Appendix D: Air Quality Impact Analysis

To: City of Garden Grove Planning Department

From: Maryam Javanmardi, Tina Yuan, EPD Solutions, Inc.

Date: 9/4/2025

Re: Air Quality Impact Analysis for 13040 Coast Street Apartments Project, EPD Project Number 24-073

This technical memorandum presents an analysis of the air quality impacts for the Coast Street Apartments (proposed Project) located at 13040 Coast Street, within the City of Garden Grove.

The Project site encompasses 0.54 total acres and is comprised of a single parcel identified as Assessor Parcel Number (APNs) 097-011-03. The Project applicant is proposing to demolish the existing 3,252 square foot (SF) one story building previously used by a church and redevelop the site with a five story multi-family residential building inclusive of 34 dwelling units. The five-story building would have a gross floor area of 61,297 square feet (SF). The building would have a footprint of 11,904 SF and a maximum height of 65 feet, with the top of the roof at 55-feet 6-inches. Development of the site would also include landscaping, utility connections, paving of sidewalks, parking areas and drive aisles. For the purpose of this analysis, credit will not be taken from the existing use, to yield a conservative analysis. The proposed Project site is shown in Figure 1, *Project Details*, included at the end of this document.

This report analyzes the proposed Project's construction and operational impacts to air quality (emission of criteria pollutants) using the California Emissions Estimator Model (CalEEMod Version 2022.1) land use emission model and Emission Factor (EMFAC Version 2021) model. Table 1, *Construction Schedule*, shows the CalEEMod default estimated construction schedule, which is expected to last approximately 6 months.

Table 1: Construction Schedule

Activity	Start Date	End Date	Total Working Days
Demolition	7/1/2025	7/15/2025	10
Site Preparation	7/16/2025	7/17/2025	1
Grading	7/18/2025	7/20/2025	2
Building Construction	7/21/2025	12/8/2025	100
Paving	12/9/2025	12/16/2025	5
Architectural Coating	12/17/2025	12/30/2025	10

Source: CalEEMod Output Sheets (see Attachment A).

The following non-default assumptions and adjustments were used in the CalEEMod emission model for this analysis to provide for project specific modeling of emissions:

- Land Use: The default acreage generated by CalEEMod for a 34-unit building was 0.89 acres. To reflect the actual site size, the total acreage was adjusted to 0.54 acres to match the site size. Of this, 0.36 acres were assigned to the building footprint based on the site plan, with the remaining area allocated to parking and other non-asphalt surfaces.

- Construction: Assumed that all equipment would be used for 8 hours per workday. As Appendix A of the CalEEMod User Manual only identifies equipment-specific grading rates for Crawler Tractors, Graders, Rubber Tired Dozers, and Scrapers; therefore, Tractors/Loaders/Backhoes equipment that was included in the site preparation and grading phase was replaced with crawler tractors. An excavator and plate compactor were added to the grading phase to account for the soil excavation and compaction. The architectural coating phase was extended from 5 to 10 days to account for the size of the building façade.
- Operations: The trip rate was adjusted to match the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition,* auto trip rates for Multi-Family Housing (Low Rise) as generated by the Project's Trip Generation.
- Operations: Hearths, wood stoves, and wood fireplaces were removed in accordance with SCAQMD Rule 445, which prohibits the installation of wood-burning devices in effort to reduce particulate matter and reduce production of VOCs.[1] Removed gas and propane fireplaces as neither are proposed for the Project.

SUMMARY OF AIR QUALITY IMPACTS

Air Quality

The proposed Project's maximum daily emissions (regional and local) for construction and operation would not exceed the South Coast Air Quality Management District's (SCAQMD) regional thresholds of significance. In addition, all construction activities would be required to comply with comply applicable SCAQMD rules and regulations, including Rule 402, Rule 403, Rule 445 and Rule 1113:

- Rule 402, *Public Nuisance*: Prohibits the discharge of air contaminants that cause injury, nuisance, or annoyance to the public or damage to property.
- Rule 403, *Fugitive Dust*: Aims to minimize fugitive particulate matter dust emissions during construction activities.
- Rule 445, *Wood-Burning Devices:* Reduce emission production of particulate matter and volatile organic compounds from wood burning devices.
- Rule 1113, *Architectural Coatings*: Allows only low-volatile organic compounds (VOC) paints to be used.

The construction and operation of the proposed Project would not exceed SCAQMD thresholds for any of the six criteria pollutants that include ROG, NOx, CO, SO_2, PM_{10}, and $PM_{2.5}$. Projects that do not exceed the regional or localized significance thresholds are assumed to not have a significant impact on both a project level and cumulative level. The proposed Project is consistent with SCAQMD'S 2022 Air Quality Management Plan (AQMP), as it would not result in growth that would be inconsistent with growth forecasts and would not exceed emissions thresholds. Furthermore, odors produced by construction and operation of the proposed residential Project would be minimal and comply with SCAQMD Rule 402. Therefore, the proposed Project would have less-than-significant air quality impacts.

[1] SCAQMD (2020). *Rule 445, Wood-Burning Devices. https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-445.pdf*

AIR QUALITY

Methodology and Model Inputs

To calculate the operational impacts, the air quality emissions were estimated using CalEEMod. The passenger vehicles were analyzed using the CalEEMod default trip distance information.[2]

Regional Emissions

The SCAQMD has adopted maximum daily emission thresholds (pounds/day) for the criteria pollutants during construction and operation of a project.[3] While incremental regional air quality impacts of an individual project are generally very small and difficult to measure, SCAQMD's regional maximum emission thresholds set standards to reduce the burden of SCAQMD to attain and maintain ambient air quality standards. The regional thresholds apply to the criteria pollutants mentioned in Table 2 and Table 3 along with the CalEEMod Project emissions.

Construction, Emission thresholds for construction activities include the Project emissions generated both from onsite sources (such as off-road construction equipment and fugitive dust) and off-site sources (vehicle travel arriving to and leaving from the site). As shown in Table 2, the Project construction activities would generate emissions below the SCAQMD thresholds; and therefore, would result in less-than-significant regional air quality impacts.

Table 2: Regional Construction Emission Estimates

Construction Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
2025						
Demolition	1.4	14.2	14.3	<0.1	1.8	0.7
Site Preparation	0.7	5.6	6.4	<0.1	0.7	0.4
Grading	1.7	16.0	14.6	<0.1	3.1	1.7
Building Construction	0.9	7.6	10.8	<0.1	0.8	0.4
Paving	0.7	5.3	7.1	<0.1	0.5	0.3
Architectural Coating	40.3	1.2	1.8	<0.1	0.1	0.1
Maximum Daily Emission 2025	**40.3**	**16.0**	**14.6**	**<0.1**	**3.1**	**1.7**
SCAQMD Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: ROG = reactive organic gases, NO_x = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter, PM2.5 = particulate matter 2.5 microns in diameter
Source: CalEEMod Output Sheets (see Attachment A).

[2] SCAQMD. (March 2023). *South Coast AQMD Air Quality Significance Thresholds*. Referenced at https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25.

[3] SCAQMD. (March 2023). *South Coast AQMD Air Quality Significance Thresholds*. Referenced at https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25.

Operations. Operational emissions are generated mainly by vehicular and truck emissions, area emissions from onsite equipment and mechanical systems, and from energy generation. To calculate the operational impacts, the air quality emissions were estimated using CalEEMod. No credit was taken for emissions from the existing building on the site. As shown in Table 3, the Project would generate operational emissions below the SCAQMD thresholds; and therefore, would also result in less-than-significant regional air quality impacts.

Table 3: Regional Operational Emission Estimates

Operational Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile	0.7	0.5	5.4	<0.1	1.3	0.3
Area	1.7	<0.1	2.6	<0.1	<0.1	<0.1
Energy	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Total Project Operational Emissions	**2.4**	**0.6**	**8.0**	**<0.1**	**1.3**	**0.3**
SCAQMD Significance Thresholds	*55*	*55*	*550*	150	150	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: ROG = reactive organic gases, NO_x = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter, $PM_{2.5}$ = particulate matter 2.5 microns in diameter
Source: CalEEMod Output Sheets (see Attachment A).

Local Emissions

Localized significance thresholds (LSTs) were also adopted by the SCAQMD due to project-related construction or operational air emissions having the potential to exceed the State and national air quality standards in the project vicinity, while not exceeding the regional emission significance thresholds adopted by the SCAQMD. These thresholds set the maximum rates of daily construction or operational emissions from a project site that would not exceed a national or State ambient air quality standard.[4] The differences between regional thresholds and LSTs are as follows:

1. Regional thresholds include all sources of project construction and operational emissions generated from onsite and offsite emission sources whereas the LSTs only consider the emissions generated from onsite emission sources.
2. LSTs only apply to carbon monoxide (CO), nitrogen oxides (NO_x), and particulate matter (PM_{10} and $PM_{2.5}$), while regional thresholds include both reactive organic gases (ROG) and sulfur dioxide (SO_2).
3. Regional thresholds apply to emission sources located anywhere within the SCAQMD whereas the LSTs are location dependent and rely on the size of the project and emission location relative to the nearest sensitive receptor.

[4] SCAQMD (2008). Final Localized Significance Threshold Methodology. Referenced at http://www.aqmd.gov/docs/defaultsource/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

The SCAQMD provides screening tables (Appendix C of the SCAQMD *2008 Final Localized Significance Threshold Methodology*) for projects that disturb less than or equal to 5 acres in a day.[5] These tables were created to easily determine if the daily emissions of NO_x, CO, PM_{10}, and $PM_{2.5}$ from a project could result in a significant impact to the local air quality. The thresholds are determined by:

- Source receptor area (SRA), which is the geographic area within the SCAQMD that can act as both a source of emissions and a receptor of emission impacts (the Project is located within SRA 17, Central Orange County);
- Size of grading disturbance (construction)/size of the project (operation); and
- Distance to the nearest sensitive receptor, which is defined as an individual who is most susceptible to negative health effects when exposed to air pollutants and includes children, the elderly, and adults with chronic health issues. Locations for such receptors include residences, schools, elderly care centers, and hospitals.

Table 4, *Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day*, shows the amount of grading that would occur during the demolition, site preparation, and grading phases. As can be seen in Table 4, the phase with the most ground disturbance would be the grading phase, with a maximum of 1.5 acres of total ground disturbance per day occurring though use of graders, dozers, and tractors traversing the site. However, based on SCAQMD's "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds",[6] projects that grade more acreage than the size of the project should utilize the project acreage for the LST screening tables instead of the acres graded. The Project site is 0.54 acres, thus the Project's maximum amount of ground disturbance per day is limited to 0.54 acres according to SCAQMD methodology, which limits construction LST analysis to the Project gross acreage. The smallest acres graded value in the screening tables is 1, so that table was utilized for this analysis.

Distance to the nearest sensitive receptor also determines the SCAQMD emission thresholds. The sensitive receptors closest to the Project site is the row of 5 attached residences approximately 14.63 to 15.24 meters (48-50 feet) south of the Project's southern boundary. The construction and operational emission thresholds for 25 meter distance from the nearest sensitive receptor was used because 25 meters is the lowest distance threshold provided by SCAQMD. Table 5, *Localized Construction Emission Estimates*, shows the thresholds and estimated maximum daily construction emissions for the proposed Project. As shown in Table 5, the proposed Project would not exceed the SCAQMD LST thresholds and would therefore have a less-than-significant localized construction air quality impact.

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

[6] SCAQMD (2011). Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Referenced at https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf

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

Activity	Equipment Type	Equipment Quantity	Operating Hours per Day	Acres Disturbed per Piece of Equipment per Day	Acres Disturbed per Day
Site Preparation	Graders	1	8	0.5	0.5
	Crawler Tractors	1	8	0.5	0.5
Total Acres Disturbed Per Day					1.0
Grading	Graders	1	8	0.5	0
	Rubber Tired Dozers	1	8	0.5	0.5
	Tractors/Loaders/Backhoes	0	8	0.5	0.5
	Crawler Tractors	1	8	0.5	0.5
Total Acres Disturbed Per Day					1.5
Maximum Acres Disturbed Per Day (Project Maximum Size)					**0.54**

Source: CalEEMod Output Sheets (see Attachment A).

Table 5: Localized Construction Emission Estimates

Construction Activity	Maximum Daily Regional Emissions (pounds/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
2025				
Demolition	12.8	13.2	1.4	0.6
Site Preparation	5.6	6.1	0.6	0.4
Grading	14.7	13.6	2.7	1.6
Building Construction	7.3	9.0	0.3	0.3
Paving	5.2	6.3	0.2	0.2
Architectural Coating	1.2	1.5	<0.1	<0.1
Maximum Daily Emission 2025	**14.7**	**13.6**	**2.7**	**1.6**
SCAQMD Significance Thresholds	81	485	4	3
Threshold Exceeded?	**No**	**No**	**No**	**No**

Notes: NO_x = nitrogen oxides, CO = carbon monoxide, PM_{10} = particulate matter 10 microns in diameter, $PM_{2.5}$ = particulate matter 2.5 microns in diameter
Source: CalEEMod Output Sheets (see Attachment A).

According to the SCAQMD LST methodology, LSTs apply to project stationary mobile sources (SCAQMD, 2008a). Projects that involve mobile sources that spend long periods queuing and idling at a site, such as transfer facilities or warehousing and distribution buildings, have the potential to exceed the operational localized significance thresholds. The proposed Project calls for 34 residential units, which do not involve vehicles idling or queueing for long periods. Therefore, due to the lack of significant stationary source emissions, impacts related to operational localized significance thresholds would be less than significant.

Air Quality Management Plan Consistency

SCAQMD's CEQA Handbook provides the following two criteria to determine whether a project would be consistent or in conflict with the AQMP:

1. The Project would not generate population and employment growth that would be inconsistent with Southern California Association of Governments (SCAG)'s growth forecasts.
2. The Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Consistency Criterion No. 1 refers to the SCAG's growth forecasts, and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, if the level of housing and employment growth related to the proposed Project is consistent with the applicable assumptions used in the development of the AQMP, the Project would not jeopardize attainment of the air quality levels identified in the AQMP.

The Project site has a General Plan land use designation of Medium Density Residential (MDR) and is zoned as Multiple Family Residential (R-3) that allows residential development at a range from 21.1 to 32.0 dwelling units per acre. However, the proposed Project includes three units restricted for Very-Low Income households that provide a 50 percent density bonus, and three units restricted for Moderate Income households that provides an additional 38.75 percent density bonus, which would provide for housing as required by the City's Regional Housing Needs Allocation (RHNA) that allocated 19,168 new housing units for the 2021-2029 planning period.[7] The California Department of Finance estimated that the City had a vacancy rate of 2.5% in 2024[8] and as of 2024, 639 new permits have been issued toward meeting the RHNA target of 19,168 new housing units.[9] Thus, the 34 residential units provided by the Project (including three very-low-income affordable units and three moderate-income affordable units) would be within housing growth projections and consistent with Criterion 1.

Also, the local labor force remains stable, with approximately 63.8% of City residents aged 16 and over in the civilian workforce and an unemployment rate of 4.2% in February 2025[10]. These factors indicate that the construction and operation of the proposed Project would primarily draw from the existing population, meeting local housing needs and utilizing the current workforce. Thus, the proposed Project would not induce employment related population growth or growth in the area, and would not result in an exceedance of growth assumptions. As a result, the proposed Project would be consistent with Criterion 1.

Consistency Criterion No. 2 refers to the California Ambient Air Quality Standards. An impact would occur if the long-term emissions associated with the proposed Project would exceed SCAQMD's regional significance thresholds for operation-phase emissions. As presented in Table 3, operation of the proposed

---

[7] City of Garden Grove Housing Element. Accessed: https://ggcity.org/housing-element

[8] California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2021-2024, May 2024. Accessed: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/

[9] City of Garden Grove, *2024 Housing Element Annual Progress Report*, Attachment 2. Accessed: https://agendasuite.org/iip/gardengrove/file/getfile/15406

[10] California Employment Development Department Labor Force and Unemployment Rate for Cities February 2025. Accessed: https://labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html

Project would result in emissions that do not exceed any SCAQMD thresholds. Therefore, the proposed Project would be consistent with Criterion No. 2.

As the Project would be consistent with both Criterion No. 1 and 2, impacts related to consistency with the AQMP would be less than significant.

Odors

Odors would be produced during the construction of the proposed Project due to the operation of heavy-duty off-road equipment. The primary odor emitted would be diesel particulate matter (DPM) from the vendor trucks and heavy-duty off-road equipment. This odor may be noticeable by nearby residents; however, these odors would be expected and not necessarily objectionable. These odors would also dissipate quickly and would be temporary. Therefore, due to the nature of the odor produced during construction as temporary and non-objectionable to a substantial number of people, the odor impact from construction of the proposed Project would be less than significant.

For operational odor emissions, SCAQMD's *CEQA Air Quality Handbook* describes odor complaints associated with the following land uses:

- Agricultural uses
- Chemical plants
- Composting activities
- Dairies
- Fiberglass molding
- Food processing plants
- Landfills
- Refineries
- Wastewater treatment plants

The Project does not propose any of the above land uses and is required to comply with SCAQMD Rule 402, *Nuisance*, which states:

> *A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.*

Thus, impacts associated with odor produced by operation of the proposed Project would be less than significant.

Conclusion

The proposed Project's maximum daily regional and localized construction and operational emissions would not exceed SCAQMD's regional thresholds of significance, as detailed in Tables 2 through 5. All construction and operational activities would comply with applicable SCAQMD rules and regulations and not exceed any criteria pollutant thresholds. Additionally, the proposed Project is consistent with SCAQMD'S 2022 AQMP, reflecting adherence to regional air quality management goals and standards. Finally, odors produced during construction would be temporary and not significantly objectionable, and during operation, the proposed Project involves residential land uses that typically do not generate significant odor complaints

and would comply with SCAQMD Rule 402. Therefore, the proposed Project would result in less-than-significant air quality impacts without requiring mitigation.

Figure 1: Project Details

PROJECT SUMMARY

PROJECT SITE INFORMATION

APN#	ADDRESS	ZONING	LAND USE	NET LOT AREA (SF)	NET LOT AREA (ACRE)	GROSS LOT AREA (SF)	GROSS LOT AREA (ACRE)
097-011-02	13040 COAST STREET, GARDEN GROVE	R-3	MEDIUM DENSITY RESIDENTIAL	21,829.0 SF	.50 ACRES	23,598 SF	.54 ACRES

PROJECT CONSTRUCTION TYPE: S13-R FULLY SPRINKLERED 4 STORY TYPE V-A OVER 1 STORY TYPE I (PARKING / R-2 RESIDENTIAL) - 5 STORY TOTAL

	REQUIRED SETBACK	REQUIRED STEPBACKS			PROPOSED SETBACK	PROPOSED STEPBACKS	NOTES
	1ST AND 2ND FLOOR	3RD FLOOR	4TH FLOOR	5TH FLOOR	1ST & 2ND FLOOR	3RD TO 5TH FLOOR	
FRONT	20'-0" MIN.	25'-0" MIN.	25'-0" MIN.	25'-0" MIN.	6'-0"	6'-0"	WAIVER REQUESTED
SIDE	10'-0" MIN.	15'-0" MIN.	15'-0" MIN.	15'-0" MIN.	10'-0"	10'-0"	WAIVER REQUESTED
STREET SIDE (ALLEY)	10'-0" MIN.	15'-0" MIN.	15'-0" MIN.	15'-0" MIN.	15'-0"	15'-0"	
REAR	10'-0" MIN.	15'-0" MIN.	15'-0" MIN.	15'-0" MIN.	10'-0"	10'-0"	WAIVER REQUESTED

DENSITY

32 DU/AC	18 DU	BASE DENSITY (32 DU/AC) =	18 DU	G.G.M.C. 9.12.040.020 General Development Standards
88.75% DENSITY INCREASE WITH STATE DENSITY LAW		67 DU / NET AC =	34 DU	
		TOTAL (64 DU/AC) =	34 DU	DENSITY BONUS / STACKED DENSITY

FLOOR AREA RATIO

		1.81	

FLOOR AREA

TOTAL NET FLOOR AREA =		42,594 SF	

BUILDING HEIGHT

3 STORY / 39'-9" ALLOWED		5 STORY / 65'-8" TOP OF ROOF STRUCTURE	G.G.M.C. 9.12.040.020 General Development Standards

LOT COVERAGE

LOT COVERAGE AREA	BUILDING FOOTPRINT =	11,904.0 SF	54.5%	G.G.M.C. 9.12.040.020 General Development Standards
	PODIUM LEVEL HARDSCAPE AREA =	3,257 SF	15.0%	
	PODIUM LEVEL LANDSCAPED AREA =	338 SF	1.5%	
	OPEN DRIVE WAY =	2,042 SF	9.4%	
	GROUND LEVEL HARDSCAPE AREA =	2,073 SF	9.5%	
	GROUND LEVEL LANDSCAPE AREA =	2,215 SF	10.1%	
	TOTAL =	21,829.0 SF		
BUILDING LOT COVERAGE (60% MAX.)	TOTAL LOT COVERAGE AREA =	15,499.0 SF	71%	CONCESSION REQUESTED
FRONT SETBACK COVERAGE (50% MAX.)	HARDSCAPE AREA ALONG FRONT SETBACK	337 SF /780 SF	43%	
TOTAL LANDSCAPE / OUTDOOR AREA	PODIUM LEVEL LANDSCAPED AREA =	338 SF	2%	10% MINIMUM LANDSCAPE AREA REQUIRED
	GROUND LEVEL LANDSCAPE AREA =	2,215 SF	10%	

UNIT SUMMARY

PLAN	DESCRIPTION		QUANTITY	REQUIRED MIN. AREA		PROPOSED MIN. AREA	AREA SUBTOTAL	DECK	TOTAL DECK
UNIT A	1 BEDROOM / 1 BATH FLAT		12 UNITS	750 SF	WAIVER	636 SF	7,872 SF	90 SF (270 SF UNIT #207)	1,356 SF
UNIT B	2 BEDROOM / 2 BATH FLAT		22 UNITS	900 SF		936 SF	20,570 SF	96 SF	2,096 SF
PROJECT UNIT TOTAL			34 UNITS				28,442 SF		3,452 SF

PARKING SUMMARY — CALCULATED PER CA STATE DENSITY BONUS LAW

	REQUIRED			PROVIDED		PARKING BREAK DOWN
	MINIMUM REQUIRED					STANDARD = 11 SPACES
	1 BR UNIT	1.0 SPACE PER UNIT	12 SPACES	GARAGE ACCESS PARKING SPACES=	36 SPACES	* TANDEM = 11 SPACES
	2 BR UNIT	1.5 SPACES PER UNIT	33 SPACES	TUCK-UNDER PARKING SPACES =	9 SPACES	STANDARD EV READY = 12 SPACES
						STANDARD EV CAPABLE = 5 SPACES
						STANDARD EV EQUIPPED= 2 SPACES
						HC EV EQUIPPED = 1 SPACES
						HC ACCESSIBLE = 3 SPACES
	TOTAL =	45 SPACES		TOTAL =	45 SPACES	TOTAL = 45 SPACES

* TANDEM PARKING PROPOSED PER STATE DENSITY BONUS CAL GOV CODE SECTION 65915 (p) (4)

BUILDING SUMMARY

	RESIDENTIAL / COMM. ROOM	DECK	CIRCULATIONS / LOBBY	MECHANICAL / VERTICAL CIRCULATION / GARAGE	NET BUILDING FLOOR AREA	TOTAL GROSS BUILDING FLOOR AREA
LEVEL 1			486 SF	14,892 SF	486 SF	15,398 SF
LEVEL 2	7,490 SF	665 SF	2,161 SF	1,049 SF	10,316 SF	11,364 SF
LEVEL 3	7,578 SF	655 SF	2,161 SF	921 SF	10,594 SF	11,515 SF
LEVEL 4	7,578 SF	655 SF	2,161 SF	921 SF	10,594 SF	11,515 SF
LEVEL 5	7,578 SF	655 SF	2,161 SF	921 SF	10,594 SF	11,910 SF
TOTAL	30,224 SF	3,230 SF	9,140 SF	18,703 SF	42,594 SF	61,397 SF
GARAGE				14,892 SF		

OPEN SPACE / AMMENITY SUMMARY

	REQUIRED — G.G.M.U. 9.12.040.050 J Multi-Family Residential		PROPOSED	
COMMON OPEN SPACE	* 1,700 SF MIN. OUTDOOR ACTIVE OPEN SPACE REQUIRED WITH		GROUND LEVEL PASSIVE =	2,264 SF
	4 BBQ AREA WITH SEATING, COMMUNITY GARDEN AT 56 SF, INDOOR GYM AT 250 SF		PODIUM ACTIVE / PASSIVE OPEN AREA (400 SF ACTIVE YOGA LAWN) =	3,201 SF
	CLUBHOUSE WITH KITCHEN AT 400 SF AND BUSINESS CENTER WITH 5 STATIONS		COMMUNITY ROOM / INDOOR RECREATIONAL AREA =	1,782 SF
	205 SF COMMON OPEN SPACE / UNIT =	6,970 SF	SUB-TOTAL =	7,247 SF
PRIVATE OPEN SPACE				
	95 SF MIN. PRIVATE OPEN SPACE / UNIT =	3,230 SF	PRIVATE DECK =	3,488 SF
TOTAL OPEN SPACE	300 SF COMBINED OPEN SPACE / UNIT TOTAL =	10,200 SF	TOTAL =	10,735 SF

STORAGE — G.G.M.C. 9.12.040.050 E. Special Requirements

REQUIRED	PROVIDED
120 CF PER UNIT OF STORAGE SPACE (34 UNITS)	34 STORAGE SPACES AT 120 CF MIN. PROVIDED AT EVERY RESIDENTIAL FLOORS

BICYCLE SUMMARY — G.G.M.U. 9.18.140.040 (E)

	REQUIRED		PROVIDED	
BICYCLE SPACE	1 SPACE PER 10 REQUIRED PARKING SPACES (34 SPACES/10) =		BICYCLE RACK LOCATED IN GARAGE =	5 SPACES
	BICYCLE SPACE REQUIRED	5 SPACES	TOTAL PROVIDED BICYCLE SPACE =	5 SPACES

AERIAL MAP — SCALE: N.T.S.

SHEET INDEX

ARCHITECTURAL
- SD-0.1 TITLE SHEET
- SD-0.2 PROJECT INFORMATION
- SD-0.3 PROJECT NOTE
- SD-1.1 SITE PLAN
- SD-1.2 SIGHT DISTANCE DIAGRAM
- SD-1.3 LOT COVERAGE DIAGRAM
- SD-1.4 CODE ANALYSIS
- SD-2.1 GROUND LEVEL BUILDING PLAN
- SD-2.2 2ND (PODIUM) LEVEL BUILDING PLAN
- SD-2.3 3RD LEVEL BUILDING PLAN
- SD-2.4 4TH LEVEL BUILDING PLAN
- SD-2.5 5TH LEVEL BUILDING PLAN
- SD-2.6 ROOF PLAN
- SD-3.1 BUILDING SECTIONS
- SD-3.2 BUILDING ELEVATIONS
- SD-3.3 BUILDING ELEVATIONS
- SD-4.1 UNIT PLANS
- SD-4.2 CONCEPTUAL OPEN SPACE PLAN
- SD-4.3 OPEN SPACE DIAGRAM
- SD-5.1 MATERIAL BOARD

CIVIL
- PRELIM GRADING PLAN
- PRELIM DETAILS
- TOPOGRAPHIC SURVEY

LANDSCAPE
- L1.0 GROUND LEVEL LANDSCAPE
- L1.1 PODIUM LEVEL LANDSCAPE

FIRE
- F-1 PRELIMINARY FIRE ACCESS PLAN

REQUESTED INCENTIVES AND WAIVERS

CONCESSIONS / WAIVERS
- BUILDING HEIGHT GREATER THAN 35'-0"
- BUILDING STORIES GREATER THAN 3
- LOT COVERAGE MORE THAN 50%
- FRONT YARD SETBACK REDUCTION
- FRONT YARD STEP BACK REDUCTIONS
- SIDE YARD STEP BACK REDUCTIONS (NORTH)
- REAR YARD STEP BACK REDUCTIONS
- REDUCE MINIMUM AREA FOR 1 BEDROOM UNITS

PROPOSED UNITS
- 3 VERY LOW INCOME UNITS
- 3 MODERATE INCOME UNITS
- 28 MARKET RATE UNITS

COAST STREET APARTMENTS
APPLICANT:

13040 COAST ST., GARDEN GROVE, CA. 92844

PROJECT INFORMATION

May 14, 2025

BSB DESIGN 870 West 190th Street Suite 350 Torrance, CA 90502 t. 310.217.9885 f. 310.217.0425

SD-0.2

BSB DESIGN

ATTACHMENT A: CALEEMOD OUTPUT SHEETS

24-073 Coast St Apartments Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-073 Coast St Apartments
Construction Start Date	7/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	6.20
Location	13040 Coast St, Garden Grove, CA 92844, USA
County	Orange
City	Garden Grove
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5813
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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	34.0	Dwelling Unit	0.36	61,297	2,553	—	101	—

Other Asphalt Surfaces	2.04	1000sqft	0.05	0.21	0.00	—	—	—
Enclosed Parking Structure	45.0	Space	0.00	14,892	0.00	—	—	—
Other Non-Asphalt Surfaces	1.40	Acre	1.40	0.00	337	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	1.66	16.0	14.6	0.03	3.12	1.71	3,505
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	38.9	7.67	10.6	0.02	0.77	0.40	2,477
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	1.36	2.70	3.56	0.01	0.29	0.14	822
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.25	0.49	0.65	< 0.005	0.05	0.03	136
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2025	1.66	16.0	14.6	0.03	3.12	1.71	3,505
Daily - Winter (Max)	—	—	—	—	—	—	—
2025	38.9	7.67	10.6	0.02	0.77	0.40	2,477
Average Daily	—	—	—	—	—	—	—
2025	1.36	2.70	3.56	0.01	0.29	0.14	822
Annual	—	—	—	—	—	—	—
2025	0.25	0.49	0.65	< 0.005	0.05	0.03	136

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	2.41	0.60	8.03	0.01	1.31	0.34	1,780
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	2.12	0.61	5.12	0.01	1.30	0.34	1,715
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	2.23	0.58	6.44	0.01	1.16	0.31	1,589
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.41	0.11	1.18	< 0.005	0.21	0.06	263
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—

Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	0.70	0.48	5.42	0.01	1.30	0.33	1,415
Area	1.70	0.02	2.58	< 0.005	< 0.005	< 0.005	7.85
Energy	0.01	0.10	0.04	< 0.005	0.01	0.01	290
Water	—	—	—	—	—	—	19.0
Waste	—	—	—	—	—	—	47.3
Refrig.	—	—	—	—	—	—	0.44
Total	2.41	0.60	8.03	0.01	1.31	0.34	1,780
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	0.69	0.52	5.08	0.01	1.30	0.33	1,358
Area	1.42	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.10	0.04	< 0.005	0.01	0.01	290
Water	—	—	—	—	—	—	19.0
Waste	—	—	—	—	—	—	47.3
Refrig.	—	—	—	—	—	—	0.44
Total	2.12	0.61	5.12	0.01	1.30	0.34	1,715
Average Daily	—	—	—	—	—	—	—
Mobile	0.61	0.47	4.63	0.01	1.15	0.30	1,227
Area	1.61	0.02	1.76	< 0.005	< 0.005	< 0.005	5.38

Energy	0.01	0.10	0.04	< 0.005	0.01	0.01	290
Water	—	—	—	—	—	—	19.0
Waste	—	—	—	—	—	—	47.3
Refrig.	—	—	—	—	—	—	0.44
Total	2.23	0.58	6.44	0.01	1.16	0.31	1,589
Annual	—	—	—	—	—	—	—
Mobile	0.11	0.09	0.85	< 0.005	0.21	0.05	203
Area	0.29	< 0.005	0.32	< 0.005	< 0.005	< 0.005	0.89
Energy	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	48.0
Water	—	—	—	—	—	—	3.15
Waste	—	—	—	—	—	—	7.82
Refrig.	—	—	—	—	—	—	0.07
Total	0.41	0.11	1.18	< 0.005	0.21	0.06	263

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.36	12.8	13.2	0.02	0.53	0.48	2,211
Demolition	—	—	—	—	0.85	0.13	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.35	0.36	< 0.005	0.01	0.01	60.6
Demolition	—	—	—	—	0.02	< 0.005	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.07	< 0.005	< 0.005	< 0.005	10.0
Demolition	—	—	—	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.04	0.03	0.56	0.00	0.13	0.03	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.34	0.59	0.01	0.30	0.09	1,160
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	3.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	0.02	< 0.005	0.01	< 0.005	31.7
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	5.25

3.3. Site Preparation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.66	5.62	6.13	0.01	0.35	0.33	920
Dust From Material Movement	—	—	—	—	0.28	0.03	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	2.52
Dust From Material Movement	—	—	—	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.42
Dust From Material Movement	—	—	—	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.02	0.02	0.28	0.00	0.07	0.02	67.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.62	14.7	13.6	0.02	0.75	0.69	2,303
Dust From Material Movement	—	—	—	—	1.98	0.91	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.07	< 0.005	< 0.005	< 0.005	12.6
Dust From Material Movement	—	—	—	—	0.01	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	2.09
Dust From Material Movement	—	—	—	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.03	0.03	0.42	0.00	0.10	0.02	101
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.27	0.56	0.01	0.28	0.09	1,101
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	6.03
Annual	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.00

3.7. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.75	7.34	9.02	0.02	0.31	0.29	1,883
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.75	7.34	9.02	0.02	0.31	0.29	1,883
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.21	2.01	2.47	< 0.005	0.09	0.08	516
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.37	0.45	< 0.005	0.02	0.01	85.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.11	0.11	1.72	0.00	0.40	0.09	414
Vendor	0.01	0.20	0.10	< 0.005	0.05	0.02	203
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.11	0.12	1.49	0.00	0.40	0.09	393
Vendor	0.01	0.21	0.10	< 0.005	0.05	0.02	202

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.03	0.03	0.43	0.00	0.11	0.03	109
Vendor	< 0.005	0.06	0.03	< 0.005	0.01	< 0.005	55.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	< 0.005	18.1
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	9.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.24	6.25	0.01	0.23	0.21	977
Paving	0.02	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.09	< 0.005	< 0.005	< 0.005	13.4
Paving	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	2.21
Paving	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.06	0.07	0.85	0.00	0.23	0.05	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	3.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.18	1.52	< 0.005	0.04	0.03	179
Architectural Coatings	38.7	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	4.89
Architectural Coatings	1.06	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.81
Architectural Coatings	0.19	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.02	0.02	0.30	0.00	0.08	0.02	78.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	0.70	0.48	5.42	0.01	1.30	0.33	1,415
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Enclosed Parking Structure	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
Total	0.70	0.48	5.42	0.01	1.30	0.33	1,415
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	0.69	0.52	5.08	0.01	1.30	0.33	1,358
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking Structure	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
Total	0.69	0.52	5.08	0.01	1.30	0.33	1,358
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.09	0.85	< 0.005	0.21	0.05	203
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking Structure	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
Total	0.11	0.09	0.85	< 0.005	0.21	0.05	203

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	119

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	49.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	169
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	119
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	49.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	169
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	19.7
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	8.24
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	27.9

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.10	0.04	< 0.005	0.01	0.01	121

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking Structure	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
Total	0.01	0.10	0.04	< 0.005	0.01	0.01	121
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.10	0.04	< 0.005	0.01	0.01	121
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking Structure	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
Total	0.01	0.10	0.04	< 0.005	0.01	0.01	121
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	20.1
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking Structure	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
Total	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	20.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.32	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—
Landscape Equipment	0.28	0.02	2.58	< 0.005	< 0.005	< 0.005	7.85
Total	1.70	0.02	2.58	< 0.005	< 0.005	< 0.005	7.85
Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.32	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—
Total	1.42	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.24	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—
Landscape Equipment	0.03	< 0.005	0.32	< 0.005	< 0.005	< 0.005	0.89
Total	0.29	< 0.005	0.32	< 0.005	< 0.005	< 0.005	0.89

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	19.0
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	19.0
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	19.0
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	19.0
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	3.14
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	< 0.005
Total	—	—	—	—	—	—	3.15

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	47.3
Other Asphalt Surfaces	—	—	—	—	—	—	0.00

Enclosed Parking Structure	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	47.3
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	47.3
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	47.3
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	7.82
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	7.82

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	0.44

Total	—	—	—	—	—	—	0.44
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	0.44
Total	—	—	—	—	—	—	0.44
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	0.07
Total	—	—	—	—	—	—	0.07

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/1/2025	7/15/2025	5.00	10.0	—
Site Preparation	Site Preparation	7/16/2025	7/17/2025	5.00	1.00	—
Grading	Grading	7/18/2025	7/20/2025	5.00	2.00	—
Building Construction	Building Construction	7/21/2025	12/8/2025	5.00	100	—
Paving	Paving	12/9/2025	12/16/2025	5.00	5.00	—
Architectural Coating	Architectural Coating	12/17/2025	12/30/2025	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37
Site Preparation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
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/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37
Grading	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT

Demolition	Hauling	15.8	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	15.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	30.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	6.08	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.15	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	124,126	41,375	0.00	0.00	645

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	630	—
Site Preparation	—	—	1.00	0.00	—
Grading	233	—	3.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.25

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%

Other Asphalt Surfaces	0.05	100%
Enclosed Parking Structure	0.00	100%
Other Non-Asphalt Surfaces	0.20	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

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

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	229	155	131	74,655	1,820	1,229	1,042	593,006
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking Structure	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

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	0
No Fireplaces	34
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)
124126.42499999999	41,375	0.00	0.00	645

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	124,638	346	0.0330	0.0040	377,633
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
Enclosed Parking Structure	52,143	346	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	1,275,872	40,441
Other Asphalt Surfaces	0.00	0.00
Enclosed Parking Structure	0.00	0.00
Other Non-Asphalt Surfaces	0.00	4,368

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	25.1	—
Other Asphalt Surfaces	0.00	—
Enclosed Parking Structure	0.00	—
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

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

5.16. 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. Biomass Cover Type

5.18.1.1. Unmitigated

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)

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	8.94	annual days of extreme heat
Extreme Precipitation	3.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about 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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	40.0
AQ-PM	69.0
AQ-DPM	82.7
Drinking Water	64.5
Lead Risk Housing	51.4
Pesticides	31.7
Toxic Releases	91.0
Traffic	93.8
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	69.9
Haz Waste Facilities/Generators	29.2
Impaired Water Bodies	0.00
Solid Waste	9.67
Sensitive Population	—
Asthma	33.3
Cardio-vascular	51.3
Low Birth Weights	43.2
Socioeconomic Factor Indicators	—
Education	69.2
Housing	86.8
Linguistic	91.6
Poverty	67.9
Unemployment	70.0

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	31.00218144
Employed	59.16848454
Median HI	26.3826511
Education	—
Bachelor's or higher	45.32272552
High school enrollment	100
Preschool enrollment	54.90825099
Transportation	—
Auto Access	33.27345053
Active commuting	35.48055948
Social	—
2-parent households	23.22597203
Voting	4.38855383
Neighborhood	—
Alcohol availability	24.43218273
Park access	17.79802387
Retail density	62.06852303
Supermarket access	94.25125112
Tree canopy	23.5724368
Housing	—
Homeownership	18.06749647
Housing habitability	27.26806108
Low-inc homeowner severe housing cost burden	58.73219556
Low-inc renter severe housing cost burden	22.91800334

Uncrowded housing	30.12960349
Health Outcomes	—
Insured adults	19.91530861
Arthritis	81.7
Asthma ER Admissions	65.5
High Blood Pressure	51.5
Cancer (excluding skin)	82.6
Asthma	72.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	62.6
Diagnosed Diabetes	41.8
Life Expectancy at Birth	52.0
Cognitively Disabled	46.5
Physically Disabled	74.5
Heart Attack ER Admissions	57.9
Mental Health Not Good	48.5
Chronic Kidney Disease	73.0
Obesity	90.2
Pedestrian Injuries	73.8
Physical Health Not Good	47.6
Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	91.0
Current Smoker	42.3
No Leisure Time for Physical Activity	23.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	69.7
Elderly	60.0
English Speaking	12.0
Foreign-born	96.7
Outdoor Workers	37.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	20.7
Traffic Density	90.8
Traffic Access	52.4
Other Indices	—
Hardship	63.8
Other Decision Support	—
2016 Voting	30.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	73.0
Healthy Places Index Score for Project Location (b)	30.0
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	Adjusted to match the site plans provided by the client.
Construction: Off-Road Equipment	Assumed that all equipment would be used for 8 hours per workday. Tractors/loaders/backhoes were replaced with crawler tractors in the site preparation and grading phases.
Operations: Vehicle Data	Adjusted trip rates to match the 11th Generation ITE Trip Rates for Multifamily Housing Low Rise as generated by the Project's Trip Generation.
Operations: Hearths	Adjusted wood stoves in accordance with Rule 445. Removed gas and propane fireplaces as neither are proposed for the Project.
Construction: Construction Phases	Extended architectural coating phase from 5 to 10 days to account for building façade size.