PDS2023-MUP-23-013 Chabad of RSF Project Description Tech Report Cover Letter

- *Acreage: Some of the project's tech report's used the site's gross acreage, while others make reference to the net acreage. The site is 2.43 gross acres and 2.39 net acres.*
- *Existing Buildings: the square footages of the existing-to-remain buildings have been rounded in some of the tech reports (single family residential 1,701 to 1,700; office 582 to 600; candle shop/commercial space 3,395 to 4,000). the existing-to-remain 582 square feet structure is an office and is not an ADU*
- *New Building: the total sf of the proposed new building is 13,845; however, the ground floor (lot coverage) of the proposed new building is 11,550 sf.*
- *Parking Spaces: in a previous round the project had 62 parking spaces but lost 2 spaces due to tree wells. The project proposes 60 parking spaces where 47 are required.*

We have clarified all of these minor inconsistencies through the unifying Project Description below.

The project proposes a Major Use Permit for Chabad of Rancho Santa Fe (as defined by Zoning Ordinance Section 1348 – Civic, Fraternal or Religious Assembly and 1332 – Child Care Center) on 2 lots, totaling approximately 2.43 gross acres (2.39 net acres). The project proposes to redevelop the property to include the construction of one (1) new building, three (3) existing-to-remain buildings, the retention of existing covered areas and construction of new covered areas, all totaling approximately 19,898.66 square foot (sf) of lot coverage or 19.11%. The proposed new building is a Chabad religious assembly center and communal space proposed to be approximately 13,845 gross sf with 11,550 sf of ground floor lot coverage. Uses associated within the proposed new building's Religious Assembly will include administration offices, mikvah, religious education classes, kitchen, childcare, and meeting spaces. Outdoor spaces will include landscaped garden areas, courtyard, playground, and perimeter screening/fence. The project offers 60 parking spaces where 47 are required by the proposed uses. The project will consist of a single phase of construction which will consist of the Shul, parking, drive aisles, signage, right-of-way improvements, and landscaping.

Existing as-built structures include a candle shop/commercial space (approximately 3,395 gross sf), a single-family residence (approximately 1,701 gross sf), an office (approximately 582 gross sf), a stone shop, and various out-structures. Of these structures, the project proposes to retain the candle shop/commercial space, single-family residence, and office. The stone shop and various out-structures will be demolished/removed.

The Child Care Center use is requested for all buildings on site, with specific development details to be determined during the building permit phase. The residence and accessory structures are occasionally inhabited by the Rabbi, his family and guests of the organization. These structures are excluded from the in the Religious Assembly. The candle shop/commercial space will remain as a commercial use for the sale of religious and Chabad-related items. Childcare services are proposed for up to 50 children, aged six months to six years old, operating Monday through Friday,

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from 6:00 AM to 6:00 PM. If the childcare program grows to serve 50 children, staffing requirements are estimated to include approximately 12 employees, depending on the ages of the children in compliance with state-mandated staffing ratios for early learning and care programs.

The Religious Assembly use would include typical Shabat weekly services held Friday evenings and Saturday mornings, as well as other holiday services, events, weddings and gatherings, such as but not limited to Rosh Hashanah, Passover, and Yom Kippur. Services may be attended by approximately 100 adults plus children. The project is designed to accommodate the growth of the population from approximately 20 to 30 adults (plus children) to approximately 100 adults (plus children) for an average service. Evening classes and gatherings will operate from Monday through Thursday with varying class times in the day. Administrative offices will operate from 8:00 AM to 5:00 PM. The Religious Assembly currently employs three (3) staff and would be anticipated to grow in accordance with the growth of the Chabad.

The project will include public road improvements along Via De La Valle. Fire would be served by the Rancho Santa Fe Fire Protection District. School Service is provided by Solana Beach (General Elementary) and San Dieguito Union (High School). Water service is provided by Santa Fe Irrigation. The project is currently not connected to a sewer district and will rely on septic. The project will require approximately 2,688 cubic yards of cut and 3,225 cubic yards of fill. A total of 537 cubic yards of imported material will be required. The project is subject to General Plan Regional Category Semi-Rural, the General Plan Land Use of SR-2 and Zoning Single Family (RS). The project is not subject to Special Area Regulations. The project is located at 14906 Via De La Valle, directly north of Villa De La Valle, approximately 1.9 miles east of Interstate 15, in the San Dieguito Community Planning Area, within unincorporated San Diego County (APNs 302-110-29 and 30).

AIR QUALITY TECHNICAL STUDY

CHABAD CENTER
PDS2022-IC-22-078

Submitted to:

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April 3, 2025

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GLOSSARY OF TERMS AND ACRONYMS

Acronym	Description
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AB 2588	Air Toxics “Hot Spots” Information and Assessment Act
ADT	Average Daily Trips
ADU	Accessory Dwelling Unit
APCD	Air Pollution Control District
AQ	Air Quality
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
BMP	Best Management Practices
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
cy	Cubic Yards
EIR	Environmental Impact Report
DPM	Diesel Particulate Matter
HAPs	Hazardous Air Pollutants
HHI	Health Hazard Index
HRA	Health Risk Assessment
H_2S	Hydrogen Sulfide
lb/day	Pounds per Day
LOS	Level of Service
MACTs	Maximum Achievable Control Technologies
$\mu g/m^3$	Micrograms per meter cubed
mph	Miles per Hour
MUP	Major Use Permit
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	Nitrogen Dioxide
NO_x	Oxides of Nitrogen
OEHHA	Office of Environmental Health Hazard Assessment
O_3	Ozone
Pb	Lead
PM	Particulate Matter

GLOSSARY OF TERMS AND ACRONYMS

Acronym	Description
PM_{10}	Particulate Matter less than or equivalent to 10 microns in diameter
$PM_{2.5}$	Particulate Matter less than or equivalent to 2.5 microns in diameter
ppb	Parts per Billion
ppm	Parts Per Million
RAQS	Regional Air Quality Strategy
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCP	San Dieguito Community Plan
sf	Square Feet
SIP	State Implementation Plan
SLTs	Screening Level Thresholds
SO_2	Sulfur Dioxide
SO_x	Oxides of Sulfur
TACs	Toxic Air Contaminants
tons/year	Tons Per Year
USEPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

This report provides an analysis of the potential air quality impacts associated with the proposed Chabad Center (Project), in the unincorporated North San Dieguito Community Planning Area of San Diego County (the "County"). The Project is consistent with the San Dieguito Community Plan (SDCP). The evaluation addresses the potential for air emissions during construction and after full buildout of the Project, including an assessment of the potential for carbon monoxide (CO) "hot spots" to form due to traffic associated with the proposed Project. The air quality analysis for this Project was performed following the County's *Guidelines for Determining Significance - Air Quality* (SD County 2007). The County's Climate Action Plan (CAP) Consistency Checklist will demonstrate compliance with County greenhouse gas requirements (SD County 2023).

This report has been prepared by BlueScape Environmental, to support preparation of the environmental documentation pursuant to the California Environmental Quality Act (CEQA). This study analyzes the potential for permanent impacts associated with operation of the proposed Project and temporary impacts associated with construction activities.

2.0 PROJECT DESCRIPTION

The Project proposes a Major Use Permit (MUP) for a Chabad Center (as defined by Zoning Ordinance Section 1348 – Civic, Fraternal or Religious Assembly) and a Childcare Center on two (2) lots, totaling approximately 2.43 acres (net acreage of 2.39 acres). The Project proposes to develop a building for religious education and assembly, totaling approximately 13,845 square feet (sf) of gross floor area, while maintaining the existing single-family home, the Accessory Dwelling Unit (ADU), and the candle shop buildings. The Project will also add surface parking, signage, and landscaping. Uses associated with the Chabad Center include a religious assembly center, administrative functions, evening classes, childcare, and meeting spaces for the community. The existing candle shop, ADU, and single-family home are incorporated into the site plan. Outdoor spaces will include landscaped garden areas and perimeter screening. The facility is anticipated to serve a congregation of approximately 80 people for Saturday services.

The existing property has structures which comprise approximately 10,000 square-feet of building area which includes a candle factory and shop, a stone shop, an ADU, a single-family home, and various out-structures. The proposed Project has approximately 11,550 square-foot of coverage in an area currently free of structures. As mentioned above, the single-family home (approximately 1,700 sf), ADU (approximately 600 sf), and candle shop (approximately 3,400 sf) structures will remain on-site. The stone shop, candle factory and various out-structures will be removed from the property in the demolition phase of construction.

The facility would include weekly services (Friday evenings and Saturdays), holiday services (may include 100 people), a childcare center for up to 50 children (7:00 AM to 3:00 PM), and daily classes and gatherings, in the evenings (3:00 PM to 7:00 PM), for members of the community. The administrative office will operate 9:00 AM to 5:00 PM, Monday through Friday (excepting holidays). The project will increase on-site parking to 62 parking spaces.

The Project may include public road improvements along Via De La Valle. Excavation and fill during the site preparation and grading phases of construction are not anticipated to exceed 200 cubic yards of soil. The Project is subject to San Diego General Plan Regional Category Semi-Rural, the General Plan Land Use of SR-2 and Zoning Single Family (RS). The Project is not subject to Special Area Regulations. The Project is located at 14906 Via De La Valle, directly north of Via De La Valle, approximately 1.9 miles east of Interstate 15, in the San Dieguito Community Planning Area, within unincorporated San Diego County (Parcels 302-110-29 and 30).

The Site Plan is provided in Appendix A.

3.0 AIR QUALITY SETTING

Air pollutants are regulated at the national, state, and air basin level; each agency has a different degree of control. The United States Environmental Protection Agency (USEPA) regulates at the national level; the California Air Resources Control Board (CARB) regulates at the state level; and the San Diego County Air Pollution Control District (SDAPCD) regulates air quality in San Diego County.

CARB establishes statewide air quality standards and is responsible for the control of mobile emission sources, while the local Air Pollution Control Districts (APCDs) are responsible for enforcing standards and regulating stationary sources. CARB has established 15 air basins statewide. The County of San Diego is located in the San Diego Air Basin (SDAB), which is under the jurisdiction of the SDAPCD.

3.1 Federal

The federal and state governments have been empowered by respective federal and state Clean Air Acts to regulate the emissions of airborne pollutants and have established ambient air quality standards for the protection of public health. The USEPA is the federal agency designated to administer national air quality regulations, while CARB is the state equivalent in the California Environmental Protection Agency (CalEPA). Local control over air quality management is provided by CARB through multi-county and county-level APCDs (also referred to as Air Quality Management Districts). The federal and state standards are summarized in Table 1 (provided after Section 3.3) (CARB 2024a). The federal "primary" standards have been established to protect public health. The federal "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the general welfare.

3.2 State

CARB, which became part of the CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (CCAA), meeting state requirements of the federal Clean Air Act and establishing the California Ambient Air Quality Standards (CAAQS). It is also responsible for setting emission standards for vehicles sold in

California and for other emission sources such as consumer products and certain off-road equipment. CARB also established passenger vehicle fuel specifications and oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. The CCAA is administered by CARB at the state level and by the Air Quality Management Districts at the regional level.

3.3 Local

The SDAPCD was created to protect the public from the harmful effects of air pollution, achieve and maintain air quality standards, foster community involvement and develop and implement cost-effective programs that meet state and federal mandates while considering environmental and economic impacts. Specifically, the SDAPCD is responsible for monitoring air quality and planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. Programs developed include air quality rules and regulations that regulate stationary source emissions, including area sources, point sources, and certain mobile source emissions. The SDAPCD is also responsible for establishing permitting requirements for stationary sources and ensuring that new, modified or relocated stationary sources do not create net emissions increases; and thus, are consistent with the region's air quality goals. The SDAPCD provides significance thresholds in Regulation II, Rule 20.2, Table 20-2-1. "AQIA Trigger Levels." These trigger levels were established for stationary sources of air pollution and are commonly used for environmental evaluations. The SDAPCD enforces air quality rules and regulations through a variety of means, including inspections, educational or training programs, or fines, when necessary.

TABLE 1
NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 $\mu g/m^3$)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 $\mu g/m^3$)		0.070 ppm (137 $\mu g/m^3$)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 $\mu g/m^3$	Gravimetric or Beta Attenuation	150 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 $\mu g/m^3$		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 $\mu g/m^3$	Gravimetric or Beta Attenuation	9.0 $\mu g/m^3$	15 $\mu g/m^3$	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 $\mu g/m^3$)	Gas Phase Chemiluminescence	100 ppb (188 $\mu g/m^3$)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)		0.053 ppm (100 $\mu g/m^3$)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 $\mu g/m^3$)	Ultraviolet Fluorescence	75 ppb (196 $\mu g/m^3$)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 $\mu g/m^3$)	
	24 Hour	0.04 ppm (105 $\mu g/m^3$)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 $\mu g/m^3$	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 $\mu g/m^3$ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 $\mu g/m^3$		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 $\mu g/m^3$	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 $\mu g/m^3$)	Gas Chromatography			

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On February 27, 2024, the national annual PM2.5 primary standard was lowered from 12.0 $\mu g/m^3$ to 9.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

3.4 State Implementation Plan / Regional Air Quality Strategy

The federal Clean Air Act Amendments (CAAA) mandate that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. SIPs are comprehensive plans that describe how an area will attain national and state ambient air quality standards. SIPs are a compilation of new and previously submitted plans, programs (i.e., monitoring, modeling and permitting programs), district rules, state regulations and federal controls and include pollution control measures that demonstrate how the standards will be met through those measures.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The most recent SIP element for San Diego County was submitted in October 2020 (SDAPCD 2020a). The document defines the plan for attaining the National Ambient Air Quality Standards (NAAQS) for ozone in San Diego County.

Thus, the Regional Air Quality Strategy (RAQS) and Air Quality Management Plan (AQMP) prepared by SDAPCD and referenced herein become part of the SIP as the material relates to efforts ongoing in San Diego to achieve the national and state ambient air quality standards. The San Diego RAQS was developed pursuant to CCAA requirements. The RAQS was initially adopted in 1991 and was updated in 1995, 1998, 2001, 2004, 2009, 2016, and 2022 (SDAPCD 2023). The 2022 RAQS includes added information about under-resourced communities and about ozone's relationship with greenhouse gases and climate change.

The RAQS identifies feasible emission control measures aimed at San Diego County's future attainment of the state ozone standard. The pollutants addressed in the RAQS are volatile organic compounds (VOC) and oxides of nitrogen (NO_x), precursors to the photochemical formation of ozone (the primary component of smog). The RAQS was initially adopted by the SDAPCD Board on June 30, 1992, and amended on March 2, 1993, in response to CARB comments. At present, no attainment plan for particulate matter less than 10 microns in diameter (PM_{10}) or particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) is required by the state regulations; however, SDAPCD has adopted measures to reduce particulate matter in San Diego County. These measures range from regulation against open burning to incentive programs that introduce cleaner technology. These measures can be found in a report titled "*Measures to Reduce Particulate Matter in San Diego County"* (SDAPCD 2005).

The RAQS relies on information from CARB and San Diego Association of Governments (SANDAG), including mobile and area source emissions, as well as information regarding projected growth in the county, to estimate future emissions and then determine strategies necessary for the reduction of emissions through regulatory controls (SANDAG 2021). CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends as well as land use plans developed by the cities and the county as part of the development of the individual General Plans. As such, projects that propose development consistent with the growth anticipated by the general plans would be consistent with the RAQS.

If a project proposes development which is less dense than anticipated within the General Plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the General Plan and SANDAG's growth projections, the project might conflict with the RAQS and SIP, and thus, have a potentially significant impact on air quality.

Under state law, the SDAPCD is required to prepare an AQMP for pollutants for which the SDAB is designated non-attainment. Each iteration of the SDAPCD's AQMP is an update of the previous plan and has a 20-year horizon. The District prepared its *2020 PLAN FOR ATTAINING THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE IN SAN DIEGO COUNTY* (Attainment Plan), demonstrating how the region will further reduce air pollutant emissions in order to attain the current NAAQS for ozone in the future (SDAPCD 2020a). Approved by the District Board on October 14, 2020, this plan was approved by CARB on November 19, 2020 and thereby would be incorporated in the SIP. The ozone plan was submitted to the USEPA for review prior to the close of calendar year 2020. The USEPA took final action to approve revisions to the SDAPCD portion of the SIP on June 29, 2022 (CARB 2022).

3.4.1 Air Pollutants of Concern

3.4.1.1 Criteria Air Pollutants

The seven criteria air pollutants regulated under the NAAQS are as follows: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), respirable particulate matter (or particulate matter with an aerodynamic diameter of 10 microns or less, PM_{10}), fine particulate matter (or particulate matter with an aerodynamic diameter of 2.5 microns or less, $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Areas that do not meet the NAAQS for a particular pollutant are considered to be "non-attainment areas" for that pollutant.

CARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain air quality in the state. CARB is responsible for the development, adoption, and enforcement of the state's motor vehicle emissions program, as well as the adoption of the CAAQS. The CCAA provides the state with the ability to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards, or more stringent.

Through the CCAA, CARB has established the CAAQS for the seven criteria air pollutants also regulated by the NAAQS, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. The SDAB is currently classified as a non-attainment area under the CAAQS for O_3, PM_{10}, and $PM_{2.5}$. It should be noted that CARB does not differentiate between attainment of the 1-hour and 8-hour CAAQS for O_3; therefore, if an air basin records an exceedance of either standard, the area is considered non-attainment for the CAAQS for O_3. The SDAB has recorded exceedances of both the 1-hour and 8-hour CAAQS for O_3.

Table 2 shows the long- and short-term health impacts due to exposure to these criteria air pollutants and lists the main sources of these pollutants (USEPA 2022).

TABLE 2
SUMMARY OF SOURCES AND HEALTH EFFECTS ASSOCIATED WITH CRITERIA AIR POLLUTANTS

Pollutant	Sources	Effects on Health
Ozone (O_3)	• Photochemical oxidant (not emitted directly); instead, chemically formed when volatile organic compounds (VOCs) and oxides of nitrogen (NO_X) react in the presence of ultraviolet light; • Many VOCs are released as fugitive sources; and • VOCs and NO_X are combustion by-products.	• Respiratory symptoms • Worsening of lung disease leading to premature death • Damage to lung tissue
$PM_{2.5}$ (particulate matter [PM] less than 2.5 microns in aerodynamic diameter)	• Fugitive dust PM primarily composed of PM_{10} with a small fraction consisting of $PM_{2.5}$; • PM from combustion sources primarily composed of $PM_{2.5}$ with a small fraction consisting of particles larger than $PM_{2.5}$ and smaller than PM_{10}.	• Premature death • Hospitalization for worsening of cardiovascular disease • Hospitalization for respiratory disease • Asthma-related emergency room visits • Increased symptoms, increased inhaler usage
PM_{10} (particulate matter less than 10 microns in aerodynamic diameter)	• See $PM_{2.5}$.	• Premature death & hospitalization, primarily for worsening of respiratory disease
Nitrogen Oxides (NO_X)	• All combustion sources; especially a by-product of higher temperature combustion.	• Lung irritation • Enhanced allergic responses
Carbon Monoxide (CO)	• All combustion sources; especially a by-product of incomplete combustion.	• Chest pain in patients with heart disease • Headache • Light-headedness • Reduced mental alertness
Sulfur Oxides (SO_X)	• Coal- or oil-burning power plants and industries; • Refineries; and • Diesel-/gasoline-fired engines.	• Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits
Lead (Pb)	• Metal smelters; • Resource recovery; • Leaded fuels (esp. aircraft, racing); and • Deterioration of lead-based paint.	• Impaired mental functioning in children • Learning disabilities in children • Brain and kidney damage
Hydrogen Sulfide (H_2S)	• Landfills and sewer gas; • Geothermal power plants; and • Petroleum production and refining.	• At high concentrations: headache & breathing difficulties
Sulfates	• Fully-oxidized, ionic form of sulfur; • See SO_X. • SO_X converted to sulfate compounds in the atmosphere.	• Same as $PM_{2.5}$; particularly worsening of asthma and other lung diseases
Vinyl Chloride	• Primarily results from microbial breakdown of chlorinated solvents, especially in: ○ Landfills; ○ Sewage plants; and ○ Hazardous waste sites.	• Central nervous system effects, such as dizziness, drowsiness & headaches • Long-term exposure: liver damage and liver cancer

Source: USEPA 2022

The SDAPCD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." San Diego County is listed as a federal non-attainment area for ozone (8-hour) and a state non-attainment area for ozone (1-hour and 8-hour standards), PM_{10} and $PM_{2.5}$. As shown in Table 3, the SDAB is in attainment for the state and federal standards for nitrogen dioxide, carbon monoxide, sulfur dioxide and lead (SDAPCD 2024b).

TABLE 3
SUMMARY OF SAN DIEGO AIR BASIN (SDAB) FEDERAL AND STATE ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Non-attainment (Severe)	Non-attainment
Ozone (1-Hour)	Attainment *	Non-attainment
Carbon Monoxide	Attainment	Attainment
PM_{10}	Unclassifiable **	Non-attainment
$PM_{2.5}$	Attainment	Non-attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

* The federal 1-hour standard of 12 parts per million (ppm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

** At the time of designation, if the available data does not support a designation of attainment or non-attainment, the area is designated as unclassifiable.

Source: SDAPCD 2024b

3.4.1.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are controlled under a different regulatory process than criteria pollutants. Because no safe level of emissions can be established for TACs region-wide, the regulation of TACs is based on the levels of cancer risk and other health risks posed to persons who may be exposed.

Under federal law, 188 substances are listed as Hazardous Air Pollutants (HAPs) that are TACs. Major sources of specific HAPs are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) program. The USEPA establishes regulatory schemes for specific source categories and requires implementation of Maximum Achievable Control Technologies (MACTs) for major sources of HAPs in each source category.

State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program, and is aimed at HAPs that are a concern in California. The state has formally identified more than 200 substances as TACs and has adopted appropriate control measures for each. Once adopted at the state level, each air district is required to adopt a measure that is equally or more stringent. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) enacted in 1987 requires certain applicable facilities in San Diego County to quantify the emissions of TACs, and in some cases, conduct a health risk assessment (HRA), and to notify the public, while developing risk reduction strategies. In San Diego County, SDAPCD Rule 1210 implements the public notification and risk reduction requirements of AB 2588 and requires facilities to reduce risks to acceptable levels within 5 years. In addition, SDAPCD Rule 1200 establishes acceptable risk levels, and emission control requirements for new and modified facilities that may emit TACs.

An example of TAC emissions would be the proposed Project's generation of diesel exhaust emissions from construction-related vehicles and equipment and operational phases. Diesel exhaust is mainly composed of particulate matter and gases, which contain potential cancer-causing substances in addition to some noncancer hazards. On August 27, 1998, CARB and the Office of Environmental Health Hazard Assessment (OEHHA) identified particulate matter in diesel exhaust as a TAC, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease.

3.4.2 Background Air Quality

The SDAPCD monitors air quality conditions at locations throughout the SDAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants, to determine whether the CAAQS and the NAAQS are met. For this analysis, data from the Kearny Mesa monitoring station, approximately 11 miles south of the Project site, and El Cajon monitoring station, approximately 19.6 miles southeast of the Project site, were used to characterize existing conditions in the vicinity of the Project site. These are the closest monitoring locations to the site with current and comprehensive data sets. A summary of the data recorded at these monitoring stations for the SDAB non-attainment pollutants from 2021 through 2023 is presented in Table 4.

TABLE 4
AMBIENT AIR BACKGROUND POLLUTANT CONCENTRATIONS/EXCEEDANCES/STANDARDS

Pollutant	2021	2022	2023
Ozone (O_3)			
State maximum 1-hour concentration (ppm)	**0.095**	**0.095**	**0.091**
National maximum 8-hour concentration (ppm)	**0.071**	**0.083**	**0.079**
State maximum 8-hour concentration (ppm)	**0.072**	**0.083**	**0.080**
<u>Number of Days Standard Exceeded</u>			
CAAQS 1-hour (>0.09 ppm)	1	1	1
NAAQS 8- hour (>0.070 ppm)/ CAAQS 8-hour (>0.070 ppm)	1 / 2	2 / 2	3 / 3
Respirable Particulate Matter (PM_{10})			
National maximum 24-hour concentration (µg/m^3)	40	44	42
State maximum 24-hour concentration (µg/m^3)	40	44	42
State annual average concentration (µg/m3)	22.0	21.6	20.5
Annual or Days Standard Exceeded *			
NAAQS 24-hour (>150 µg/m^3)	0	0	0
CAAQS 24-hour (>50 µg/m^3)/ Annual (>20 µg/m^3)	0 / No	0 / Yes	0 / Yes
Fine Particulate Matter ($PM_{2.5}$)			
National Maximum 24-hour concentration (µg/m^3)	30.2	26.4	23.2
State maximum 24-hour concentration (µg/m^3)	31.5	27.3	--
Annual average concentration (µg/m3)	9.7	8.9	8.4
Annual or Days Standard Exceeded *			
NAAQS 24-hour (>35 µg/m^3)/Annual (>12.0 µg/m^3)	0 / Yes	0 / No	0 / No
CAAQS Annual (>12 µg/m^3)	No	No	No

Notes:
µg/m^3 = micrograms per cubic meter; ppb = parts per billion; ppm = parts per million; N/A = Not available.
CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard.
-- = Insufficient data was available.
BOLD value indicates greater than standard.
PM_{10} measured at the El Cajon – Lexington Elementary School monitoring station (1155 Redwood Ave, approximately 19.6 miles southeast of the Project site). Data source: SDAPCD 2024a.
$PM_{2.5}$ measured at the El Cajon – Lexington Elementary School monitoring station (1155 Redwood Ave, approximately 19.6 miles southeast of the Project site). No San Diego monitoring sites have 2023 state concentrations available.
Ozone measured at the San Diego - Kearny Villa Road monitoring station (6125a Kearny Villa Rd, approximately 11 miles south-east of the Project site)
* In the case of an Annual standard a No or Yes response is provided.
Sources: CARB 2024b. SDAPCD 2024a.

4.0 SIGNIFICANCE CRITERIA AND ANALYSIS METHODOLOGY

4.1 Significance Criteria Methodology

Air quality emissions estimates were performed in general accordance with the methodologies outlined in the SDAPCD 2022 RAQS to identify both construction and operational emissions associated with the proposed Project. All emissions were calculated using the California Emissions Estimator Model (CalEEMod) software version 2022.1.1.29 which incorporates current air emission data, planning methods and protocol approved by CARB (CAPCOA 2022).

As referenced, construction activities would include site fill material, grading, construction of the buildings/utilities and related landscape improvements, as well as paving parking areas. Construction activities would require the use of equipment that would generate criteria air pollutant emissions. For calculation purposes, it was assumed that all construction equipment used would be diesel-powered. Construction emissions associated with development of the proposed Project were quantified by estimating the types of equipment, including the number of individual pieces of equipment, that would be used on-site during each of the construction phases as well as soil import haul trips.

Operational emissions include mobile source emissions, energy emissions, and area source emissions. Mobile source emissions are generated by motor vehicle trips associated with operation of the Project. Emissions attributable to energy use are from on-site natural gas consumption for space and water heating and appliances. Area source emissions are generated by landscape maintenance equipment, use of consumer products and painting. To determine whether a regional air quality impact would occur, the increase in emissions would be compared with the SDAPCD-recommended regional thresholds for operational emissions.

4.1.1 Air Quality Thresholds of Significance

The air quality thresholds of significance are based on the checklist presented in Appendix G of the State CEQA Guidelines and regulatory standards of federal, state, and local agencies.

The following describes Project-related impacts from short-term construction activities and long-term operation of the Project. The SDAPCD does not provide CEQA significance thresholds for any air pollutant source they do not directly regulate. The SDAPCD regulates emissions from stationary sources and not mobile sources under SDAPCD Regulation II, Rule 20.2, Table 20.2-1, Air Quality Impact Analysis (AQIA) Trigger Levels. Because the SDAPCD does not prescribe emissions thresholds for all air pollutants during construction and operation, air quality impacts of the proposed Project were evaluated based on the County of San Diego's Guidelines for Determining Significance, Air Quality (SD County 2007), which are based on SDAPCD Regulation II. For CEQA purposes, these screening level thresholds (SLTs) can be used to determine if a project's total emissions (e.g., stationary and fugitive emissions, as well as emissions from mobile sources) would result in a significant impact to air quality. The daily SLTs are most appropriately used for the standard construction and operational emissions. When project emissions have the potential to approach or exceed the SLTs listed below in Table 5, additional air quality modeling may need to be prepared to demonstrate that ground level concentrations resulting from project emissions (with background levels) will be below the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants needed to adequately protect human health. The thresholds shown below in Table 5 are used herein to determine whether either construction or operational Project emissions would cause a significant air quality impact.

TABLE 5
COUNTY OF SAN DIEGO AIR QUALITY SCREENING-LEVEL THRESHOLDS

Pollutant	Screening Level Threshold (lb/day)	Screening Level Threshold (tons/year)
Respirable Particulate Matter (PM_{10})	100	15
Fine Particulate Matter ($PM_{2.5}$)	55[c]	10[c]
Oxides of Nitrogen (NO_X)	250	40
Oxides of Sulfur (SO_X)	250	40
Carbon Monoxide (CO)	550	100
Volatile Organic Compounds (VOC)	75[a]	13.7[b]
Health Risk Significance Thresholds – Toxic Air Contaminants		
Risk Type	**Threshold Limit**	
30-year Residential Cancer Risk	10 in one million	
Non-cancer Chronic Risk	1.0 HHI[d]	
Non-cancer Acute Risk	1.0 HHI[d]	

a. VOC thresholds based on the threshold of significance for VOCs from the South Coast Air Quality Management District for the Coachella Valley.
b. 13.7 tons per year threshold based on 75 lbs/day multiplied by 365 days/year and divided by 2,000 lbs/ton.
c. USEPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 8, 2005. Also used by the SCAQMD.
d. HHI = Health Hazard Index
Source: SD County 2007.

To determine whether a project would result in a significant impact to air quality, Appendix G of the *CEQA Guidelines* (AEP 2021) requires consideration of whether a project would:

a) *Conflict with or obstruct implementation of the applicable air quality plan;*

b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard*;

c) *Expose sensitive receptors to substantial pollutant concentrations;*

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

It should be noted that a previous version of the CEQA Guidelines Appendix G is incorporated into the County of San Diego Guidelines for Determining Significance. Therefore, the most recent version was used for this study.

4.2 Consistency with Air Quality Plans

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

The RAQS fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration at a stage early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals in the RAQS. Only new or amended general plan elements, specific plans, and major projects need to undergo a consistency review. This is because the RAQS is based on projections from local general plans. Projects that are consistent with the local general plan or do not trigger SANDAG's intergovernmental review criteria are considered consistent with the RAQS. The Project is subject to General Plan Regional Category Semi-Rural, the General Plan Land Use of SR-2 and Zoning Single Family (RS). The Project is not subject to Special Area Regulations. As such, the Project is consistent with the General Plan, zoning requirements, and the San Dieguito Community Plan, and therefore does not conflict with the RAQS. In addition, as described in this section, Project emissions will not exceed the applicable County CEQA significance thresholds.

4.2.1 Construction Emissions

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) from soil disturbance and exhaust emissions (NO_X and CO) from heavy construction vehicles, worker commute trips, and hauling and vendor trips. For the purpose of estimating emissions, it was conservatively assumed that any acreage onsite not covered by a structure to be kept would be disturbed and developed for overall construction. The number of haul trips to provide fill material was estimated based on an import of an estimated 200 cubic yards (cy) of net fill. As noted, construction would generally consist of demolition, site preparation, grading, construction of the buildings and related improvements, paving and the application of architectural coating (painting).

Site preparation and grading would involve the greatest concentration of heavy equipment use and the highest potential for fugitive dust emissions. The Project would be required to comply with SDAPCD Rule 55, which identifies fugitive dust standards and is required to be implemented at all construction sites located within the SDAB. Therefore, the following Rule 55 conditions are established as Best Management Practices (BMPs) and Project design measures, which generally reduce fugitive dust emissions, were included in CalEEMod for site preparation and grading phases of construction. The applicant has included the following Project design measures into the plan and the conditions of approval for the Project.

1. **Minimization of Disturbance.** Construction contractors shall minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.

2. **Soil Treatment.** Construction contractors shall treat all graded and excavated material, exposed soil areas and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day. For modeling purposes, it was assumed that watering would occur three times daily, during the construction of this development, a requirement to which the applicant has committed.

3. **Soil Stabilization.** Construction contractors shall monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.

4. **No Grading During High Winds.** Construction contractors shall stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 mph or greater, as measured continuously over a one-hour period).

5. **Street Sweeping.** Construction contractors shall sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

6. **San Diego County Grading Ordinance.** As a condition of this Project, construction contractors shall refer to the Section 87.428 of the San Diego County Grading Ordinance, amended by Ord. No. 10224, effective October 25, 2012. *Section 87.428. Dust Control Measures* requires all clearing and grading to be carried out with dust control measures adequate to prevent creation of a nuisance to persons or public or private property. Clearing, grading or improvement plans shall require that measures such as the following be undertaken to achieve this result: watering, application of surfactants, shrouding, control of vehicle speeds, paving of access areas, or other operational or technological measures to reduce dispersion of dust. These Project design measures are to be incorporated into all earth disturbing activities to minimize the amount of PM emissions from construction.

Construction is assumed to begin in March 2025, with completion by late 2026. The following non-default parameters were used in CalEEMod:

- Demolition of 5,375 sf of building and 50,489 sf of concrete/asphalt;
- Water construction site 3 times per day to comply with SDAPCD Rule 55 requirements and the San Diego County Grading Ordinance;

- Limiting speeds of vehicles on unpaved roads to 25 miles per hour (mph);
- Soil import for the site preparation phase of construction of 200 cy.

Table 6 summarizes the estimated maximum daily emissions of pollutants and Table 7 summarizes the estimated annual emissions of pollutants occurring during the construction period. The CalEEMod emission estimates and assumptions for construction can be viewed in Appendix B.

As shown in Tables 6 and 7, construction of the proposed Project would not exceed the County's SLTs for daily and annual construction emissions. As such, air quality impacts from Project-related construction activities would be **less than significant** with project design measures in place.

TABLE 6
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS

Construction Phase	**Estimated Emissions (lbs/day)**					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Construction Year 2025						
Demolition	1.53	14.6	15.9	0.03	1.15	0.64
Site Preparation	1.23	11.4	11.5	0.03	1.05	0.53
Grading	1.55	14.1	15.0	0.02	2.57	1.50
Building Construction	1.26	10.7	12.2	0.02	0.47	0.39
Max. Daily Emissions	**1.55**	**14.6**	**15.9**	**0.03**	**2.57**	**1.50**
Construction Year 2026						
Building Construction	1.20	10.2	12.0	0.02	0.42	0.35
Paving	0.79	5.92	8.83	0.01	0.37	0.26
Architectural Coating	3.67	0.86	1.18	<0.005	0.03	0.02
Max. Daily Emissions	**3.67**	**10.2**	**12.0**	**0.02**	**0.42**	**0.35**
Screening Level Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

See Appendix B for CalEEMod ver. 2022.1.1.29 computer model output; the higher value of summer or winter, daily mitigated emissions are shown

TABLE 7 ESTIMATED ANNUAL CONSTRUCTION EMISSIONS						
Construction Phase	**Estimated Emissions (tons/year)**					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2025 Annual Emissions	0.15	1.30	1.44	<0.005	0.08	0.06
2026 Annual Emissions	0.13	0.76	0.92	<0.005	0.03	0.03
Screening Level Thresholds	*13.7*	*40*	*100*	*40*	*15*	*10*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

See Appendix B for CalEEMod ver. 2022.1.1.29 computer model output

4.2.2 Operational Emissions

Operational emissions include emissions from natural gas consumption (energy sources), vehicle trips (mobile sources), area sources, landscape equipment and evaporative emissions as the structures are repainted over the life of the Project. The majority of operational emissions are associated with vehicle trips to and from the Project site.

The most current Title 24 Building Standards for operational energy efficiency will be followed. The following non-default parameters were used in CalEEMod:

- Average Daily Trips (ADT) value for the facility is 241 ADT (LLG 2024), and 892 daily Vehicle Miles Traveled (VMT);[1]
- No natural gas or woodburning fireplaces or woodstoves.

Table 8 summarizes the estimated maximum daily emissions and Table 9 summarizes the estimated annual emissions associated with operation of the proposed Project. As shown in Tables 8 and 9, the Project operational emissions would not exceed the County's SLTs for ROG, NO_x, CO, SO_x, PM_{10} or $PM_{2.5}$. Therefore, the Project's operational emissions impacts (including impacts related to criteria pollutants, sensitive receptors and violations of air quality standards) would be **less than significant** with mitigation. The CalEEMod emission estimates and assumptions for operations can be viewed in Appendix B.

[1] VMT calculated by LLG based on 241 ADT and an estimated trip length based on location of residence of existing members of Chabad Center.

TABLE 8
ESTIMATED MAXIMUM DAILY OPERATIONAL EMISSIONS

	Estimated Emissions (lbs/day)					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Mobile	0.84	0.42	3.84	0.007	0.64	0.17
Area	0.42	0.005	0.60	<0.005	<0.005	<0.005
Energy	0.008	0.15	0.13	<0.005	0.01	0.01
Daily Total	**1.26**	**0.57**	**4.51**	**0.008**	**0.65**	**0.18**
Screening Level Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

See Appendix B for CalEEMod ver. 2022.1.1.29 computer model output; the higher value of summer or winter, daily mitigated emissions are shown, with daily max totals as given by CalEEMod.

TABLE 9
ESTIMATED ANNUAL OPERATIONAL EMISSIONS

	Estimated Emissions (tons/year)					
Sector	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile	0.15	0.08	0.69	<0.005	0.11	0.03
Area	0.07	<0.005	0.05	<0.005	<0.005	<0.005
Energy	<0.005	0.03	0.02	<0.005	<0.005	<0.005
Annual Total	**0.22**	**0.10**	**0.76**	**<0.005**	**0.12**	**0.03**
Screening Level Thresholds	*13.7*	*40*	*100*	*40*	*15*	*10*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

See Appendix B for CalEEMod ver. 2022.1.1.29 computer model output.

The proposed Project is a nonresidential development and is consistent with the SDCP. The proposed Project is consistent with the applicable land use designations and complies with all applicable sections of the SDCP, and therefore, would not conflict with housing, employment, and population projections in the San Diego region, which are the basis of the RAQS projections. The Project would not conflict with the General Plan, applicable zoning, and the SDCP, and therefore would not conflict with the RAQS. Both construction emissions, shown in Tables 6 and 7, and operational emissions, shown in Tables 8 and 9, will be less than the County's SLTs. Therefore, the proposed Project would not conflict or obstruct implementation of air quality plans, and impacts are **less than significant** in this regard.

4.3 Cumulatively Considerable Net Increase

Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors)?

The SDAB is designated under the California and National Ambient Air Quality Standards (AAQS) as non-attainment for O_3 and under the California AAQS as non-attainment for PM_{10} and $PM_{2.5}$ (CARB 2024a). Based upon the County guidelines, any project that conforms with the RAQS and does not exceed the SLTs, or can be mitigated to less than the SLTs, used as the threshold for determining a project's significant impacts, does not significantly add to a cumulatively considerable net increase in emissions with other projects (SD County 2007).

CalEEMod modeling results, summarized in Section 4.2, demonstrate that the Project would not result in construction or operational emissions in excess of the threshold values. Operational phase emissions would be nominal due to the small scale and type of the use proposed and also are below the threshold values. Therefore, the Project does not add significantly to any cumulative impact and would result in a **less than significant** impact.

4.4 Sensitive Receptor Exposure

Would the project expose sensitive receptors to substantial pollutant concentrations?

4.4.1 Toxic Air Contaminants

The nearest potential sensitive receptors are houses located 100-150 feet (ft) from the Project fenceline. Due to the short-term construction duration and the limited construction emissions, there is very low potential for fugitive dust or diesel particulate matter (DPM) to impact sensitive receptors during construction. The total Project construction DPM emissions are not of a magnitude and duration that could create significant air toxic risks to the nearest receptors during construction. Compliance with the SDAPCD rules and regulations would reduce the fugitive dust emissions during Project construction and associated impacts to sensitive receptors. Thus, the proposed Project's construction emissions would be negligible and would not have the potential to significantly impact the nearby residents living in the houses near the Project.

Operational sources at the Project location that emit TACs include mobile sources (delivery trucks; employee and worshipper vehicles). The Project does not include stationary sources, such as emergency generators or boilers. Because the Project is a religious institution, mobile source emissions associated with the Project would be intermittent (not constant) and would have negligible health risk impacts on nearby sensitive receptors.

Therefore, the Project's construction and operational air pollutant emissions would not expose sensitive receptors to substantial pollutant concentrations and would result in a **less than significant** impact with mitigation.

4.4.2 Local Carbon Monoxide Emissions and CO Hotspots

Carbon monoxide is a colorless and odorless gas that may be found in high concentrations near areas of high traffic volumes. CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. The SDAB is in attainment of state and federal CO standards. The Rancho Carmel Drive monitoring site is the closest station to the Project site that provides CO data. The maximum 8-

hour CO level recorded in 2019 was 2.5 ppm (SDAPCD 2020b). Concentrations are below 9 ppm, the state and federal 8-hour standard. The maximum 1-hour CO level recorded in 2019 was 4.1 ppm. Concentrations are below 20 ppm and 35 ppm, the state and federal 1-hour standards, respectively.

Although CO is not a regional air quality concern in SDAB, elevated CO levels can occur at or near intersections that experience severe traffic congestion. A localized air quality impact is considered significant if the additional CO emissions resulting from the Project create a "hotspot" where the California 1-hour standard of 20.0 ppm or the 8-hour standard of 9 ppm is exceeded. This can occur at severely congested intersections during cold winter temperatures. Screening for elevated CO levels is recommended for severely congested intersections experiencing levels of service (LOS) E or F with project traffic where a significant project traffic impact may occur.

According to the San Diego County Air Quality (AQ) Guidelines for determining air quality significance, CO "hotspots" or pockets where the CO concentration exceeds the NAAQS and/or CAAQS, have been found to occur only at signalized intersections that operate at or below LOS E with peak-hour trips for that intersection exceeding 3,000 trips. Therefore, any project that would place receptors within 500 feet of a signalized intersection operating at or below LOS E (peak-hour trips exceeding 3,000 trips) must conduct a "hotspot" analysis for CO. Likewise, projects that will cause road intersections to operate at or below a LOS E (with intersection peak-hour trips exceeding 3,000) will also have to conduct a CO "hotspot" analysis (SD County 2007).

Based on the transportation analysis, prepared by Linscott Law & Greenspan, both access driveways for the Chabad Center Project are calculated to operate at LOS C or above (LLG 2024). As a result, no LOS-related significant impacts are expected for the Chabad Center Project; thus the Project is anticipated to result in a **less than significant** impact. Receptors would not be exposed to substantial pollutant concentrations related to CO hotspots. No further evaluation with respect to CO hotspots is required.

4.5 Other Emission Sources

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

The proposed Project would involve the use of diesel-powered construction equipment. Some objectionable odors may be temporarily created during construction-related activities, such as from diesel exhaust and asphalt paving activities. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the Project site area. The Project does not include manufacturing or agricultural uses that are typically associated with objectionable odors or other sources of emissions. Therefore, impacts associated with other emission sources adversely affecting a substantial number of people would be **less than significant**.

5.0 FINDINGS AND CONCLUSIONS

The Project-specific air quality evaluation demonstrates that short-term emissions from construction of the Project are below all applicable County of San Diego daily thresholds of significance. Therefore, air quality emissions from Project construction, as well as cumulative impacts from Project construction, are considered **less than significant.**

Emissions of all criteria pollutants from Project operation are below all applicable daily air quality thresholds of significance. Thus, the Project would not conflict with the SIP, RAQS or AQMP, violate an air quality standard or contribute to an existing or projected violation, result in a cumulatively considerable increase in ozone or particulate matter emissions or expose receptors to substantial pollutant concentrations. Therefore, air quality emissions from Project operation are considered **less than significant.**

6.0 REFERENCES

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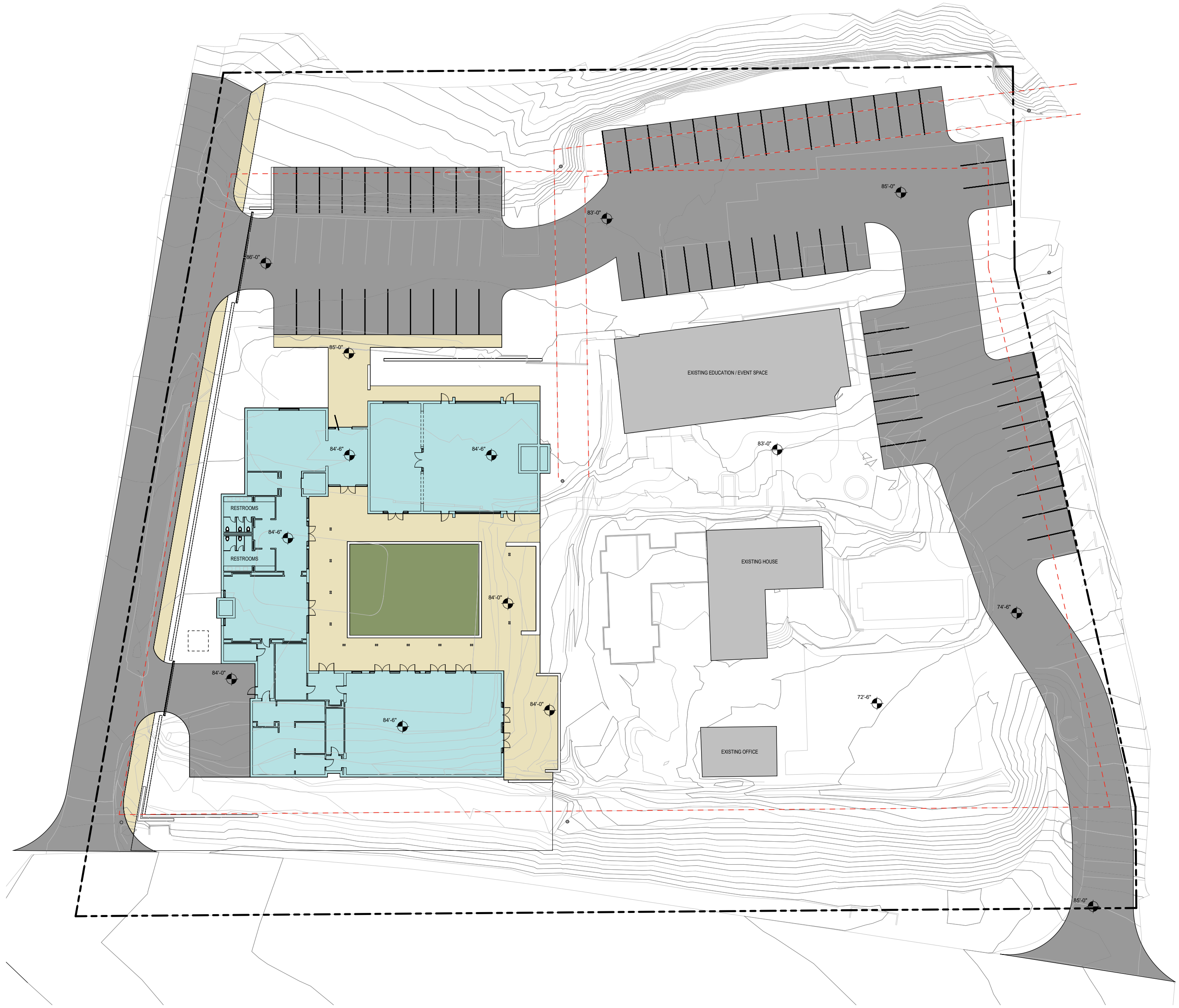
APPENDIX A

SITE PLAN FOR CHABAD CENTER



1 ARCHITECTURAL - PRELIMINARY SITE PLAN - PROPOSED WORK AREA
SCALE: 1/16" = 1'-0"

WORK AREA LEGEND

SYMBOL	DESCRIPTION
	PROPOSED PARKING PAVING
	PROPOSED CONCRETE PAVING
	PROPOSED BUILDING FOOTPRINT
	PROPOSED LANDSCAPE AREA
	EXISTING BUILDING

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REVISION HISTORY

REVISION	DESCRIPTION	DATE

PROFESSIONAL SEALS

INTERIM REVIEW
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CLIENT
CHABAD OF RANCHO SANTA FE - DEL MAR, CA

PROJECT
Chabad Rancho Santa Fe
14906 Via De La Valle, Del Mar, CA 92014

PROJECT NUMBER	ABBREVIATION
34CI23012	CHABAD RANCHO SANTA FE
DRAWN BY	CHECKED BY
JF	

ORIGINAL ISSUE
ORIGINAL ISSUE DESCRIPTION
DD MMM YYYY

SHEET NAME
ARCHITECTURAL - PRELIMINARY SITE PLAN

SHEET NUMBER
AS-102

APPENDIX B

CALEEMOD AIR EMISSION MODEL RESULTS
ANNUAL AND DAILY EMISSIONS FOR CONSTRUCTION AND OPERATION

Chabad RSF Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Chabad RSF
Construction Start Date	3/3/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	15.4
Location	14906 Via De La Valle, Del Mar, CA 92014, USA
County	San Diego
City	Unincorporated
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6390
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
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
Place of Worship	13.8	1000sqft	1.83	13,845	45,474	—	—	—

Parking Lot	62.0	Space	0.56	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures
Water	W-5	Design Water-Efficient Landscapes
Waste	S-1/S-2	Implement Waste Reduction Plan

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	3.67	14.6	15.9	0.03	0.64	1.93	2.57	0.59	0.91	1.50
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.53	14.6	15.8	0.03	0.58	0.57	1.15	0.53	0.11	0.64
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.80	7.10	7.89	0.01	0.28	0.18	0.46	0.25	0.05	0.30
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	1.30	1.44	< 0.005	0.05	0.03	0.08	0.05	0.01	0.06
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	—	—	100	—	—	55.0
Unmit.	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
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—
Threshold	13.7	40.0	100	40.0	—	—	15.0	—	—	10.0
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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.55	14.6	15.9	0.03	0.64	1.93	2.57	0.59	0.91	1.50
2026	3.67	10.2	12.0	0.02	0.36	0.13	0.42	0.33	0.03	0.35
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.53	14.6	15.8	0.03	0.58	0.57	1.15	0.53	0.11	0.64
2026	1.20	10.2	12.0	0.02	0.36	0.06	0.42	0.33	0.02	0.35
Average Daily	—	—	—	—	—	—	—	—	—	—
2025	0.80	7.10	7.89	0.01	0.28	0.18	0.46	0.25	0.05	0.30
2026	0.69	4.18	5.04	0.01	0.15	0.03	0.18	0.14	0.01	0.15
Annual	—	—	—	—	—	—	—	—	—	—
2025	0.15	1.30	1.44	< 0.005	0.05	0.03	0.08	0.05	0.01	0.06
2026	0.13	0.76	0.92	< 0.005	0.03	0.01	0.03	0.03	< 0.005	0.03

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.55	14.6	15.9	0.03	0.64	1.93	2.57	0.59	0.91	1.50
2026	3.67	10.2	12.0	0.02	0.36	0.13	0.42	0.33	0.03	0.35
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.53	14.6	15.8	0.03	0.58	0.57	1.15	0.53	0.11	0.64
2026	1.20	10.2	12.0	0.02	0.36	0.06	0.42	0.33	0.02	0.35
Average Daily	—	—	—	—	—	—	—	—	—	—
2025	0.80	7.10	7.89	0.01	0.28	0.18	0.46	0.25	0.05	0.30
2026	0.69	4.18	5.04	0.01	0.15	0.03	0.18	0.14	0.01	0.15
Annual	—	—	—	—	—	—	—	—	—	—
2025	0.15	1.30	1.44	< 0.005	0.05	0.03	0.08	0.05	0.01	0.06
2026	0.13	0.76	0.92	< 0.005	0.03	0.01	0.03	0.03	< 0.005	0.03

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.26	0.54	4.51	0.01	0.02	0.63	0.65	0.02	0.16	0.18
Mit.	1.26	0.54	4.51	0.01	0.02	0.63	0.65	0.02	0.16	0.18
% Reduced	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	0.57	3.96	0.01	0.02	0.63	0.65	0.02	0.16	0.18
Mit.	1.14	0.57	3.96	0.01	0.02	0.63	0.65	0.02	0.16	0.18
% Reduced	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.18	0.57	4.19	0.01	0.02	0.62	0.64	0.02	0.16	0.18
Mit.	1.18	0.57	4.19	0.01	0.02	0.62	0.64	0.02	0.16	0.18
% Reduced	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.22	0.10	0.76	< 0.005	< 0.005	0.11	0.12	< 0.005	0.03	0.03
Mit.	0.22	0.10	0.76	< 0.005	< 0.005	0.11	0.12	< 0.005	0.03	0.03
% 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)	—	—	—	—	—	—	—	—	—	—
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

2.5. 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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Mobile	0.84	0.38	3.79	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Area	0.42	0.01	0.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	1.26	0.54	4.51	0.01	0.02	0.63	0.65	0.02	0.16	0.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.82	0.42	3.84	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Area	0.32	—	—	—	—	—	—	—	—	—
Energy	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	1.14	0.57	3.96	0.01	0.02	0.63	0.65	0.02	0.16	0.18
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	0.80	0.42	3.77	0.01	0.01	0.62	0.63	0.01	0.16	0.16
Area	0.37	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	1.18	0.57	4.19	0.01	0.02	0.62	0.64	0.02	0.16	0.18
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	0.15	0.08	0.69	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03
Area	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Water	—	—	—	—	—	—	—	—	—	—

Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	0.22	0.10	0.76	< 0.005	< 0.005	0.11	0.12	< 0.005	0.03	0.03

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.84	0.38	3.79	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Area	0.42	0.01	0.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	1.26	0.54	4.51	0.01	0.02	0.63	0.65	0.02	0.16	0.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.82	0.42	3.84	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Area	0.32	—	—	—	—	—	—	—	—	—
Energy	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	1.14	0.57	3.96	0.01	0.02	0.63	0.65	0.02	0.16	0.18
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	0.80	0.42	3.77	0.01	0.01	0.62	0.63	0.01	0.16	0.16
Area	0.37	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01

Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	1.18	0.57	4.19	0.01	0.02	0.62	0.64	0.02	0.16	0.18
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	0.15	0.08	0.69	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03
Area	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	0.22	0.10	0.76	< 0.005	< 0.005	0.11	0.12	< 0.005	0.03	0.03

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52
Demolition	—	—	—	—	—	0.35	0.35	—	0.05	0.05
Onsite truck	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	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52

Demolition	—	—	—	—	—	0.35	0.35	—	0.05	0.05
Onsite truck	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	2.29	2.48	< 0.005	0.09	—	0.09	0.09	—	0.09
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01
Onsite truck	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	0.42	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02
Demolition	—	—	—	—	—	0.01	0.01	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.58	0.00	0.00	0.11	0.11	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.59	0.22	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.62	0.22	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.2. Demolition (2025) - Mitigated

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52
Demolition	—	—	—	—	—	0.35	0.35	—	0.05	0.05
Onsite truck	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	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52
Demolition	—	—	—	—	—	0.35	0.35	—	0.05	0.05
Onsite truck	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	2.29	2.48	< 0.005	0.09	—	0.09	0.09	—	0.09
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01
Onsite truck	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	0.42	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02
Demolition	—	—	—	—	—	0.01	0.01	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Worker	0.05	0.04	0.58	0.00	0.00	0.11	0.11	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.59	0.22	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.62	0.22	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.9	11.0	0.03	0.47	—	0.47	0.43	—	0.43
Dust From Material Movement	—	—	—	—	—	0.41	0.41	—	0.04	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.35	0.00	0.00	0.06	0.06	0.00	0.01	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.47	0.18	< 0.005	0.01	0.09	0.10	0.01	0.03	0.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	< 0.005

3.4. Site Preparation (2025) - Mitigated

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.9	11.0	0.03	0.47	—	0.47	0.43	—	0.43
Dust From Material Movement	—	—	—	—	—	0.41	0.41	—	0.04	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.35	0.00	0.00	0.06	0.06	0.00	0.01	0.01

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.47	0.18	< 0.005	0.01	0.09	0.10	0.01	0.03	0.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	< 0.005

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59
Dust From Material Movement	—	—	—	—	—	1.84	1.84	—	0.89	0.89
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.39	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02

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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

3.6. Grading (2025) - Mitigated

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T

Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59
Dust From Material Movement	—	—	—	—	—	1.84	1.84	—	0.89	0.89
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.39	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02
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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37
Onsite truck	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	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37
Onsite truck	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	0.48	4.13	4.62	0.01	0.16	—	0.16	0.14	—	0.14
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.75	0.84	< 0.005	0.03	—	0.03	0.03	—	0.03

Onsite truck	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	0.02	0.02	0.27	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	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	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Hauling	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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2025) - Mitigated

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37

Onsite truck	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	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37
Onsite truck	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	0.48	4.13	4.62	0.01	0.16	—	0.16	0.14	—	0.14
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.75	0.84	< 0.005	0.03	—	0.03	0.03	—	0.03
Onsite truck	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	0.02	0.02	0.27	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	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	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Hauling	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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	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	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	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	0.44	3.78	4.40	0.01	0.13	—	0.13	0.12	—	0.12
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.69	0.80	< 0.005	0.02	—	0.02	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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	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	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Hauling	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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	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	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	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	0.44	3.78	4.40	0.01	0.13	—	0.13	0.12	—	0.12
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.69	0.80	< 0.005	0.02	—	0.02	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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Hauling	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	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Hauling	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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.88	8.19	0.01	0.25	—	0.25	0.23	—	0.23
Paving	0.07	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.32	0.45	< 0.005	0.01	—	0.01	0.01	—	0.01
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.05	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

3.12. Paving (2026) - Mitigated

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.88	8.19	0.01	0.25	—	0.25	0.23	—	0.23
Paving	0.07	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.32	0.45	< 0.005	0.01	—	0.01	0.01	—	0.01
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.05	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

3.13. Architectural Coating (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02
Architectural Coatings	3.55	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.19	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

3.14. Architectural Coating (2026) - Mitigated

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02
Architectural Coatings	3.55	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.19	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	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	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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.84	0.38	3.79	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.84	0.38	3.79	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.82	0.42	3.84	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.82	0.42	3.84	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.15	0.08	0.69	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.15	0.08	0.69	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.84	0.38	3.79	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.84	0.38	3.79	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.82	0.42	3.84	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.82	0.42	3.84	0.01	0.01	0.63	0.64	0.01	0.16	0.17
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.15	0.08	0.69	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.15	0.08	0.69	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—

Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—

Landscape Equipment	0.10	0.01	0.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	0.42	0.01	0.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—
Total	0.32	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.05	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.01	0.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	0.42	0.01	0.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Consumer Products	0.30	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—
Total	0.32	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.05	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—

Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Place of Worship	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
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	3/3/2025	5/23/2025	5.00	60.0	—
Site Preparation	Site Preparation	5/26/2025	5/30/2025	5.00	5.00	—
Grading	Grading	6/2/2025	6/13/2025	5.00	10.0	—
Building Construction	Building Construction	6/16/2025	7/10/2026	5.00	280	—
Paving	Paving	7/13/2026	8/7/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	8/10/2026	9/4/2026	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
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	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	1.00	7.00	84.0	0.37
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29

Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Architectural Coating	Air Compressors	Diesel	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
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	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	1.00	7.00	84.0	0.37
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20

Building Construction	Tractors/Loaders/Back	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Architectural Coating	Air Compressors	Diesel	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
Demolition	—	—	—	—
Demolition	Worker	12.5	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	6.30	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	5.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	5.81	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	2.27	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.16	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	6.30	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT

Site Preparation	Hauling	5.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	5.81	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	2.27	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.16	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	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

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%

Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	20,768	6,923	1,458

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,509	—
Site Preparation	200	—	4.50	0.00	—
Grading	—	—	10.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.56

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
Place of Worship	0.00	0%
Parking Lot	0.56	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	540	0.03	< 0.005
2026	0.00	45.1	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
Place of Worship	241	241	241	87,965	892	892	892	325,470
Parking Lot	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
Place of Worship	241	241	241	87,965	892	892	892	325,470
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

0	0.00	20,768	6,923	1,458

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)
Place of Worship	124,237	45.1	0.0330	0.0040	558,843
Parking Lot	21,292	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)
Place of Worship	124,237	45.1	0.0330	0.0040	558,843
Parking Lot	21,292	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)
Place of Worship	433,195	679,571
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Place of Worship	400,532	310,556
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Place of Worship	78.9	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Place of Worship	27.6	—
Parking Lot	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

Place of Worship	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Place of Worship	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Place of Worship	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Place of Worship	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Place of Worship	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Place of Worship	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Place of Worship	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Place of Worship	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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)

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage for Place of worship based on first story. Landscape area estimated by subtracting buildings, covered areas, and parking from total lot acreage.
Construction: Construction Phases	Increased demolition to 60 days to account for additional structure and concrete/asphalt demo.
Operations: Vehicle Data	241 trips per day, 892 VMT/day, as provided by client.
Construction: Dust From Material Movement	Assume watering 3 times/day. Excavation and fill are not anticipated to exceed 200 cubic yards.