5504**	**0.0519**	**0.2022**	**2,641.0956**

3.4 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

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0585	1.9403	0.7787	9.8100e-003	0.3587	0.0160	0.3747	0.1033	0.0153	0.1186		1,040.0925	1,040.0925	0.0104	0.1538	1,086.1915
Worker	0.5479	0.3748	4.7663	0.0143	1.7884	8.3900e-003	1.7968	0.4743	7.7200e-003	0.4820		1,458.7365	1,458.7365	0.0366	0.0384	1,471.1004
Total	**0.6064**	**2.3151**	**5.5450**	**0.0241**	**2.1471**	**0.0244**	**2.1715**	**0.5776**	**0.0230**	**0.6006**		**2,498.8290**	**2,498.8290**	**0.0470**	**0.1922**	**2,557.2919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0585	1.9403	0.7787	9.8100e-003	0.3587	0.0160	0.3747	0.1033	0.0153	0.1186		1,040.0925	1,040.0925	0.0104	0.1538	1,086.1915
Worker	0.5479	0.3748	4.7663	0.0143	1.7884	8.3900e-003	1.7968	0.4743	7.7200e-003	0.4820		1,458.7365	1,458.7365	0.0366	0.0384	1,471.1004
Total	**0.6064**	**2.3151**	**5.5450**	**0.0241**	**2.1471**	**0.0244**	**2.1715**	**0.5776**	**0.0230**	**0.6006**		**2,498.8290**	**2,498.8290**	**0.0470**	**0.1922**	**2,557.2919**

3.4 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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0575	1.9406	0.7700	9.6500e-003	0.3587	0.0159	0.3746	0.1033	0.0152	0.1185		1,024.0802	1,024.0802	0.0107	0.1512	1,069.4130
Worker	0.5124	0.3339	4.4651	0.0138	1.7884	8.0200e-003	1.7964	0.4743	7.3800e-003	0.4817		1,423.8057	1,423.8057	0.0332	0.0357	1,435.2698
Total	**0.5699**	**2.2744**	**5.2351**	**0.0235**	**2.1471**	**0.0239**	**2.1710**	**0.5776**	**0.0226**	**0.6002**		**2,447.8858**	**2,447.8858**	**0.0440**	**0.1869**	**2,504.6828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0575	1.9406	0.7700	9.6500e-003	0.3587	0.0159	0.3746	0.1033	0.0152	0.1185		1,024.0802	1,024.0802	0.0107	0.1512	1,069.4130
Worker	0.5124	0.3339	4.4651	0.0138	1.7884	8.0200e-003	1.7964	0.4743	7.3800e-003	0.4817		1,423.8057	1,423.8057	0.0332	0.0357	1,435.2698
Total	**0.5699**	**2.2744**	**5.2351**	**0.0235**	**2.1471**	**0.0239**	**2.1710**	**0.5776**	**0.0226**	**0.6002**		**2,447.8858**	**2,447.8858**	**0.0440**	**0.1869**	**2,504.6828**

3.5 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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1008**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0480	0.0313	0.4186	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		133.4818	133.4818	3.1200e-003	3.3500e-003	134.5565
Total	**0.0480**	**0.0313**	**0.4186**	**1.2900e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**133.4818**	**133.4818**	**3.1200e-003**	**3.3500e-003**	**134.5565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1008**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0480	0.0313	0.4186	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		133.4818	133.4818	3.1200e-003	3.3500e-003	134.5565
Total	**0.0480**	**0.0313**	**0.4186**	**1.2900e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**133.4818**	**133.4818**	**3.1200e-003**	**3.3500e-003**	**134.5565**

3.6 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	lb/day										lb/day					
Archit. Coating	56.0136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**56.1943**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1025	0.0668	0.8930	2.7600e-003	0.3577	1.6000e-003	0.3593	0.0949	1.4800e-003	0.0963		284.7611	284.7611	6.6500e-003	7.1400e-003	287.0540
Total	**0.1025**	**0.0668**	**0.8930**	**2.7600e-003**	**0.3577**	**1.6000e-003**	**0.3593**	**0.0949**	**1.4800e-003**	**0.0963**		**284.7611**	**284.7611**	**6.6500e-003**	**7.1400e-003**	**287.0540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.0136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**56.1943**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1025	0.0668	0.8930	2.7600e-003	0.3577	1.6000e-003	0.3593	0.0949	1.4800e-003	0.0963		284.7611	284.7611	6.6500e-003	7.1400e-003	287.0540
Total	**0.1025**	**0.0668**	**0.8930**	**2.7600e-003**	**0.3577**	**1.6000e-003**	**0.3593**	**0.0949**	**1.4800e-003**	**0.0963**		**284.7611**	**284.7611**	**6.6500e-003**	**7.1400e-003**	**287.0540**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day											lb/day				
Mitigated	4.3932	6.4834	40.5229	0.0930	10.1082	0.0777	10.1859	2.6967	0.0728	2.7695		9,625.6202	9,625.6202	0.5508	0.5029	9,789.2626
Unmitigated	5.0158	8.1535	51.1089	0.1243	13.6380	0.1023	13.7403	3.6384	0.0959	3.7343		12,866.311	12,866.311	0.6652	0.6365	13,072.620

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	1,869.12	1,888.92	1692.90	6,310,708	4,677,386
Total	1,869.12	1,888.92	1,692.90	6,310,708	4,677,386

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Single Family Housing	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
NaturalGas Unmitigated	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15344.7	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
Total		**0.1655**	**1.4141**	**0.6018**	**9.0300e-003**		**0.1143**	**0.1143**		**0.1143**	**0.1143**		**1,805.2584**	**1,805.2584**	**0.0346**	**0.0331**	**1,815.9861**

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15.3447	0.1655	1.4141	0.6018	9.0300e-003		0.1143	0.1143		0.1143	0.1143		1,805.2584	1,805.2584	0.0346	0.0331	1,815.9861
Total		**0.1655**	**1.4141**	**0.6018**	**9.0300e-003**		**0.1143**	**0.1143**		**0.1143**	**0.1143**		**1,805.2584**	**1,805.2584**	**0.0346**	**0.0331**	**1,815.9861**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813
Unmitigated	8.0863	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	29.4720	29.4720	0.0284	0.0000	30.1813

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4935	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906		29.4720	29.4720	0.0284		30.1813
Total	**8.0863**	**0.1884**	**16.3557**	**8.6000e-004**		**0.0906**	**0.0906**		**0.0906**	**0.0906**	**0.0000**	**29.4720**	**29.4720**	**0.0284**	**0.0000**	**30.1813**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4935	0.1884	16.3557	8.6000e-004		0.0906	0.0906		0.0906	0.0906		29.4720	29.4720	0.0284		30.1813
Total	**8.0863**	**0.1884**	**16.3557**	**8.6000e-004**		**0.0906**	**0.0906**		**0.0906**	**0.0906**	**0.0000**	**29.4720**	**29.4720**	**0.0284**	**0.0000**	**30.1813**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Riverwalk Townhomes - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT D:

FUEL USAGE WORKSHEET

Fuel Consumption Worksheet

Annual VMT from CalEEMod modeling	Gasoline-Fueled Percentage	Diesel-Fueled Percentage	Gasoline mpg	Gasoline Consumption (gallons/yr)	Diesel mpg	Diesel Consumption (gallons/yr)
6,310,708	82.1%	17.9%	22.2	233,468	8	140,965

		Fleet Mix from CalEEMod modeling												
Land Use	ADT	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Residential	1,869	53.8%	5.6%	17.3%	13.8%	2.6%	0.72%	1.1%	1.9%	0.061%	0.031%	2.4%	0.11%	0.52%
		Vehicle Percentages by fuel type												
Gasoline-powered:		98%	95%	75%	50%	50%	10%	5%	5%	0%	0%	100%	10%	50%
Diesel-powered:		2%	5%	25%	50%	50%	90%	95%	95%	100%	100%	0%	90%	50%

truck % = 43.11%