Appendix L

Reduced Density Alternative Memos

TABLE 1 OLIVE PARK APARTMENTS ESTIMATED AVERAGE WATER DEMAND					
Land Use	**Quantity**	**Impacted Area**	**Dwelling Unit Density**	**Water Demand Factor[1]**	**Average Water Demand**
Current Proposed Land Use					
Mid Density Residential	199 DUs	10.49 acres	19.0 DU/acre	3,200 gpd/acre	33,568 gpd
Previous Proposed Land Use					
Mid Density Residential	282 DUs	10.49 acres	26.9 DU/acre	4,100 gpd/acre	43,009 gpd
Change in Average Water Demand	**-**	**-**	**-**	**-**	**-9,441 gpd**

[1] Referencing Section 2.1.H of the City of Oceanside Design & Construction, the water demand factors are based on dwelling unit density.

TABLE 2 OLIVE PARK APARTMENTS MAXIMUM DAY DEMAND AND PEAK HOUR DEMAND					
Land Use	**Average Water Demand**	**Maximum Day Demand Peaking Factor[1]**	**Maximum Day Demand**	**Peak Hour Demand Peaking Factor[1]**	**Peak Hour Demand**
Current Proposed Land Use					
Mid Density Residential	33,568 gpd	2.0	67,136 gpd	3.0	100,704 gpd
Previous Proposed Land Use					
Mid Density Residential	43,009 gpd	2.0	86,018 gpd	3.0	129,027 gpd
Change in Maximum Day Demand and Peak Hour Demand	**-**	**-**	**-18,882 gpd**	**-**	**-28,323 gpd**

[1] Referencing Section 2.1.H of the City of Oceanside Design & Construction, the water demand factors are based on dwelling unit density.

TABLE 3 OLIVE PARK APARTMENTS ESTIMATED AVERAGE SEWER FLOW			
Land Use	**Quantity**	**Sewer Generation**	**Average Flow**
Current Proposed Land Use			
Mid Density Residential	199 DU	140 gpd/DU	27,860 gpd
Previous Proposed Land Use			
Mid Density Residential	282 DU	140 gpd/DU	39,480 gpd
Change in Average Sewage Generation	**-**	**-**	**-11,620 gpd**

TABLE 4 OLIVE PARK APARTMENTS ESTIMATED PEAK SEWER FLOW			
Land Use	**Average Flow**	**Peaking Factor[1]**	**Peak Flow**
Current Proposed Land Use			
Mid Density Residential	27,860 gpd	3.50	97,510 gpd
Previous Proposed Land Use			
Mid Density Residential	39,480 gpd	2.75	108,570 gpd
Change in Peak Flow Sewage Generation	**-**	**-**	**-11,060 gpd**

[1] Referencing Section 3.2.J of the City of Oceanside Design & Construction, the peaking factors are based on population.

LOS Engineering, Inc.
Traffic and Transportation

11622 El Camino Real, Suite 100, San Diego, CA 92130
Phone 619-890-1253, E-mail: Justin@LOSengineering.com

MEMO

July 12, 2024

To: Mr. Tam Tran
City of Oceanside
300 North Coast Highway
Oceanside, CA 92054

From: Justin Rasas, P.E.

RE: Olive Park Apartment 199 Unit Alternative LTS and VMT Findings

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LOS Engineering, Inc. has prepared a comparison of the trip generation between the Proposed Project with up to 290 units ("Project") and a Project Alternative with 199 units ("Alternative") to determine if there is a change in the LTS and VMT findings. Please note the LTS was completed using 290 units before the final proposed project was refined to a maximum of 282 units, thus provided a conservative analysis.

The project characteristics will remain the same with 4 floors and close to transit. The reduction in units from the 290 units (as analyzed in the LTS) down to the 199 units will reduce the project trip generation as shown in **Table 1**.

Table 1: Project vs. Alternative Trip Generation

ITE 11th Edition Code and Land Use Description		Rates & Size			*Daily* Trips	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour Total	PM Peak Hour IN	PM Peak Hour OUT	PM Peak Hour Total
Proposed Project											
ITE (221) Weekday	Rates:	4.75	/DU			56%	44%	0.32	43%	57%	0.29
MF 4-10 floors Close to transit	Size:	290	DU	Trips:	**1,378**	52	41	**93**	36	48	**84**
Alternative Project											
ITE (221) Weekday	Rates:	4.75	/DU			56%	44%	0.32	43%	57%	0.29
MF 4-10 floors Close to transit	Size:	199	DU	Trips:	**945**	36	28	**64**	25	33	**58**
Trip Reduction between Project and Alternative:					**-433**	-16	-13	**-29**	-11	-15	**-26**
Percent Reduction between Project and Alternative:					-31%			-31%			-31%

Source: Institute of Transportation Engineers (ITE) 11th Edition *Trip Generation*. DU: Dwelling Unit.

The Project trip generation used in the LTS is higher than the Alternative trip generation by approximately 31%; therefore, the LTS analyzed more traffic and provides a conservative analysis over the Alternative. No changes are recommended to the LTS.

The Project VMT analysis is based on the City of Oceanside VMT Screening Criteria. The reduction in units does not change the project location, thus the project continues to screen out because it is in a Transit Priority Area. No changes are recommended to the VMT report.

# # #

DUDEK

MEMORANDUM

To:	Brian Mikail, Capstone Equities, Principal
From:	Cole Martin and Jim Cowan, Dudek
Subject:	Noise Evaluation for the Olive Park Apartments – 199 Dwelling Unit Alternative
Date:	October 24, 2024
cc:	Alexandra Martini, CEQA/NEPA Project Manager
Attachment(s):	Attachment A: Construction Noise Prediction Model Worksheets Attachment B: Project HVAC Noise Prediction

1 Introduction

The purpose of this technical memorandum is to compare previous noise and vibration impacts disclosed in the Noise Technical Report (Technical Report) from the Olive Park Apartments (proposed project) with potential noise impacts associated with construction and operation of the Olive Park Apartments Project Alternative (project alternative/alternative). This analysis uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.). The City of Oceanside (City) is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA) for the project.

2 Project Alternative Description

The project alternative proposes development on a previously disturbed portion of vacant parcel (APN 162-111-04) that covers approximately 43.50 acres (i.e., Parcel Area), located in the Mira Costa Neighborhood Area of the City of Oceanside, California. The Parcel Area is generally located south of Oceanside Boulevard and west of College Boulevard; more specifically, west of the terminus of Olive Drive and south of the North County Transit District (NCTD) rail line and College Boulevard Sprinter Station. The project site is located approximately 1.5 miles north of State Route 78.

The Project Alternative proposes to develop a maximum of 199 multi-family residential units in two separate residential buildings compared to the maximum 282 residential units evaluated in the Olive Park Apartments Technical Report. The Project Alternative would construct the project in a single phase so that no onsite residential receptors would be present before construction is completed. The Project Alternative would involve less ground disturbance offsite as it would not construct the emergency access road parallel to the rail line. The Project Alternative would not have any subterranean parking; it would only include surface parking.

Project Design Features

The proposed project would implement the following construction-related project design feature (PDF) that would have the effect of reducing construction noise emissions at the nearest sensitive receptors. PDF-NOI-1 would be identified on construction permit plans, required of all construction contractors, and required as City-imposed Conditions of Approval and/or incorporated into the project's MMRP to ensure implementation during construction of the proposed project:

PDF-NOI-1 Construction Noise Reduction Features

- All construction equipment must have appropriate sound muffling devices, which shall be properly maintained and used at all times such equipment is in operation.
- The project contractor shall place stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during the construction period.
- All noise producing construction activities, including warming-up or servicing equipment and any preparation for construction, shall be limited to the hours between 7:00 a.m. and 6:00 p.m.
- An eight (8) foot tall, temporary noise barrier shall be erected along the applicable portion of the eastern portion of the property line where the property line is adjacent to the nearest noise-sensitive receptor during the site preparation phase when site preparation activity occurs within 45 feet of the property line, the grading phase when grading activity occurs within 50 feet of the property line, and the paving - east phase when paving activity occurs within 55 feet of the property line. Exhibit I shows the extent of the temporary eight-foot-tall noise barrier.
- The temporary solid noise barriers shall be constructed of 3/4-inch Medium Density Overlay (MDO) plywood sheeting, or other material of equivalent utility and appearance having a surface weight of 2 pounds per square foot or greater. There shall be no gaps in the barrier, and the barrier shall block the line-of-sight between the construction equipment and the noise-sensitive receptor.

Exhibit I: 8-Foot-Tall Temporary Noise Barrier Location

(Note: Noise barrier is represented by the red line)

3 Noise Impact Analysis

Potential noiseimpacts attributed to project construction and operation are studied in the following subsections that are categorized by the CEQA Guidelines Appendix G significance for noise. Although the CEQA Guidelines include additional questions regarding vibration and airport noise impacts, these are not expected to differ from the Technical Report.

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

Short-Term Construction

Less Than Significant. Construction noise and vibration are temporary phenomena, with emission levels varying from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor. Equipment that would be in use during construction would include, in part, graders, backhoes, rubber-tired dozers, loaders, cranes, forklifts, pavers, rollers, and air compressors. The typical maximum noise levels at a distance of 50 feet from various pieces of construction equipment and activities anticipated for use on the proposed project site are presented in Table 1. Note that the equipment noise levels presented in Table 1 are maximum noise levels. Usually, construction equipment operates in alternating cycles of full power and low power, producing average noise levels over time that are less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 1. Typical Construction Equipment Maximum Noise Levels

Equipment Type	Typical Noise Level (L_{max}, dBA at 50 Feet)
All Other Equipment > 5 HP	85
Backhoe	78
Compressor (air)	78
Concrete Saw	90
Crane	81
Dozer	82
Excavator	81
Flat Bed Truck	74
Front End Loader	79
Generator	72
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Welder / Torch	73

Source: DOT 2006.
Note: L_{max} = maximum sound level; dBA = A-weighted decibels.

Aggregate noise emission from proposed project construction activities, broken down by sequential phase, was predicted at the nearest existing noise-sensitive receptor boundary (single-family homes to the east of the project site) to the nearest position of the on-site construction boundary.

For purposes of this study, and in a manner resembling the "general assessment" methodology per FTA guidance, this analysis assumes that among what may be a quantity of mobile heavy construction equipment active onsite, only one of the loudest type of equipment per phase would be located at the nearest possible distance to the property line of a sensitive receptor (as close as 5 feet to the east, but dependent on the distance from the phase work to the receptor at any one time) for some portion or the entirety of the 8-hour evaluation period. The remainder of active equipment would be operating, on a time-average basis over the course of the same 8-hour evaluation period, at a distance approximating the centroid position of the work phase area.

A Microsoft Excel–based noise prediction model emulating and using reference data from the Federal Highway Administration Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use. Although the RCNM was funded and promulgated by the Federal Highway Administration, it is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are often used for other types of construction. Input variables for the predictive modeling consist of the equipment type and number of each (e.g., a grader, two excavators two front end loaders, two scrapers, and a dozer), and the duty cycle for each piece of equipment (e.g., percentage of time within a specific time period, such as an hour, when the equipment is expected to operate at full power or capacity and thus make noise at a level comparable to what is presented in Table 1). The predictive model also considers how many hours that equipment may be on-site and operating (or idling) within an established work shift. Conservatively, no topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity

patterns. Those default duty-cycle values were used for this noise analysis. Attachment A contains the details for construction noise analysis by phase activity.

As the project includes implementation of PDF-NOI-1 imposing construction design features applicable during the site preparation, grading and paving activities on the east side of the On-Site Impact Area the maximum noise level generated by project construction relative to neighboring sensitive residential receptors would be below the FTA guidance of 80 dBA L_{eq} over an 8-hour period (see Table 2, below). Therefore, project impacts would be **less than significant**.

Table 2. Predicted Construction Phase Noise Levels with PDF

Construction Phase	Predicted Noise Level 5 Feet from Property Line with PDF (dBA, 8-hour L_{eq})
Site Preparation	78
Grading	79
Paving - East	80

Source: Attachment A

Special Status Wildlife Species Construction Noise Analysis

Construction-related noise could occur from equipment used during vegetation clearing and construction of the residences and associated infrastructure. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). Suitable native habitat is present west of the on-site impact area, which would provide refuge for wildlife, including preservation of the ability to move temporarily to avoid loud construction noises. Additionally, the study area is already subject to a baseline level of noise from the nearby trains, roads, and human disturbance. Potential noise impacts to nesting birds would be avoided and minimized through implementation of MM-BIO-3 (Nesting Bird Surveys), appropriate disturbance avoidance buffers would be implemented for any active nests, and monitoring would ensure avoidance and minimization of impacts through implementation of MM-BIO-4 (Biological Monitoring). Therefore, short-term indirect impacts due to noise would be less than significant.

MM-BIO-3 Nesting Bird Surveys. Construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) that occur during the avian breeding season (typically February 1 through September 15) shall require a one-time biological survey for nesting bird

species to be conducted within the limits of grading and a 500-foot buffer (where feasible) within 72 hours prior to construction. This survey is necessary to ensure avoidance of impacts to nesting raptors and other birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code Sections 3503 and 3513. If any active nests are detected, the area shall be flagged and mapped on the construction plans or a biological resources figure, and the information provided to the construction supervisor and any personnel working near the nest buffer. Active nests shall have avoidance buffers established around them (e.g., 250 feet for passerines to 500 feet for raptors) by the project biologist in the field with brightly colored flagging tape, conspicuous fencing, or other appropriate barriers or signage. The project biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to avoid inadvertent impacts to these nests. The project biologist may adjust the 250-foot or 500-foot buffer at their discretion depending on the species and the location of the nest (e.g., if the nest is well protected in an area buffered by dense vegetation). However, if needed, additional qualified monitor(s) shall be provided to monitor active nest(s) or other project activities in order to ensure all of the project biologist's duties are completed. Once the nest is determined by a qualified monitor to be no longer occupied for the season, construction may proceed in the buffer areas.

If construction activities, particularly clearing/grubbing, grading, and other intensive activities, stop for more than 3 days, an additional nesting bird survey shall be conducted within the proposed work area and a 500-foot buffer, where feasible.

If coastal California gnatcatchers occur in the study area; pending results of focused surveys: Prior to the initiation of vegetation clearing activities outside of the nesting season, a coastal California gnatcatcher permitted biologist shall perform a minimum of three focused surveys, on separate days, to determine the presence of coastal California gnatcatcher nest-building activities, egg incubation activities, or brood rearing activities. The surveys shall begin a maximum of 7 days prior to project work activities, and one survey shall be conducted the day immediately prior to the initiation of work. The applicant shall notify the U.S. Fish and Wildlife Service (USFWS) at least 7 days prior to the initiation of surveys and within 24 hours of locating any coastal California gnatcatchers.

To the maximum extent practicable, project construction within 500 feet of avoided gnatcatcher habitat shall occur from September 1 through February 14 to avoid the gnatcatcher breeding season. If project construction within 500 feet of avoided gnatcatcher habitat must occur during the gnatcatcher breeding season, a minimum of three focused surveys, on separate days, shall be conducted to determine the presence of gnatcatcher nests, and one survey shall be conducted the day immediately prior to the initiation of work. The applicant shall notify USFWS at least 7 days prior to the initiation of surveys and within 24 hours of locating any gnatcatcher nest. Survey results shall be provided to USFWS.

If a California gnatcatcher nest is found in or within 500 feet of project construction areas, the biologist shall postpone work within 500 feet of the nest and contact USFWS to discuss (1) the best approach to avoid/minimize impacts to nesting birds (e.g., sound walls) and (2) a nest monitoring program acceptable to USFWS. If sound walls are proposed, an analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a qualified acoustician possessing a current noise engineer license or registration with noise monitoring experience with listed animal species. Subsequent to

these discussions, work may be initiated subject to implementation of the agreed-upon avoidance/minimization approach and nest monitoring program. Nest success or failure shall be established by regular and frequent trips to the site, as determined by the biologist, and through a schedule approved by USFWS. The biologist shall determine whether bird activity is being disrupted. If the biologist determines that bird activity is being disrupted, the applicant shall stop work and coordinate with USFWS to review the avoidance/minimization approach. Coordination between the applicant and USFWS to review the avoidance/minimization approach shall occur within 48 hours. Upon agreement as to the necessary revisions to the avoidance/minimization approach, work may resume subject to the revisions and continued nest monitoring. Nest monitoring shall continue until fledglings have dispersed or the nest has been determined to be a failure, as approved by USFWS.

DOCUMENTATION: The applicant shall provide a letter of agreement with this condition to the City of Oceanside. **TIMING:** Prior to pre-construction conference and prior to any clearing, grubbing, trenching, grading, or any land disturbances and throughout the duration of the grading, compliance with this condition is mandatory unless the requirement is waived by the City of Oceanside upon receipt of concurrence from the Wildlife Agencies. **MONITORING:** The City of Oceanside shall review the concurrence letter.

MM-BIO-4 Biological Monitoring. To prevent inadvertent disturbance to areas outside the limits of grading, all grading of native habitat shall be monitored by a biologist. The biological monitor(s) shall be contracted to perform biological monitoring during all clearing and grubbing activities. The project biologist(s) also shall do the following:

a. Attend the pre-construction meeting with the contractor and other key construction personnel prior to clearing and grubbing to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
b. Prior to clearing and grubbing, the project biologist shall conduct meetings with the contractor and other key construction personnel each morning prior to construction activities to go over the proposed activities for the day, and for the monitor(s) to describe the importance of restricting work to designated areas and of minimizing harm to or harassment of wildlife.
c. Review and/or designate the construction area in the field with the contractor in accordance with the final grading plan prior to clearing and grubbing.
d. Supervise and monitor construction activities weekly to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved and to document that protective fencing is intact.
e. Flush wildlife species (e.g., reptiles, mammals, avian, and other mobile species) from occupied habitat areas immediately prior to brush-clearing activities. This does not include disturbance to nesting birds (see MM-BIO-3) or “flushing” of federally listed species (i.e., coastal California gnatcatcher).
f. Periodically monitor the construction site to verify that the project is implementing the following stormwater pollution prevention plan best management practices: dust control, silt fencing, removal of construction debris and a clean work area, covered trash receptacles that are

animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour.

g. Periodically monitor the construction site after grading is completed and during the construction phase to see that artificial security light fixtures are directed away from open space and are shielded, and to document that no unauthorized impacts have occurred.

h. Keep monitoring notes for the duration of project construction for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of biological resources.

i. Prepare a monitoring report after construction activities are completed that describes the biological monitoring activities, including a monitoring log; photos of the site before, during, and after the grading and clearing activities; and a list of special-status species observed.

j. Halt work, if necessary, and confer with the City of Oceanside to ensure the proper implementation of special-status species and sensitive resource protection measures.

f. Submit a final report to the City of Oceanside within 60 days of project completion that includes as-built construction drawings with an overlay of habitat that was impacted and avoided, photographs of habitat areas that were to be avoided, and other relevant summary information documenting that authorized impacts were not exceeded and that compliance with all measures was achieved.

DOCUMENTATION: The applicant shall provide a letter of agreement with this condition to the City of Oceanside. TIMING: Prior to final grading release. MONITORING: The City of Oceanside shall review the concurrence letter.

With proper implementation of Mitigation Measures MM-BIO-3 and MM-BIO-4, construction noise impacts to MSCP special status wildlife species would be **less than significant**.

Long-Term Operational

Project Sound Sources

On-site Outdoor Mechanical Equipment

The completion of the project buildings will add a variety of noise-producing mechanical equipment that include those presented and discussed in the following paragraphs. Most of the noise-producing equipment or sound sources would be considered stationary or limited in mobility to a defined area.

Rooftop HVAC

The proposed project buildings would be served by roof-mounted air-conditioning equipment that includes outdoor-exposed packaged air-handling units and air-cooled condensers (ACC) that provide the expected cooling demand (expressed as refrigeration “tonnage”) for a building. The following are descriptions of modeled sound sources, with Table 3 exhibiting modeled sound power level (PWL) data at octave-band center frequency (OBCF) resolution. Detailed information supporting these summary descriptions and quantities appear in Attachment B.

Table 3. Modeled Sound Power Levels (PWL) for Stationary Roof-Mounted Sources (HVAC)

Building	Sound Source	Overall L_{eq} (dBA)	A-Weighted dB at Octave Band Center Frequency (OBCF, Hz)								
			32.5	63	125	250	500	1000	2000	4000	8000
1	Air Handling	91	72	72	84	85	86	83	76	70	65
	Air Conditioning	94	67	67	80	83	90	86	85	84	78
2	Air Handling	88	69	69	81	82	83	80	73	67	62
	Air Conditioning	78	47	47	60	65	73	74	68	66	60

Source: Attachment B

The HVAC reference sound levels were calculated from a combination of inputs that include square footage values for the proposed project's proposed spaces, project applicant response to data requests, and manufacturer sound power level data. For the analysis of noise from HVAC equipment operation, eight air conditioning units were modeled on the roofs of each building.

Other Stationary Noise Sources

The proposed project buildings may feature other noise emitters, but their contributions would tend to be sporadic or otherwise occur infrequently and thus be expected to have no greater acoustic contribution to an hourly L_{eq} than the continuous-type HVAC noise studied herein.

Prediction Methodology and Parameters

The aggregate noise emission from these outdoor-exposed sound sources has been predicted with the Datakustik CadnaA sound propagation program. CadnaA is a commercially available software program for the calculation, presentation, assessment, and prediction of environmental noise based on algorithms and reference data per International Organization of Standardization (ISO) Standard 9613-2, "Attenuation of Sound During Propagation Outdoors, Part 2: General Method of Calculation" (ISO 1996). The CadnaA computer software allows one to position sources of sound emission in a simulated three-dimensional (3-D) space having heights and footprints consistent with project architectural plans and elevations. In addition to the above-mentioned sound source inputs and building-block structures that define the three-dimensional sound propagation model space, the following assumptions and parameters are included in this CadnaA-supported stationary noise source assessment:

- Ground effect acoustical absorption coefficient equal to 0.7, which intends to represent an average or blending of ground covers that are characterized by a mix of soft, natural materials and hard, reflective pavements along with existing building surfaces across the project site and the surroundings;
- Reflection order of 1, which allows for a single reflection of sound paths on encountered structural surfaces such as the modeled building masses;
- Off-site residential structures and buildings have not been included in the model as there were no existing structures between the source and the nearest sensitive receptors;
- Calm meteorological conditions (i.e., no wind) with 68 degrees Fahrenheit and 50% relative humidity; and
- All of the modeled noise sources are operating concurrently and continuously for a minimum period of 1 hour.

Off-Site Sensitive Receptor Operation Impact Analysis

An operational scenario of the proposed project was modeled that assumes all the HVAC equipment is operating simultaneously for a typical period of one hour.

Figure 1 illustrates predicted aggregate sound pressure level (SPL) propagation solely from operation of the proposed project sound sources as described above. The color-coded annular bands of SPL are calculated across a field parallel with and five (5) feet above local grade.

Based on the noise level contours appearing in Figure 1, the proposed project is predicted to be up to 38 dBA L_{eq} at the single-family homes to the east of the project and up to 35 dBA L_{eq} at the single-family homes to the south of the project and therefore would be lower than and thus comply with the City's 50 dBA L_{eq} daytime threshold and 45 dBA L_{eq} nighttime threshold for residential land uses. Additionally, the predicted levels due to stationary operations also comply with the City's 60 dBA threshold for special status wildlife species.

On-Site Sensitive Receptor Operations Impact Analysis

On-site HVAC operations have the potential to impact exterior use areas provided by the project. An analysis was conducted to display the on-site noise level contours generated by the project. Figure 2 illustrates predicted aggregate SPL propagation solely from operation of the proposed project HVAC as described above. The color-coded annular bands of SPL are calculated across a field parallel with and five (5) feet above local grade.

As displayed in Figure 2, on-site operational noise levels are predicted to be as high 39 dBA at potentially sensitive project exterior areas which is less than the City's 50 dBA nighttime exterior threshold for high density multi-family land uses.

Therefore, impacts associated with the project's stationary operations noise would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance; therefore, project impacts would be **less than significant**.

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4 Summary of Impact Changes

Table 4 provides a summary of the noise impact changes from the Project Alternative compared to the Proposed Project.

Table 4: Summary of Impact Changes

Environmental Topic	Proposed Project	Project Alternative 199 DU Alternative
Noise		
Short-Term Construction	LTS	LTS
Off-Site Construction Noise	Off-Site Construction Removed from Project	LTS
Off-Site Construction Traffic Noise	LTS	LTS
On-Site Sensitive receptor Construction Noise	Buildings Are Not Constructed in Separate Phases	LTS
Special Status Wildlife Species Construction Noise	LTS	LTS
Off-Site Traffic Noise	LTS	LTS
On-Site Operations Noise	LTS	LTS
Off-Site Operations Noise	LTS	LTS
Vibration	LTS	LTS
Airport Noise	LTS	LTS
Exterior Rail Noise	LTS	LTS

Notes: LTS = Less than Significant

5 References

DOT (U.S. Department of Transportation). 2006. *FHWA Roadway Construction Noise Model: User's Guide*. Final Report. FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. Cambridge, Massachusetts: DOT, Research and Innovative Technology Administration. Final Report. August.

FHWA. December 8, 2008. *Roadway Construction Noise Model (RCNM), Software Version 1.1*. U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. Washington, D.C.

FTA (Federal Transit Administration). 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report No. 0123. September.

International Organization of Standardization (ISO). 1996. *Standard 9613-2 (Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation).* Geneva.

Lovich, J.E., and J.R. Ennen. 2011. "Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States." *BioScience* 61(12): 982–992.

DUDEK

MEMORANDUM

To:	Brian Mikail, Capstone Equities, Principal
From:	Elena Nuño, Senior Air Quality Specialist
Subject:	Air Quality, Greenhouse Gas Emissions and Energy Evaluation of Olive Park Apartments – 199 dwelling unit Alternative
Date:	July 24, 2024
cc:	Alexandra Martini, CEQA/NEPA Project Manager
Attachment(s):	Attachment A: CalEEMod modeling output Attachment B: HARP2 Output File

1 Introduction

Purpose

The purpose of this technical memorandum is to compare previous air quality, greenhouse gas (GHG) emissions, and energy impacts disclosed in the Air Quality, Greenhouse Gas Emissions, and Energy Technical Report (Technical Report) from the Olive Park Apartments (Proposed Project) with potential air quality, GHG emissions and energy impacts associated with construction and operation of the Olive Park Apartments Project Alternative (Project Alternative/Alternative). This analysis uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) and the emissions-based significance thresholds recommended by the San Diego Air Pollution Control District (SDAPCD) and other applicable thresholds of significance.

2 Project Alternative Description

The Project Alternative proposes development on a previously disturbed portion of vacant parcel (APN 162-111-04) that covers approximately 43.50 acres (i.e., Parcel Area), located in the Mira Costa Neighborhood Area of the City of Oceanside, California (Figure 2). The Parcel Area is generally located south of Oceanside Boulevard and west of College Boulevard; more specifically, west of the terminus of Olive Drive and south of the North County Transit District (NCTD) rail line and College Boulevard Sprinter Station. The project site is located approximately 1.5 miles north of State Route 78.

The Project Alternative proposes to develop a maximum of 199 multi-family residential units in two separate residential buildings compared to the maximum 282 residential units evaluated in the Olive Park Apartments Technical Report. The Project Alternative would construct the project in a single phase so that no onsite residential receptors would be present before construction is completed. The Project Alternative would involve less ground disturbance offsite as it would not construct the emergency access road parallel to the rail line. The Project Alternative would not have any subterranean parking; it would only include surface parking.

3 Approach and Methodology

The California Emissions Estimator Model (CalEEMod) Version 2022.1 was used to estimate emissions from construction and operation of the project (CAPCOA 2022). CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and GHG emissions associated with construction activities and operation of a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the land use type used to represent the project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the project applicant and default model assumptions if project specifics were unavailable. Table 1 provides a summary of the land use inputs included in the CalEEMod modeling for construction and operation.

Table 1. CalEEMod Land Use Development Summary for the Proposed Project

Project Component	CalEEMod Land Use Type	Land Use Amount (Size)	Land Use Size Metric	Building Square Footage	Land Use Acreage
4-Story Residential, Building 1	Residential – Apartments Mid Rise	111	du	92,499	1.28
Leasing/ Clubhouse/ Fitness	Recreational – Healthclub	9.5	ksf	9,500	0
Public Park	Recreational – City Park	0.16	ac	0	0.16
Surface Parking	Parking – Parking Lot	360	sp	0	3.09
Common open space, Onsite pavement and hardscape surfaces, walkways, etc.	Parking – Other Non-Asphalt Surfaces	0.83	ac	0	0.83
Additional on-site impact area[1]	Parking – Other Non-Asphalt Surfaces	6.06	0	0	6.06
4-Story Residential, Building 2	Residential – Apartments Mid Rise	88	du	80,996	0.22

Notes:
1. Includes bicycle/pedestrian connections.

3.1 Construction Mass Emissions

Emissions from the construction phase of project components were estimated using CalEEMod. As shown in Table 2, per preliminary project details, it is assumed that construction of the project would begin in January 2026 and would be completed by February 2027. The construction schedule used in the analysis represents a "worst-case" analysis scenario since emission factors for construction equipment decrease as the analysis year

increases due to improvements in technology and more stringent regulatory requirements. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required pursuant to CEQA guidelines.

Table 2. Project Construction Schedule

Construction Task	Start Date	End Date	Workdays
Site Preparation	1/5/2026	1/16/2026	10
Grading	1/19/2026	2/13/2026	20
Building Construction	2/16/2026	12/18/2026	220
Paving	12/21/2026	1/15/2027	20
Architectural Coating	1/18/2027	2/12/2027	20

Table 3 provides a summary of the construction equipment mix and vehicle trips for estimating project-generated construction emissions.

Table 3. Construction Scenario Assumptions

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Workers	Vendors	Haul Trucks	Equipment Type	Quantity	Daily Usage Hours
Site Preparation	18	4	0	Rubber Tired Dozers	3	8
				Tractors/Loaders/Backhoes	4	8
Grading	18	6	188	Excavators	2	8
				Graders	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/Backhoes	2	8
				Bore/Drill Rigs	1	8
				Scrapers	1	8
Building Construction	140	24	0	Cranes	2	7
				Forklifts	6	8
				Generator Sets[1]	2	8
				Tractors/Loaders/Backhoes	6	7
				Welders	2	8
Paving	16	4	0	Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8
Architectural Coating	28	4	0	Air Compressors[1]	1	6

For the analysis, it is generally assumed that heavy construction equipment would be operating at the site for a maximum of 8 hours per day, 5 days per week. In addition, the project incorporated the use of temporary electric

power/electric generators and electric air compressors during the building construction and architectural coating phases, respectively.

Default values provided in CalEEMod were used to determine worker trips and vendor truck trips for each potential construction phase. The default CalEEMod trip distance for construction vehicles was utilized, which was a one-way distance of 11.97 miles for worker trips, 7.63 miles for vendor truck trips, and 20 miles for haul truck trips.

Implementation of the Project would generate criteria air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Based on project specific information, up to 30,000 cubic yards of material is expected to be imported during the grading phase. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Construction of Project components would be subject to SDAPCD Rule 55 – Fugitive Dust Control. Compliance with Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) that may be generated during grading and construction activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites two times per day, depending on weather conditions as indicated by PDF-AQ-1.

Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), haul trucks, and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior application/interior paint and other finishes, and application of asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD Rule 67.0.1 for Architectural Coatings.

3.2 Construction Health Risk Analysis

A construction Health Risk Assessment (HRA) was performed to assess the impact of construction on sensitive receptors proximate to the project site. Note the Project Alternative would eliminate the risk to onsite receptors from construction occurring while residential units are occupied. Dispersion model plot files from AERMOD were then imported into CARB's Hotspots Analysis and Reporting Program Version 2 (Version 21118) to determine health risk, which requires peak one-hour emission rates and annual emission rates for all pollutants for each modeling source. For the offsite residential health risk, the HRA assumes exposure would start in the third trimester of pregnancy for a duration of approximately 14 months. A construction HRA CalEEMod run was performed to estimate on-site emissions of exhaust PM_{10}, which was used as a surrogate for diesel particulate matter (DPM).[1] The predominant source of construction exhaust PM_{10} is operation of off-road diesel construction equipment. However, it was conservatively assumed that emissions from heavy-duty haul and vendor trucks, which could be diesel- or gasoline-fueled, traveling 0.25 miles would occur on site to represent potential on-site travel and nearby local off-site travel. Total exhaust PM_{10} emissions from CalEEMod were averaged over the project's construction duration to estimate the annual and hourly exposure, which were estimated to be 171 pounds per year and 0.08 pounds per hour of DPM.

[1] Under California regulatory guidelines, DPM is used as a surrogate measure of carcinogen exposure for the mixture of chemicals that make up diesel exhaust as a whole. The California Environmental Protection Agency has concluded that "potential cancer risk from inhalation exposure to whole diesel exhaust will outweigh the multi-pathway cancer risk from the speciated components" (OEHHA 2003).

3.3 Operation

Operation of the Project Alternative would generate criteria air pollutant emissions from mobile, area, and energy sources. The same emission factors and trip generation rate were applied to the Project Alternative as the Project, with the changed number of residential dwelling units. The Project Alternative would be fully operational following the completion of construction, which would occur in 2027 as compared to the Project in 2028.

3.4 Rail Health Risk Analysis

The rail health risk assessment prepared for the Project would not change due to the number of residential dwelling units being reduced. No further analysis was required. The same amount of rail traffic would pass through regardless of the number of dwelling units. The results of the rail HRA demonstrate that the TAC exposure from train diesel exhaust emissions would result in a cancer risk of 6.67 in a million and a chronic hazard index of 0.002, which would not exceed the cancer risk threshold of 10 in 1 million nor would the chronic hazard index exceed the 1.0 significance threshold.

3.5 Indoor Air Quality

Like the Proposed Project, the exact types of interior building materials would not be known until the building permit stage; however, these materials would be typical of multifamily residential construction and would be required to comply with California Air Resources Board (CARB) regulations and the 2022 CALGreen building code. Accordingly, through compliance with laws, the project would not involve use of materials that contain formaldehyde, volatile organic compounds (VOCs) or chemicals in levels that expose sensitive receptors to substantial pollutant concentrations.

4 Air Quality Impact Analysis

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

The Project Alternative would construct fewer residential dwelling units compared to the Proposed Project. The Proposed Project's increase in housing units and associated vehicle source emissions was determined to be within the growth projections for the City and region. The Project Alternative would construct fewer dwelling units, accordingly, implementation of the Project Alternative would not result in development in excess of that anticipated in local plans or increases in population/housing growth beyond those contemplated by San Diego Association of Governments (SANDAG) and utilized in the development of the State Implementation Plan (SIP) and Regional Air Quality Strategy (RAQS). Because the proposed land uses and development intensity are consistent at the regional and City level with underlying the local air quality plans, the Project Alternative would not obstruct or impede implementation of local air quality plans Impacts would be comparable to the Proposed Project and would be **less than significant**.

4.2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

4.2.1 Construction

Table 4 shows the estimated maximum unmitigated daily construction emissions associated with the construction phases of the project. Complete details of the emissions calculations are provided in Attachment A.

Table 4. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions - Unmitigated

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Year	Pounds Per Day					
Summer						
2026	2.50	19.30	31.61	0.05	2.10	0.98
Winter						
2026	3.21	40.11	31.82	0.14	9.09	5.13
2027	63.84	18.42	30.48	0.05	2.02	0.90
Maximum Daily Emissions	**63.84**	**40.11**	**31.82**	**0.14**	**9.09**	**5.13**
SDAPCD Threshold	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District.
See Appendix A for complete results.
Emissions estimates for the proposed project include implementation of PDF-AQ-1, PDF-AQ-3, and PDF-AQ-4.

Compared to the Proposed Project, the Project Alternative would generate fewer daily emissions except for VOCs which would be higher because of the increased number of dwelling units painted in a single phase. However, in all instances, as shown in Table 4, daily construction emissions for the project would not exceed SDAPCD's significance thresholds, accordingly, the project's construction emissions would be **less than significant.**

4.2.2 Operation

The Project Alternative would develop fewer residential units compared to the Proposed Project, as such the operational emissions would be less. Table 5 provides a summary of the operational emissions.

Table 5. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Summer						
Mobile	3.56	2.17	22.70	0.05	4.76	1.23
Area	5.36	0.11	11.71	<0.01	0.01	<0.01
Energy	0.03	0.46	0.24	<0.01	0.04	0.04
Total	*8.95*	*2.74*	*34.65*	*0.06*	*4.80*	*1.28*
Winter						
Mobile	3.49	2.38	21.78	0.05	4.76	1.23
Area	4.31	0	0	0	0	0
Energy	0.03	0.46	0.24	<0.01	0.04	0.04
Total	*7.82*	*2.84*	*22.01*	*0.05*	*4.80*	*1.27*
Maximum Daily Emissions	**8.95**	**2.84**	**34.65**	**0.06**	**4.80**	**1.28**
SDAPCD Threshold	*75*	*250*	*550*	*250*	*100*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District. <0.01 = reported value is less than 0.01.
Emissions estimates include implementation of PDF-AQ-2.
See Attachment A for complete results.

As shown in Table 5, daily operational emissions for the Project Alternative would not exceed SDAPCD's significance thresholds for any criteria air pollutant. Therefore, the Project Alternative would result in a **less than significant impact** related to emissions of criteria air pollutant emissions during operation.

4.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

4.3.1 Carbon Monoxide (CO) Hotspots

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel will add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SDAB. Locally, project traffic will be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of many vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the basin is steadily decreasing.

The Proposed Project was found to have a less than significant impact relative to potential CO Hotspots. Because of the reduced number of residential units, the Project Alternative would generate fewer peak hour trips compared to the Proposed Project and fewer daily trips.

The analysis in the Olive Park Apartments Project discussed the South Coast Air Quality Management District (SCAQMD) request to the United States Environmental Protection Agency for redesignation as a CO attainment area and the extreme volume of daily traffic at its most congested intersections (100,000 vehicles per day). The SCAQMD's analysis found that these intersections had an average 7.7 ppm 1-hour CO concentrations predicted by the models, which is only 38.5% of the 1-hour CO California Ambient Air Quality Standard (CAAQS) of 20 ppm, which is less than the National Ambient Air Quality Standard (NAAQS). Therefore, even the most congested intersections in SCAQMD's air basin, which have traffic volumes many multiples higher than those at Olive Drive and College Boulevard, would not experience a CO "hot spot".

Given that traffic levels at Olive Drive and College Boulevard are a small fraction of those in the ACAQMD study that demonstrates that CO hot spots would not result, coupled with the considerably low level of CO concentrations in the project area, and continued improvements in vehicle emissions, the Project Alternative would not result in CO "hot spots".

Implementation of the Project Alternative would not result in CO concentrations in excess of the health protective CAAQS or NAAQS, and as such, would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the project would result in a **less than significant** impact to air quality with regard to potential CO hotspots.

4.3.2 Toxic Air Contaminants

Project Alternative impacts may include emissions of pollutants identified by the state and federal government as Toxic Air Contaminants (TACs) or Hazardous Air Pollutants (HAPs) The greatest potential for TAC emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and heavy-duty trucks, and the associated health impacts to sensitive receptors. Construction of the project would occur over a period of approximately 14 months and following completion of construction activities, project-related TAC emissions would cease. The closest sensitive receptors to the project site are single-family residences immediately adjacent to eastern project boundary on Olive Drive.

Table 6. Construction Activity Health Risk Assessment Results Prior to Mitigation

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Offsite				
Cancer Risk	Per Million	67.50	10.0	**Potentially Significant**
HIC	Not Applicable	0.04	1.0	Less than Significant

Notes: CEQA = California Environmental Quality Act; HIC = Chronic Hazard Index.

The results of the HRA demonstrate that the TAC exposure from construction diesel exhaust emissions would result in cancer risk above the 10 in 1 million threshold and Chronic Hazard Index less than 1 at the closest exposed offsite and residential receptor. Therefore, TAC emissions from construction of the project would result in a **potentially significant** impact and mitigation is required.

Mitigation is required to minimize potentially significant air quality impacts during construction of the project and would include MM-AQ-1, which requires the use of Tier 4 Offroad Equipment during construction, which is outlined in the Olive Park Air Quality, Greenhouse Gas Emissions, and Energy Technical Report.

Table 7 summarizes the results of the HRA after implementation of MM-AQ-1 for construction of the proposed project. As shown, after mitigation, TAC exposure from construction diesel exhaust emissions would result in cancer risk below the 10 in 1 million threshold and Chronic Hazard Index would still be less than 1 threshold after implementation of mitigation at the closest exposed offsite and onsite residential receptors. The project would result in a **less than significant impact with mitigation** related to exposure to TAC emissions during construction.

Table 7. Construction Activity Health Risk Assessment Results After Mitigation

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Offsite				
Cancer Risk	Per Million	8.0	10.0	Less than Significant
HIC	Not Applicable	0.005	1.0	Less than Significant

Source: Appendix B
Notes: CEQA = California Environmental Quality Act; HIC = Chronic Hazard Index.

4.3.3 Valley Fever

Coccidioidomycosis, more commonly known as Valley Fever, is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The County is not considered a highly endemic region for Valley Fever with a reported 13.5 cases per 100,000 people (County of San Diego 2023), which is lower than the statewide and national rates of 20.1 per 100,000 and 14.3 per 100,000, respectively. In addition, the case rate in the project area is even lower with a reported 3.7 cases per 100,000 people (County of San Diego 2021). Nevertheless, the Project Alternative would be required to comply with SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust, which regulates fugitive dust emissions from any commercial construction or demolition activity. Similar to the Proposed Project, the Project Alternative would incorporate fugitive dust control measures into the project as PDF-AQ-1. Implementation of PDF-AQ-1 would reduce fugitive dust impacts to less than significant for project construction, which would also minimize the potential release of the *Coccidioides immitis* fungus from construction activities. Based on the low incidence rate of Valley Fever in the County and project area and the implementation of fugitive dust control measures, the project's impact would be **less than significant** with respect to Valley Fever exposure for sensitive receptors.

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

4.4.1 Construction

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors are temporary and for the types of construction activities anticipated for project components, would generally occur at magnitudes that would not affect substantial numbers of people given the project's location and the limited number of onsite and offsite persons who could be potentially exposed to the limited odors project construction would generate. Therefore,

project construction would not result in other emissions adversely affecting a substantial number of people and impacts would be **less than significant**.

4.4.2 Operational

Land use operations typically associated with odor complaints include industrial uses, agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, certain restaurants and fiberglass molding. The project does not propose and would not engage in any of these activities or other potential activities that would generate operational odors at a level that could produce odors or other emissions that would adversely affect a substantial number of people. The Project Alternative is a residential development, located in an area with a relatively limited number of people in the vicinity, project operation would not result in other emissions adversely affecting a substantial number of people and impacts would be **less than significant**.

5 Greenhouse Gas Emissions Impact Analysis

5.1 Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? and Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City's 2019 CAP is a qualified GHG emissions reduction plan in accordance with State CEQA Guidelines Section 15183.5. CEQA Guidelines Section 15183.5(a) states that lead agencies may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long-range development plan, or a separate plan, to reduce GHG emissions. Later project-specific environmental documents may tier from and/or incorporate by reference the existing programmatic review. CEQA Guidelines Section 15183.5(b) states that public agencies may choose to analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of a CAP.

As discussed in the City's CAP, to ensure the City remains on track to achieve the long-term reduction goals of the state, the City has implemented GHG reduction measures proactively. The CAP measures outline how the City will reduce its near-term GHG emissions and establish infrastructure to support continued reductions beyond 2030. The City is already projected to meet state-aligned per-capita near-term emissions targets (2020 and 2030), and as such, reduction measures in the CAP (Chapter 3 of the CAP) were selected based on their ability to achieve long-term GHG emission reductions. Measures were focused on energy, water, solid waste, transportation and land use, and agriculture and forestry (City of Oceanside 2019b). Although the City's CAP predates CARB's 2022

Scoping Plan, the City's measures are consistent with CARB's recommendations for local actions focused on transportation electrification, vehicle miles traveled reduction, and building decarbonization.

In accordance with CEQA Guidelines Section 15064.4, GHG emissions resulting from construction and operation of the proposed project were quantitatively estimated. The potential impacts from project-related GHG emissions were assessed based on the total increase above the existing environmental setting, which is developed and vacant land. The GHG emissions associated with implementation of the project were estimated using industry standard and accepted software tools, techniques, and emissions factors. The significance of the project's GHG impacts is based on the project's compliance with the City's CAP measures.

Project generated GHG construction and operational emissions were estimated using the same approach and methodology for air quality emissions described in Section 3.

5.1.1 Construction

Table 8 shows the estimated annual GHG construction emissions associated with the Project Alternative. Complete details of the construction emissions calculations are provided in Attachment A.

Table 8. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	R	CO_2e
	Metric Tons				
2026	919.05	0.04	0.05	0.44	934.61
2027	21.07	<0.01	<0.01	0.01	21.26
Total	*940.12*	*0.04*	*0.05*	*0.44*	*955.87*
				Amortized Emissions (20 years)	*47.79*

Source: Appendix A
Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R= refrigerant; CO_2e = carbon dioxide equivalent.
See Attachment A for complete results. <0.01 = reported value is less than 0.01.

As shown in Table 8, the estimated total GHG emissions from construction of the project would be 955.87 MT CO_2e. When amortized over 20 years, the estimated annual GHG emissions from construction of the project would be approximately 48 MT CO_2e per year.

5.1.2 Operation

Table 21 shows the estimated annual GHG operational emissions -associated with incorporation of PDF-GHG-1 and compliance with the City's Municipal Code which requires the provision of solar power to offset 50% of the project's energy demand.

Table 9. Summary of Estimated Annual GHG Emissions

Emissions Source	CO_2	CH_4	N_2O	R	CO_2e
	Metric Tons				
Mobile	828.21	0.05	0.04	1.12	841.24

Table 9. Summary of Estimated Annual GHG Emissions

Area	3.71	<0.01	<0.01	NA	3.76
Energy	113.05	0.02	<0.01	NA	114.11
Water	3.66	0.25	0.01	NA	11.60
Waste	18.03	1.80	0	NA	63.08
Refrigerants	NA	NA	NA	0.21	0.21
				Total Operational Emissions	***1,034***
				Amortized Construction Emissions (20 years)	47.79
				Total Operational Emissions with Amortized Construction	***1,081.79***
				Screening Threshold	*900*
				Exceeds Threshold?	**Yes**

Source: See Attachment A for complete results.
Notes: GHG = greenhouse gas; NA = not applicable; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R= refrigerant
CO_2e = carbon dioxide equivalent. <0.01 = reported value is less than 0.01. Includes incorporation of PDF-GHG-1.

As discussed above, total annual operational emissions were combined with amortized (20 years) construction emissions and compared to the recommended 900 MT CO_2e screening threshold. As shown in Table 21, implementation of the project would result in approximately 1,671 MT CO_2e per year including amortized construction emissions, which would exceed the City's bright-line screening of 900 MT CO_2e per year.

Per City guidance, new development projects that emit more than 900 MT CO_2e annually could have a considerable contribution to cumulative climate change impacts. Given that project-generated operational emissions in 2027 plus amortized project construction emissions are estimated to exceed this bright-line threshold, the project is required to demonstrate consistency with the CAP Consistency Checklist to ensure that the specific emissions targets identified in the City's CAP can be achieved.

5.1.3 Climate Action Plan Consistency Checklist

Projects that meet one or more of the following locational criteria are eligible for using the CAP Consistency Checklist:

1. The project site is located within a designated Smart Growth Opportunity Area.
2. The project site is located with ¼ mile of a priority TOD corridor, as identified in the City's Smart and Sustainable Corridors Plan.

   Items 1 and 2 pertain to the City's focus on where development will occur. The City seeks to accommodate future housing and job growth primarily through infill and redevelopment within already urbanized areas. Specifically, the City seeks to facilitate new residential and employment-oriented development within SANDAG-designated Smart Growth Opportunity Areas and prior corridors (i.e., Coast Hwy, Mission Avenue, Oceanside Blvd, Vista Way).
3. The project is consistent with current land use and zoning designations.

   Item 3 ensures that projected growth and development along with GHG emissions would be consistent with projections included in the CAP.
4. The project requires amendment of current land use and zoning designations. As demonstrated through a detailed analysis a) consistent with the precedent in the surrounding zoning district and b) subject to third

party expert review, the proposed land uses would generate less GHG emissions than those associated with uses allowed under current land use and zoning designations.

Similar to Item 3, this measure allows for projects that require land use changes to use the CAP checklist if the projected GHG emissions would be comparable or less than the existing land use designation.

In response to Item 1, the Project Alternative is located in the same location of the Proposed Project within a Smart Growth Opportunity Area. Specifically, it is located in smart growth area OC-6 (City of Oceanside Housing Element, Figure 6, February 2022). The project would meet locational criteria 1.

In response to Item 2, the project site is located within ¼ mile of a TOD corridor, consisting of Oceanside Boulevard. The project would meet locational criteria 2.

In response to Item 3, the Project Alternative is a residential development on a property designated for residential use and, on that basis, is consistent with the current land use and zoning designation. The project would meet criteria 3.

In response to Item 4, the Project Alternative does not require a general plan amendment or rezone.

As discussed previously, CEQA Guidelines Section 15183.5(2) states that an environmental document that relies on a GHG reduction plan for a cumulative impact analysis must identify those requirements specified in the plan that apply to the project, and if those requirements are not otherwise biding and enforceable, incorporate those requirements as mitigation measures applicable to the project. In accordance with Section 15183.5(2) of the CEQA Guidelines, the CAP Checklist provides for streamlined review of projects subject to environmental review, offering an alternative to project-specific analysis of GHG emissions impacts. Table 10 includes the CAP Checklist items and the related project consistency analysis.

Table 10. Climate Action Plan Consistency Checklist and Project Consistency

Check List Item	Project Consistency
1. On-Site Renewable Energy Supply. If the project meets one or more of the thresholds outlined in Section 3047 of the City's Zoning Ordinance, will at least 50 percent of the estimated electricity demand be met with on-site renewable emissions-free energy supply (e.g., solar photovoltaic facilities)?	**Consistent.** The project is a residential project that includes more than 25 dwelling units and is therefore required to comply with the on-site renewable energy supply provisions of the checklist or the purchase of an energy portfolio that is comprised of at least 75% renewable, emissions-free energy. The proposed project includes roof-top solar PV on each building in accordance with PDF-GHG-1.
2. Electric Vehicle Charging Facilities. If the project involves new development that requires at least five (5) parking spaces, will the project comply with the requirements of Section 3048 of the City's Zoning Ordinance?	**Consistent.** The Project Alternative includes 360 surface parking spaces for residences and guests and is therefore required to comply with the requirements of Section 3048 of the City's Zoning Ordinance. PDF-GHG-1 requires the provision of electric vehicle parking and charging. Per Section 3048, the project will reserve 15% of parking spaces for Electric Vehicles (EV) and provide charging facilities in 50% of the required EV parking spaces.

Table 10. Climate Action Plan Consistency Checklist and Project Consistency

Check List Item	Project Consistency
3. Recycled Water Infrastructure. Does the City's Water Utilities Department require that the project install infrastructure to provide for recycled water service?	**Not Applicable.** The project is not required to use recycled water.
4. Transportation Demand Management (TDM). Per Section 3050 of the City's Zoning Ordinance, does the proposed project expected to generate at least 100 daily employee commute trips, necessitating the preparation and implementation of a TDM Plan?	**Not Applicable.** The project is a residential project and would not generate more than 100 daily employee commute trips.
5. Urban Forestry. Will the project comply with the minimum tree canopy and permeable surface area requirements outlined in Section 3049 of the City's Zoning Ordinance?	**Consistent.** The proposed project involves development of greater than a 1-acre area, therefore it will comply with the provision of a minimum of 12% tree canopy area and 22% of permeable surface area as outlined in the requirements outlined in Section 3049 of the City's Zoning Ordinance.

Source: Appendix C, *CAP Consistency Checklist*

As shown in Table 10, the Project Alternative is consistent with the CAP Consistency Checklist adopted by the City to ensure that the emission targets identified in the CAP are achieved. Therefore, the proposed project is not expected to generate GHG emissions that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and the impact would be **less than significant**.

5.1.4 Consistency with Senate Bill 32, Assembly Bill 1279, Executive Order S-3-05, and Assembly Bill 1279

EO S-3-05 identified the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. AB 1279 establishes a policy of the state to achieve net zero GHG emissions no later than 2045 and for statewide anthropogenic GHG emissions to be reduced to at least 85% below 1990 levels by 2045.

Each Scoping Plan builds upon the successful framework established by the initial Scoping Plan and subsequent updates, while also identifying new, technologically feasible, and cost-effective strategies to ensure that California meets increasingly stringent GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Scoping Plan updates have continued to express optimism in meeting future year targets of 2050 and 2030, as evaluated in the 2014 and 2017 Scoping Plans (respectively), and most recently, the 2045 goal addressed in the 2022 Scoping Plan under EO B-55-18, which AB 1279 codified and expanded on.

While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasted in the 2014 Scoping Plan that compliance with the current Scoping Plan would put the state on a trajectory of meeting the long-term 2050 GHG goals, although the specific path to compliance was unknown at the time (CARB 2014). The 2017 Scoping Plan outlined a strategy to achieve the 2030 GHG reduction target. The proposed scenario in the 2022 Scoping Plan lays out a path not just to carbon neutrality by 2045, but also to the 2030 GHG emissions reduction target (CARB 2022). The modeling indicates that, if the plan described in the proposed scenario is fully implemented, and done so on schedule, the state is on track to reduce its emissions to 260 MMT CO_2e by 2030 (CARB 2022).

The City is on track to meet state-aligned emissions reduction targets for 2020 and 2030 without additional emissions reduction measures (Oceanside 2019). However, the City understands that meeting long-term reduction targets requires aggressive action. As such, the City has developed near-term local GHG emissions targets more aggressive than State targets that put the City on a trajectory consistent with the State's 2050 GHG emissions targets, which represent the level necessary to stabilize the climate in the latter part of the 21st century (Oceanside 2019). Regarding, AB 1279, it is important to note that the state's carbon neutrality goal does not preclude any individual project from emitting GHG emissions. AB 1279 codifies EO B-55-18, however, its enactment was linked to the concurrent enactment of SB 905, which requires CARB to create a Carbon Capture, Removal, Utilization, and Storage Program that, fundamentally, will sequester carbon emitted by other projects. Therefore, the state's carbon neutrality goal does not preclude all individual projects from emitting GHG emissions.

As discussed above, the Project Alternative would be consistent with the CAP and other applicable plans and, therefore, would be consistent with state GHG reduction goals and progress towards achieving carbon neutrality.

5.1.5 Consistency with SANDAG RTP/SCS

At the regional level, the SANDAG's RTP/SCS has been adopted for the purpose of reducing GHG emissions attributable to passenger vehicles in the San Diego region. In October 2015, SANDAG adopted its Regional Plan, which was subsequently updated in 2021. The RTP/SCS is not directly applicable to the project because the underlying purpose of the RTP/SCS is to provide direction and guidance on future regional growth (i.e., the location of new residential and nonresidential land uses) and transportation patterns throughout the City and greater San Diego County, as stipulated under Senate Bill 375. CARB has recognized that the approved RTP/SCS is consistent with Senate Bill 375. The SANDAG Regional Plan is generally consistent with the local government plans. Since the Project Alternative is within the scope of development that was anticipated in the General Plan, it would not result in growth that would conflict with the Regional Plan.

As noted above, the proposed project would not generate GHG emissions that have a significant impact on the environment because it is determined to be consistent with the City's CAP, which is the most applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs (See: Table 22*)*. Further, the project proposes residential development immediately adjacent to the Sprinter station in a SANDAG designated Smart Growth Opportunity Area. Therefore, the Project Alternative would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases and the impact would be **less than significant**.

5.1.6 Conclusion

The Project Alternative would exceed the City's 900 MT CO_2e screening threshold, which indicates that additional analysis is required to determine if the project would have a cumulatively significant contribution to GHGs. The City's additional required analysis includes evaluating the project against the Climate Action Plan. As shown in the preceding analysis, the Project Alternative would be consistent with the City's Climate Action Plan. Accordingly, the project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The project's GHG impact would be **less than significant**.

6 Energy Impact Analysis

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

6.1.1 Construction

The Project Alternative would have a shorter duration of construction compared to the Proposed Project. As such it would use less fuel related to offroad construction equipment and onroad vehicles. The Proposed Project had a less than significant impact

In general, construction processes promote conservation and efficient use of energy by reducing raw material demands, with related reduction in energy demand associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials, as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations. For these reasons, construction of the Project Alternative would not result in the wasteful or inefficient use of fuel, and the Project Alternative would result in **less than significant** impacts during project construction regarding the potential for wasteful, inefficient, or unnecessary consumption of energy resources.

6.1.2 Operation

The operational phase of the Project Alternative would result in a demand for electricity, natural gas, and petroleum. Given that the Project Alternative would develop fewer residential units compared to the Proposed Project, accordingly, it would demand less energy during operation. The Proposed Project was determined to have a less than significant impact, thus the Project Alternative would also have a less than significant impact.

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

The project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR Part 6). Part 6 of Title 24 establishes energy efficiency standards for residential and nonresidential buildings constructed in California to reduce energy demand and consumption. As such, the project would comply with the California code requirements for energy efficiency.

Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the project under CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and nonresidential additions and alterations. Additionally, energy consumed by the project's operation would be comparable to energy consumed by other residential uses of similar scale and intensity that are constructed and operating in California.

The CalGreen building standards were adopted into the City's building design criteria, which the project would comply with. Further, the project would be consistent with the City's CAP Consistency Checklist measures (see Section 3.4) through its implementation of renewable energy facilities, electric vehicle charging, and urban forestry that would serve to reduce operational energy use. The project would include solar photovoltaic onsite to supply 50% of the electricity needed by the Oceanside Municipal Code or alternatively comply with the requirement to purchase of an energy portfolio that is comprised of at least 75% renewable, emissions-free energy. The remaining electricity would be provided by SDG&E which in 2022 reported a 44.5% renewable energy content mix, resulting in a project-level renewable content of 72.3%. This would support the state's Senate Bill 100 goal of 60% renewable resources by 2030. SDG&E is required to meet the renewable portfolio standard set by Senate Bill 100, as such, the renewables content of the project's power mix will increase along with SDG&E's power mix.

The City prepared and adopted its CAP in May 2019, the City also adopted its Energy Climate Action Element (ECAE) as part of its General Plan. The ECAE addresses energy consumption and other activities that may contribute to adverse environmental impacts, with particular emphasis on those activities associated with human-induced climate change. The organizing themes of the ECAE are centered around Energy Efficient and Renewable Energy, Smart Growth and Multi-Modal Transportation, Zero Waste, Water Conservation, Urban Greening, Local Agriculture, and Sustainable Consumption. Many of the goals and policies around these themes are implemented at the City-level, however, the Project Alternative would be consistent with applicable goals and policies. For example, the Project Alternative would develop within a Smart Growth location, it would incorporate renewable energy, and it would support urban greening in the form of landscaping.

Regarding petroleum, fuel economy and use of alternative modes of transportation are expected to increase over time. The Project Alternative's location near the Sprinter station offers easily accessible alternative transportation for the new residents of the project. The Low Carbon Fuel Standard is designed to decrease the carbon intensity of California's transportation fuel and provide an increasing range of low-carbon and renewable alternative, which reduces petroleum dependency and encourages the use of cleaner low-carbon transportation. The Project Alternative would assist with the transition to cleaner fuels by complying with the City's Municipal Code requirement for the installation of electric vehicle charging stations and installing electric vehicle chargers. Per

Section 3048, the project will reserve 15% of parking spaces for Electric Vehicles (EV) and provide charging facilities in 50% of the required EV parking spaces.

Based on the preceding, the Project Alternative would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and impacts would be **less than significant**.

7 Summary of Impact Changes

Table 11 provides a summary of the air quality, greenhouse gas emissions, and energy impact changes from the Project Alternative compared to the Proposed Project.

Table 11: Summary of Impact Changes

Environmental Topic	Proposed Project	Project Alternative 199 DU Alternative
Air Quality		
Air Quality Management Plan	LTS	LTS
Cumulatively Considerable Net Increase of Any Criteria Pollutant	LTS	LTS
Sensitive Receptors	LTS + mitigation	LTS + mitigation
Other Emissions and Odors	LTS	LTS
Greenhouse Gas Emissions		
Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	LTS	LTS
Energy		
Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources	LTS	LTS
Conflict with Renewable Energy or Energy Efficiency Plans	LTS	LTS
Result in a cumulatively considerable energy impact?	LTS	LTS

Notes: LTS = Less than Significant

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Attachment A
CalEEMod Modeling Results

Olive Park Apartments 199 Units Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Olive Park Apartments 199 Units
Construction Start Date	1/5/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	20.2
Location	33.20255379621061, -117.29162189288245
County	San Diego
City	Oceanside
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6238
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
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
Apartments Mid Rise	111	Dwelling Unit	1.28	92,499	55,574	0.00	311	Bldg1

Parking Lot	360	Space	3.09	0.00	0.00	0.00	—	—
City Park	0.16	Acre	0.16	0.00	22,000	22,000	—	—
Health Club	9.50	1000sqft	0.00	9,500	0.00	0.00	—	Leasing/Fitness Bldg1
Other Non-Asphalt Surfaces	6.06	Acre	6.06	0.00	0.00	0.00	—	Addtl onsite impact area
Apartments Mid Rise	88.0	Dwelling Unit	0.22	80,996	9,648	0.00	247	Bldg2
Other Non-Asphalt Surfaces	0.85	Acre	0.83	0.00	0.00	0.00	—	Common Open Space Bldg 2

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Energy	E-15	Require All-Electric Development

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.99	2.50	19.3	31.6	0.05	0.70	1.40	2.10	0.65	0.33	0.98	—	6,546	6,546	0.27	0.17	6.23	6,609
Mit.	2.99	2.50	19.3	31.6	0.05	0.70	1.40	2.10	0.65	0.33	0.98	—	6,546	6,546	0.27	0.17	6.23	6,609
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	64.0	63.8	40.1	31.8	0.14	1.24	7.84	9.09	1.14	3.98	5.13	—	18,623	18,623	0.88	2.20	0.74	19,300
Mit.	64.0	63.8	40.1	31.8	0.14	1.24	7.84	9.09	1.14	3.98	5.13	—	18,623	18,623	0.88	2.20	0.74	19,300
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.51	3.50	15.7	21.9	0.04	0.55	1.60	2.15	0.50	0.50	1.00	—	5,551	5,551	0.24	0.29	2.63	5,645
Mit.	3.51	3.50	15.7	21.9	0.04	0.55	1.60	2.15	0.50	0.50	1.00	—	5,551	5,551	0.24	0.29	2.63	5,645
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.64	0.64	2.86	3.99	0.01	0.10	0.29	0.39	0.09	0.09	0.18	—	919	919	0.04	0.05	0.44	935
Mit.	0.64	0.64	2.86	3.99	0.01	0.10	0.29	0.39	0.09	0.09	0.18	—	919	919	0.04	0.05	0.44	935
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshol	—	13.7	40.0	100	40.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.99	2.50	19.3	31.6	0.05	0.70	1.40	2.10	0.65	0.33	0.98	—	6,546	6,546	0.27	0.17	6.23	6,609
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.93	3.21	40.1	31.8	0.14	1.24	7.84	9.09	1.14	3.98	5.13	—	18,623	18,623	0.88	2.20	0.74	19,300
2027	64.0	63.8	18.4	30.5	0.05	0.62	1.40	2.02	0.57	0.33	0.90	—	6,438	6,438	0.28	0.17	0.15	6,495
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.18	1.80	15.7	21.9	0.04	0.55	1.60	2.15	0.50	0.50	1.00	—	5,551	5,551	0.24	0.29	2.63	5,645
2027	3.51	3.50	0.44	0.70	< 0.005	0.02	0.03	0.04	0.02	0.01	0.02	—	127	127	0.01	< 0.005	0.05	128
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.40	0.33	2.86	3.99	0.01	0.10	0.29	0.39	0.09	0.09	0.18	—	919	919	0.04	0.05	0.44	935
2027	0.64	0.64	0.08	0.13	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.01	21.3

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	2.99	2.50	19.3	31.6	0.05	0.70	1.40	2.10	0.65	0.33	0.98	—	6,546	6,546	0.27	0.17	6.23	6,609
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.93	3.21	40.1	31.8	0.14	1.24	7.84	9.09	1.14	3.98	5.13	—	18,623	18,623	0.88	2.20	0.74	19,300
2027	64.0	63.8	18.4	30.5	0.05	0.62	1.40	2.02	0.57	0.33	0.90	—	6,438	6,438	0.28	0.17	0.15	6,495
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.18	1.80	15.7	21.9	0.04	0.55	1.60	2.15	0.50	0.50	1.00	—	5,551	5,551	0.24	0.29	2.63	5,645
2027	3.51	3.50	0.44	0.70	< 0.005	0.02	0.03	0.04	0.02	0.01	0.02	—	127	127	0.01	< 0.005	0.05	128
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.40	0.33	2.86	3.99	0.01	0.10	0.29	0.39	0.09	0.09	0.18	—	919	919	0.04	0.05	0.44	935
2027	0.64	0.64	0.08	0.13	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.01	21.3

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.31	8.95	2.74	34.7	0.06	0.08	4.72	4.80	0.08	1.20	1.28	123	6,205	6,329	12.8	0.27	17.8	6,746
Mit.	9.27	8.93	2.38	34.5	0.05	0.05	4.72	4.77	0.05	1.20	1.25	123	5,754	5,878	12.8	0.27	17.8	6,294
% Reduced	< 0.5%	< 0.5%	13%	< 0.5%	4%	34%	—	1%	36%	—	2%	—	7%	7%	< 0.5%	—	—	7%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.13	7.82	2.84	22.0	0.05	0.08	4.72	4.79	0.07	1.20	1.27	123	5,934	6,057	12.8	0.28	1.72	6,463
Mit.	8.08	7.80	2.49	21.9	0.05	0.05	4.72	4.77	0.05	1.20	1.24	123	5,483	5,606	12.8	0.28	1.72	6,011
% Reduced	1%	< 0.5%	13%	1%	4%	37%	—	1%	39%	—	2%	—	8%	7%	< 0.5%	—	—	7%

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.46	8.13	2.75	26.7	0.05	0.08	4.44	4.52	0.08	1.13	1.20	123	5,715	5,839	12.8	0.27	8.06	6,245
Mit.	8.41	8.11	2.40	26.5	0.05	0.05	4.44	4.49	0.05	1.13	1.17	123	5,264	5,388	12.7	0.26	8.06	5,793
% Reduced	< 0.5%	< 0.5%	13%	1%	4%	37%	—	1%	38%	—	2%	—	8%	8%	< 0.5%	—	—	7%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.54	1.48	0.50	4.86	0.01	0.01	0.81	0.82	0.01	0.21	0.22	20.4	946	967	2.12	0.04	1.34	1,034
Mit.	1.54	1.48	0.44	4.84	0.01	0.01	0.81	0.82	0.01	0.21	0.21	20.4	872	892	2.11	0.04	1.34	959
% Reduced	< 0.5%	< 0.5%	13%	1%	4%	37%	—	1%	38%	—	2%	—	8%	8%	< 0.5%	< 0.5%	—	7%

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.83	3.56	2.17	22.7	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,454	5,454	0.27	0.22	16.5	5,542
Area	5.43	5.36	0.11	11.7	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	61.5	61.5	0.02	< 0.005	—	63.0
Energy	0.05	0.03	0.46	0.24	< 0.005	0.04	—	0.04	0.04	—	0.04	—	683	683	0.13	0.01	—	689
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Waste	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Total	9.31	8.95	2.74	34.7	0.06	0.08	4.72	4.80	0.08	1.20	1.28	123	6,205	6,329	12.8	0.27	17.8	6,746
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.77	3.49	2.38	21.8	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,214	5,214	0.29	0.23	0.43	5,291

Area	4.31	4.31	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0
Energy	0.05	0.03	0.46	0.24	< 0.005	0.04	—	0.04	0.04	—	0.04	—	683	683	0.13	0.01	—	689
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Waste	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Total	8.13	7.82	2.84	22.0	0.05	0.08	4.72	4.79	0.07	1.20	1.27	123	5,934	6,057	12.8	0.28	1.72	6,463
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.54	3.28	2.24	20.6	0.05	0.04	4.44	4.48	0.04	1.13	1.16	—	5,002	5,002	0.27	0.22	6.78	5,081
Area	4.86	4.83	0.05	5.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	22.4	22.4	0.01	< 0.005	—	22.7
Energy	0.05	0.03	0.46	0.24	< 0.005	0.04	—	0.04	0.04	—	0.04	—	683	683	0.13	0.01	—	689
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Waste	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Total	8.46	8.13	2.75	26.7	0.05	0.08	4.44	4.52	0.08	1.13	1.20	123	5,715	5,839	12.8	0.27	8.06	6,245
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.65	0.60	0.41	3.77	0.01	0.01	0.81	0.82	0.01	0.21	0.21	—	828	828	0.05	0.04	1.12	841
Area	0.89	0.88	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.71	3.71	< 0.005	< 0.005	—	3.76
Energy	0.01	< 0.005	0.08	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	113	113	0.02	< 0.005	—	114
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	1.26	3.66	0.25	0.01	—	11.6
Waste	—	—	—	—	—	—	—	—	—	—	—	18.0	0.00	18.0	1.80	0.00	—	63.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	1.54	1.48	0.50	4.86	0.01	0.01	0.81	0.82	0.01	0.21	0.22	20.4	946	967	2.12	0.04	1.34	1,034

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.83	3.56	2.17	22.7	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,454	5,454	0.27	0.22	16.5	5,542
Area	5.43	5.36	0.11	11.7	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	61.5	61.5	0.02	< 0.005	—	63.0
Energy	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	232	232	0.09	0.01	—	237
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Waste	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Total	9.27	8.93	2.38	34.5	0.05	0.05	4.72	4.77	0.05	1.20	1.25	123	5,754	5,878	12.8	0.27	17.8	6,294
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.77	3.49	2.38	21.8	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,214	5,214	0.29	0.23	0.43	5,291
Area	4.31	4.31	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0
Energy	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	232	232	0.09	0.01	—	237
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Waste	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Total	8.08	7.80	2.49	21.9	0.05	0.05	4.72	4.77	0.05	1.20	1.24	123	5,483	5,606	12.8	0.28	1.72	6,011
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.54	3.28	2.24	20.6	0.05	0.04	4.44	4.48	0.04	1.13	1.16	—	5,002	5,002	0.27	0.22	6.78	5,081
Area	4.86	4.83	0.05	5.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	22.4	22.4	0.01	< 0.005	—	22.7
Energy	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	232	232	0.09	0.01	—	237
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Waste	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Total	8.41	8.11	2.40	26.5	0.05	0.05	4.44	4.49	0.05	1.13	1.17	123	5,264	5,388	12.7	0.26	8.06	5,793
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.65	0.60	0.41	3.77	0.01	0.01	0.81	0.82	0.01	0.21	0.21	—	828	828	0.05	0.04	1.12	841
Area	0.89	0.88	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.71	3.71	< 0.005	< 0.005	—	3.76
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.4	38.4	0.01	< 0.005	—	39.2
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	1.26	3.66	0.25	0.01	—	11.6
Waste	—	—	—	—	—	—	—	—	—	—	—	18.0	0.00	18.0	1.80	0.00	—	63.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	1.54	1.48	0.44	4.84	0.01	0.01	0.81	0.82	0.01	0.21	0.21	20.4	872	892	2.11	0.04	1.34	959

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.10	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	158	158	0.01	0.01	0.02	160
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.3	98.3	< 0.005	0.01	0.01	103
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.37	4.37	< 0.005	< 0.005	0.01	4.43
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.69	2.69	< 0.005	< 0.005	< 0.005	2.81
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.45	0.45	< 0.005	< 0.005	< 0.005	0.47
Hauling	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	0.00

3.2. Site Preparation (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	158	158	0.01	0.01	0.02	160
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.3	98.3	< 0.005	0.01	0.01	103
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.37	4.37	< 0.005	< 0.005	0.01	4.43
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.69	2.69	< 0.005	< 0.005	< 0.005	2.81
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.45	0.45	< 0.005	< 0.005	< 0.005	0.47
Hauling	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	0.00

3.3. Grading (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.90	2.44	22.2	24.4	0.05	0.91	—	0.91	0.83	—	0.83	—	5,089	5,089	0.21	0.04	—	5,107
Dust From Material Movement	—	—	—	—	—	—	3.19	3.19	—	1.38	1.38	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.82	2.01	< 0.005	0.07	—	0.07	0.07	—	0.07	—	418	418	0.02	< 0.005	—	420
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.04	0.33	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	69.3	69.3	< 0.005	< 0.005	—	69.5
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	158	158	0.01	0.01	0.02	160
Vendor	0.01	< 0.005	0.20	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	147	147	0.01	0.02	0.01	154
Hauling	0.95	0.28	17.7	6.61	0.09	0.25	3.49	3.73	0.17	0.95	1.12	—	13,228	13,228	0.66	2.13	0.72	13,879
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.1	13.1	< 0.005	< 0.005	0.02	13.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.01	12.7
Hauling	0.08	0.02	1.45	0.54	0.01	0.02	0.28	0.30	0.01	0.08	0.09	—	1,087	1,087	0.05	0.17	0.98	1,141
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.17	2.17	< 0.005	< 0.005	< 0.005	2.20
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	0.01	< 0.005	0.26	0.10	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	180	180	0.01	0.03	0.16	189

3.4. Grading (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.90	2.44	22.2	24.4	0.05	0.91	—	0.91	0.83	—	0.83	—	5,089	5,089	0.21	0.04	—	5,107
Dust From Material Movement	—	—	—	—	—	—	3.19	3.19	—	1.38	1.38	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.82	2.01	< 0.005	0.07	—	0.07	0.07	—	0.07	—	418	418	0.02	< 0.005	—	420
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.33	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	69.3	69.3	< 0.005	< 0.005	—	69.5

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	158	158	0.01	0.01	0.02	160
Vendor	0.01	< 0.005	0.20	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	147	147	0.01	0.02	0.01	154
Hauling	0.95	0.28	17.7	6.61	0.09	0.25	3.49	3.73	0.17	0.95	1.12	—	13,228	13,228	0.66	2.13	0.72	13,879
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.1	13.1	< 0.005	< 0.005	0.02	13.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.01	12.7
Hauling	0.08	0.02	1.45	0.54	0.01	0.02	0.28	0.30	0.01	0.08	0.09	—	1,087	1,087	0.05	0.17	0.98	1,141
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.17	2.17	< 0.005	< 0.005	< 0.005	2.20
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	0.01	< 0.005	0.26	0.10	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	180	180	0.01	0.03	0.16	189

3.5. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	18.1	24.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,587	4,587	0.19	0.04	—	4,603
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	18.1	24.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,587	4,587	0.19	0.04	—	4,603
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.39	1.16	10.8	14.9	0.03	0.41	—	0.41	0.38	—	0.38	—	2,738	2,738	0.11	0.02	—	2,747
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.97	2.71	< 0.005	0.08	—	0.08	0.07	—	0.07	—	453	453	0.02	< 0.005	—	455
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.62	0.53	0.41	6.37	0.00	0.00	1.25	1.25	0.00	0.29	0.29	—	1,369	1,369	0.06	0.05	4.79	1,390
Vendor	0.05	0.02	0.76	0.36	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	590	590	0.02	0.08	1.44	617
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.53	0.46	5.62	0.00	0.00	1.25	1.25	0.00	0.29	0.29	—	1,293	1,293	0.07	0.05	0.12	1,310
Vendor	0.05	0.02	0.79	0.36	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	590	590	0.02	0.08	0.04	616
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.31	0.27	3.38	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	778	778	0.04	0.03	1.23	790
Vendor	0.03	0.01	0.47	0.21	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	352	352	0.01	0.05	0.37	368
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.62	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.20	131
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.3	58.3	< 0.005	0.01	0.06	60.9
Hauling	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	0.00

3.6. Building Construction (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	18.1	24.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,587	4,587	0.19	0.04	—	4,603

Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	18.1	24.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,587	4,587	0.19	0.04	—	4,603
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.39	1.16	10.8	14.9	0.03	0.41	—	0.41	0.38	—	0.38	—	2,738	2,738	0.11	0.02	—	2,747
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.97	2.71	< 0.005	0.08	—	0.08	0.07	—	0.07	—	453	453	0.02	< 0.005	—	455
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62	0.53	0.41	6.37	0.00	0.00	1.25	1.25	0.00	0.29	0.29	—	1,369	1,369	0.06	0.05	4.79	1,390
Vendor	0.05	0.02	0.76	0.36	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	590	590	0.02	0.08	1.44	617
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.58	0.53	0.46	5.62	0.00	0.00	1.25	1.25	0.00	0.29	0.29	—	1,293	1,293	0.07	0.05	0.12	1,310
Vendor	0.05	0.02	0.79	0.36	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	590	590	0.02	0.08	0.04	616
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.31	0.27	3.38	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	778	778	0.04	0.03	1.23	790
Vendor	0.03	0.01	0.47	0.21	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	352	352	0.01	0.05	0.37	368
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.62	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.20	131
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.3	58.3	< 0.005	0.01	0.06	60.9
Hauling	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	0.00

3.7. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.22	1.86	17.2	24.8	0.04	0.61	—	0.61	0.56	—	0.56	—	4,586	4,586	0.19	0.04	—	4,602
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.98	8.98	< 0.005	< 0.005	—	9.01
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.49	1.49	< 0.005	< 0.005	—	1.49
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.51	0.45	5.30	0.00	0.00	1.25	1.25	0.00	0.29	0.29	—	1,271	1,271	0.07	0.05	0.11	1,288
Vendor	0.04	0.02	0.75	0.35	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	577	577	0.02	0.08	0.03	602
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.51	2.51	< 0.005	< 0.005	< 0.005	2.54
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.13	1.13	< 0.005	< 0.005	< 0.005	1.18
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.42
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Hauling	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	0.00

3.8. Building Construction (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.22	1.86	17.2	24.8	0.04	0.61	—	0.61	0.56	—	0.56	—	4,586	4,586	0.19	0.04	—	4,602
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.98	8.98	< 0.005	< 0.005	—	9.01
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.49	1.49	< 0.005	< 0.005	—	1.49
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.51	0.45	5.30	0.00	0.00	1.25	1.25	0.00	0.29	0.29	—	1,271	1,271	0.07	0.05	0.11	1,288
Vendor	0.04	0.02	0.75	0.35	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	577	577	0.02	0.08	0.03	602
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.51	2.51	< 0.005	< 0.005	< 0.005	2.54
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.13	1.13	< 0.005	< 0.005	< 0.005	1.18
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.42
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Hauling	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	0.00

3.9. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.40	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.58	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	138	138	0.01	0.01	0.01	140
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	96.2	96.2	< 0.005	0.01	0.01	100
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.63	7.63	< 0.005	< 0.005	0.01	7.74
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.50
Hauling	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.91
Hauling	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	0.00

3.10. Paving (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.40	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.58	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	138	138	0.01	0.01	0.01	140
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	96.2	96.2	< 0.005	0.01	0.01	100
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.63	7.63	< 0.005	< 0.005	0.01	7.74
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.50
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.91
Hauling	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	0.00

3.11. Architectural Coating (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	62.5	62.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	3.43	3.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	0.63	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.09	1.01	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	242	242	0.01	0.01	0.02	245
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	96.2	96.2	< 0.005	0.01	0.01	100
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.5
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.50
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.24
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.91
Hauling	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	0.00

3.12. Architectural Coating (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	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
Architectural Coatings	62.5	62.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	3.43	3.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	0.63	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.09	1.01	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	242	242	0.01	0.01	0.02	245
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	96.2	96.2	< 0.005	0.01	0.01	100
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.5
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.50
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.24
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.91
Hauling	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	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.83	3.56	2.17	22.7	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,454	5,454	0.27	0.22	16.5	5,542
Parking Lot	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	0.00

City Park	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	0.00
Health Club	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	3.83	3.56	2.17	22.7	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,454	5,454	0.27	0.22	16.5	5,542
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.77	3.49	2.38	21.8	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,214	5,214	0.29	0.23	0.43	5,291
Parking Lot	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	0.00
City Park	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	0.00
Health Club	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	3.77	3.49	2.38	21.8	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,214	5,214	0.29	0.23	0.43	5,291
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.65	0.60	0.41	3.77	0.01	0.01	0.81	0.82	0.01	0.21	0.21	—	828	828	0.05	0.04	1.12	841
Parking Lot	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	0.00
City Park	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	0.00
Health Club	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	0.00

Other Non-Asphalt Surfaces	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	0.00
Total	0.65	0.60	0.41	3.77	0.01	0.01	0.81	0.82	0.01	0.21	0.21	—	828	828	0.05	0.04	1.12	841

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.83	3.56	2.17	22.7	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,454	5,454	0.27	0.22	16.5	5,542
Parking Lot	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	0.00
City Park	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	0.00
Health Club	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	3.83	3.56	2.17	22.7	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,454	5,454	0.27	0.22	16.5	5,542
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.77	3.49	2.38	21.8	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,214	5,214	0.29	0.23	0.43	5,291
Parking Lot	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	0.00
City Park	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	0.00

Health Club	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	3.77	3.49	2.38	21.8	0.05	0.04	4.72	4.76	0.04	1.20	1.23	—	5,214	5,214	0.29	0.23	0.43	5,291
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.65	0.60	0.41	3.77	0.01	0.01	0.81	0.82	0.01	0.21	0.21	—	828	828	0.05	0.04	1.12	841
Parking Lot	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	0.00
City Park	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	0.00
Health Club	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	0.65	0.60	0.41	3.77	0.01	0.01	0.81	0.82	0.01	0.21	0.21	—	828	828	0.05	0.04	1.12	841

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	83.4	83.4	0.06	0.01	—	87.1

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.6	14.6	0.01	< 0.005	—	15.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.01	< 0.005	—	11.0
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	108	108	0.08	0.01	—	113
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	83.4	83.4	0.06	0.01	—	87.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.6	14.6	0.01	< 0.005	—	15.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.01	< 0.005	—	11.0
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	108	108	0.08	0.01	—	113
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8	0.01	< 0.005	—	14.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	2.41	2.41	< 0.005	< 0.005	—	2.52
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Health Club	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74	< 0.005	< 0.005	—	1.82
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	18.0	18.0	0.01	< 0.005	—	18.8

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	83.7	83.7	0.06	0.01	—	87.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.6	14.6	0.01	< 0.005	—	15.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.01	< 0.005	—	11.0
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	109	109	0.08	0.01	—	114
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	83.7	83.7	0.06	0.01	—	87.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.6	14.6	0.01	< 0.005	—	15.2

City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.01	< 0.005	—	11.0
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	109	109	0.08	0.01	—	114
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	13.9	13.9	0.01	< 0.005	—	14.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	2.41	2.41	< 0.005	< 0.005	—	2.52
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74	< 0.005	< 0.005	—	1.82
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	18.0	18.0	0.01	< 0.005	—	18.8

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.04	0.02	0.36	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	451	451	0.04	< 0.005	—	453

Parking Lot	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
City Park	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
Health Club	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	123	123	0.01	< 0.005	—	123
Other Non-Asphalt Surfaces	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
Total	0.05	0.03	0.46	0.24	< 0.005	0.04	—	0.04	0.04	—	0.04	—	574	574	0.05	< 0.005	—	576
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.04	0.02	0.36	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	451	451	0.04	< 0.005	—	453
Parking Lot	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
City Park	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
Health Club	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	123	123	0.01	< 0.005	—	123
Other Non-Asphalt Surfaces	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
Total	0.05	0.03	0.46	0.24	< 0.005	0.04	—	0.04	0.04	—	0.04	—	574	574	0.05	< 0.005	—	576
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.7	74.7	0.01	< 0.005	—	74.9
Parking Lot	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
City Park	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

Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.3	20.3	< 0.005	< 0.005	—	20.4
Other Non-Asphalt Surfaces	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
Total	0.01	< 0.005	0.08	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.1	95.1	0.01	< 0.005	—	95.4

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	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
Parking Lot	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
City Park	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
Health Club	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	123	123	0.01	< 0.005	—	123
Other Non-Asphalt Surfaces	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
Total	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	123	123	0.01	< 0.005	—	123
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	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
Parking Lot	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

City Park	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
Health Club	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	123	123	0.01	< 0.005	—	123
Other Non-Asphalt Surfaces	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
Total	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	123	123	0.01	< 0.005	—	123
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	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
Parking Lot	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
City Park	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
Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.3	20.3	< 0.005	< 0.005	—	20.4
Other Non-Asphalt Surfaces	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
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.3	20.3	< 0.005	< 0.005	—	20.4

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0

Consumer Product	3.96	3.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.34	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.12	1.06	0.11	11.7	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	31.9	31.9	< 0.005	< 0.005	—	32.0
Total	5.43	5.36	0.11	11.7	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	61.5	61.5	0.02	< 0.005	—	63.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0
Consumer Products	3.96	3.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.34	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.31	4.31	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1.10	1.10	< 0.005	< 0.005	—	1.15
Consumer Products	0.72	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipm	0.10	0.10	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.60	2.60	< 0.005	< 0.005	—	2.61
Total	0.89	0.88	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.71	3.71	< 0.005	< 0.005	—	3.76

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0
Consumer Products	3.96	3.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.34	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.12	1.06	0.11	11.7	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	31.9	31.9	< 0.005	< 0.005	—	32.0
Total	5.43	5.36	0.11	11.7	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	61.5	61.5	0.02	< 0.005	—	63.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0
Consumer Products	3.96	3.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.34	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.31	4.31	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	29.6	29.6	0.02	< 0.005	—	31.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1.10	1.10	< 0.005	< 0.005	—	1.15
Consumer Products	0.72	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.10	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.60	2.60	< 0.005	< 0.005	—	2.61
Total	0.89	0.88	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.71	3.71	< 0.005	< 0.005	—	3.76

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.4	6.66	20.1	1.38	0.03	—	64.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.48	0.48	< 0.005	< 0.005	—	0.50
Health Club	—	—	—	—	—	—	—	—	—	—	—	1.08	0.47	1.55	0.11	< 0.005	—	5.11
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.4	6.66	20.1	1.38	0.03	—	64.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.48	0.48	< 0.005	< 0.005	—	0.50
Health Club	—	—	—	—	—	—	—	—	—	—	—	1.08	0.47	1.55	0.11	< 0.005	—	5.11
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.22	1.10	3.32	0.23	0.01	—	10.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.08	0.08	< 0.005	< 0.005	—	0.08
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.18	0.08	0.26	0.02	< 0.005	—	0.85

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	1.26	3.66	0.25	0.01	—	11.6

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.4	6.66	20.1	1.38	0.03	—	64.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.48	0.48	< 0.005	< 0.005	—	0.50
Health Club	—	—	—	—	—	—	—	—	—	—	—	1.08	0.47	1.55	0.11	< 0.005	—	5.11
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.4	6.66	20.1	1.38	0.03	—	64.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.48	0.48	< 0.005	< 0.005	—	0.50

Health Club	—	—	—	—	—	—	—	—	—	—	—	1.08	0.47	1.55	0.11	< 0.005	—	5.11
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	7.61	22.1	1.49	0.04	—	70.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.22	1.10	3.32	0.23	0.01	—	10.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.08	0.08	< 0.005	< 0.005	—	0.08
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.18	0.08	0.26	0.02	< 0.005	—	0.85
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	1.26	3.66	0.25	0.01	—	11.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	79.7	0.00	79.7	7.97	0.00	—	279

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	0.00	—	0.03
Health Club	—	—	—	—	—	—	—	—	—	—	—	29.2	0.00	29.2	2.92	0.00	—	102
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	79.7	0.00	79.7	7.97	0.00	—	279
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	0.00	—	0.03
Health Club	—	—	—	—	—	—	—	—	—	—	—	29.2	0.00	29.2	2.92	0.00	—	102
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.2	0.00	13.2	1.32	0.00	—	46.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	< 0.005	0.00	< 0.005	< 0.005	0.00	—	< 0.005

Health Club	—	—	—	—	—	—	—	—	—	—	—	4.83	0.00	4.83	0.48	0.00	—	16.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	18.0	0.00	18.0	1.80	0.00	—	63.1

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	79.7	0.00	79.7	7.97	0.00	—	279
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	0.00	—	0.03
Health Club	—	—	—	—	—	—	—	—	—	—	—	29.2	0.00	29.2	2.92	0.00	—	102
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	79.7	0.00	79.7	7.97	0.00	—	279
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	0.00	—	0.03
Health Club	—	—	—	—	—	—	—	—	—	—	—	29.2	0.00	29.2	2.92	0.00	—	102
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	109	0.00	109	10.9	0.00	—	381
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.2	0.00	13.2	1.32	0.00	—	46.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	< 0.005	0.00	< 0.005	< 0.005	0.00	—	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	4.83	0.00	4.83	0.48	0.00	—	16.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	18.0	0.00	18.0	1.80	0.00	—	63.1

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29	1.29
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Site Preparation	Site Preparation	1/5/2026	1/16/2026	5.00	10.0	—
Grading	Grading	1/19/2026	2/27/2026	5.00	30.0	—
Building Construction	Building Construction	3/2/2026	1/1/2027	5.00	220	—
Paving	Paving	1/4/2027	1/29/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	1/18/2027	2/12/2027	5.00	20.0	—

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

Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
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	2.00	8.00	84.0	0.37
Grading	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Grading	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	2.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	6.00	8.00	82.0	0.20
Building Construction	Generator Sets	Electric	Average	2.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	6.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Electric	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
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	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Grading	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	2.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	6.00	8.00	82.0	0.20
Building Construction	Generator Sets	Electric	Average	2.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	6.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Electric	Average	1.00	6.00	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
Site Preparation	—	—	—	—
Site Preparation	Worker	18.0	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	18.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	6.00	7.63	HHDT,MHDT
Grading	Hauling	188	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—

Building Construction	Worker	147	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	16.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	4.00	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	28.0	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	18.0	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	18.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	6.00	7.63	HHDT,MHDT
Grading	Hauling	188	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—

Building Construction	Worker	147	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	16.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	4.00	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	28.0	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	—	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	351,327	117,109	14,250	4,750	26,084

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 (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	30,000	0.00	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	9.98

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Parking Lot	3.09	100%
City Park	0.00	0%
Health Club	0.00	0%
Other Non-Asphalt Surfaces	6.06	0%
Apartments Mid Rise	—	0%
Other Non-Asphalt Surfaces	0.83	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	124	589	0.03	< 0.005
2027	203	589	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
Apartments Mid Rise	527	545	454	189,552	3,604	3,725	3,103	1,295,634
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	418	432	360	150,276	2,857	2,953	2,460	1,027,169
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	527	545	454	189,552	3,604	3,725	3,103	1,295,634
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	418	432	360	150,276	2,857	2,953	2,460	1,027,169
Other Non-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

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	111
No Fireplaces	0
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	88
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0

Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	111
No Fireplaces	0
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	88
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
351327.375	117,109	14,250	4,750	26,084

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Apartments Mid Rise	376,387	45.1	0.0330	0.0040	785,706
Parking Lot	117,910	45.1	0.0330	0.0040	0.00
City Park	0.00	45.1	0.0330	0.0040	0.00
Health Club	85,247	45.1	0.0330	0.0040	383,460
Other Non-Asphalt Surfaces	0.00	45.1	0.0330	0.0040	0.00
Apartments Mid Rise	298,397	45.1	0.0330	0.0040	622,902
Other Non-Asphalt Surfaces	0.00	45.1	0.0330	0.0040	0.00

5.11.2. Mitigated

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)
Apartments Mid Rise	377,745	45.1	0.0330	0.0040	0.00
Parking Lot	117,910	45.1	0.0330	0.0040	0.00
City Park	0.00	45.1	0.0330	0.0040	0.00
Health Club	85,247	45.1	0.0330	0.0040	383,460
Other Non-Asphalt Surfaces	0.00	45.1	0.0330	0.0040	0.00
Apartments Mid Rise	299,755	45.1	0.0330	0.0040	0.00

Other Non-Asphalt Surfaces	0.00	45.1	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)
Apartments Mid Rise	3,899,771	1,015,064
Parking Lot	0.00	0.00
City Park	0.00	730,604
Health Club	561,860	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Apartments Mid Rise	3,091,711	176,222
Other Non-Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	3,899,771	1,015,064
Parking Lot	0.00	0.00
City Park	0.00	730,604
Health Club	561,860	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Apartments Mid Rise	3,091,711	176,222
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Apartments Mid Rise	82.4	—
Parking Lot	0.00	—
City Park	0.01	—
Health Club	54.1	—
Other Non-Asphalt Surfaces	0.00	—
Apartments Mid Rise	65.5	—
Other Non-Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	82.4	—
Parking Lot	0.00	—
City Park	0.01	—
Health Club	54.1	—
Other Non-Asphalt Surfaces	0.00	—
Apartments Mid Rise	65.5	—
Other Non-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
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

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

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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

Temperature and Extreme Heat	8.38	annual days of extreme heat
Extreme Precipitation	3.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	11.8	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 ¾ 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	N/A	N/A	N/A	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	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	35.2
AQ-PM	38.7
AQ-DPM	17.5
Drinking Water	54.3
Lead Risk Housing	34.1
Pesticides	60.8
Toxic Releases	14.5

Traffic	60.1
Effect Indicators	—
CleanUp Sites	7.71
Groundwater	4.42
Haz Waste Facilities/Generators	65.9
Impaired Water Bodies	43.8
Solid Waste	43.2
Sensitive Population	—
Asthma	30.8
Cardio-vascular	54.2
Low Birth Weights	39.0
Socioeconomic Factor Indicators	—
Education	38.5
Housing	54.1
Linguistic	26.4
Poverty	38.1
Unemployment	53.9

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	38.70139869
Employed	12.83202874
Median HI	38.45759015
Education	—
Bachelor's or higher	42.51251123
High school enrollment	7.724881304

Preschool enrollment	35.28807905
Transportation	—
Auto Access	83.51084306
Active commuting	7.416912614
Social	—
2-parent households	36.12216091
Voting	72.69344283
Neighborhood	—
Alcohol availability	88.5281663
Park access	59.98973438
Retail density	64.12164763
Supermarket access	50.27588862
Tree canopy	61.14461696
Housing	—
Homeownership	45.79751059
Housing habitability	40.63903503
Low-inc homeowner severe housing cost burden	17.16925446
Low-inc renter severe housing cost burden	37.17438727
Uncrowded housing	40.20274605
Health Outcomes	—
Insured adults	33.79956371
Arthritis	56.7
Asthma ER Admissions	64.2
High Blood Pressure	87.1
Cancer (excluding skin)	52.2
Asthma	43.1
Coronary Heart Disease	66.7
Chronic Obstructive Pulmonary Disease	42.5

Diagnosed Diabetes	64.3
Life Expectancy at Birth	19.9
Cognitively Disabled	91.4
Physically Disabled	54.0
Heart Attack ER Admissions	56.8
Mental Health Not Good	40.6
Chronic Kidney Disease	73.0
Obesity	50.5
Pedestrian Injuries	19.6
Physical Health Not Good	53.6
Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	8.9
Current Smoker	42.3
No Leisure Time for Physical Activity	55.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	25.4
Elderly	71.6
English Speaking	38.9
Foreign-born	33.1
Outdoor Workers	69.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.0
Traffic Density	40.2
Traffic Access	23.0
Other Indices	—

Hardship	57.0
Other Decision Support	—
2016 Voting	78.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	37.0
Healthy Places Index Score for Project Location (b)	32.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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	Fitness centers/leasing areas are modeled as health club, but acreage is zeroed out because it is captured in Apartments Mid Rise for Bldg 1 and Bldg 2 Population based on 2.8 people per household. 558 people total. Bicycle/ped connection included in addtl onsite improvement.

Construction: Construction Phases	no demo. Default for 199 units building construction is 300 days. All other phases have the same default duration. Building construction equipment increased doubled to reflect shortened default duration.
Construction: Trips and VMT	even numbers. Doubled building construction trips.
Operations: Vehicle Data	no trips for on-site fitness for residents. Park is for local residents only.
Construction: Architectural Coatings	Estimated for both buildings.
Construction: Off-Road Equipment	Bore/Drill rig required per applicant. Bldg construction equipment doubled to reflect shortened schedule
Operations: Hearths	No woodburning stoves or fireplaces. All electric fireplaces.
Construction: Dust From Material Movement	Based on applicant provided information. 30,000 cubic yards of soil import.

Olive Park Apartments 199 Units HRA Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Olive Park Apartments 199 Units HRA
Construction Start Date	1/5/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	20.2
Location	33.20255379621061, -117.29162189288245
County	San Diego
City	Oceanside
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6238
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
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
Apartments Mid Rise	111	Dwelling Unit	1.28	92,499	55,574	0.00	311	Bldg1
Parking Lot	360	Space	3.09	0.00	0.00	0.00	—	—

City Park	0.16	Acre	0.16	0.00	22,000	22,000	—	—
Health Club	9.50	1000sqft	0.00	9,500	0.00	0.00	—	Leasing/Fitness Bldg1
Other Non-Asphalt Surfaces	6.06	Acre	6.06	0.00	0.00	0.00	—	Addtl onsite impact area
Apartments Mid Rise	88.0	Dwelling Unit	0.22	80,996	9,648	0.00	247	Bldg2
Other Non-Asphalt Surfaces	0.85	Acre	0.83	0.00	0.00	0.00	—	Common Open Space Bldg 2

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Energy	E-15	Require All-Electric Development

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.34	1.96	18.4	25.1	0.04	0.69	0.01	0.70	0.64	< 0.005	0.64	—	4,631	4,631	0.19	0.04	0.05	4,649
Mit.	0.48	0.47	4.32	28.8	0.04	0.09	0.01	0.09	0.09	< 0.005	0.09	—	4,631	4,631	0.19	0.04	0.05	4,649
% Reduced	79%	76%	76%	-15%	—	88%	—	87%	86%	—	86%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	63.8	63.7	29.2	28.8	0.05	1.24	7.67	8.91	1.14	3.94	5.08	—	5,586	5,586	0.29	0.12	0.01	5,630

Mit.	63.1	63.1	6.85	30.9	0.05	0.10	7.67	7.77	0.10	3.94	4.04	—	5,586	5,586	0.29	0.12	0.01	5,630
% Reduced	1%	1%	77%	-7%	—	92%	—	13%	91%	—	21%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.50	3.49	13.9	17.9	0.03	0.52	0.48	1.00	0.48	0.22	0.70	—	3,368	3,368	0.15	0.04	0.03	3,383
Mit.	3.46	3.46	3.21	20.5	0.03	0.06	0.48	0.54	0.06	0.22	0.29	—	3,368	3,368	0.15	0.04	0.03	3,383
% Reduced	1%	1%	77%	-14%	—	88%	—	46%	87%	—	59%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.64	0.64	2.53	3.27	0.01	0.10	0.09	0.18	0.09	0.04	0.13	—	558	558	0.02	0.01	< 0.005	560
Mit.	0.63	0.63	0.59	3.74	0.01	0.01	0.09	0.10	0.01	0.04	0.05	—	558	558	0.02	0.01	< 0.005	560
% Reduced	1%	1%	77%	-14%	—	88%	—	46%	87%	—	59%	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	13.7	40.0	100	40.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—

Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.34	1.96	18.4	25.1	0.04	0.69	0.01	0.70	0.64	< 0.005	0.64	—	4,631	4,631	0.19	0.04	0.05	4,649
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.74	3.15	29.2	28.8	0.05	1.24	7.67	8.91	1.14	3.94	5.08	—	5,586	5,586	0.29	0.12	0.01	5,630
2027	63.8	63.7	17.5	25.0	0.04	0.61	0.01	0.62	0.56	< 0.005	0.56	—	4,633	4,633	0.19	0.04	< 0.005	4,651
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.76	1.46	13.9	17.9	0.03	0.52	0.48	1.00	0.48	0.22	0.70	—	3,369	3,369	0.15	0.04	0.03	3,384
2027	3.50	3.49	0.42	0.60	< 0.005	0.02	< 0.005	0.02	0.02	< 0.005	0.02	—	93.0	93.0	< 0.005	< 0.005	< 0.005	93.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.32	0.27	2.53	3.27	0.01	0.10	0.09	0.18	0.09	0.04	0.13	—	558	558	0.02	0.01	< 0.005	560
2027	0.64	0.64	0.08	0.11	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	< 0.005	15.5

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.48	0.47	4.32	28.8	0.04	0.09	0.01	0.09	0.09	< 0.005	0.09	—	4,631	4,631	0.19	0.04	0.05	4,649

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.71	0.61	6.85	30.9	0.05	0.10	7.67	7.77	0.10	3.94	4.04	—	5,586	5,586	0.29	0.12	0.01	5,630
2027	63.1	63.1	4.33	28.8	0.04	0.09	0.01	0.09	0.09	< 0.005	0.09	—	4,633	4,633	0.19	0.04	< 0.005	4,651
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.36	0.35	3.21	20.5	0.03	0.06	0.48	0.54	0.06	0.22	0.29	—	3,369	3,369	0.15	0.04	0.03	3,384
2027	3.46	3.46	0.12	0.64	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	93.0	93.0	< 0.005	< 0.005	< 0.005	93.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.06	0.59	3.74	0.01	0.01	0.09	0.10	0.01	0.04	0.05	—	558	558	0.02	0.01	< 0.005	560
2027	0.63	0.63	0.02	0.12	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	< 0.005	15.5

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.45	7.45	< 0.005	< 0.005	< 0.005	7.82
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.04
Hauling	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	0.00

3.2. Site Preparation (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.01	0.01	0.07	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.45	7.45	< 0.005	< 0.005	< 0.005	7.82
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.04
Hauling	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	0.00

3.3. Grading (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.90	2.44	22.2	24.4	0.05	0.91	—	0.91	0.83	—	0.83	—	5,089	5,089	0.21	0.04	—	5,107
Dust From Material Movement	—	—	—	—	—	—	3.19	3.19	—	1.38	1.38	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.82	2.01	< 0.005	0.07	—	0.07	0.07	—	0.07	—	418	418	0.02	< 0.005	—	420
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.11	0.11	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.33	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	69.3	69.3	< 0.005	< 0.005	—	69.5
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.07	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	< 0.005	11.7
Hauling	0.21	0.11	3.09	2.10	0.01	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	485	485	0.09	0.08	0.01	511
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.91	0.91	< 0.005	< 0.005	< 0.005	0.96
Hauling	0.02	0.01	0.25	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	39.6	39.6	0.01	0.01	0.01	41.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.16
Hauling	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.56	6.56	< 0.005	< 0.005	< 0.005	6.92

3.4. Grading (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	3.68	28.7	0.05	0.10	—	0.10	0.10	—	0.10	—	5,089	5,089	0.21	0.04	—	5,107
Dust From Material Movement	—	—	—	—	—	—	3.19	3.19	—	1.38	1.38	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.30	2.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	418	418	0.02	< 0.005	—	420
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.06	0.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	69.3	69.3	< 0.005	< 0.005	—	69.5
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.07	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	< 0.005	11.7
Hauling	0.21	0.11	3.09	2.10	0.01	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	485	485	0.09	0.08	0.01	511
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.91	0.91	< 0.005	< 0.005	< 0.005	0.96
Hauling	0.02	0.01	0.25	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	39.6	39.6	0.01	0.01	0.01	41.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.16
Hauling	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.56	6.56	< 0.005	< 0.005	< 0.005	6.92

3.5. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	18.1	24.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,587	4,587	0.19	0.04	—	4,603
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	18.1	24.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,587	4,587	0.19	0.04	—	4,603
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.39	1.16	10.8	14.9	0.03	0.41	—	0.41	0.38	—	0.38	—	2,738	2,738	0.11	0.02	—	2,747
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.97	2.71	< 0.005	0.08	—	0.08	0.07	—	0.07	—	453	453	0.02	< 0.005	—	455
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.02	0.01	0.26	0.18	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.3	44.3	0.01	0.01	0.05	46.6
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.02	0.01	0.27	0.19	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.7	44.7	0.01	0.01	< 0.005	46.9
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.01	0.01	0.16	0.11	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.6	26.6	< 0.005	< 0.005	0.01	27.9
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	< 0.005	4.62
Hauling	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	0.00

3.6. Building Construction (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.46	0.46	4.06	28.6	0.04	0.09	—	0.09	0.09	—	0.09	—	4,587	4,587	0.19	0.04	—	4,603
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.46	4.06	28.6	0.04	0.09	—	0.09	0.09	—	0.09	—	4,587	4,587	0.19	0.04	—	4,603
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.27	2.42	17.1	0.03	0.05	—	0.05	0.05	—	0.05	—	2,738	2,738	0.11	0.02	—	2,747
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.44	3.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	453	453	0.02	< 0.005	—	455
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.02	0.01	0.26	0.18	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.3	44.3	0.01	0.01	0.05	46.6
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.02	0.01	0.27	0.19	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.7	44.7	0.01	0.01	< 0.005	46.9
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.01	0.01	0.16	0.11	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.6	26.6	< 0.005	< 0.005	0.01	27.9
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	< 0.005	4.62
Hauling	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	0.00

3.7. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.22	1.86	17.2	24.8	0.04	0.61	—	0.61	0.56	—	0.56	—	4,586	4,586	0.19	0.04	—	4,602
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.98	8.98	< 0.005	< 0.005	—	9.01
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.49	1.49	< 0.005	< 0.005	—	1.49
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.02	0.01	0.27	0.19	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	0.01	0.01	< 0.005	46.2
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Hauling	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	0.00

3.8. Building Construction (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.46	4.06	28.6	0.04	0.09	—	0.09	0.09	—	0.09	—	4,586	4,586	0.19	0.04	—	4,602
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.98	8.98	< 0.005	< 0.005	—	9.01
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.49	1.49	< 0.005	< 0.005	—	1.49
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	0.02	0.01	0.27	0.19	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	0.01	0.01	< 0.005	46.2
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Hauling	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	0.00

3.9. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.40	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.33	7.33	< 0.005	< 0.005	< 0.005	7.69
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.42
Hauling	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Hauling	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	0.00

3.10. Paving (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.40	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	< 0.005	< 0.005	0.02	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.33	7.33	< 0.005	< 0.005	< 0.005	7.69
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.42
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Hauling	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	0.00

3.11. Architectural Coating (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	62.5	62.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	3.43	3.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	0.63	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.33	7.33	< 0.005	< 0.005	< 0.005	7.69
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.42
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Hauling	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	0.00

3.12. Architectural Coating (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	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
Architectural Coatings	62.5	62.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	3.43	3.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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
Architectural Coatings	0.63	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.33	7.33	< 0.005	< 0.005	< 0.005	7.69
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.42
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Hauling	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	0.00

4. Operations Emissions Details

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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
Site Preparation	Site Preparation	1/5/2026	1/16/2026	5.00	10.0	—
Grading	Grading	1/19/2026	2/27/2026	5.00	30.0	—
Building Construction	Building Construction	3/2/2026	1/1/2027	5.00	220	—
Paving	Paving	1/4/2027	1/29/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	1/18/2027	2/12/2027	5.00	20.0	—

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
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
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	2.00	8.00	84.0	0.37
Grading	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Grading	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	2.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	6.00	8.00	82.0	0.20
Building Construction	Generator Sets	Electric	Average	2.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	6.00	7.00	84.0	0.37

Building Construction	Welders	Diesel	Average	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Electric	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	8.00	83.0	0.50
Grading	Scrapers	Diesel	Tier 4 Final	1.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Tier 4 Final	2.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	6.00	8.00	82.0	0.20
Building Construction	Generator Sets	Electric	Average	2.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	6.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Electric	Average	1.00	6.00	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
Site Preparation	—	—	—	—
Site Preparation	Worker	0.00	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	0.25	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	12.0	LDA,LDT1,LDT2
Grading	Vendor	6.00	0.25	HHDT,MHDT
Grading	Hauling	188	0.25	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	0.25	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	0.00	12.0	LDA,LDT1,LDT2
Paving	Vendor	4.00	0.25	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	0.00	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	0.00	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	0.25	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	12.0	LDA,LDT1,LDT2
Grading	Vendor	6.00	0.25	HHDT,MHDT
Grading	Hauling	188	0.25	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	0.25	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	0.00	12.0	LDA,LDT1,LDT2
Paving	Vendor	4.00	0.25	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	0.00	—	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	351,327	117,109	14,250	4,750	26,084

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 (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	30,000	0.00	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	9.98

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Parking Lot	3.09	100%

City Park	0.00	0%
Health Club	0.00	0%
Other Non-Asphalt Surfaces	6.06	0%
Apartments Mid Rise	—	0%
Other Non-Asphalt Surfaces	0.83	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	124	589	0.03	< 0.005
2027	203	589	0.03	< 0.005

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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
Temperature and Extreme Heat	8.38	annual days of extreme heat
Extreme Precipitation	3.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	11.8	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 ¾ 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	N/A	N/A	N/A	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	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	35.2
AQ-PM	38.7
AQ-DPM	17.5
Drinking Water	54.3
Lead Risk Housing	34.1
Pesticides	60.8
Toxic Releases	14.5
Traffic	60.1
Effect Indicators	—
CleanUp Sites	7.71
Groundwater	4.42
Haz Waste Facilities/Generators	65.9
Impaired Water Bodies	43.8
Solid Waste	43.2
Sensitive Population	—
Asthma	30.8

Cardio-vascular	54.2
Low Birth Weights	39.0
Socioeconomic Factor Indicators	—
Education	38.5
Housing	54.1
Linguistic	26.4
Poverty	38.1
Unemployment	53.9

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	38.70139869
Employed	12.83202874
Median HI	38.45759015
Education	—
Bachelor's or higher	42.51251123
High school enrollment	7.724881304
Preschool enrollment	35.28807905
Transportation	—
Auto Access	83.51084306
Active commuting	7.416912614
Social	—
2-parent households	36.12216091
Voting	72.69344283
Neighborhood	—
Alcohol availability	88.5281663

Park access	59.98973438
Retail density	64.12164763
Supermarket access	50.27588862
Tree canopy	61.14461696
Housing	—
Homeownership	45.79751059
Housing habitability	40.63903503
Low-inc homeowner severe housing cost burden	17.16925446
Low-inc renter severe housing cost burden	37.17438727
Uncrowded housing	40.20274605
Health Outcomes	—
Insured adults	33.79956371
Arthritis	56.7
Asthma ER Admissions	64.2
High Blood Pressure	87.1
Cancer (excluding skin)	52.2
Asthma	43.1
Coronary Heart Disease	66.7
Chronic Obstructive Pulmonary Disease	42.5
Diagnosed Diabetes	64.3
Life Expectancy at Birth	19.9
Cognitively Disabled	91.4
Physically Disabled	54.0
Heart Attack ER Admissions	56.8
Mental Health Not Good	40.6
Chronic Kidney Disease	73.0
Obesity	50.5
Pedestrian Injuries	19.6

Physical Health Not Good	53.6
Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	8.9
Current Smoker	42.3
No Leisure Time for Physical Activity	55.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	25.4
Elderly	71.6
English Speaking	38.9
Foreign-born	33.1
Outdoor Workers	69.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.0
Traffic Density	40.2
Traffic Access	23.0
Other Indices	—
Hardship	57.0
Other Decision Support	—
2016 Voting	78.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	37.0
Healthy Places Index Score for Project Location (b)	32.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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	Fitness centers/leasing areas are modeled as health club, but acreage is zeroed out because it is captured in Apartments Mid Rise for Bldg 1 and Bldg 2 Population based on 2.8 people per household. 558 people total. Bicycle/ped connection included in addtl onsite improvement.
Construction: Construction Phases	no demo. Default for 199 units building construction is 300 days. All other phases have the same default duration. Building construction equipment increased doubled to reflect shortened default duration.
Construction: Trips and VMT	trips reduced to 0.25 for onsite emissions.
Operations: Vehicle Data	no trips for on-site fitness for residents. Park is for local residents only.
Construction: Architectural Coatings	Estimated for both buildings.
Construction: Off-Road Equipment	Bore/Drill rig required per applicant. Bldg construction equipment doubled to reflect shortened schedule
Operations: Hearths	No woodburning stoves or fireplaces. All electric fireplaces.
Construction: Dust From Material Movement	Based on applicant provided information. 30,000 cubic yards of soil import.

Attachment B
HARP2 Output Files

HARP2 - HRACalc (dated 22118) 7/23/2024 2:57:34 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.92

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.92
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\enuno\OneDrive - Dudek\Desktop\HARP2\HARP\TROLLEY PLACE OFFSITE CON HARP\hra\Olive_Park_Apts_Project_Alternative_UnmitCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\enuno\OneDrive - Dudek\Desktop\HARP2\HARP\TROLLEY PLACE OFFSITE CON HARP\hra\Olive_Park_Apts_Project_Alternative_UnmitCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: C:\Users\enuno\OneDrive - Dudek\Desktop\HARP2\HARP\TROLLEY PLACE OFFSITE CON HARP\hra\Olive_Park_Apts_Project_Alternative_UnmitNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\enuno\OneDrive - Dudek\Desktop\HARP2\HARP\TROLLEY PLACE OFFSITE CON HARP\hra\Olive_Park_Apts_Project_Alternative_UnmitNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: C:\Users\enuno\OneDrive - Dudek\Desktop\HARP2\HARP\TROLLEY PLACE OFFSITE CON HARP\hra\Olive_Park_Apts_Project_Alternative_UnmitNCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\enuno\OneDrive - Dudek\Desktop\HARP2\HARP\TROLLEY PLACE OFFSITE CON HARP\hra\Olive_Park_Apts_Project_Alternative_UnmitNCAcuteRiskSumByRec.csv
HRA ran successfully