



Appendix B

CalEEMod Emissions Summary

CalEEMod Emission Summary

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SUBJECT: Summary of CalEEMod Model Runs and Output for the Sand Canyon Resort Project

SECTION 1: PROJECT INFORMATION

1.1 - Project Name

Sand Canyon Resort Project

1.2 - Project Location

The proposed 77-acre project site collectively consists of the proposed resort site, which is approximately 75 acres in size and is located at 27734 Sand Canyon Road at the northeast corner of Sand Canyon Road and Robinson Ranch Roach, south of State Route 14 in the Sand Canyon area of the City of Santa Clarita (City) as well as a 1.9-acre detention basin site located south of the proposed resort site.

The project site is located within a Planned Development (PD) overlay zone and within the City's Sand Canyon Special Standards District. The site is currently designated as Open Space in the City of Santa Clarita General Plan and is currently zoned Open Space (OS). The project includes a Zone Change and General Plan Amendment to Community Commercial (CC) and a subdivision from one lot into four lots.

1.3 - Project Description

The proposed resort would include the following buildings: Main Hotel Building, Spa Garden Inn, Function Building, Spa Building, View Villas Community, and Oak Villas Community. The resort would include a total of 392 rooms within hotel buildings and villas, 56,200 square feet of conference space in the form of ballrooms and meeting rooms, 25,000 square feet of restaurant space, and outdoor recreation with parks, trails , and a nine-hole par-3 golf course. The resort would include a total of 400 new parking stalls and additional shared parking would be available at the adjacent clubhouse building and 2miles of multi-purpose trails. This analysis assumes the Project would be operational by 2023.

1.4 - Purpose of the Report

This report summarizes the results of the project construction and operational criteria pollutant and greenhouse gas (GHG) emissions estimates using the California Emissions Estimator Model (CalEEMod Version 2016.3.2) land use emission model for use in preparing CEQA regulatory documentation. The estimated project emissions were compared to the recommended air quality and GHG significance thresholds adopted by the South Coast Air Quality Management District (SCAQMD) for use in CEQA assessments.

1.5 - Conclusions

- The construction and operation of the project would not exceed any project-level criteria pollutant regional or localized emission significance threshold adopted by the SCAQMD.
- The construction and operation of the project would not result in a cumulatively significant impact on the region's air quality.
- The construction and operation of the project would not exceed the greenhouse gas significance threshold adopted for this project and would have a less than significant individual and cumulative impact of GHG emissions.
- The construction and operation of the project would not result in the wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, associated with project design, project location, the use of electricity and natural gas, and the use of fuel by vehicles anticipated to travel to and from the project.

SECTION 2: CALEEMOD EMISSION ESTIMATES – CRITERIA POLLUTANTS

This section quantifies the project construction and operational criteria pollutant emissions¹ for the project design.

2.1 - Significance Thresholds-Criteria Pollutants

The City of Santa Clarita has not adopted its own set of criteria pollutant significance thresholds. Therefore, the respective significance thresholds recommended by the SCAQMD were applied to the project in assessing the significance of the project's criteria pollutant emissions.

2.1.1 Regional Emission Significance Thresholds

The incremental regional air quality impacts of an individual project are generally very small and difficult to measure. However, the SCAQMD's regional significance thresholds define levels of maximum daily emissions whose exceedance by a project's construction or operation may add to the overall emission burden within the SCAQMD and impact the attainment and maintenance of ambient air quality standards.

The regional thresholds apply to criteria pollutant emissions of carbon monoxide (CO), oxides of nitrogen (NO_x), oxides of sulfur (SO_x), particulate matter (PM₁₀ and PM_{2.5}), and reactive organic gases (ROG). The quantification of regional emissions includes those project emissions generated from both onsite emission sources (i.e., offroad construction equipment, fugitive dust) and offsite emission sources (vehicle travel to and away from the project). [Table 1](#) shows the SCAQMD's regional significance thresholds.

Table 1: SCAQMD Regional Emission Significance Thresholds

Air Pollutant	Maximum Daily Emissions (pounds/day)	
	Construction	Operation
Carbon Monoxide	550	550
Oxides of Nitrogen	100	55
Sulfur Oxides	150	150
PM ₁₀	150	150
PM _{2.5}	55	55
Reactive Organic Gases	75	55

Source: SCAQMD²

¹Criteria pollutants are the only air pollutants with national air quality standards that define allowable concentrations of these substances in the ambient air. Criteria pollutants include carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO_x), and particulate matter (PM₁₀ and PM_{2.5}). Note that ozone is another criteria pollutant; however, in terms of defining significance thresholds, ozone is represented by its precursor components, oxides of nitrogen (NO_x) and reactive organic gases.

² SCAQMD April 2019. Website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>

2.1.2 Localized Significance Thresholds

Project-related construction or operational air emissions may have the potential to exceed the State and national air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact on the SCAQMD. As a result, the SCAQMD has also adopted localized significance thresholds (LSTs) that represent the maximum rates of daily construction or operational emissions from a project site that would not result in air pollutant levels that would exceed a national or State ambient air quality standards (SCAQMD 2003³, 2008⁴). There are three principal differences between the regional thresholds and the LSTs. First, the regional thresholds include all sources of project construction and operational emissions generated from both onsite and offsite emission sources, whereas the LSTs only consider the emissions generated from onsite emission sources. Second, the LSTs only apply to CO, NO_x, and particulate matter (PM₁₀ and PM_{2.5}), while the regional thresholds include both ROG and SO_x. Third, the regional thresholds apply to emission sources regardless of where the source is located within the SCAQMD. In contrast, the LSTs are location-dependent and also depend on the size of the project and emission location relative to the nearest sensitive receptor⁵.

For purposes of this localized assessment, the SCAQMD provides screening emission look-up tables for projects that disturb a maximum of 5 acres in size in a day. The look-up tables were developed by the SCAQMD to readily determine if the daily emissions of CO, NO_x, PM₁₀, and PM_{2.5} from a project could result in a significant impact on the local air quality. The appropriate LSTs can be determined based on the project's source receptor area (SRA)⁶, size, and distance to nearest sensitive receptor. The SCAQMD has divided the SCAQMD into 37 SRAs, each with a set of LSTs that depend on the air pollutant, project size, and distance to the nearest sensitive receptor. The project site is located within SRA 13, Santa Clarita Valley. The LSTs for this SRA were applied to the project.

LSTs for Construction

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (SCAQMD 2011)⁷. The CalEEMod model calculates construction emissions based on the number and types of construction equipment, equipment hours, rates of emission, and the maximum area that a piece of equipment can pass-over in an 8-hour workday. The daily maximum disturbed area during construction serves as a factor in determining the project size value of the LSTs for construction. Table 2 shows the maximum daily disturbed acreage during site preparation, and grading based on the types and numbers of construction equipment used for each construction activity, as identified by the CalEEMod model. As shown in Table 2, the maximum daily area disturbed during construction is 4.0 acres that occurs during the grading activity. Therefore, the maximum daily disturbed area during construction was set as 4.0 acres for the localized assessment of construction impacts.

³ SCAQMD 2003. Final Localized Significance Threshold Methodology. Website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2>

⁴ SCAQMD 2008: Final Localized Significance Threshold Methodology. Website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>

⁵ The SCAQMD defines a sensitive receptor as an individual who is most health-wise susceptible to exposures to air pollutants including children the elderly, and adults with chronic health issues. Such receptors include residences, schools, elderly care centers, and hospitals where such receptors could be exposed to air pollutants for at least 24 hours.

⁶ A source-receptor area (SRA) is a geographic area within the SCAQMD that can act as both a source of emissions and a receptor of emission impacts

⁷ SCAQMD 2011: Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf>

Table 2: Equipment Specific Maximum Daily Disturbed Construction Area Rates

Activity	Equipment Type	Equipment Quantity	Acres Graded per 8-hour Day	Operating Hours per Day	Acres Graded per Day
Demolition	Excavators	3	0	8	0
	Rubber Tired Dozers	2	0.5	8	1
	Concrete Industrial Saws	1	0	8	0
					Total 1.0 acres
Site Preparation	Rubber Tired Dozer	3	0.5	8	1.5
	Crawler Tractor	4	0.5	8	2.0
					Total 3.5 acres
Grading	Excavators	2	0	8	0
	Graders	1	0.5	8	0.5
	Rubber Tired Dozers	1	0.5	8	0.5
	Crawler Tractor	2	0.5	8	1
	Scraper	2	1	8	2
					Total 4.0 acres
Source: Table 5 shows the construction inventory developed for the Site Preparation and Grading activities as derived from the CalEEMod model.					

The specification of LSTs is also dependent on the distance to the nearest sensitive receptor. The location of the nearest sensitive receptor is dependent not only on the distance to the project but also the duration for which a receptor may be exposed to air pollution. The SCAQMD considers a sensitive receptor to be a location such as a residence, hospital, convalescent facility where it is possible than an individual could remain for 24 hours or longer⁸.

The closest offsite sensitive receptor where such a receptor could reside for 24 hours or longer is located at an existing residence at the western property line along San Canyon Road. Therefore, the distance for sensitive receptors in the LST assessment was set at 25 meters (the shortest distance listed in the emission tables) for estimating localized project impacts. Table 3 provides the applicable construction LSTs for this project.

⁸ SCAQMD 2003. Final Localized Significance Threshold Methodology. Website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2>

Table 3: Construction Localized Significance Thresholds

NOx (lbs/day)	CO (lbs/day)	PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
218	1,388	10.0	5.3

LSTs for SRA 13, project area of 4.0 acres and a receptor distance of 25 meters. The LSTs were interpolated from the 2 and 5 acre LSTs provided in the LST look-up tables.

LST for Operation

Because the LST methodology is applicable to projects where emission sources occupy a fixed location, LST methodology would typically not apply to the operational phase of a commercial project because emissions for these projects are primarily generated by mobile sources traveling on local roadways over generally large distances or areas. LSTs would apply to the operational phase of a project if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site. For example, the LST methodology applies to operational projects such as warehouse/transfer facilities or large stationary sources such as a refinery, chemical factory, or railyard. As the project would include a resort with hotel and recreational uses, an operational analysis against the LST methodology is not appropriate and these impacts would be considered less than significant.

2.1.3 Cumulative Significance Thresholds

The SCAQMD has published the following report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (SCAQMD 2003)⁹. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Therefore, the project-specific and cumulative significance thresholds are the same. As a result, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

The US Environmental Protection Agency currently designates the South Coast Air Basin where the project is located as nonattainment for ozone, PM₁₀, and PM_{2.5}. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants is a result of past and present development within the air basin, and this regional impact is a cumulative impact. In other words, new development projects (such as the proposed project) within the air basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects.

The determination of cumulative air quality impacts for construction and operational emissions was, therefore, based on whether the project would result in regional emissions that exceed SCAQMD regional thresholds of significance for construction and operations on a project level. Projects that generate emissions below the SCAQMD regional significance thresholds would be considered consistent with regional air quality planning efforts and would not generate cumulatively considerable emissions.

⁹ SCAQMD 2003. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution

2.2 - Criteria Pollutant Emission and Impact Estimates

2.2.1 Project Emissions

Construction

Assumptions

- Construction Schedule: Construction is anticipated to commence in January 2021 and last for approximately 18 months. The project occupancy is expected in 2023
- The project site is currently open space, with numerous trees and grassland areas.
- Demolition of 65,000 square-feet of concrete paths and existing 1,200 square-foot restroom
- Soil import (10,000 cubic yards in the event of spoilage) with associated haul truck trips
- Fugitive dust mitigation applied as per SCAQMD Rule 403 – Fugitive Dust
- Application of architectural coatings with volatile organic compound content of 50 grams/liter
- Construction equipment inventory derived from the CalEEMod model equipment

Construction Emissions

The project's conceptual construction schedule and equipment inventory are provided in Table 4 and Table 5, respectively, based on the equipment provided in the CalEEMod model for the project size and land uses. Table 7 presents the project's construction vehicle trips.

Table 4: Construction Schedule

Activity	Start Date	End Date	Total Days
Demolition	1/4/2021	1/15/2021	10
Site Preparation	1/16/2021	2/19/2021	25
Grading	2/20/2021	4/30/2021	50
Building Construction	5/1/2021	6/24/2022	300
Paving	6/25/2022	8/5/2022	30
Architectural Coating	8/6/2022	9/30/2022	40

Source: see CalEEMod output

Table 5: Construction Equipment Inventory

Activity	Equipment	Project Number	Project Hours per day	Default Horse-power	Default Load Factor
Demolition	Concrete/Industrial Saws	1	8	81	0.73
	Excavators	3	8	158	0.38
	Rubber Tired Dozers	2	8	247	0.40
Site Preparation	Rubber Tired Dozer	3	8	247	0.40
	Crawler Tractor	4	8	212	0.43
Grading	Excavators	2	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.40
	Crawler Tractor	2	8	212	0.43
	Scrapers	2	8	367	0.48
Building Construction	Crane	1	7	231	0.29
	Forklifts	3	8	89	0.20
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
	Generator Set	1	8	84	0.74
Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	132	0.36
	Rollers	2	8	80	0.38
Architectural Coating	Air Compressor	1	6	78	0.48
Source: see CalEEMod output					

Table 6: Construction Vehicle Trips

Activity	Construction Trips per Day			Total Trips
	Worker	Vendor	Haul	
Demolition	15	0		168
Site Preparation	18	0		0
Grading	20	0		1,250
Building Construction	830	324		0
Paving	15	0		0
Architectural Coating	166	0		0
Source: see CalEEMod output				

Table 7 presents the project's estimated maximum daily regional construction emissions. As noted in Table 7, the construction of the project would not exceed the SCAQMD's regional emission significance thresholds. Table 8 presents the results of the project's localized construction impact assessment. As noted in Table 8, the construction of the project would not exceed the SCAQMD's localized construction emission significance thresholds.

Table 7: Estimated Maximum Daily Regional Construction Emissions

Construction Activity	Maximum Daily Regional Construction Emissions ⁽¹⁾ (pounds/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2021						
Demolition	3.4	36.0	23.3	0.0	3.0	1.6
Site Preparation	5.4	60.9	22.6	0.1	7.5	5.1
Grading	5.2	63.4	33.6	0.1	5.6	3.3
Building Construction	6.4	51.3	58.3	0.2	12.5	4.1
Maximum Daily Emission	6.4	63.4	58.3	0.2	12.5	5.1
2022						
Building Construction	6.0	47.7	55.0	0.2	12.3	4.0
Paving	1.8	11.1	15.2	0.0	0.8	0.5
Architectural Coating	42.9	1.8	8.0	0.0	2.0	0.6
Maximum Daily Emission	42.9	47.7	55.0	0.2	12.3	4.0
2021 to 2022 Maximum Daily Emissions	42.9	63.4	58.3	0.2	12.5	5.1
SCAQMD Significance Thresholds	75	100	550	150	150	55
Emissions Exceed Thresholds?	No	No	No	No	No	No
Notes:						
ROG = reactive organic gases NO _x = oxides of nitrogen PM ₁₀ = particulate matter 10 microns or less in diameter						
PM _{2.5} = particulate matter 2.5 microns or less in diameter CO = carbon monoxide SO _x = sulfur oxides						
PM emissions reflect SCAQMD Rule 403 reductions						
Emissions shown as 0.0 pounds/day are actually <0.1 pounds/day						
Source: see CalEEMod model output						

Table 8: Estimated Maximum Daily Localized Construction Emissions

Construction Activity	Maximum Daily Localized Construction Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
2021				
Demolition	31.4	21.6	2.5	1.5
Site Preparation	60.8	21.9	7.3	5.0
Grading	56.6	31.2	4.9	3.1
Building Construction	17.4	16.6	1.0	0.9
Maximum Daily Emission	60.8	31.2	7.3	5.0
2022				
Building Construction	15.6	16.4	0.8	0.8
Paving	11.1	14.6	0.6	0.5
Architectural Coating	1.4	1.8	0.1	0.1
Maximum Daily Emission	15.6	16.4	0.8	0.8
2021 to 2022 Maximum Daily Emissions	60.8	31.2	7.3	5.0
SCAQMD Significance Thresholds	218	1,388	10.0	5.3
Emissions Exceed Thresholds?	No	No	No	No
Notes: NO _x = oxides of nitrogen PM ₁₀ = particulate matter 10 microns or less in diameter PM _{2.5} = particulate matter 2.5 microns or less in diameter CO = carbon monoxide PM emissions reflect SCAQMD Rule 403 emission reductions Source: see CalEEMod model output				

Project Operational Emissions

Assumptions

- Project daily trip generation obtained from the traffic impact memorandum
- Vehicle fleet mix, trip lengths, and trip purposes derived from the default CalEEMod model input
- 75% solid waste diversion in accordance with California AB341
- 20% water reduction in outdoor/indoor water usage
- Architectural coatings with a VOC content of 50 grams/liter in accordance with SCAQMD Rule 1113

The project's day-to-day operations would generate the project's long-term emissions. Operational emissions for land use development projects are typically distinguished as mobile, area, and energy-source emissions. Mobile-source emissions are associated with worker automobiles, resort guests, and delivery trucks that would travel to and from the project site. Area-source emissions are associated with landscape maintenance activities, consumer product usage, and application of periodic architectural coatings. Energy-

source emissions are associated with natural gas consumption and, indirectly, with the generation of electricity from offsite power plants to service the electrical needs of the project.

Mobile sources constitute the largest source of operational emissions. The estimation of motor vehicle emissions requires an estimate of the number of vehicle trips, trip distance, and trip purpose that each vehicle travels. Table 9 summarizes the daily motor vehicle trips from the project based on information derived from the project Traffic Impact Analysis¹⁰. The project is expected to generate 921 daily weekday trips, and 1,317 daily trips on Saturday and Sunday.

Table 9: Project Daily Operational Vehicle Assumptions

Resort Hotel	
Rooms	Trip Rate
392	2.35 trips/room (weekday) ⁽¹⁾ 3.36 trips/room (weekend) ⁽²⁾
Fleet Mix	
Default CalEEMod Fleet Mix	
Vehicle Fleet Trip Length	
Default CalEEMod Fleet Trip Length	
Trip Purposes	
Default CalEEMod Fleet Trip Purpose	
Notes: (1) Stantec 2019 San Canyon Traffic Impact Analysis (2) ITE 10 th Edition for Land Use Category 330 Source: see CalEEMod output	

Table 10 summarizes the project's regional operational emissions along with a comparison to the SCAQMD's regional significance thresholds. As noted in Table 10, the project's regional operational emissions are less than the regional significance thresholds.

Table 10: Estimated Maximum Daily Regional Operational Emissions

Operational Activity	Maximum Daily Regional Operational Emissions (pounds/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area	7.7	0.0	0.1	0.0	0.0
Energy	0.3	2.3	1.9	0.2	0.2
Mobile	1.9	7.5	22.2	6.7	1.8

¹⁰ Stantec 2019. Sand Canyon Resort Traffic Impact Analysis

Operational Activity	Maximum Daily Regional Operational Emissions (pounds/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Total Project Operational Emissions	9.8	9.8	24.2	6.9	2.0
SCAQMD Significance Threshold	55	55	550	150	55
Exceed Threshold?	No	No	No	No	No

Notes:
 NO_x = oxides of nitrogen PM₁₀ = particulate matter 10 microns or less in diameter ROG = reactive organic gases
 PM_{2.5} = particulate matter 2.5 microns or less in diameter CO = carbon monoxide
 Emissions shown as 0.0 pounds/day are actually <0.1 pounds/day

Source: see CalEEMod model output

2.2.2 Cumulative Impacts

Construction

As shown in Table 7 above, the project's maximum daily regional construction emissions would not exceed SCAQMD's regional thresholds of significance. Therefore, the project's construction emissions would not result in a cumulatively considerable incremental contribution to the existing air quality. Furthermore, all construction activities would comply with applicable SCAQMD rules and regulations, including Rule 403 to minimize fugitive PM dust emissions. Therefore, the cumulative impact of the construction of the project would be less than significant.

Operations

As shown in Table 10 above, the project's maximum daily operational emissions would not exceed SCAQMD's regional thresholds of significance. Therefore, the project's operational emissions would not result in a cumulatively considerable incremental contribution to the existing air quality. The cumulative impact from the long-term operation of the project would be less than significant.

2.3 - Conclusion

The project's construction and operational emissions would not exceed the SCAQMD's established project level or cumulative regional or localized pollutant significant thresholds during either construction or operation.

SECTION 3: CALEEMOD EMISSION ESTIMATES - GREENHOUSE GAS EMISSIONS

This section analyzes the potential impacts on climate change from the project's emissions of various greenhouses (GHG).

3.1 - Significance Threshold

On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for proposed Projects where the SCAQMD is the lead agency. Currently, the Board has only adopted thresholds relevant to industrial (stationary source) projects. To achieve a policy objective of capturing 90 percent of GHG emissions from new residential/commercial development projects and implement a “fair share” approach to reducing emission increases from each sector, SCAQMD staff proposed in September 2010 combining performance standards and screening thresholds.

The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses:

- Tier 1: Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.
- Tier 2: Consider whether or not a proposed project is consistent with a locally adopted GHG reduction plan (i.e., a Climate Action Plan) that has gone through public hearings and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.
- Tier 3: Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MTCO₂e/year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MTCO₂e/year), commercial projects (1,400 MTCO₂e/year), and mixed-use projects (3,000 MTCO₂e/year). Under option 2 a single numerical screening threshold of 3,000 MTCO₂e/year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.
- Tier 4: Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MTCO₂e per service population for project level analyses and 6.6 MTCO₂e per service population for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.
- Tier 5: Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

This assessment of the project’s GHG impacts relied upon the application of Tier 3 and a numerical threshold of 3,000 MTCO₂e per year. Project GHG emissions in excess of 3,000 MTCO₂e would result in a significant cumulative impact.

3.2 - Estimation of GHG Emissions

3.2.1 Construction

Table 11 summarizes the project's construction GHG emissions. As per SCAQMD guidance, the project's construction emissions are amortized over a 30-year time period and added to the operational emissions to quantify the project's total GHG emissions.

Table 11: Project Construction GHG Emissions

Activity	Annual GHG Emissions (MTCO ₂ e)
2021	1,923
2022	1,206
Total Emissions	3,129
Total Emissions Amortized Over 30 years	104
Source: see CalEEMod output	

3.2.2 Operations

Table 12 summarizes the project's operational GHG emissions, along with the construction GHG emissions and the total project GHG emissions. The project would result in GHG emissions of 2,504 MTCO₂e per year. This level of emissions does not exceed the 3,000 MTCO₂e per year significance threshold adopted for this project. Therefore, the project would have a less than significant individual and cumulative impact for GHG emission

Table 12: Project Operational GHG Emissions

Activity	Annual GHG Emissions (MTCO ₂ e)
Project Operational Emissions	
Area	0
Energy	1,113
Mobile	1,038
Waste	109
Water	140
Total	2,399
Project Construction Emissions	104
Project Construction and Operation	2,504
Significance Threshold	3,000
Project Exceeds Threshold?	NO
Source: see CalEEMod output	

3.3 - Conclusion

The project's construction and operational GHG emissions would have a less than significant individual and cumulative impacts for GHG emissions.

SECTION 4: PROJECT FUEL AND ENERGY CONSUMPTION

4.1 - Assumptions

- Construction equipment fuel consumption derived from ARB Offroad2017 emission model and the CalEEMod construction equipment
- Fuel Consumption from vehicle travel derived from ARB EMFAC2017 emission model
- Electrical and natural gas usage derived from the CalEEMod model

4.2 - Significance Thresholds

Neither Appendix F of the State CEQA Guidelines nor PRC Section 21100(b)(3)) provides a numerical threshold of significance that might be used to evaluate the potential significance of energy consumption of a proposed project. Instead, the emphasis is on reducing “the wasteful, inefficient, and unnecessary consumption of energy.” Based on this focus of the guidelines, for purposes of this report, the proposed project would have a significant impact related to energy consumption if it would:

- Involve the wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, associated with project design, project location, the use of electricity and natural gas, and the use of fuel by vehicles anticipated to travel to and from the project.

4.3 - Construction

4.3.1 Electricity and Natural Gas Usage

Southern California Edison Company would provide temporary electric power for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers. The electricity used for such activities would be temporary and would be substantially less than that required for project operation and would have a negligible contribution to the project’s overall energy consumption.

Natural gas is not anticipated to be required during the construction of the proposed project. Fuels used during the construction would primarily consist of diesel and gasoline, which are discussed below under the “Petroleum Fuel Usage” subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would be substantially less than that required for project operation and would have a negligible contribution to the project’s overall energy consumption.

4.3.2 Petroleum Fuel Usage

Off-road heavy-duty construction equipment associated with construction activities would rely on diesel fuel as would vendor and haul trucks involved in delivering building materials and removing the demolition debris from the project site. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered passenger vehicles. Table 17 presents the fuel usage for the off-road construction equipment. These estimates are based on the total fuel consumption and horsepower-hour

data contained within the ARB OFFROAD2017 emission model for specific types of diesel construction equipment to be employed in the project construction. Note that the total fuel consumption during construction computed below likely substantially overstates the amount of fuel usage. Although construction equipment and their duration are listed under a particular construction activity, there is a likelihood that all of the inventoried equipment would not operate over the entire duration of the construction activity. For example, during building construction, a crane is listed as one of the items of construction equipment. However, it is highly unlikely that the crane would operate over the entire duration of 300 days assumed during the building construction activity.

Table 18 summarizes the project's construction vehicle fuel usage. The fuel usage is based on the vehicle type (worker vehicle, vendor vehicle, and haul truck), vehicle miles traveled, and fuel usage factors contained in the ARB EMFAC2017 mobile source emission model and in the CalEEMod model. Table 19 summarizes the total fuel construction during construction.

4.4 - Operational Energy Requirements

Table 20 summarizes the project's operational energy requirements.

4.5 - Conclusion

Construction of the project would result in fuel consumption from the use of construction tools and equipment, vendor and haul truck trips, and vehicle trips generated from construction workers traveling to and from the site. Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a typical operational condition of the project. Also, there are no unusual project characteristics that would cause the use of construction equipment that would be less energy efficient compared with other similar construction sites in other parts of the State. The rational goal of any construction job, whether it be for a household task or construction project such as the proposed project, is to minimize construction costs while meeting all legal requirements for doing so. Therefore, construction-related fuel consumption by the project would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region.

The operation of the project would involve the development of a resort hotel complex. According to CEQA Guidelines Appendix F, the goal of conserving energy implies the wise and efficient use of energy, including decreasing overall per capita energy consumption, reducing reliance on natural gas and oil, and increasing reliance on renewable energy sources. The project would comply with all of the energy efficiency requirements under all applicable State, county, and local business and energy code ordinances. As a result, the operation of the project would not result in inefficient, wasteful, or unnecessary energy use compared with other similar residential projects in the region.

Table 13: Construction Equipment Fuel Usage

Activity	Equipment	Project Number	Project Hours per day	Default Horse-power	Default Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Concrete/Industrial Saw	1	8	81	0.73	10	4,730	0.023965	113
	Excavators	3	8	158	0.38	10	14,410	0.019763	285
	Rubber Tired Dozers	2	8	247	0.4	10	15,808	0.020461	323
Site Preparation	Rubber Tired Dozer	3	8	247	0.4	25	59,280	0.020461	1,213
	Crawler Tractor	4	8	212	0.43	25	72,928	0.022173	1,617
Grading	Excavators	2	8	158	0.38	50	48,032	0.019763	949
	Graders	1	8	187	0.41	50	30,668	0.021143	648
	Rubber Tired Dozers	1	8	247	0.4	50	39,520	0.020461	809
	Scrapers	2	8	367	0.48	50	140,928	0.024738	3,486
	Crawler Tractor	2	8	212	0.43	50	72,928	0.022173	1,617
Building Construction	Crane	1	7	231	0.29	300	140,679	0.014896	2,096
	Forklifts	3	8	89	0.2	300	128,160	0.019105	2,449
	Tractors/Loaders/Backhoes	3	7	97	0.37	300	226,107	0.023965	5,419
	Welders	1	8	46	0.45	300	49,680	0.023965	1,191
	Generator Set	1	8	84	0.74	300	149,184	0.023965	3,575
Paving	Pavers	2	8	130	0.42	30	26,208	0.021525	564
	Paving Equipment	2	8	132	0.36	30	22,810	0.018334	418
	Rollers	2	8	80	0.38	30	14,592	0.019412	283
Architectural Coating	Air Compressor	1	6	78	0.48	40	8,986	0.023965	215
Fuel Consumption rates derived from the ARB OFFROAD2017 - Orion Web Database								Total	26,549

Table 14: Estimated Project Construction Vehicle Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	4,428	0
Vendor Trucks	80.904	0
Worker Vehicles	0	140,066
Construction Vehicles Total	85,332	140,066
Source: see Construction Fuel Usage Spreadsheet		

Table 15: Total Construction Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Construction Vehicles	85.332	140,066
Off-road Construction Equipment	26,549	0
Construction Total	111,881	140,066
Source: see Construction Fuel Usage Spreadsheet		

Table 16: Project Annual Operational Energy Requirements

Operational Source (value per year)		
	VMT	Gallons of Fuel
Transportation – Project	170,420 (Diesel) 2,297,644 (Gasoline) 2,468,064 (Total)	18,677 (Diesel) 93,036 (Gasoline) 111.713 (Total)
Electricity – Project	Thousands Kilowatt-Hours	
	2,715,160	
Natural Gas – Project	Thousands British Thermal Units	
	8,462,300	
Source: see Fuel Usage Spreadsheet and CalEEMod output		

CalEEMod Model Spreadsheet Output

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Sand Canyon Resort Project

Estimate of Construction LSTs

Size of Maximum Daily Construction Disturbed Area: 4 acres
 Project Operational Size >5 acres

Source Receptor Area: 13

Distance to Sensitive Receptor: 25 meters

Construction LST					
Size (acres)	NOx (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	
2	163	877	6.0	4.0	
5	246	1644	12.0	6.0	
4	218	1388	10.0	5.3	

Estimation of Operational LSTs					
Size (acres)	NOx (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	
5	246	1644	12.0	2.0	

Maximum Daily Disturbed Area During Construction				
	Number of Equipment	Acres Disturbed per 8-hour day	Disturbed Acres	
Demolition				
Excavators	3	0	0	
Rubber Tired Dozer	2	0.5	1	
Concrete Industrial Saw	1	0	0	
	Total		1	
Site Preparation				
Rubber Tired Dozers	3	0.5	1.5	
Crawler Tractors	4	0.5	2	
	Total		3.5	
Grading				
Excavators	2	0	0	
Graders	1	0.5	0.5	
Rubber Tired Dozers	1	0.5	0.5	
Scrapers	2	1	2	
Crawler Tractors	2	0.5	1	
	Total		4	

Sand Canyon Resort Project

CalEEMod Construction Emission Summary

Maximum Daily Emissions (pounds/day)										
2021	ROG	NOx	CO	SOx	PM10F	PM10Exh	PM10Total	PM2.5Fug	PM2.5 Exh	PM2.5Total
Demolition										
Onsite	3.2	31.4	21.6	0.0	0.9	1.6	2.5	0.1	1.4	1.5
Offsite	0.2	4.6	1.7	0.0	0.5	0.0	0.5	0.1	0.0	0.1
Total	3.4	36.0	23.3	0.0	1.4	1.6	3.0	0.2	1.4	1.6
Site Prep										
Onsite	5.3	60.8	21.9	0.1	4.7	2.6	7.3	2.6	2.4	5.0
Offsite	0.1	0.1	0.7	0.0	0.2	0.0	0.2	0.1	0.0	0.1
Total	5.4	60.9	22.6	0.1	4.9	2.6	7.5	2.7	2.4	5.1
Grading										
Onsite	4.9	56.6	31.2	0.1	2.6	2.3	4.9	1.0	2.1	3.1
Offsite	0.3	6.8	2.4	0.0	0.7	0.0	0.7	0.2	0.0	0.2
Total	5.2	63.4	33.6	0.1	3.3	2.3	5.6	1.2	2.1	3.3
Building Construction										
Onsite	1.9	17.4	16.6	0.0	0.0	1.0	1.0	0.0	0.9	0.9
Offsite	4.5	33.9	41.7	0.2	11.4	0.1	11.5	3.1	0.1	3.2
Total	6.4	51.3	58.3	0.2	11.4	1.1	12.5	3.1	1.0	4.1
2021 Max Onsite	5.3	60.8	31.2	0.1	4.7	2.6	7.3	2.6	2.4	5.0
2021 Max Total	6.4	63.4	58.3	0.2	11.4	2.6	12.5	3.1	2.4	5.1
2022										
Building Construction										
Onsite	1.7	15.6	16.4	0.0	0.0	0.8	0.8	0.0	0.8	0.8
Offsite	4.3	32.1	38.6	0.2	11.4	0.1	11.5	3.1	0.1	3.2
Total	6.0	47.7	55.0	0.2	11.4	0.9	12.3	3.1	0.9	4.0
Paving										
Onsite	1.7	11.1	14.6	0.0	0.0	0.6	0.6	0.0	0.5	0.5
Offsite	0.1	0.0	0.6	0.0	0.2	0.0	0.2	0.0	0.0	0.0
Total	1.8	11.1	15.2	0.0	0.2	0.6	0.8	0.0	0.5	0.5
Architectural Coating										
Onsite	42.2	1.4	1.8	0.0	0.0	0.1	0.1	0.0	0.1	0.1
Offsite	0.7	0.4	6.2	0.0	1.9	0.0	1.9	0.5	0.0	0.5
Total	42.9	1.8	8.0	0.0	1.9	0.1	2.0	0.5	0.1	0.6
2022 Max Onsite	42.2	15.6	16.4	0.0	0.0	0.8	0.8	0.0	0.8	0.8
2022 Max Total	42.9	47.7	55.0	0.2	11.4	0.9	12.3	3.1	0.9	4.0
2021-2022 Max Onsite	42.2	60.8	31.2	0.1	4.7	2.6	7.3	2.6	2.4	5.0
2021-2022 Max Total	42.9	63.4	58.3	0.2	11.4	2.6	12.5	3.1	2.4	5.1
Regional Threshold	75	100	550	150			150			55
Exceeds Threshold	NO	NO	NO	NO			NO			NO

LST Threshold	218	1388		10	5.3
Exceeds LST	NO	NO		NO	NO

Operational Emission Summary (pounds/day)

Source	ROG	NOx	CO	SOX	PM10	PM2.5
Area	7.7	0	0.1	0	0	0
Energy	0.3	2.3	1.9	0	0.2	0.2
Mobile	1.9	7.5	22.2	0.2	6.7	1.8
Total	9.9	9.8	24.2	0.2	6.9	2
Regional Threshold	55	55	550	150	150	55
Exceeds Threshold	NO	NO	NO	NO	NO	NO

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

Sand Canyon Resort, Santa Clarita, CA
Los Angeles-South Coast County, Summer

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.00	Acre	4.00	174,240.00	0
Other Non-Asphalt Surfaces	1.90	Acre	1.90	82,764.00	0
Parking Lot	400.00	Space	2.60	115,000.00	0
City Park	28.70	Acre	28.70	1,250,172.00	0
Hotel	392.00	Room	8.10	352,890.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	532	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

Project Characteristics - 532 MTCO₂e SCE emission rate for 2020-2029

Land Use - Detention basin = 1.9 acres

Hotel complex (392 rooms includes 13,000 sf for tennis courts and 3,000 sq ft for restrooms

Landscaping (as City Park): 28.7 acres

Parking lot (400 spaces)

Other asphalt surfaces (internal roadway): 4 acres

Construction Phase - .Conceptual schedule with start in January 2021 and duration of at least 18 months

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Larger equipment used

Off-road Equipment -

Off-road Equipment - Larger equipment used

Demolition - Demolition of existing concrete pathways (65,000 sq-ft concrete)and restroom (1200 sq-ft)

Grading - Assumption based on client input

Architectural Coating - Use of architectural coatings of 50 g/l in accordance with SCAQMD Rule 1113

Vehicle Trips - Resort Hotel Land Use Trip Generation Rate as derived in the Stantec Trip Generation Memorandum 11/8/2019

Area Coating - Use of coating with hc content of 50 g/l as per SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - Watering every 2 hours as per the WRAP Fugitive Dust Handbool

Water Mitigation - 20% reduction of indoor/outdoor water usage

Waste Mitigation - 75% solid waste diversion as set forth in AB341

Fleet Mix - Default fleet mix

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50

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tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	74
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	74
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	55.00	40.00
tblConstructionPhase	NumDays	740.00	300.00
tblConstructionPhase	NumDays	50.00	10.00
tblConstructionPhase	NumDays	75.00	50.00
tblConstructionPhase	NumDays	55.00	30.00
tblConstructionPhase	NumDays	30.00	25.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.02	0.00

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00

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tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	175.00	187.50
tblGrading	AcresOfGrading	50.00	0.00
tblGrading	MaterialImported	0.00	10,000.00
tblLandUse	LandUseSquareFeet	160,000.00	115,000.00
tblLandUse	LandUseSquareFeet	569,184.00	352,890.00
tblLandUse	LotAcreage	3.60	2.60
tblLandUse	LotAcreage	13.07	8.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	CO2IntensityFactor	702.44	532
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	8.19	3.36
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	5.95	3.36
tblVehicleTrips	WD_TR	1.89	0.00

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

tblVehicleTrips	WD_TR	8.17	2.35
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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	6.4436	63.3094	58.2291	0.2051	18.2675	2.6476	20.9151	9.9840	2.4358	12.4199	0.0000	20,911.28 61	20,911.28 61	2.3903	0.0000	20,946.76 60
2022	43.0554	47.7396	54.9873	0.2010	11.3518	0.9379	12.2897	3.0577	0.8818	3.9395	0.0000	20,502.18 86	20,502.18 86	1.3703	0.0000	20,536.44 56
Maximum	43.0554	63.3094	58.2291	0.2051	18.2675	2.6476	20.9151	9.9840	2.4358	12.4199	0.0000	20,911.28 61	20,911.28 61	2.3903	0.0000	20,946.76 60

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	6.4436	63.3094	58.2291	0.2051	11.3517	2.6476	12.4497	3.0577	2.4358	5.0712	0.0000	20,911.28 61	20,911.28 61	2.3903	0.0000	20,946.76 60
2022	43.0554	47.7396	54.9873	0.2010	11.3518	0.9379	12.2897	3.0577	0.8818	3.9395	0.0000	20,502.18 86	20,502.18 86	1.3703	0.0000	20,536.44 56
Maximum	43.0554	63.3094	58.2291	0.2051	11.3518	2.6476	12.4497	3.0577	2.4358	5.0712	0.0000	20,911.28 61	20,911.28 61	2.3903	0.0000	20,946.76 60

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

	ROG	NOx	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	23.35	0.00	25.49	53.11	0.00	44.92	0.00	0.00	0.00	0.00	0.00	0.00

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

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	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004	3.0000e-004	3.0000e-004	0.1809	0.1809	4.7000e-004			0.1928		
Energy	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728	0.1728	0.1728	2,727.575	2,727.575	0.0523	0.0500	2,743.783	9		
Mobile	1.8767	7.5386	22.1933	0.0813	6.6831	0.0602	6.7433	1.7884	0.0559	1.8444	8,279.459	8,279.459	0.4061		8,289.612	8	
Total	9.7944	9.8123	24.1870	0.0949	6.6831	0.2332	6.9163	1.7884	0.2290	2.0174	11,007.21	11,007.21	0.4589	0.0500	11,033.58	94	

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	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004	3.0000e-004	3.0000e-004	0.1809	0.1809	4.7000e-004			0.1928		
Energy	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728	0.1728	0.1728	2,727.575	2,727.575	0.0523	0.0500	2,743.783	9		
Mobile	1.8767	7.5386	22.1933	0.0813	6.6831	0.0602	6.7433	1.7884	0.0559	1.8444	8,279.459	8,279.459	0.4061		8,289.612	8	
Total	9.7944	9.8123	24.1870	0.0949	6.6831	0.2332	6.9163	1.7884	0.2290	2.0174	11,007.21	11,007.21	0.4589	0.0500	11,033.58	94	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/4/2021	1/15/2021	5	10	
2	Site Preparation	Site Preparation	1/16/2021	2/19/2021	5	25	
3	Grading	Grading	2/20/2021	4/30/2021	5	50	
4	Building Construction	Building Construction	5/1/2021	6/24/2022	5	300	
5	Paving	Paving	6/25/2022	8/5/2022	5	30	
6	Architectural Coating	Architectural Coating	8/6/2022	9/30/2022	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 8.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 529,335; Non-Residential Outdoor: 176,445; Striped Parking Area: 22,320 (Architectural Coating – sqft)

OffRoad Equipment

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
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	0	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

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	168.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
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	1,250.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	830.00	324.00	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	166.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6378	0.0000	3.6378	0.5508	0.0000	0.5508			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	3,747.944 9	3,747.944 9	1.0549			3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388	3.6378	1.5513	5.1892	0.5508	1.4411	1.9919	3,747.944 9	3,747.944 9	1.0549			3,774.317 4

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1401	4.5065	1.0566	0.0131	0.2938	0.0138	0.3076	0.0805	0.0132	0.0938	1,422.029 7	1,422.029 7	0.0965			1,424.442 3
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457	170.8155	170.8155	5.0300e-003			170.9413
Total	0.2044	4.5507	1.6608	0.0148	0.4614	0.0152	0.4766	0.1250	0.0145	0.1395	1,592.845 2	1,592.845 2	0.1015			1,595.383 6

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9458	0.0000	0.9458	0.1432	0.0000	0.1432			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388	0.9458	1.5513	2.4972	0.1432	1.4411	1.5843	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.1401	4.5065	1.0566	0.0131	0.2938	0.0138	0.3076	0.0805	0.0132	0.0938			1,422.029	1,422.029	0.0965		1,424.442
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457			170.8155	170.8155	5.0300e-003		170.9413
Total	0.2044	4.5507	1.6608	0.0148	0.4614	0.0152	0.4766	0.1250	0.0145	0.1395			1,592.845	1,592.845	0.1015		1,595.383

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000	
Off-Road	5.3428	60.7861	21.8537	0.0570		2.6460	2.6460		2.4343	2.4343			5,523.504	5,523.504	1.7864		5,568.165
Total	5.3428	60.7861	21.8537	0.0570	18.0663	2.6460	20.7123	9.9307	2.4343	12.3650			5,523.504	5,523.504	1.7864		5,568.165

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296	
Total	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6972	0.0000	4.6972	2.5820	0.0000	2.5820		0.0000				0.0000
Off-Road	5.3428	60.7861	21.8537	0.0570		2.6460	2.6460		2.4343	2.4343	0.0000	5,523.5047	5,523.5047	1.7864		5,568.1651
Total	5.3428	60.7861	21.8537	0.0570	4.6972	2.6460	7.3432	2.5820	2.4343	5.0163	0.0000	5,523.5047	5,523.5047	1.7864		5,568.1651

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296	
Total	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296	

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.0216	0.0000	10.0216	3.7431	0.0000	3.7431		0.0000				0.0000
Off-Road	4.9185	56.5443	31.2281	0.0715		2.2861	2.2861		2.1032	2.1032		6,925.967 4	6,925.967 4	2.2400		6,981.967 3
Total	4.9185	56.5443	31.2281	0.0715	10.0216	2.2861	12.3077	3.7431	2.1032	5.8463		6,925.967 4	6,925.967 4	2.2400		6,981.967 3

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2085	6.7061	1.5724	0.0195	0.4371	0.0206	0.4577	0.1198	0.0197	0.1395	2,116.115 7	2,116.115 7	0.1436			2,119.705 9
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610	227.7540	227.7540	6.7100e-003			227.9217
Total	0.2942	6.7650	2.3779	0.0218	0.6607	0.0224	0.6831	0.1791	0.0214	0.2005	2,343.869 7	2,343.869 7	0.1503			2,347.627 6

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6056	0.0000	2.6056	0.9732	0.0000	0.9732			0.0000			0.0000
Off-Road	4.9185	56.5443	31.2281	0.0715		2.2861	2.2861		2.1032	2.1032	0.0000	6,925.967 4	6,925.967 4	2.2400		6,981.967 3
Total	4.9185	56.5443	31.2281	0.0715	2.6056	2.2861	4.8917	0.9732	2.1032	3.0764	0.0000	6,925.967 4	6,925.967 4	2.2400		6,981.967 3

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.2085	6.7061	1.5724	0.0195	0.4371	0.0206	0.4577	0.1198	0.0197	0.1395	2,116.115 7	2,116.115 7	0.1436			2,119.705 9	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610	227.7540	227.7540	6.7100e-003			227.9217	
Total	0.2942	6.7650	2.3779	0.0218	0.6607	0.0224	0.6831	0.1791	0.0214	0.2005	2,343.869 7	2,343.869 7	0.1503			2,347.627 6	

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	2,553.363 9	2,553.363 9	0.6160			2,568.764 3	
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	2,553.363 9	2,553.363 9	0.6160			2,568.764 3	

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3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.9848	31.4570	8.2237	0.0833	2.0743	0.0643	2.1386	0.5972	0.0615	0.6587	8,906.132 4	8,906.132 4	0.5247		8,919.249 6		
Worker	3.5579	2.4455	33.4302	0.0949	9.2774	0.0750	9.3524	2.4604	0.0691	2.5295	9,451.789 8	9,451.789 8	0.2785		9,458.752 2		
Total	4.5427	33.9025	41.6539	0.1782	11.3517	0.1393	11.4910	3.0577	0.1306	3.1882	18,357.92 22	18,357.92 22	0.8032		18,378.00 17		

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	1.9009	17.4321	16.5752	0.0269			0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269			0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.9848	31.4570	8.2237	0.0833	2.0743	0.0643	2.1386	0.5972	0.0615	0.6587	8,906.132 4	8,906.132 4	0.5247		8,919.249 6		
Worker	3.5579	2.4455	33.4302	0.0949	9.2774	0.0750	9.3524	2.4604	0.0691	2.5295	9,451.789 8	9,451.789 8	0.2785		9,458.752 2		
Total	4.5427	33.9025	41.6539	0.1782	11.3517	0.1393	11.4910	3.0577	0.1306	3.1882	18,357.92 22	18,357.92 22	0.8032		18,378.00 17		

3.5 Building Construction - 2022**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	2,554.333 6	2,554.333 6	0.6120		2,569.632 2		
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	2,554.333 6	2,554.333 6	0.6120		2,569.632 2		

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3.5 Building Construction - 2022**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	0.0000	
Vendor	0.9243	29.9150	7.7809	0.0825	2.0743	0.0562	2.1306	0.5972	0.0538	0.6510	8,828.542 8	8,828.542 8	0.5066	8,841.208 7			
Worker	3.3327	2.2090	30.8430	0.0915	9.2774	0.0726	9.3501	2.4604	0.0669	2.5273	9,119.312 2	9,119.312 2	0.2517	9,125.604 7			
Total	4.2569	32.1240	38.6239	0.1740	11.3518	0.1289	11.4807	3.0577	0.1207	3.1783	17,947.85 50	17,947.85 50	0.7583			17,966.81 33	

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000 6	2,554.333 6	2,554.333 6	0.6120		2,569.632 2	
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.9243	29.9150	7.7809	0.0825	2.0743	0.0562	2.1306	0.5972	0.0538	0.6510		8,828.542 8	8,828.542 8	0.5066		8,841.208 7	
Worker	3.3327	2.2090	30.8430	0.0915	9.2774	0.0726	9.3501	2.4604	0.0669	2.5273		9,119.312 2	9,119.312 2	0.2517		9,125.604 7	
Total	4.2569	32.1240	38.6239	0.1740	11.3518	0.1289	11.4807	3.0577	0.1207	3.1783		17,947.85 50	17,947.85 50	0.7583		17,966.81 33	

3.6 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4	
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.6792	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.6 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206	
Total	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206	

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4	
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.6792	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.6 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206	
Total	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206	

3.7 Architectural Coating - 2022**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	42.1843						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062	
Total	42.3888	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.6665	0.4418	6.1686	0.0183	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055		1,823.8625	1,823.8625	0.0503		1,825.1209	
Total	0.6665	0.4418	6.1686	0.0183	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055		1,823.8625	1,823.8625	0.0503		1,825.1209	

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	42.1843						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062	
Total	42.3888	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2022**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	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.6665	0.4418	6.1686	0.0183	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055	1,823.862 5	1,823.862 5	0.0503		1,825.120 9		
Total	0.6665	0.4418	6.1686	0.0183	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055	1,823.862 5	1,823.862 5	0.0503		1,825.120 9		

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.8767	7.5386	22.1933	0.0813	6.6831	0.0602	6.7433	1.7884	0.0559	1.8444	8,279.459 8	8,279.459 8	0.4061		8,289.612 8		
Unmitigated	1.8767	7.5386	22.1933	0.0813	6.6831	0.0602	6.7433	1.7884	0.0559	1.8444	8,279.459 8	8,279.459 8	0.4061		8,289.612 8		

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00				
Hotel	921.20	1,317.12	1317.12	2,468,064		2,468,064	
Other Asphalt Surfaces	0.00	0.00	0.00				
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Total	921.20	1,317.12	1,317.12	2,468,064		2,468,064	

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Hotel	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Non-Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728	2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9	
NaturalGas Unmitigated	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728	2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

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					
City Park	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
Hotel	23184.4	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9
Other 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
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
Total		0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Hotel	23.1844	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9
Other 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
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
Total		0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9

6.0 Area Detail**6.1 Mitigation Measures Area**

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928	
Unmitigated	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928	

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	0.4765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.8200e-003	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928
Total	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4765						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	7.1834						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	7.8200e-003	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928
Total	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

Sand Canyon Resort, Santa Clarita, CA

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.00	Acre	4.00	174,240.00	0
Other Non-Asphalt Surfaces	1.90	Acre	1.90	82,764.00	0
Parking Lot	400.00	Space	2.60	115,000.00	0
City Park	28.70	Acre	28.70	1,250,172.00	0
Hotel	392.00	Room	8.10	352,890.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	532	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

Project Characteristics - 532 MTCO₂e SCE emission rate for 2020-2029

Land Use - Detention basin = 1.9 acres

Hotel complex (392 rooms includes 13,000 sf for tennis courts and 3,000 sq ft for restrooms

Landscaping (as City Park): 28.7 acres

Parking lot (400 spaces)

Other asphalt surfaces (internal roadway): 4 acres

Construction Phase - Conceptual schedule with start in January 2021 and duration of at least 18 months

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Larger equipment used

Off-road Equipment -

Off-road Equipment - Larger equipment used

Demolition - Demolition of existing concrete pathways (65,000 sq-ft concrete) and restroom (1200 sq-ft)

Grading - Assumption based on client input

Architectural Coating - Use of architectural coatings of 50 g/l in accordance with SCAQMD Rule 1113

Vehicle Trips - Resort Hotel Land Use Trip Generation Rate as derived in the Stantec Trip Generation Memorandum 11/8/2019

Area Coating - Use of coating with hc content of 50 g/l as per SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - Watering every 2 hours as per the WRAP Fugitive Dust Handbook

Water Mitigation - 20% reduction of indoor/outdoor water usage

Waste Mitigation - 75% solid waste diversion as set forth in AB341

Fleet Mix - Default fleet mix

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	74
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	74
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	55.00	40.00
tblConstructionPhase	NumDays	740.00	300.00
tblConstructionPhase	NumDays	50.00	10.00
tblConstructionPhase	NumDays	75.00	50.00
tblConstructionPhase	NumDays	55.00	30.00
tblConstructionPhase	NumDays	30.00	25.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.02	0.00

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tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00

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tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	175.00	187.50
tblGrading	AcresOfGrading	50.00	0.00
tblGrading	MaterialImported	0.00	10,000.00
tblLandUse	LandUseSquareFeet	160,000.00	115,000.00
tblLandUse	LandUseSquareFeet	569,184.00	352,890.00
tblLandUse	LotAcreage	3.60	2.60
tblLandUse	LotAcreage	13.07	8.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	CO2IntensityFactor	702.44	532
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	8.19	3.36
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	5.95	3.36
tblVehicleTrips	WD_TR	1.89	0.00

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tblVehicleTrips	WD_TR	8.17	2.35
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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	6.8924	63.3978	56.2373	0.1973	18.2675	2.6476	20.9151	9.9840	2.4358	12.4199	0.0000	20,115.04 30	20,115.04 30	2.3950	0.0000	20,150.97 02
2022	43.1323	47.8940	53.1260	0.1934	11.3518	0.9397	12.2915	3.0577	0.8836	3.9413	0.0000	19,726.29 71	19,726.29 71	1.3879	0.0000	19,760.99 54
Maximum	43.1323	63.3978	56.2373	0.1973	18.2675	2.6476	20.9151	9.9840	2.4358	12.4199	0.0000	20,115.04 30	20,115.04 30	2.3950	0.0000	20,150.97 02

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	6.8924	63.3978	56.2373	0.1973	11.3517	2.6476	12.4517	3.0577	2.4358	5.0712	0.0000	20,115.04 30	20,115.04 30	2.3950	0.0000	20,150.97 02
2022	43.1323	47.8940	53.1260	0.1934	11.3518	0.9397	12.2915	3.0577	0.8836	3.9413	0.0000	19,726.29 71	19,726.29 71	1.3879	0.0000	19,760.99 54
Maximum	43.1323	63.3978	56.2373	0.1973	11.3518	2.6476	12.4517	3.0577	2.4358	5.0712	0.0000	20,115.04 30	20,115.04 30	2.3950	0.0000	20,150.97 02

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

	ROG	NOx	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	23.35	0.00	25.49	53.11	0.00	44.92	0.00	0.00	0.00	0.00	0.00	0.00

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

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	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004	3.0000e-004	3.0000e-004	0.1809	0.1809	4.7000e-004			0.1928	
Energy	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728	0.1728	0.1728	2,727.575	2,727.575	0.0523	0.0500	2,743.783	9	
Mobile	1.8157	7.6793	21.2941	0.0772	6.6831	0.0605	6.7436	1.7884	0.0563	1.8447	7,874.648	7,874.648	0.4071		7,884.824	2
Total	9.7335	9.9530	23.2878	0.0909	6.6831	0.2336	6.9167	1.7884	0.2293	2.0178	10,602.40	10,602.40	0.4598	0.0500	10,628.80	08

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	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004	3.0000e-004	3.0000e-004	0.1809	0.1809	4.7000e-004			0.1928	
Energy	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728	0.1728	0.1728	2,727.575	2,727.575	0.0523	0.0500	2,743.783	9	
Mobile	1.8157	7.6793	21.2941	0.0772	6.6831	0.0605	6.7436	1.7884	0.0563	1.8447	7,874.648	7,874.648	0.4071		7,884.824	2
Total	9.7335	9.9530	23.2878	0.0909	6.6831	0.2336	6.9167	1.7884	0.2293	2.0178	10,602.40	10,602.40	0.4598	0.0500	10,628.80	08

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/4/2021	1/15/2021	5	10	
2	Site Preparation	Site Preparation	1/16/2021	2/19/2021	5	25	
3	Grading	Grading	2/20/2021	4/30/2021	5	50	
4	Building Construction	Building Construction	5/1/2021	6/24/2022	5	300	
5	Paving	Paving	6/25/2022	8/5/2022	5	30	
6	Architectural Coating	Architectural Coating	8/6/2022	9/30/2022	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 8.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 529,335; Non-Residential Outdoor: 176,445; Striped Parking Area: 22,320 (Architectural Coating – sqft)

OffRoad Equipment

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
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	0	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

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	168.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
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	1,250.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	830.00	324.00	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	166.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6378	0.0000	3.6378	0.5508	0.0000	0.5508			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	3,747.944 9	3,747.944 9	1.0549			3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388	3.6378	1.5513	5.1892	0.5508	1.4411	1.9919	3,747.944 9	3,747.944 9	1.0549			3,774.317 4

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.1435	4.5617	1.1205	0.0129	0.2938	0.0140	0.3078	0.0805	0.0134	0.0940			1,397.395	1,397.395	0.0999		1,399.893
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457			160.8377	160.8377	4.7300e-003		160.9560
Total	0.2150	4.6106	1.6728	0.0145	0.4614	0.0154	0.4768	0.1250	0.0147	0.1397			1,558.233	1,558.233	0.1046		1,560.849

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					0.9458	0.0000	0.9458	0.1432	0.0000	0.1432			0.0000			0.0000	
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944	3,747.944	1.0549		3,774.317	
Total	3.1651	31.4407	21.5650	0.0388	0.9458	1.5513	2.4972	0.1432	1.4411	1.5843	0.0000	3,747.944	3,747.944	1.0549		3,774.317	

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3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.1435	4.5617	1.1205	0.0129	0.2938	0.0140	0.3078	0.0805	0.0134	0.0940			1,397.395	1,397.395	0.0999		1,399.893
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457			160.8377	160.8377	4.7300e-003		160.9560
Total	0.2150	4.6106	1.6728	0.0145	0.4614	0.0154	0.4768	0.1250	0.0147	0.1397			1,558.233	1,558.233	0.1046		1,560.849

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000	
Off-Road	5.3428	60.7861	21.8537	0.0570		2.6460	2.6460		2.4343	2.4343			5,523.504	5,523.504	1.7864		5,568.165
Total	5.3428	60.7861	21.8537	0.0570	18.0663	2.6460	20.7123	9.9307	2.4343	12.3650			5,523.504	5,523.504	1.7864		5,568.165

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3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472	
Total	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					4.6972	0.0000	4.6972	2.5820	0.0000	2.5820		0.0000				0.0000	
Off-Road	5.3428	60.7861	21.8537	0.0570		2.6460	2.6460		2.4343	2.4343	0.0000	5,523.5047	5,523.5047	1.7864		5,568.1651	
Total	5.3428	60.7861	21.8537	0.0570	4.6972	2.6460	7.3432	2.5820	2.4343	5.0163	0.0000	5,523.5047	5,523.5047	1.7864		5,568.1651	

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3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472	
Total	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472	

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					10.0216	0.0000	10.0216	3.7431	0.0000	3.7431		0.0000				0.0000	
Off-Road	4.9185	56.5443	31.2281	0.0715		2.2861	2.2861		2.1032	2.1032		6,925.967 4	6,925.967 4	2.2400		6,981.967 3	
Total	4.9185	56.5443	31.2281	0.0715	10.0216	2.2861	12.3077	3.7431	2.1032	5.8463		6,925.967 4	6,925.967 4	2.2400		6,981.967 3	

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3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.2135	6.7882	1.6673	0.0192	0.4371	0.0209	0.4580	0.1198	0.0200	0.1398	2,079.457 7	2,079.457 7	0.1487			2,083.174 5	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610	214.4502	214.4502	6.3100e-003			214.6080	
Total	0.3088	6.8535	2.4038	0.0213	0.6607	0.0227	0.6834	0.1791	0.0217	0.2008	2,293.908 0	2,293.908 0	0.1550			2,297.782 5	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					2.6056	0.0000	2.6056	0.9732	0.0000	0.9732			0.0000			0.0000	
Off-Road	4.9185	56.5443	31.2281	0.0715		2.2861	2.2861		2.1032	2.1032	0.0000	6,925.967 4	6,925.967 4	2.2400		6,981.967 3	
Total	4.9185	56.5443	31.2281	0.0715	2.6056	2.2861	4.8917	0.9732	2.1032	3.0764	0.0000	6,925.967 4	6,925.967 4	2.2400		6,981.967 3	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.2135	6.7882	1.6673	0.0192	0.4371	0.0209	0.4580	0.1198	0.0200	0.1398	2,079.457 7	2,079.457 7	0.1487			2,083.174 5	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610	214.4502	214.4502	6.3100e-003			214.6080	
Total	0.3088	6.8535	2.4038	0.0213	0.6607	0.0227	0.6834	0.1791	0.0217	0.2008	2,293.908 0	2,293.908 0	0.1550			2,297.782 5	

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	2,553.363 9	2,553.363 9	0.6160			2,568.764 3	
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	2,553.363 9	2,553.363 9	0.6160			2,568.764 3	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.0339	31.3920	9.0969	0.0811	2.0743	0.0664	2.1407	0.5972	0.0635	0.6607	8,661.995 0	8,661.995 0	0.5592		8,675.974 8		
Worker	3.9576	2.7070	30.5652	0.0893	9.2774	0.0750	9.3524	2.4604	0.0691	2.5295	8,899.684 1	8,899.684 1	0.2619		8,906.231 2		
Total	4.9915	34.0990	39.6621	0.1704	11.3517	0.1414	11.4931	3.0577	0.1325	3.1902	17,561.67 91	17,561.67 91	0.8211		17,582.20 59		

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	1.9009	17.4321	16.5752	0.0269			0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269			0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.0339	31.3920	9.0969	0.0811	2.0743	0.0664	2.1407	0.5972	0.0635	0.6607	8,661.995 0	8,661.995 0	0.5592		8,675.974 8		
Worker	3.9576	2.7070	30.5652	0.0893	9.2774	0.0750	9.3524	2.4604	0.0691	2.5295	8,899.684 1	8,899.684 1	0.2619		8,906.231 2		
Total	4.9915	34.0990	39.6621	0.1704	11.3517	0.1414	11.4931	3.0577	0.1325	3.1902	17,561.67 91	17,561.67 91	0.8211		17,582.20 59		

3.5 Building Construction - 2022**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	2,554.333 6	2,554.333 6	0.6120		2,569.632 2		
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	2,554.333 6	2,554.333 6	0.6120		2,569.632 2		

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022**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	0.0000	
Vendor	0.9706	29.8337	8.6109	0.0803	2.0743	0.0581	2.1324	0.5972	0.0555	0.6528	8,585.037 1	8,585.037 1	0.5395		8,598.525 7		
Worker	3.7171	2.4447	28.1516	0.0862	9.2774	0.0726	9.3501	2.4604	0.0669	2.5273	8,586.926 5	8,586.926 5	0.2364		8,592.837 5		
Total	4.6877	32.2784	36.7626	0.1664	11.3518	0.1307	11.4825	3.0577	0.1224	3.1801	17,171.96 35	17,171.96 35	0.7760		17,191.36 32		

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000 6	2,554.333 6	2,554.333 6	0.6120		2,569.632 2	
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	
Vendor	0.9706	29.8337	8.6109	0.0803	2.0743	0.0581	2.1324	0.5972	0.0555	0.6528		8,585.037 1	8,585.037 1	0.5395		8,598.525 7	
Worker	3.7171	2.4447	28.1516	0.0862	9.2774	0.0726	9.3501	2.4604	0.0669	2.5273		8,586.926 5	8,586.926 5	0.2364		8,592.837 5	
Total	4.6877	32.2784	36.7626	0.1664	11.3518	0.1307	11.4825	3.0577	0.1224	3.1801		17,171.96 35	17,171.96 35	0.7760		17,191.36 32	

3.6 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4	
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.6792	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.6 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922	
Total	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922	

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4	
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.6792	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.6 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922	
Total	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922	

3.7 Architectural Coating - 2022**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	42.1843						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	42.3888	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.7434	0.4889	5.6303	0.0172	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055		1,717.385 3	1,717.385 3	0.0473		1,718.567 5	
Total	0.7434	0.4889	5.6303	0.0172	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055		1,717.385 3	1,717.385 3	0.0473		1,718.567 5	

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	42.1843						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062	
Total	42.3888	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2022

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	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.7434	0.4889	5.6303	0.0172	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055	1,717.385 3	1,717.385 3	0.0473		1,718.567 5		
Total	0.7434	0.4889	5.6303	0.0172	1.8555	0.0145	1.8700	0.4921	0.0134	0.5055	1,717.385 3	1,717.385 3	0.0473		1,718.567 5		

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.8157	7.6793	21.2941	0.0772	6.6831	0.0605	6.7436	1.7884	0.0563	1.8447	7,874.648 0	7,874.648 0	0.4071			7,884.824 2	
Unmitigated	1.8157	7.6793	21.2941	0.0772	6.6831	0.0605	6.7436	1.7884	0.0563	1.8447	7,874.648 0	7,874.648 0	0.4071			7,884.824 2	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00				
Hotel	921.20	1,317.12	1317.12	2,468,064		2,468,064	
Other Asphalt Surfaces	0.00	0.00	0.00				
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Total	921.20	1,317.12	1,317.12	2,468,064		2,468,064	

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Hotel	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Non-Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728	2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9	
NaturalGas Unmitigated	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728	2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

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					
City Park	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
Hotel	23184.4	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9
Other 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
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
Total		0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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
Hotel	23.1844	0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9
Other 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
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
Total		0.2500	2.2730	1.9093	0.0136		0.1728	0.1728		0.1728	0.1728		2,727.575 3	2,727.575 3	0.0523	0.0500	2,743.783 9

6.0 Area Detail**6.1 Mitigation Measures Area**

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928	
Unmitigated	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928	

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	0.4765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.8200e-003	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928
Total	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4765						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	7.1834						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	7.8200e-003	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928
Total	7.6677	7.7000e-004	0.0844	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1809	0.1809	4.7000e-004		0.1928

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

Sand Canyon Resort, Santa Clarita, CA
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.00	Acre	4.00	174,240.00	0
Other Non-Asphalt Surfaces	1.90	Acre	1.90	82,764.00	0
Parking Lot	400.00	Space	2.60	115,000.00	0
City Park	28.70	Acre	28.70	1,250,172.00	0
Hotel	392.00	Room	8.10	352,890.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	532	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

Project Characteristics - 532 MTCO₂e SCE emission rate for 2020-2029

Land Use - Detention basin = 1.9 acres

Hotel complex (392 rooms includes 13,000 sf for tennis courts and 3,000 sq ft for restrooms

Landscaping (as City Park): 28.7 acres

Parking lot (400 spaces)

Other asphalt surfaces (internal roadway): 4 acres

Construction Phase - Conceptual schedule with start in January 2021 and duration of at least 18 months

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Larger equipment used

Off-road Equipment -

Off-road Equipment - Larger equipment used

Demolition - Demolition of existing concrete pathways (65,000 sq-ft concrete) and restroom (1200 sq-ft)

Grading - Assumption based on client input

Architectural Coating - Use of architectural coatings of 50 g/l in accordance with SCAQMD Rule 1113

Vehicle Trips - Resort Hotel Land Use Trip Generation Rate as derived in the Stantec Trip Generation Memorandum 11/8/2019

Area Coating - Use of coating with hc content of 50 g/l as per SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - Watering every 2 hours as per the WRAP Fugitive Dust Handbook

Water Mitigation - 20% reduction of indoor/outdoor water usage

Waste Mitigation - 75% solid waste diversion as set forth in AB341

Fleet Mix - Default fleet mix

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50

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tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	74
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	74
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	55.00	40.00
tblConstructionPhase	NumDays	740.00	300.00
tblConstructionPhase	NumDays	50.00	10.00
tblConstructionPhase	NumDays	75.00	50.00
tblConstructionPhase	NumDays	55.00	30.00
tblConstructionPhase	NumDays	30.00	25.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.02	0.00

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tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MCY	5.1840e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00

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tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	175.00	187.50
tblGrading	AcresOfGrading	50.00	0.00
tblGrading	MaterialImported	0.00	10,000.00
tblLandUse	LandUseSquareFeet	160,000.00	115,000.00
tblLandUse	LandUseSquareFeet	569,184.00	352,890.00
tblLandUse	LotAcreage	3.60	2.60
tblLandUse	LotAcreage	13.07	8.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	CO2IntensityFactor	702.44	532
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	8.19	3.36
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	5.95	3.36
tblVehicleTrips	WD_TR	1.89	0.00

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tblVehicleTrips	WD_TR	8.17	2.35
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.7818	7.0960	6.1930	0.0208	1.4899	0.1948	1.6847	0.4891	0.1812	0.6703	0.0000	1,918.373 7	1,918.373 7	0.1927	0.0000	1,923.191 9
2022	1.2622	3.2374	3.7214	0.0130	0.7349	0.0691	0.8040	0.1981	0.0649	0.2630	0.0000	1,203.540 1	1,203.540 1	0.0889	0.0000	1,205.761 6
Maximum	1.2622	7.0960	6.1930	0.0208	1.4899	0.1948	1.6847	0.4891	0.1812	0.6703	0.0000	1,918.373 7	1,918.373 7	0.1927	0.0000	1,923.191 9

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.7818	7.0960	6.1930	0.0208	1.1239	0.1948	1.3187	0.3259	0.1812	0.5071	0.0000	1,918.373 2	1,918.373 2	0.1927	0.0000	1,923.191 4
2022	1.2622	3.2374	3.7214	0.0130	0.7349	0.0691	0.8040	0.1981	0.0649	0.2630	0.0000	1,203.539 8	1,203.539 8	0.0889	0.0000	1,205.761 3
Maximum	1.2622	7.0960	6.1930	0.0208	1.1239	0.1948	1.3187	0.3259	0.1812	0.5071	0.0000	1,918.373 2	1,918.373 2	0.1927	0.0000	1,923.191 4

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

	ROG	NOx	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	16.45	0.00	14.71	23.74	0.00	17.48	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-4-2021	4-3-2021	2.0512	2.0512
2	4-4-2021	7-3-2021	1.9814	1.9814
3	7-4-2021	10-3-2021	1.8991	1.8991
4	10-4-2021	1-3-2022	1.9152	1.9152
5	1-4-2022	4-3-2022	1.7443	1.7443
6	4-4-2022	7-3-2022	1.6142	1.6142
7	7-4-2022	9-30-2022	1.0502	1.0502
		Highest	2.0512	2.0512

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

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	1.3989	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219	
Energy	0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	1,106.778 1	1,106.778 1	0.0444	0.0157	1,112.556 6	
Mobile	0.2524	1.1157	3.0794	0.0112	0.9367	8.6100e-003	0.9453	0.2511	8.0100e-003	0.2591	0.0000	1,036.228 0	1,036.228 0	0.0525	0.0000	1,037.539 6	
Waste						0.0000	0.0000		0.0000	0.0000	44.0673	0.0000	44.0673	2.6043	0.0000	109.1749	
Water						0.0000	0.0000		0.0000	0.0000	3.1547	125.8836	129.0383	0.3309	9.0700e-003	140.0133	
Total	1.6969	1.5306	3.4384	0.0137	0.9367	0.0402	0.9769	0.2511	0.0396	0.2907	47.2220	2,268.910 3	2,316.132 3	3.0321	0.0247	2,399.306 3	

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	1.3989	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219	
Energy	0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	1,106.778 1	1,106.778 1	0.0444	0.0157	1,112.556 6	
Mobile	0.2524	1.1157	3.0794	0.0112	0.9367	8.6100e-003	0.9453	0.2511	8.0100e-003	0.2591	0.0000	1,036.228 0	1,036.228 0	0.0525	0.0000	1,037.539 6	
Waste						0.0000	0.0000		0.0000	0.0000	11.0168	0.0000	11.0168	0.6511	0.0000	27.2937	
Water						0.0000	0.0000		0.0000	0.0000	2.5238	100.7069	103.2306	0.2647	7.2600e-003	112.0107	
Total	1.6969	1.5306	3.4384	0.0137	0.9367	0.0402	0.9769	0.2511	0.0396	0.2907	13.5406	2,243.733 5	2,257.274 1	1.0127	0.0229	2,289.422 4	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.33	1.11	2.54	66.60	7.32	4.58

3.0 Construction Detail**Construction Phase**

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/4/2021	1/15/2021	5	10	
2	Site Preparation	Site Preparation	1/16/2021	2/19/2021	5	25	
3	Grading	Grading	2/20/2021	4/30/2021	5	50	
4	Building Construction	Building Construction	5/1/2021	6/24/2022	5	300	
5	Paving	Paving	6/25/2022	8/5/2022	5	30	
6	Architectural Coating	Architectural Coating	8/6/2022	9/30/2022	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 8.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 529,335; Non-Residential Outdoor: 176,445; Striped Parking Area: 22,320 (Architectural Coating – sqft)

OffRoad Equipment

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
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	0	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

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	168.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
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	1,250.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	830.00	324.00	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	166.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.0182	0.0000	0.0182	2.7500e-003	0.0000	2.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0158	0.1572	0.1078	1.9000e-004		7.7600e-003	7.7600e-003		7.2100e-003	7.2100e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200	
Total	0.0158	0.1572	0.1078	1.9000e-004	0.0182	7.7600e-003	0.0260	2.7500e-003	7.2100e-003	9.9600e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200	

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3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	7.1000e-004	0.0233	5.4200e-003	7.0000e-005	1.4400e-003	7.0000e-005	1.5100e-003	4.0000e-004	7.0000e-005	4.6000e-004	0.0000	6.4033	6.4033	4.4000e-004	0.0000	6.4144	
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	3.2000e-004	2.5000e-004	2.8400e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7417	0.7417	2.0000e-005	0.0000	0.7422	
Total	1.0300e-003	0.0235	8.2600e-003	8.0000e-005	2.2600e-003	8.0000e-005	2.3400e-003	6.2000e-004	8.0000e-005	6.8000e-004	0.0000	7.1450	7.1450	4.6000e-004	0.0000	7.1566	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					4.7300e-003	0.0000	4.7300e-003	7.2000e-004	0.0000	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0158	0.1572	0.1078	1.9000e-004		7.7600e-003	7.7600e-003		7.2100e-003	7.2100e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200	
Total	0.0158	0.1572	0.1078	1.9000e-004	4.7300e-003	7.7600e-003	0.0125	7.2000e-004	7.2100e-003	7.9300e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200	

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3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	7.1000e-004	0.0233	5.4200e-003	7.0000e-005	1.4400e-003	7.0000e-005	1.5100e-003	4.0000e-004	7.0000e-005	4.6000e-004	0.0000	6.4033	6.4033	4.4000e-004	0.0000	6.4144	
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	3.2000e-004	2.5000e-004	2.8400e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7417	0.7417	2.0000e-005	0.0000	0.7422	
Total	1.0300e-003	0.0235	8.2600e-003	8.0000e-005	2.2600e-003	8.0000e-005	2.3400e-003	6.2000e-004	8.0000e-005	6.8000e-004	0.0000	7.1450	7.1450	4.6000e-004	0.0000	7.1566	

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2258	0.0000	0.2258	0.1241	0.0000	0.1241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7598	0.2732	7.1000e-004	0.2258	0.0331	0.0331	0.0304	0.0304	0.0000	62.6355	62.6355	0.0203	0.0000	63.1419	
Total	0.0668	0.7598	0.2732	7.1000e-004	0.2258	0.0331	0.2589	0.1241	0.0304	0.1546	0.0000	62.6355	62.6355	0.0203	0.0000	63.1419

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3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267	
Total	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.0587	0.0000	0.0587	0.0323	0.0000	0.0323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0668	0.7598	0.2732	7.1000e-004		0.0331	0.0331		0.0304	0.0304	0.0000	62.6354	62.6354	0.0203	0.0000	63.1419	
Total	0.0668	0.7598	0.2732	7.1000e-004	0.0587	0.0331	0.0918	0.0323	0.0304	0.0627	0.0000	62.6354	62.6354	0.0203	0.0000	63.1419	

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3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267	
Total	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267	

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2505	0.0000	0.2505	0.0936	0.0000	0.0936	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1230	1.4136	0.7807	1.7900e-003		0.0572	0.0572		0.0526	0.0526	0.0000	157.0783	157.0783	0.0508	0.0000	158.3484
Total	0.1230	1.4136	0.7807	1.7900e-003	0.2505	0.0572	0.3077	0.0936	0.0526	0.1462	0.0000	157.0783	157.0783	0.0508	0.0000	158.3484

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3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	5.2600e-003	0.1730	0.0403	4.8000e-004	0.0107	5.2000e-004	0.0113	2.9500e-003	5.0000e-004	3.4500e-003	0.0000	47.6435	47.6435	3.3100e-003	0.0000	47.7262	
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	2.1500e-003	1.6700e-003	0.0189	5.0000e-005	5.4800e-003	5.0000e-005	5.5200e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	4.9446	4.9446	1.5000e-004	0.0000	4.9482	
Total	7.4100e-003	0.1747	0.0593	5.3000e-004	0.0162	5.7000e-004	0.0168	4.4100e-003	5.4000e-004	4.9500e-003	0.0000	52.5881	52.5881	3.4600e-003	0.0000	52.6744	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.0651	0.0000	0.0651	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.1230	1.4136	0.7807	1.7900e-003		0.0572	0.0572		0.0526	0.0526	0.0000	157.0781	157.0781	0.0508	0.0000	158.3482	
Total	0.1230	1.4136	0.7807	1.7900e-003	0.0651	0.0572	0.1223	0.0243	0.0526	0.0769	0.0000	157.0781	157.0781	0.0508	0.0000	158.3482	

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3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	5.2600e-003	0.1730	0.0403	4.8000e-004	0.0107	5.2000e-004	0.0113	2.9500e-003	5.0000e-004	3.4500e-003	0.0000	47.6435	47.6435	3.3100e-003	0.0000	47.7262	
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	2.1500e-003	1.6700e-003	0.0189	5.0000e-005	5.4800e-003	5.0000e-005	5.5200e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	4.9446	4.9446	1.5000e-004	0.0000	4.9482	
Total	7.4100e-003	0.1747	0.0593	5.3000e-004	0.0162	5.7000e-004	0.0168	4.4100e-003	5.4000e-004	4.9500e-003	0.0000	52.5881	52.5881	3.4600e-003	0.0000	52.6744	

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1663	1.5253	1.4503	2.3600e-003		0.0839	0.0839		0.0789	0.0789	0.0000	202.6826	202.6826	0.0489	0.0000	203.9051	
Total	0.1663	1.5253	1.4503	2.3600e-003		0.0839	0.0839		0.0789	0.0789	0.0000	202.6826	202.6826	0.0489	0.0000	203.9051	

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3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	0.0880	2.7978	0.7586	7.2100e-003	0.1786	5.7000e-003	0.1843	0.0515	5.4600e-003	0.0570	0.0000	698.8178	698.8178	0.0429	0.0000	699.8894	
Worker	0.3125	0.2433	2.7464	7.9500e-003	0.7958	6.5600e-003	0.8024	0.2114	6.0400e-003	0.2174	0.0000	718.2010	718.2010	0.0211	0.0000	718.7294	
Total	0.4005	3.0411	3.5049	0.0152	0.9744	0.0123	0.9867	0.2629	0.0115	0.2744	0.0000	1,417.0188	1,417.0188	0.0640	0.0000	1,418.6188	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1663	1.5253	1.4503	2.3600e-003			0.0839	0.0839		0.0789	0.0789	0.0000	202.6824	202.6824	0.0489	0.0000	203.9048
Total	0.1663	1.5253	1.4503	2.3600e-003			0.0839	0.0839		0.0789	0.0789	0.0000	202.6824	202.6824	0.0489	0.0000	203.9048

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3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	0.0880	2.7978	0.7586	7.2100e-003	0.1786	5.7000e-003	0.1843	0.0515	5.4600e-003	0.0570	0.0000	698.8178	698.8178	0.0429	0.0000	699.8894	
Worker	0.3125	0.2433	2.7464	7.9500e-003	0.7958	6.5600e-003	0.8024	0.2114	6.0400e-003	0.2174	0.0000	718.2010	718.2010	0.0211	0.0000	718.7294	
Total	0.4005	3.0411	3.5049	0.0152	0.9744	0.0123	0.9867	0.2629	0.0115	0.2744	0.0000	1,417.0188	1,417.0188	0.0640	0.0000	1,418.6188	

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1066	0.9760	1.0227	1.6800e-003			0.0506	0.0506		0.0476	0.0476	0.0000	144.8283	144.8283	0.0347	0.0000	145.6957
Total	0.1066	0.9760	1.0227	1.6800e-003			0.0506	0.0506		0.0476	0.0476	0.0000	144.8283	144.8283	0.0347	0.0000	145.6957

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3.5 Building Construction - 2022**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	0.0590	1.8987	0.5127	5.1000e-003	0.1276	3.5600e-003	0.1311	0.0368	3.4100e-003	0.0402	0.0000	494.7713	494.7713	0.0296	0.0000	495.5102	
Worker	0.2093	0.1570	1.8075	5.4800e-003	0.5685	4.5400e-003	0.5730	0.1510	4.1800e-003	0.1552	0.0000	494.9678	494.9678	0.0136	0.0000	495.3086	
Total	0.2683	2.0556	2.3201	0.0106	0.6960	8.1000e-003	0.7041	0.1878	7.5900e-003	0.1954	0.0000	989.7391	989.7391	0.0432	0.0000	990.8187	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1066	0.9760	1.0227	1.6800e-003			0.0506	0.0506		0.0476	0.0476	0.0000	144.8281	144.8281	0.0347	0.0000	145.6955
Total	0.1066	0.9760	1.0227	1.6800e-003			0.0506	0.0506		0.0476	0.0476	0.0000	144.8281	144.8281	0.0347	0.0000	145.6955

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3.5 Building Construction - 2022**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	0.0590	1.8987	0.5127	5.1000e-003	0.1276	3.5600e-003	0.1311	0.0368	3.4100e-003	0.0402	0.0000	494.7713	494.7713	0.0296	0.0000	495.5102	
Worker	0.2093	0.1570	1.8075	5.4800e-003	0.5685	4.5400e-003	0.5730	0.1510	4.1800e-003	0.1552	0.0000	494.9678	494.9678	0.0136	0.0000	495.3086	
Total	0.2683	2.0556	2.3201	0.0106	0.6960	8.1000e-003	0.7041	0.1878	7.5900e-003	0.1954	0.0000	989.7391	989.7391	0.0432	0.0000	990.8187	

3.6 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0165	0.1669	0.2187	3.4000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	
Paving	8.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0252	0.1669	0.2187	3.4000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	

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3.6 Paving - 2022**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	9.1000e-004	6.8000e-004	7.8400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1469	2.1469	6.0000e-005	0.0000	2.1483	
Total	9.1000e-004	6.8000e-004	7.8400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1469	2.1469	6.0000e-005	0.0000	2.1483	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0165	0.1669	0.2187	3.4000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	
Paving	8.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0252	0.1669	0.2187	3.4000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	

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3.6 Paving - 2022**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	9.1000e-004	6.8000e-004	7.8400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1469	2.1469	6.0000e-005	0.0000	2.1483	
Total	9.1000e-004	6.8000e-004	7.8400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1469	2.1469	6.0000e-005	0.0000	2.1483	

3.7 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.8437						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	4.0900e-003	0.0282	0.0363	6.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1065	5.1065	3.3000e-004	0.0000	5.1148	
Total	0.8478	0.0282	0.0363	6.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1065	5.1065	3.3000e-004	0.0000	5.1148	

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3.7 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0134	0.0101	0.1157	3.5000e-004	0.0364	2.9000e-004	0.0367	9.6600e-003	2.7000e-004	9.9300e-003	0.0000	31.6779	31.6779	8.7000e-004	0.0000	31.6998	
Total	0.0134	0.0101	0.1157	3.5000e-004	0.0364	2.9000e-004	0.0367	9.6600e-003	2.7000e-004	9.9300e-003	0.0000	31.6779	31.6779	8.7000e-004	0.0000	31.6998	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.8437						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	4.0900e-003	0.0282	0.0363	6.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1065	5.1065	3.3000e-004	0.0000	5.1148	
Total	0.8478	0.0282	0.0363	6.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1065	5.1065	3.3000e-004	0.0000	5.1148	

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3.7 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0134	0.0101	0.1157	3.5000e-004	0.0364	2.9000e-004	0.0367	9.6600e-003	2.7000e-004	9.9300e-003	0.0000	31.6779	31.6779	8.7000e-004	0.0000	31.6998	
Total	0.0134	0.0101	0.1157	3.5000e-004	0.0364	2.9000e-004	0.0367	9.6600e-003	2.7000e-004	9.9300e-003	0.0000	31.6779	31.6779	8.7000e-004	0.0000	31.6998	

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr												MT/yr				
Mitigated	0.2524	1.1157	3.0794	0.0112	0.9367	8.6100e-003	0.9453	0.2511	8.0100e-003	0.2591	0.0000	1,036.2280	1,036.2280	0.0525	0.0000	1,037.5396	
Unmitigated	0.2524	1.1157	3.0794	0.0112	0.9367	8.6100e-003	0.9453	0.2511	8.0100e-003	0.2591	0.0000	1,036.2280	1,036.2280	0.0525	0.0000	1,037.5396	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00				
Hotel	921.20	1,317.12	1317.12	2,468,064			2,468,064
Other Asphalt Surfaces	0.00	0.00	0.00				
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Total	921.20	1,317.12	1,317.12	2,468,064			2,468,064

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Hotel	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Non-Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	655.1974	655.1974	0.0357	7.3900e-003	658.2924
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	655.1974	655.1974	0.0357	7.3900e-003	658.2924
NaturalGas Mitigated	0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	451.5807	451.5807	8.6600e-003	8.2800e-003	454.2642
NaturalGas Unmitigated	0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	451.5807	451.5807	8.6600e-003	8.2800e-003	454.2642

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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						
City Park	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	
Hotel	8.4623e+006	0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	451.5807	451.5807	8.6600e-003	8.2800e-003	454.2642	
Other 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	
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	
Total		0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	451.5807	451.5807	8.6600e-003	8.2800e-003	454.2642	

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
City Park	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	
Hotel	8.4623e+006	0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	451.5807	451.5807	8.6600e-003	8.2800e-003	454.2642	
Other 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	
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	
Total		0.0456	0.4148	0.3485	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	451.5807	451.5807	8.6600e-003	8.2800e-003	454.2642	

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Hotel	2.67491e+006	645.4847	0.0352	7.2800e-003	648.5337
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	40250	9.7128	5.3000e-004	1.1000e-004	9.7587
Total		655.1974	0.0357	7.3900e-003	658.2924

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Hotel	2.67491e+006	645.4847	0.0352	7.2800e-003	648.5337
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	40250	9.7128	5.3000e-004	1.1000e-004	9.7587
Total		655.1974	0.0357	7.3900e-003	658.2924

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive 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	1.3989	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005	4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219		
Unmitigated	1.3989	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005	4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219		

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	0.0870					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3110					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8000e-004	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005	4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219	
Total	1.3989	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0870					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3110					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8000e-004	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Total	1.3989	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	103.2306	0.2647	7.2600e-003	112.0107
Unmitigated	129.0383	0.3309	9.0700e-003	140.0133

7.2 Water by Land Use**Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 34.1955	91.6770	5.0000e-003	1.0300e-003	92.1101
Hotel	9.94377 / 1.10486	37.3613	0.3259	8.0400e-003	47.9032
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Total		129.0383	0.3309	9.0700e-003	140.0133

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 27.3564	73.3416	4.0000e- 003	8.3000e- 004	73.6881
Hotel	7.95502 / 0.883891	29.8890	0.2607	6.4300e- 003	38.3226
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Total		103.2306	0.2647	7.2600e- 003	112.0106

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.0168	0.6511	0.0000	27.2937
Unmitigated	44.0673	2.6043	0.0000	109.1749

8.2 Waste by Land UseUnmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	2.47	0.5014	0.0296	0.0000	1.2422
Hotel	214.62	43.5659	2.5747	0.0000	107.9327
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		44.0673	2.6043	0.0000	109.1749

Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.6175	0.1254	7.4100e-003	0.0000	0.3105
Hotel	53.655	10.8915	0.6437	0.0000	26.9832
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		11.0168	0.6511	0.0000	27.2937

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Sand Canyon Resort, Santa Clarita, CA - Los Angeles-South Coast County, Annual

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Sand Canyon Resort Project

Construction Equipment Fuel Usage

Activity	Equipment	Project Number	Project Hours per day	Default Horse-power	Default Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Concrete/Industrial Saw	1	8	81	0.73	10	4,730	0.023965	113
	Excavators	3	8	158	0.38	10	14,410	0.019763	285
	Rubber Tired Dozers	2	8	247	0.4	10	15,808	0.020461	323
Site Preparation	Rubber Tired Dozer	3	8	247	0.4	25	59,280	0.020461	1,213
	Crawler Tractor	4	8	212	0.43	25	72,928	0.022173	1,617
Grading	Excavators	2	8	158	0.38	50	48,032	0.019763	949
	Graders	1	8	187	0.41	50	30,668	0.021143	648
	Rubber Tired Dozers	1	8	247	0.4	50	39,520	0.020461	809
	Scrapers	2	8	367	0.48	50	140,928	0.024738	3,486
	Crawler Tractor	2	8	212	0.43	50	72,928	0.022173	1,617
Building Construction	Crane	1	7	231	0.29	300	140,679	0.014896	2,096
	Forklifts	3	8	89	0.2	300	128,160	0.019105	2,449
	Tractors/Loaders/Backhoes	3	7	97	0.37	300	226,107	0.023965	5,419
	Welders	1	8	46	0.45	300	49,680	0.023965	1,191
	Generator Set	1	8	84	0.74	300	149,184	0.023965	3,575
Paving	Pavers	2	8	130	0.42	30	26,208	0.021525	564
	Paving Equipment	2	8	132	0.36	30	22,810	0.018334	418
	Rollers	2	8	80	0.38	30	14,592	0.019412	283
Architectural Coating	Air Compressor	1	6	78	0.48	40	8,986	0.023965	215

Fuel Consumption rates derived from the ARB OFFROAD2017 - Orion Web Database

Total 26,549

Sand Canyon Resort Project

Fuel Consumption from Construction Vehicles (Derived from the ARB EMFAC2017 Mobile Source Emission Model)

Emission Factors

Region (County)	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate
						(miles/day)	(1000 gallons/day)	(miles/gallon)
LOS ANGELES	2021	MHDT-T6	Aggregated	Aggregated	DSL	4146737	407.5	10.2
LOS ANGELES	2021	HHDT-T7	Aggregated	Aggregated	DSL	6891921	1076.1	6.4
						Average (50%/50%)		8.3
LOS ANGELES	2021	LDA	Aggregated	Aggregated	GAS	154957028	5253	29.5
LOS ANGELES	2021	LDT1	Aggregated	Aggregated	GAS	17065391	670	25.5
LOS ANGELES	2021	LDT2	Aggregated	Aggregated	GAS	52553142	2239	23.5
						Average (50%/25%/25%)		27

Vehicle Assumptions (CalEEMod)

Haul trucks represented by HHDT-T7 (heavy -heavy duty haul truck)

MHDT-T6 (medium heavy duty haul truck)

Vendor trucks assued to be 50% HHDT-T7 and MHDT-T6)

LDA (light duty automobile for worker vehicles)

LDT1 (light duty truck 1 for worker vehicles)

LDT2 (light duty truck 2 for worker vehicles)

Worker vehicles represented as 50% LDT, 25% LHT1, and 25% LDT2

Construction Vehicle Use (Derived from the CalEEMod model output)

Fuel Consumption for Haul Trucks

Construction Activity	No Haul Truck	Trip Length	VMT (miles)	DSL Fuel (gallons)
	Trips	(days)	(miles)	
Demolition	168	20	3360	525
Site Preparation	0	20	0	0
Grading	1,250	20	25000	3903
Building Construction	0	20	0	0
Paving -	0	20	0	0
Architectural Coating	0	20	0	0
Total	1418		28360	4428

Construction Activity	No Vendor Truck	Duration	Trip Length	VMT	Fuel	Fuel Rate \ (miles/gallon)	DSL Fuel (gallons)
	Trips/day	(days)	(miles)	(miles)			
Demolition	0	10	6.9	0	DSL	8.3	0.00
Site Preparation	0	25	6.9	0	DSL	8.3	0.00
Grading	0	50	6.9	0	DSL	8.3	0.00
Building Construction	324	300	6.9	670,680	DSL	8.3	80,904
Paving	0	30	6.9	0	DSL	8.3	0.00
Architectural Coating	0	40	6.9	0	DSL	8.3	0.00
				Total			80,904

Activity	No Worker Vehicles	Duration	Trip Length	VMT	Fuel	Fuel Rate \ (miles/gallon)	Gas Fuel (gallons)
	Trips/day	(days)	(miles)	(miles)			
Demolition	15	10	14.7	2,205	GAS	27	82
Site Preparation	18	25	14.7	6,615	GAS	27	245
Grading	20	50	14.7	14,700	GAS	27	545
Building Construction	830	300	14.7	3,660,300	GAS	27	135,658
Paving	15	30	14.7	6,615	GAS	27	245
Architectural Coating	166	40	14.7	97,608	GAS	27	3,618
				Total			140,066

Summary	Gallons
Total -DSL	85,333
Total - GAS	140,066
	225,398

Sand Canyon Resort Project

Estimation of Operational Vehicle Fuel Use

Total Annual VMT from CalEEMod		CalEEMod									
Vehicle Class	Project Fleet Mix (%)	Fleet Mileage (miles/year)	EMFAC2017 % DSL	Annual DSL VMT	Fuel Rate -DSL (mi/gallons)	DSL Fuel Consumption (gal/year)	EMFAC2017 %GAS	Annual GAS VMT	Fuel Rate-GAS (mi/gal)	GAS Fuel Consumption (gal/year)	
LDA	54.7%	1,350,031	0.9%	11,542	46.1	250	99.1%	1,338,489	29.5	45,375	
LDT1	4.5%	111,063	0.0%	48	21.6	2	100.0%	111,015	25.5	4,361	
LDT2	20.5%	505,953	0.7%	3,400	33.8	100	99.3%	502,553	23.5	21,410	
MDV	11.9%	293,700	2.2%	6,374	26.1	244	97.8%	287,326	19.1	15,023	
LHDT1	1.5%	37,021	40.3%	14,910	21.4	696	59.7%	22,111	10.3	2,139	
LHDT2	0.6%	14,808	62.0%	9,175	19.3	476	38.0%	5,634	9.0	626	
MHDT	2.0%	49,361	83.7%	41,312	10.2	4,060	16.3%	8,049	5.0	1,619	
HHDT	3.1%	76,510	99.9%	76,446	6.4	11,936	0.1%	64	4.0	16	
OBUS	0.3%	7,404	57.6%	4,263	8.1	525	42.4%	3,142	4.9	637	
UBUS	0.2%	4,936	13.3%	655	6.3	104	86.7%	4,281	4.2	1,031	
MCY	0.5%	12,340	0.0%	-	-	-	100.0%	12,340	35.8	345	
SBUS	0.1%	2,468	69.4%	1,713	7.5	227	30.6%	755	9.1	83	
MH	0.1%	2,468	23.7%	585	10.4	56	76.3%	1,884	5.1	372	
Totals	100.0%	2,468,064		170,420		18,677		2,297,644		93,036	

Total VMT-DSL 170,420 VMT
 Total VMT-Gas 2,297,644 VMT
 2,468,064 VMT

Total Fuel - DSL 18,677 gallons/year
 Total Fuel - GAS 93,036 gallons/year
 111,713

Fuel rates and fuel mixes defined in the EMFAC2017 mobile source emission model

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate		VMT	VMT	%DSL	%GAS		
LOS ANGE	2021	LDA	Aggregate	Aggregate	DSL	1336170	28.99551	46.08197		1336170	GAS	1.55E+08	0.9%	99.1%	
LOS ANGE	2021	LDT1	Aggregate	Aggregate	DSL	7338.123	0.340197	21.57019	LDA	DSL	7338.123	GAS	17065391	0.0%	100.0%
LOS ANGE	2021	LDT2	Aggregate	Aggregate	DSL	355535.4	10.50576	33.84196	LDT1	DSL	355535.4	GAS	52553142	0.7%	99.3%
LOS ANGE	2021	LHDT1	Aggregate	Aggregate	DSL	2667215	124.5587	21.41331	LDT2	DSL	2667215	GAS	3955472	40.3%	59.7%
LOS ANGE	2021	LHDT2	Aggregate	Aggregate	DSL	1035823	53.69277	19.29167	LHDT1	DSL	1035823	GAS	636046.4	62.0%	38.0%
LOS ANGE	2021	MDV	Aggregate	Aggregate	DSL	734378.7	28.12153	26.11447	LHDT2	DSL	0	GAS	1259346	0.0%	100.0%
LOS ANGE	2021	MH	Aggregate	Aggregate	DSL	61474.43	5.917629	10.38836	MCY	DSL	734378.7	GAS	33105799	2.2%	97.8%
LOS ANGE	2021	OBUS	Aggregate	Aggregate	DSL	233602.7	28.7655	8.120934	MDV	DSL	233602.7	GAS	198097	23.7%	76.3%
LOS ANGE	2021	SBUS	Aggregate	Aggregate	DSL	121324.5	16.10456	7.533548	MH	DSL	61474.43	GAS	172164.4	57.6%	42.4%
LOS ANGE	2021	T6-MHDT	Aggregate	Aggregate	DSL	4146737	407.5458	10.1749	OBUS	DSL	121324.5	GAS	53467.22	69.4%	30.6%
LOS ANGE	2021	T7-HHDT	Aggregate	Aggregate	DSL	6891921	1076.081	6.404649	SBUS	DSL	4146737	GAS	807949.9	83.7%	16.3%
LOS ANGE	2021	UBUS	Aggregate	Aggregate	DSL	5105.145	0.807133	6.325037	T6-MHDT	DSL	6891921	GAS	5770.22	99.9%	0.1%
LOS ANGE	2021	LDA	Aggregate	Aggregate	GAS	1.55E+08	5253.036	29.49857	T7-HHDT	DSL	5105.145	GAS	33383.22	13.3%	86.7%
LOS ANGE	2021	LDT1	Aggregate	Aggregate	GAS	17065391	670.3613	25.45701	UBUS	DSL	33383.22				
LOS ANGE	2021	LDT2	Aggregate	Aggregate	GAS	52553142	2238.863	23.47314							
LOS ANGE	2021	LHDT1	Aggregate	Aggregate	GAS	3955472	382.6977	10.33576							
LOS ANGE	2021	LHDT2	Aggregate	Aggregate	GAS	636046.4	70.61943	9.006677							
LOS ANGE	2021	MCY	Aggregate	Aggregate	GAS	1259346	35.18425	35.79288							
LOS ANGE	2021	MDV	Aggregate	Aggregate	GAS	33105799	1730.987	19.12539							
LOS ANGE	2021	MH	Aggregate	Aggregate	GAS	198097	39.17625	5.056559							
LOS ANGE	2021	OBUS	Aggregate	Aggregate	GAS	172164.4	34.9094	4.93175							
LOS ANGE	2021	SBUS	Aggregate	Aggregate	GAS	53467.22	5.870332	9.108041							
LOS ANGE	2021	T6-MHDT	Aggregate	Aggregate	GAS	807949.9	162.4615	4.973176							
LOS ANGE	2021	T7-HHDT	Aggregate	Aggregate	GAS	5770.22	1.443583	3.997151							
LOS ANGE	2021	UBUS	Aggregate	Aggregate	GAS	33383.22	8.035869	4.154277							

Sand Canyon Resort Project

Estimates of Demolition Debris

Building Demolition

Building	Height(ft)	Area (ft ²)	Demo Building		Note 1
			Volume (ft ³)	Volume (cy)	
Restroom	12	1200	14400	176	
Total	12	1200	14400	176	Note 2
Weight of the Building Demolition Debris (ton/cy):				0.5	Note 3
Total Weight of Building Debris				88	tons

Note 1: Total square footage of existing school buildings contained in the project description

Note 2: FEMA Debris Estimating Field Guide, FEMA 329. September 2010

Note 3: CalEEMod User Guide

Hardscape Demolition

Weight of Hardscape		150 lb/ft ³
Area	Height (ft)	Area (ft ²)
Concrete Path	0.33	65000

Area	Height (ft)	Area (ft ²)	Volume (cf)	Weight (lbs)	Weight (tons)
Concrete Path	0.33	65000	21450	3217500	1609
Total		65000	21450	3217500	1609

Total Demolition Weight **1697 tons**

Vehicle Trips

Haul Truck Capacity	20 tons
Number of Trucks	85 trucks
Number of Truck Trips	170 truck trips

Sand Canyon Resort Project

Greenhouse Gas Summary

MTCO2e

Construction 104 as amortized over 30 years

Operation

Area	-
Energy	1,113 does not include solar
Mobile	1,038
Waste	109
Water	140

Total	2,504
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