

To: City of Covina, Planning Division
From: Elaina Chambers, Alex J. Garber
Date: 8/9/2024
Re: Air Quality, Energy, and Greenhouse Gas Impact Analysis for Cutter Way Self-Storage Project

This technical memorandum presents an analysis of the air quality, energy, and greenhouse gas (GHG) impacts for the proposed 529 Cutter Way Self Storage Project (proposed Project), located at 529 Cutter Way in the City of Covina. The applicant for the Project is proposing to replace an existing 2,647 square foot church to construct a 4-story self-storage facility, with a rental office totaling 183,584 square feet and 1,370 storage units on the 2.25-acre site. The self-storage building would have a building footprint of 45,896 SF and include 847 SF of office space with 45,049 SF of storage space on the ground floor, and 45,896 SF of storage space on each of the second, third, and fourth floors. This memorandum will not take credit from the site's existing use, to provide a conservative analysis for the Project.

To support the CEQA document for the Project, this report analyzes the proposed Project's construction and operational impacts to air quality (emission of criteria pollutants) emissions, energy, and GHG (Greenhouse Gas) using the California Emissions Estimator Model (CalEEMod v. 2022.1.1) land use emission model. Table 1 shows the estimated CalEEMod default construction schedule, which is estimated to last approximately 12 months.

Table 1. Construction Schedule

Activity	Start Date	End Date	Total Days
Demolition	2/3/2025	3/3/2025	20
Site Preparation	3/4/2025	3/8/2025	3
Grading	3/9/2025	3/17/2025	6
Building Construction	3/18/2025	1/20/2026	220
Paving	1/21/2026	2/4/2026	10
Architectural Coating	2/5/2026	3/11/2026	25

The following non-default assumptions were used in the CalEEMod Emission Model for this analysis:

- The lot acreage and square feet for the self-storage was adjusted to match the architectural plans and to include landscaping area provided by the client. To analyze the self-storage building, the CalEEMod subtype used was Unrefrigerated Warehouse with No-Rail.
- The analysis analyzed 1,116 cubic yards (CY) of import, which was information provided by the applicant.
- Demolition of 928 tons of debris was used to account for demolition of the existing buildings. These calculations can be found in the Demo Calculations appendix.
- The Architectural Coating Phase duration was extended due to the size of the building façade that needs to be painted.
- Construction equipment was estimated to be operated for eight hours for a conservative analysis, as most construction equipment is not operational for the entire working day (i.e. cranes).
- Construction: Off-Road Tractor/Loaders/Backhoes were replaced with Crawler Tractors for grading and site preparation phases.

- CalEEMod default haul trips were also used for the grading phase (16 cy per truck); during the grading phase, it is estimated that 1,116 cubic yards (cy) would be imported to balance the site and 928 tons of demolished material exported off the site.
- Operations: While the Project proposes an electric fire pump, for a conservative analysis, the memorandum includes the operation of one diesel fire pump.

Summary of Air Quality, Energy and GHG Impacts

Air Quality

The proposed Project's maximum daily emissions (regional and local) for construction and operation would not exceed the South Coast Air Quality Management District's (SCAQMD) regional thresholds of significance. In addition, all construction activities would comply with applicable SCAQMD rules and regulations, including Rule 402, Rule 403, and Rule 1113:

- Rule 402, Public Nuisance: Prohibits the discharge of air contaminants that cause injury, nuisance, or annoyance to the public or damage to property.
- Rule 403, Fugitive Dust: Aims to minimize fugitive particulate matter dust emissions during construction activities.
- Rule 1113, Architectural Coatings: Allows only low-volatile organic compounds (VOC) paints to be used.

Projects that do not exceed the regional thresholds are assumed to not have a significant impact on both a project level and cumulative level. The proposed Project aligns with SCAQMD'S 2022 AQMP, reflecting adherence to regional air quality management goals and standards. Furthermore, odors produced by construction of the proposed Project would be minimal and temporary, and those produced from operation of the Project would be minimal because the proposed Project involves land uses that typically do not generate significant odor complaints. Therefore, the proposed Project would have less-than-significant air quality impacts.

Energy

Through compliance with existing standards, the proposed Project would not result in a fuel demand on a per-development basis that is greater than other development projects in Southern California. 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 operation of the proposed Project would also be similar to other industrial projects and would comply with Title 24 as well as all applicable City business and energy codes and ordinances.

GHG

Finally, the proposed Project's construction and operational GHG emissions would result in 518 metric tons of carbon dioxide equivalent (MTCO_{2e}), which is below the SCAQMD significance threshold of a net increase of 3,000 MTCO_{2e} per year. Therefore, the proposed Project would have a less-than-significant impact on GHG emissions.

Air Quality Impact Tables

Regional Emissions

The SCAQMD has adopted maximum daily emission thresholds¹ (pounds/day) for the criteria pollutants during construction and operation of a project. While incremental regional air quality impacts of an individual project are generally very small and difficult to measure, SCAQMD's regional maximum emission thresholds set standards to reduce the burden of SCAQMD to attain and maintain ambient air quality standards. The regional thresholds apply to the criteria pollutants mentioned in Table 2 and Table 3 along with the CalEEMod Project emissions. These emission thresholds include the Project emissions generated both from onsite sources (such as off-road construction equipment and fugitive dust) and offsite sources (vehicle travel leaving and arriving to the site). As can be seen in Table 2 and Table 3, the Project would have less than significant regional air quality impacts. The regional operational emissions shown in Table 3, are conservative, as they do not include the reduction in emissions that would occur from future non-operation of the existing church building.

Table 2. Regional Construction Emission Estimates

Construction Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2025						
Demolition	1.5	15.0	16.2	<0.1	1.9	0.8
Site Prep	1.4	12.5	12.2	<0.1	1.3	0.7
Grading	2.0	19.4	17.5	<0.1	3.6	2.0
Building Construction	1.6	12.6	18.5	<0.1	1.7	0.7
Maximum Daily Emissions	2.0	19.4	18.5	<0.1	3.6	2.0
2026						
Building Construction	1.5	12.0	17.3	<0.1	1.7	0.7
Paving	1.0	5.9	9.0	<0.1	0.4	0.3
Architectural Coating	68.9	1.2	2.4	<0.1	0.2	0.1
Maximum Daily Emissions	68.9	12.0	17.3	<0.1	1.7	0.7
Maximum Daily Emission 2025-2026	68.9	19.4	18.5	<0.1	3.6	2.0
SCAQMD Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

¹ SCAQMD March 2023. Referenced at <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>

Table 3. Regional Operational Emission Estimates

Operational Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Mobile	0.8	0.2	2.2	<0.1	<0.1	<0.1
Area	5.7	0.1	8.0	<0.1	<0.1	<0.1
Energy	0.1	1.0	0.8	<0.1	0.1	0.1
Stationary	0.4	1.1	1.0	<0.1	0.1	0.1
Total Project Operational Emissions	7.0	2.4	12.0	<0.1	0.2	0.1
SCAQMD Significance Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Local Emissions

Localized significance thresholds (LSTs) were also adopted by the SCAQMD due to project-related construction or operational air emissions having the potential to exceed the state and national air quality standards in the project vicinity, while not exceeding the regional emission significance thresholds adopted by the SCAQMD. These thresholds set the maximum rates of daily construction or operational emissions from a project site that would not exceed a national or State ambient air quality standard². The differences between regional thresholds and LSTs are as follows:

1. Regional thresholds include all sources of Project construction and operational emissions generated from onsite and offsite emission sources whereas the LSTs only consider the emissions generated from onsite emission sources.
2. LSTs only apply to CO, NO_x, PM₁₀, and PM_{2.5}, while regional thresholds include both ROG and SO₂.
3. Regional thresholds apply to emission sources located anywhere within the SCAQMD whereas the LSTs are location dependent and depend on the size of the project, and emission location relative to the nearest sensitive receptor.

A sensitive receptor is defined as an individual who is most susceptible to negative health effects when exposed to air pollutants including children, the elderly, and adults with chronic health issues. Such receptors include residences, schools, elderly care centers, and hospitals. SCAQMD provides screening look up tables (Appendix C of the SCAQMD 2008 Final Localized Significance Threshold Methodology)³ for projects that disturb less than or equal to 5 acres in size in a day. These tables were created to easily determine if the daily emissions of NO_x, CO, PM₁₀, and PM_{2.5} from a project could result in a significant impact to the local air quality. The thresholds are determined by:

- Source Receptor Area (SRA), the geographic area within the SCAQMD that can act as both a source of emissions and a receptor of emission impacts (Project is located within SRA 9, East San Gabriel Valley),
- Size of the project,
- Distance to the nearest sensitive receptor.

² SCAQMD 2008: Final Localized Significance Threshold Methodology. Referenced at <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>

³ SCAQMD 2008: Final Localized Significance Threshold Methodology Appendix C. Referenced at <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2>

The phases with the most ground disturbance would be the Site Preparation & Grading phases. The *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, prepared by SCAQMD, 2015, provides guidance on how to determine the appropriate site acreage to utilize for LST analyses. The Fact Sheet details that the maximum number of acres disturbed on the peak day of construction is calculated from the construction equipment list utilized in the CalEEMod model, which identifies that crawler tractors, graders, and rubber-tired dozers disturb 0.5-acre in an 8-hour day and scrapers disturb 1.0-acre in an 8-hour day. As shown in Table 4, the maximum amount of grading would occur during the grading phase, that would grade 2-acres per day. For this analysis, the threshold for 2 acres in Appendix C of the SCAQMD 2008 Final Localized Significance Threshold Methodology was used.

Table 4. Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day

Activity	Equipment Type	Equipment Quantity	Operating Hours per Day	Acres Disturbed per piece of Equipment per Day	Acres Disturbed per Day
Demolition	Tractors/Loaders/Backhoes	3	8	0.0	0
	Rubber Tired Dozers	1	8	0.5	0.5
	Concrete/Industrial Saws	1	8	0.0	0
Total Acres Disturbed Per Day					0.5
Site Preparation	Graders	1	8	0.5	0.5
	Scraper	1	8	1.0	1
	Crawler Tractors	1	8	0.5	0.5
Total Acres Disturbed Per Day					2.0
Grading	Graders	1	8	0.5	0.5
	Rubber Tired Dozers	1	8	0.5	0.5
	Crawler Tractors	2	8	0.5	1
Total Acres Disturbed Per Day					2.0
Maximum Acres Disturbed Per Day					2.0

Distance to the nearest sensitive receptor also determines the emission thresholds. The sensitive receptors closest to the Project include residential homes east of the Project boundary, approximately 21 meters (70 feet) from the property line. The thresholds for 25 meters were used as those are the most stringent thresholds provided by SCAQMD, as provided in Appendix C. Table 5 shows the thresholds and estimated maximum daily construction emissions for the proposed Project. As seen in Table 5, the proposed Project has a less than significant localized construction air quality impact.

Table 5. Localized Construction Emission Estimates

Construction Activity	Maximum Daily Regional Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
2025				
Demolition	13.9	15.1	1.5	0.7
Site Prep	12.5	11.8	1.2	0.6
Grading	17.3	16.1	3.1	1.8
Building Construction	11.1	12.6	0.4	0.4
Maximum Daily Emissions	17.3	16.1	3.1	1.8
2026				
Building Construction	10.5	12.5	0.4	0.3
Paving	5.9	8.2	0.2	0.2
Architectural Coating	1.1	1.5	<0.1	<0.1
Maximum Daily Emissions	10.5	12.5	0.4	0.3
Maximum Daily Emission 2025-2026	17.3	16.1	3.1	1.8
SCAQMD Significance Thresholds	128	953	7	2
Threshold Exceeded?	No	No	No	No

Source: CalEEMod Sheets

According to the SCAQMD LST methodology, LSTs apply to Project stationary and onsite mobile sources. Projects that involve mobile sources that spend extended periods queuing and idling at a site, such as transfer facilities or warehousing and distribution buildings, have the potential to exceed the operational localized significance thresholds. The proposed Project would not involve vehicles idling or queueing for extended periods. Therefore, due to the lack of significant stationary source emissions, impacts related to operational localized significance thresholds would be less than significant.

However, to provide a conservative analysis, an Operational LST analysis was conducted, and the results are shown in Table 6 utilizing the 2-acre operational thresholds.

Table 6. Localized Operational Emission Estimates

Operational Activity	Maximum Daily Regional Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Mobile	0.2	2.2	<0.1	<0.1
Area	0.1	8.0	<0.1	<0.1
Energy	1.0	0.8	0.1	<0.1
Stationary	1.1	1.0	0.1	<0.1
Total	2.4	12.0	0.2	0.1
SCAQMD Significance Thresholds	128	953	2	2
Threshold Exceeded?	No	No	No	No

Source: CalEEMod Sheets

Conclusion

The Project's maximum daily emissions (regional and local) for construction and operation of the Project would not exceed SCAQMD's regional thresholds of significance. In addition, design and construction of the Project would comply with applicable SCAQMD rules and regulations, including Rule 403 to minimize fugitive PM dust emissions and Rule 1113 which allows only Low-Volatile Organic Compounds (VOC) paints. Projects

that do not exceed the regional thresholds are assumed to not have a significant impact on a project level and cumulative level. Therefore, the proposed Project would have less than significant air quality impacts, and no mitigation measures are required.

Energy

The State CEQA Guidelines do not have specific thresholds for Energy consumption. Rather, the question in Appendix G: VI Energy (a) asks, “[Does the proposed project] Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?”. Therefore, for the purpose of this analysis, a significant impact would occur if:

- The Project design and/or location encourages wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, as well as the use of fuel by vehicles anticipated to travel to and from the project.

The following assumptions were used to calculate the energy consumption of the proposed Project:

- The Project’s construction and operational energy consumption would be provided by Southern California Edison Company.
- Construction equipment fuel consumption derived from ARB Offroad2021 emission model.
- Fuel Consumption from vehicle travel derived from ARB EMFAC2022 emission model.
- Electrical and natural gas usage derived from the CalEEMod model.

Construction

Electricity and Natural Gas Usage:

Due to the Project size and the fact that construction is temporary, the electricity used would be substantially less than that required for Project operation and would have a negligible contribution to the project’s overall energy consumption. The electric power used would be for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers. Natural gas is not anticipated to be necessary for construction activities. Any consumption of natural gas would be minor and negligible in comparison to the operation of the proposed Project.

Petroleum Fuel Usage:

The construction equipment associated with construction activities (off-road/heavy duty vehicles) 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, and for a conservative analysis it is assumed that construction workers would travel in gasoline-powered passenger vehicles.

Table 7 shows the total fuel consumption and horsepower-hour data contained within the ARB OffRoad2021 emission model for specific types of diesel construction equipment. It should be noted that the total fuel consumption is a conservative analysis and would likely overstate the amount of fuel usage, as specific construction equipment is not expected to operate during the duration of the construction activity (i.e., crane). Additionally, since Cement and Mortar Mixer fuel consumption rates are unavailable, Off-Road Truck fuel rates were used for that equipment. Table 7 summarizes the Project’s construction vehicle fuel usage based on vehicle miles traveled and fuel usage factors contained in the ARB EMFAC2021. The trips included are worker vehicles, vendor vehicles, and haul vehicles. Table 8 shows the overall fuel consumption for construction of the proposed Project. The fuel calculations used for this analysis are included as an attachment.

Table 7. Construction Equipment Fuel Usage

Activity	Equipment	Number of Equipment per day	Hours per day	Horsepower	Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Rubber Tired Dozers	1	8	367	0.4	20	23,488	0.04745478	1,115
	Concrete/Industrial Saws	1	8	33	0.73	20	3,854	0.04200992	162
	Tractors/Loaders/Backhoes	3	8	84	0.37	20	14,918	0.05312078	792
Site Preparation	Crawler Tractors	1	8	87	0.43	3	898	0.05048826	45
	Graders	1	8	148	0.41	3	1,456	0.05153929	75
	Scrapers	1	8	423	0.48	3	4,873	0.04809065	234
Grading	Graders	1	8	148	0.41	6	2,913	0.05153929	150
	Rubber Tired Dozers	1	8	367	0.4	6	7,046	0.04745478	334
	Crawler Tractors	2	8	87	0.43	6	3,591	0.05048826	181
Building Construction	Cranes	1	8	367	0.29	220	187,317	0.05301236	9,930
	Forklifts	2	8	82	0.2	220	57,728	0.05325396	3,074
	Generator Sets	1	8	14	0.74	220	18,234	0.07797542	1,422
	Tractors/Loaders/Backhoes	1	8	84	0.37	220	54,701	0.05312078	2,906
	Welders	3	8	46	0.45	220	109,296	0.03171682	3,467
Paving	Pavers	1	8	89	0.36	10	2,563	0.05259167	140
	Paving Equipment	1	8	81	0.42	10	2,722	0.05151654	135
	Rollers	2	8	36	0.38	10	2,189	0.05259167	115
	Cement and Mortar Mixers	1	8	10	0.56	10	448	0.05116533	23
	Tractors/Loaders/Backhoes	1	8	84	0.37	10	2,486	0.05312078	132
Architectural Coating	Air Compressors	1	8	37	0.48	25	3,552	0.03000725	107
Total									24,539

Table 8. Construction Vehicle Fuel Usage

Construction Source	Number of Vehicles	VMT	Fuel Rate (miles/gal)	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	35	2,560	6.12	418	0
Vendor Trucks	30	67,320	8.94	7949	0
Worker Vehicles	138	325,304	27.06	0	12,021
Total				8,367	12,021

Table 9. Total Construction Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Construction Vehicles	8,367	12,021
Off-road Construction Equipment	24,539	0
Total	32,906	12,021

Operation

The operation of the proposed Project would consume electricity, natural gas, and petroleum. The energy consumption can be found in Table 9 below. Electricity and natural gas consumption were found in the Annual CalEEMod Output Sheets attached. The gasoline consumption rates utilize the same assumptions that were used for the worker vehicles.

Table 10. Annual Operational Energy Requirements

Electricity (Kilowatt-Hours)	
863,611	
Natural Gas (Thousands British Thermal Units)	
3,536,363	
Fuel Consumption	
Annual VMT	Gallons of Gasoline Fuel
6,042	12,021

Conclusion

The proposed Project has no unusual characteristics that would make the construction fuel and energy consumption associated with construction of the Project less efficient compared with other similar construction sites throughout the state. The consumption would also be temporary and localized. Construction with the 4-story self-storage units would comply with all the energy efficiency requirements under Title 24 and all applicable City business and energy codes ordinances, as ensured through the City's development permitting process. Therefore, the construction and operation of the Project would result in a less than significant impact for inefficient, wasteful, or unnecessary energy use, and no mitigation would be required.

Greenhouse Gas

SCAQMD convened a Greenhouse Gas Emissions (GHG) CEQA Significance Threshold Working Group to help lead agencies determine significance thresholds for GHG emissions when SCAQMD is not the lead agency. The last working group was held September 2010 (Meeting No. 15)⁴ and proposed a tiered approach, equivalent to the existing consistency determination requirements in CEQA Guidelines Sections 15064(h)(3), 15125(d), or 15152(a). The most recent proposal issued in Meeting No. 15 uses a tiered approach, Tier 1 to Tier 5, to evaluate potential GHG impacts from various uses. The assessment of the proposed Project applies the Tier 3: Numerical Screening Thresholds approach. Tier three consists of screening values in metric tons of carbon dioxide equivalent (MTCO_{2e}) (converting other greenhouse gases to an equivalent impact of CO₂). A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project impact would be less than significant:

- Option 1: All land use types: 3,000 MTCO_{2e} per year
- Option 2: Based on land use type: residential: 3,500 MTCO_{2e} per year; commercial: 1,400 MTCO_{2e} per year; or mixed use: 3,000 MTCO_{2e} per year

Executive Order S-3-05's year 2050 goal is the basis of SCAQMD's draft Tier 3 screening level thresholds. The objective of the Executive Order is to contribute to capping worldwide CO₂ concentrations at 450 ppm, stabilizing global climate change. The City of Covina has utilized Option 1 for other projects within the city, thus, Option 1 was utilized for this analysis and the GHG threshold used is 3,000 MTCO_{2e} per year.

The Project's construction GHG emissions are shown in Table 10 and the overall construction and operational emissions are shown in Table 11. These emissions were calculated using the CalEEMod model. Pursuant to SCAQMD methodology, construction emissions are amortized over 30 years. As shown in Table 11, the GHG emissions are 518 MTCO_{2e} per year, which is below the 3,000 MTCO_{2e} per year threshold. Therefore, the Project would have a less than significant GHG impact.

Table 11. Project Construction GHG Emissions

Annual GHG Emissions (MTCO _{2e})	
2025	456
2026	39
Total Construction Emissions	495
Total Emissions Amortized Over 30 Years	17

⁴ SCAQMD 2010. Minutes of the GHG CEQA Significance Threshold Stakeholder Working Group #15. Referenced at: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf)

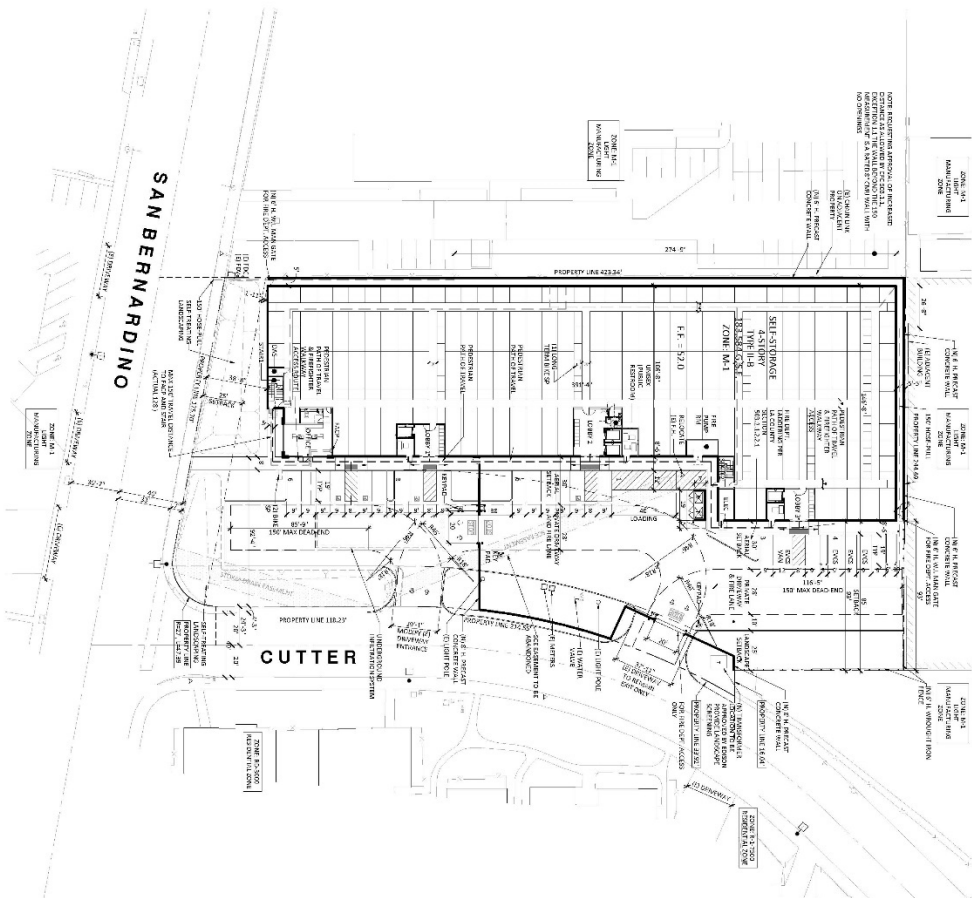
Table 12. Total GHG Emissions

Activity	Annual GHG Emissions (MTCO _{2e})
Project Operational Emissions	
Mobile	11
Area	4
Energy	325
Water	104
Waste	54
Stationary	5
Total Project Operation Emissions	502
Amortized Project Construction Emissions	17
Total Emissions	519
Tier 3: Significance Threshold	3,000
Threshold Exceeded?	No

Conclusion

The proposed Project's GHG emissions of 518 MTCO_{2e} per year are below the SCAQMD significance threshold of 3,000 MTCO_{2e} per year. Therefore, the Project would have a less than significant impact on GHG emissions, and no mitigation measures are required.

Figure 1: Project Site Plan



529 CUTTER WAY
COVINA, CA

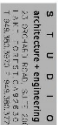
CONCEPTUAL SITE PLAN

02.23.24

SCALE: 1" = 30'



SHEET 2



Fuel Calculations

Model Output: OFFROAD2021 (v1.0.5) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	VehClass	MdlYr	HP_Bin	Fuel	Fuel Consumption	Horsepower Hours	Fuel Rate
Los Angeles (SC)	2025	Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	200236.1302	4219514.168	0.0474548
Los Angeles (SC)	2025	Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	5359588.934	100894387	0.0531208
Los Angeles (SC)	2025	Construction and Mining - Graders	Aggregate	Aggregate	Diesel	801808.3578	15557225.2	0.0515393
Los Angeles (SC)	2025	Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	5479149.856	106983113.7	0.0512151
Los Angeles (SC)	2025	Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	2065209.339	42944091.37	0.0480907
Los Angeles (SC)	2025	Industrial - Forklifts	Aggregate	Aggregate	Diesel	3109302.057	58386309.29	0.053254
Los Angeles (SC)	2025	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	1151795.618	447614.1	2.5731889
Los Angeles (SC)	2025	Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	611697.4797	11538770.14	0.0530124
Los Angeles (SC)	2025	Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	1279243.051	40333273.8	0.0317168
Los Angeles (SC)	2025	Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	352726.9244	6846867.962	0.0515165
Los Angeles (SC)	2025	Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	391254.724	7646871.175	0.0511653
Los Angeles (SC)	2025	Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	932502.9469	17731002.5	0.0525917
Los Angeles (SC)	2025	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	246897.3259	8227921.25	0.0300073
Los Angeles (SC)	2025	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	9290.335209	221146.2	0.0420099
Los Angeles (SC)	2025	Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	1719958.979	34066510.68	0.0504883
Los Angeles (SC)	2025	Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	2281997.015	46637030.7	0.048931

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate
Los Angeles (SC)	2025	MHDT	Aggregate	Aggregate	Diesel	2523668.137	282.3073209	8.94
Los Angeles (SC)	2025	HHDT	Aggregate	Aggregate	Diesel	6714617.667	1096.961053	6.12

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	
Los Angeles (SC)	2025	LDA	Aggregate	Aggregate	Gasoline	128067964.6	4326.798843	29.60
Los Angeles (SC)	2025	LDT1	Aggregate	Aggregate	Gasoline	11174163.84	452.812407	24.68
Los Angeles (SC)	2025	LDT2	Aggregate	Aggregate	Gasoline	65845213.92	2702.160348	24.37
							50/25/25 Split	27.06

Demo Calculations

Cutter Way Self-Storage Project

Estimates of Demolition Debris

Building Demolition

Building	Height(ft)	Area (ft2)	Volume (ft3)	Demo Building Volume (cy)
1A	25	2158	53950	659
2A	10	606	6060	74
Total		2764	60010	733

Weight of the Building Demolition Debris (ton/cy): 0.5

Total Weight of Building Debris 367

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 145 lb/ft3

Area	Height (ft)	Area (ft2)	Volume (cf)	Weight (lbs)	Weight (tons)
1	0.5	15496	7748	1123460	562
2	0	0	0	0	0
3	0	0	0	0	0
Total		15496	7748	1123460	562

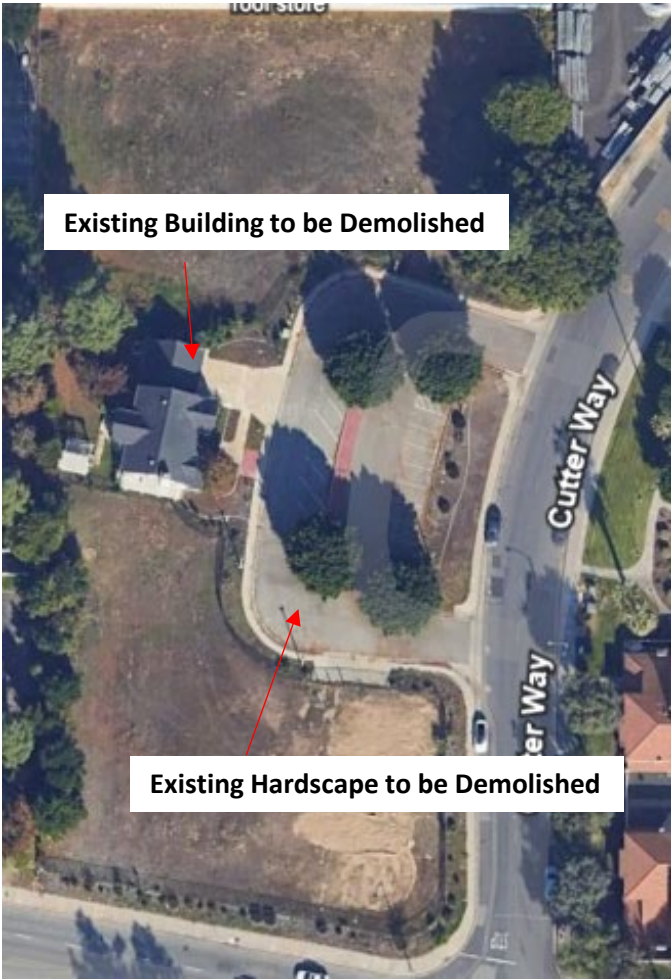
Total Demolition Weight 928 tons

Vehicle Trips

Haul Truck Capacity 16 tons
Number of Trucks 58 trucks
Number of Truck Trips 116 truck trips

tons

ion



CalEEMod Output Sheets

Cutter Way Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Cutter Way
Construction Start Date	2/3/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	22.4
Location	34.089820849983994, -117.92154441287688
County	Los Angeles-South Coast
City	Covina
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5057
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.26

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	184	1000sqft	1.05	183,584	17,152	—	—	—

Parking Lot	22.0	Space	0.20	0.00	0.00	—	—	—
Other Asphalt Surfaces	1.00	Acre	1.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	1.64	12.5	18.5	0.03	1.70	0.70	4,400
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	68.9	19.4	17.7	0.04	3.64	1.95	4,480
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	4.81	8.37	11.4	0.02	1.13	0.48	2,754
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.88	1.53	2.08	< 0.005	0.21	0.09	456
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2025	1.64	12.5	18.5	0.03	1.70	0.70	4,400
Daily - Winter (Max)	—	—	—	—	—	—	—
2025	1.97	19.4	17.7	0.04	3.64	1.95	4,480
2026	68.9	12.0	17.3	0.03	1.66	0.66	4,302
Average Daily	—	—	—	—	—	—	—
2025	1.05	8.37	11.4	0.02	1.13	0.48	2,754
2026	4.81	0.72	1.10	< 0.005	0.09	0.04	235
Annual	—	—	—	—	—	—	—
2025	0.19	1.53	2.08	< 0.005	0.21	0.09	456
2026	0.88	0.13	0.20	< 0.005	0.02	0.01	38.9

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	7.00	2.34	11.6	0.01	0.16	0.15	3,228
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	5.67	2.29	3.99	0.01	0.15	0.13	3,195
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	6.10	1.35	8.21	0.01	0.10	0.09	3,033
Annual (Max)	—	—	—	—	—	—	—
Unmit.	1.11	0.25	1.50	< 0.005	0.02	0.02	502
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	—

Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	Yes

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	0.84	0.23	1.85	< 0.005	0.02	< 0.005	78.9
Area	5.71	0.07	7.98	< 0.005	0.01	0.01	33.0
Energy	0.05	0.95	0.80	0.01	0.07	0.07	1,964
Water	—	—	—	—	—	—	626
Waste	—	—	—	—	—	—	325
Stationary	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Total	7.00	2.34	11.6	0.01	0.16	0.15	3,228
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	0.83	0.25	2.20	< 0.005	0.02	< 0.005	79.5
Area	4.40	—	—	—	—	—	—
Energy	0.05	0.95	0.80	0.01	0.07	0.07	1,964
Water	—	—	—	—	—	—	626
Waste	—	—	—	—	—	—	325
Stationary	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Total	5.67	2.29	3.99	0.01	0.15	0.13	3,195
Average Daily	—	—	—	—	—	—	—

Mobile	0.70	0.21	1.81	< 0.005	0.01	< 0.005	67.4
Area	5.30	0.05	5.47	< 0.005	0.01	0.01	22.6
Energy	0.05	0.95	0.80	0.01	0.07	0.07	1,964
Water	—	—	—	—	—	—	626
Waste	—	—	—	—	—	—	325
Stationary	0.05	0.15	0.14	< 0.005	0.01	0.01	27.5
Total	6.10	1.35	8.21	0.01	0.10	0.09	3,033
Annual	—	—	—	—	—	—	—
Mobile	0.13	0.04	0.33	< 0.005	< 0.005	< 0.005	11.2
Area	0.97	0.01	1.00	< 0.005	< 0.005	< 0.005	3.74
Energy	0.01	0.17	0.15	< 0.005	0.01	0.01	325
Water	—	—	—	—	—	—	104
Waste	—	—	—	—	—	—	53.9
Stationary	0.01	0.03	0.02	< 0.005	< 0.005	< 0.005	4.55
Total	1.11	0.25	1.50	< 0.005	0.02	0.02	502

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.47	13.9	15.1	0.02	0.57	0.52	2,502
Demolition	—	—	—	—	0.98	0.15	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.76	0.83	< 0.005	0.03	0.03	137
Demolition	—	—	—	—	0.05	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.14	0.15	< 0.005	0.01	0.01	22.7
Demolition	—	—	—	—	0.01	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.05	0.06	0.74	0.00	0.16	0.04	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	1.02	0.39	0.01	0.23	0.07	843
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	9.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	0.02	< 0.005	0.01	< 0.005	46.2
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	7.65

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

Off-Road Equipment	1.39	12.5	11.8	0.03	0.62	0.57	2,821
Dust From Material Movement	—	—	—	—	0.55	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.10	< 0.005	0.01	< 0.005	23.2
Dust From Material Movement	—	—	—	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	3.84
Dust From Material Movement	—	—	—	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.03	0.04	0.44	0.00	0.10	0.02	99.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.91	17.3	16.1	0.02	0.94	0.86	2,653
Dust From Material Movement	—	—	—	—	2.12	0.92	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.26	< 0.005	0.02	0.01	43.6
Dust From Material Movement	—	—	—	—	0.03	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.05	< 0.005	< 0.005	< 0.005	7.22
Dust From Material Movement	—	—	—	—	0.01	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.04	0.05	0.59	0.00	0.13	0.03	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	2.06	0.78	0.01	0.45	0.14	1,695
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	27.9
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	4.62

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.28	11.1	12.6	0.02	0.42	0.39	2,320
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.28	11.1	12.6	0.02	0.42	0.39	2,320
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.73	6.25	7.12	0.01	0.24	0.22	1,312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.14	1.30	< 0.005	0.04	0.04	217
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.33	0.33	5.36	0.00	1.01	0.24	1,082
Vendor	0.03	1.08	0.53	0.01	0.27	0.08	998
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—

Worker	0.33	0.37	4.55	0.00	1.01	0.24	1,023
Vendor	0.03	1.13	0.54	0.01	0.27	0.08	996
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.18	0.23	2.70	0.00	0.56	0.13	588
Vendor	0.02	0.64	0.30	< 0.005	0.15	0.04	564
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.03	0.04	0.49	0.00	0.10	0.02	97.3
Vendor	< 0.005	0.12	0.05	< 0.005	0.03	0.01	93.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.22	10.5	12.5	0.02	0.38	0.35	2,320
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.41	0.49	< 0.005	0.01	0.01	90.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.09	< 0.005	< 0.005	< 0.005	15.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.28	0.34	4.25	0.00	1.01	0.24	1,002
Vendor	0.03	1.08	0.51	0.01	0.27	0.08	980
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.17	0.00	0.04	0.01	39.9
Vendor	< 0.005	0.04	0.02	< 0.005	0.01	< 0.005	38.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	6.60
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	6.35
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.88	8.19	0.01	0.25	0.23	1,248
Paving	0.31	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.22	< 0.005	0.01	0.01	34.2
Paving	0.01	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	5.66

Paving	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.14	1.51	< 0.005	0.03	0.03	179
Architectural Coatings	68.7	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.10	< 0.005	< 0.005	< 0.005	12.2

Architectural Coatings	4.70	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	2.03
Architectural Coatings	0.86	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.06	0.07	0.85	0.00	0.20	0.05	200
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.01	< 0.005	14.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.84	0.23	1.85	< 0.005	0.02	< 0.005	78.9
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.84	0.23	1.85	< 0.005	0.02	< 0.005	78.9
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.83	0.25	2.20	< 0.005	0.02	< 0.005	79.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.83	0.25	2.20	< 0.005	0.02	< 0.005	79.5
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.04	0.33	< 0.005	< 0.005	< 0.005	11.2
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.04	0.33	< 0.005	< 0.005	< 0.005	11.2

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	820
Parking Lot	—	—	—	—	—	—	7.28

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	827
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	820
Parking Lot	—	—	—	—	—	—	7.28
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	827
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	136
Parking Lot	—	—	—	—	—	—	1.21
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	137

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.95	0.80	0.01	0.07	0.07	1,137
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.95	0.80	0.01	0.07	0.07	1,137
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.95	0.80	0.01	0.07	0.07	1,137

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.95	0.80	0.01	0.07	0.07	1,137
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.17	0.15	< 0.005	0.01	0.01	188
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.17	0.15	< 0.005	0.01	0.01	188

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	3.93	—	—	—	—	—	—
Architectural Coatings	0.47	—	—	—	—	—	—
Landscape Equipment	1.31	0.07	7.98	< 0.005	0.01	0.01	33.0
Total	5.71	0.07	7.98	< 0.005	0.01	0.01	33.0
Daily, Winter (Max)	—	—	—	—	—	—	—
Consumer Products	3.93	—	—	—	—	—	—
Architectural Coatings	0.47	—	—	—	—	—	—
Total	4.40	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.72	—	—	—	—	—	—
Architectural Coatings	0.09	—	—	—	—	—	—

Landscape Equipment	0.16	0.01	1.00	< 0.005	< 0.005	< 0.005	3.74
Total	0.97	0.01	1.00	< 0.005	< 0.005	< 0.005	3.74

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	626
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	626
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	626
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	626
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	104
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	104

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	325
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	325
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	325
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	325
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	53.9
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	53.9

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Fire Pump	0.39	1.09	1.00	< 0.005	0.06	0.06	200

Total	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Daily, Winter (Max)	—	—	—	—	—	—	—
Fire Pump	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Total	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Annual	—	—	—	—	—	—	—
Fire Pump	0.01	0.03	0.02	< 0.005	< 0.005	< 0.005	4.55
Total	0.01	0.03	0.02	< 0.005	< 0.005	< 0.005	4.55

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	2/3/2025	3/3/2025	5.00	20.0	—
Site Preparation	Site Preparation	3/4/2025	3/8/2025	5.00	3.00	—
Grading	Grading	3/9/2025	3/17/2025	5.00	6.00	—
Building Construction	Building Construction	3/18/2025	1/20/2026	5.00	220	—
Paving	Paving	1/21/2026	2/4/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	2/5/2026	3/11/2026	5.00	25.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	0.00	8.00	84.0	0.37
Site Preparation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	0.00	8.00	84.0	0.37
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	11.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	23.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	77.1	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	30.1	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT

Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.4	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	275,376	91,792	3,136

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	928	—
Site Preparation	—	—	6.00	0.00	—
Grading	1,116	—	12.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.20

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
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Water Exposed Area	3	74%	74%
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5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	0.20	100%
Other Asphalt Surfaces	1.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	266	325	275	100,704	16.0	19.5	16.5	6,042
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	275,376	91,792	3,136

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	859,240	346	0.0330	0.0040	3,538,792
Parking Lot	7,632	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	42,453,800	240,550
Parking Lot	0.00	0.00

Other Asphalt Surfaces	0.00	0.00
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5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	173	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	1.00	50.0	238	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
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Temperature and Extreme Heat	23.4	annual days of extreme heat
Extreme Precipitation	6.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	71.4
AQ-DPM	47.6
Drinking Water	37.9
Lead Risk Housing	77.8
Pesticides	0.00
Toxic Releases	72.8

Traffic	36.8
Effect Indicators	—
CleanUp Sites	4.12
Groundwater	10.6
Haz Waste Facilities/Generators	38.7
Impaired Water Bodies	0.00
Solid Waste	22.1
Sensitive Population	—
Asthma	59.3
Cardio-vascular	60.6
Low Birth Weights	67.7
Socioeconomic Factor Indicators	—
Education	60.9
Housing	32.3
Linguistic	24.8
Poverty	28.9
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	51.46926729
Employed	97.20261773
Median HI	69.28012319
Education	—
Bachelor's or higher	46.97805723
High school enrollment	100

Preschool enrollment	71.32041576
Transportation	—
Auto Access	27.46054151
Active commuting	43.32092904
Social	—
2-parent households	69.1518029
Voting	24.21403824
Neighborhood	—
Alcohol availability	53.85602464
Park access	16.80995765
Retail density	78.21121519
Supermarket access	12.10060311
Tree canopy	10.22712691
Housing	—
Homeownership	64.41678429
Housing habitability	53.81752855
Low-inc homeowner severe housing cost burden	47.64532273
Low-inc renter severe housing cost burden	59.27114077
Uncrowded housing	46.83690491
Health Outcomes	—
Insured adults	54.83125882
Arthritis	0.0
Asthma ER Admissions	44.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0

Diagnosed Diabetes	0.0
Life Expectancy at Birth	59.0
Cognitively Disabled	10.7
Physically Disabled	41.1
Heart Attack ER Admissions	33.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	60.5
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	62.5
Elderly	55.1
English Speaking	33.1
Foreign-born	55.3
Outdoor Workers	86.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.9
Traffic Density	39.6
Traffic Access	23.0
Other Indices	—

Hardship	44.5
Other Decision Support	—
2016 Voting	29.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	47.0
Healthy Places Index Score for Project Location (b)	61.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Adjusted Lot Acreage to match Site Plan provided by Client, using site area of 2.25 acres.
Construction: Off-Road Equipment	Assumed all equipment will be used 8 hours per day during work days. Replaced Tractors/Loaders/Backhoes for Crawler Tractors in the Site Preparation & Grading Phases.
Operations: Vehicle Data	Adjusted rates for Weekday Trips, Saturday Trips, and Sunday Trips to match ITE 11th Edition Trip Rates for Mini Warehouse (ITE Land Use Code 151).

Operations: Emergency Generators and Fire Pumps	For a conservative analysis, analyzed diesel fire pump taking into account for the electric fire pump.
Construction: Construction Phases	Architectural Coating duration extended due to size of building facade.