Appendix B
Air Quality and Greenhouse Gas Emissions Technical Study

City of San José 2023-2031 Housing Element Update

Air Quality and Greenhouse Gas Emissions Technical Study

prepared for

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1 Project Description

1.1 Introduction

This study analyzes the potential air quality and greenhouse gas (GHG) impacts of the 2023-2031 Housing Element Update ("the Housing Element Update" or "the project") for the City of San José. The City of San José (City) last updated its Housing Element for the 2014-2023 planning period in 2015. The City's 2014-2023 Housing Element Update was adopted by City Council on January 27, 2015 and certified by HCD on April 30, 2015. The Housing Element Update has been developed to comply with State law requirements analyzing existing and projected housing needs, and updating goals, policies, objectives, and implementation programs for the preservation, improvement, and development of housing in the City.

The purpose of this study is to analyze the project's air quality and GHG impacts related to both temporary construction activity and long-term operation of the project. Table 1 provides a summary of project impacts.

Table 1 Summary of Impacts

Issue	Level of Significance	Mitigation Measures Required
Air Quality		
Would the project conflict with or obstruct implementation of the applicable air quality plan?	Less than significant impact	None
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Less than significant impact	None
Would the project expose sensitive receptors to substantial pollutant concentrations?	Less than significant impact	None
Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant impact	None
Greenhouse Gas Emissions		
Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than significant impact	None
Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than significant impact	None

1.2 Project Background

1.2.1 Project Location

The City is located in the easterly half of the Santa Clara Valley at the southern tip of the San Francisco Bay. The City is the largest in Santa Clara County, both in terms of population and land area. At slightly over a million people, the City is also the tenth largest city in the United States (U.S.).

1.2.2 Project Baseline

State CEQA Guidelines Section 15125 provides guidance for establishing the baseline against which project impacts can be evaluated. Ordinarily, the appropriate baseline would be the actual environmental conditions existing at the time of CEQA analysis (typically when the Notice of Preparation [NOP] is published). However, due to complications from the Covid-19 pandemic, collection of 2020 Census data was disrupted and complete demographic data for 2020-2022 is not available. The most recent complete data set available at the time of this analysis (September 2022) was the 2019 American Community Survey (ACS) estimates. There is no confirmed date for when the 2022 data will be released. Therefore, 2019 is the baseline for the purposes of this CEQA analysis; unless otherwise stated, demographic data presented in the following sections comes from the 2019 ACS estimates. In some cases, data from before or after 2019 is presented to provide historical context and to highlight past and projected trends.

1.2.3 Population

The total population of the City has increased dramatically during the last 50 years, especially during the 1960s and 1970s. Although the rate of growth has slowed since the 1970s, the City is still experiencing substantial growth. The City added an average of 12,795 residents per year since 2000, an increase of 14.3 percent since 2000, for a total population of 945,942 at the beginning of 2010. As of 2019, total population of the City was estimated to be 1,021,786, nearly an 11 percent increase from 2010. Rapid population growth is expected to continue for Santa Clara County and for the City into the future. Santa Clara County's population is projected by ABAG to increase to 2.4 million by 2035, representing growth of 33 percent over the existing population. This is faster than the Bay region's projected growth of 27 percent over the same period.

1.2.4 Housing

There exists a diverse range of housing types and densities to serve the City's diverse population. Single family detached units constituted 54.6 percent of the housing stock in 2008. Multi-family development (which includes apartments, condominiums, and townhouses) has been the fastest growing housing type in recent years, adding over twice as many units since 2000 and accounting for 75 percent of all residential construction. This suggests an increase in higher-density, smaller, more affordable (though not necessarily subsidized) units. The City's housing stock in 2020 was made up of 52.6 percent single family detached homes, 9.7 percent single family attached homes, 6.9 percent multifamily homes with 2 to 4 units, 27.5 percent multifamily homes with 5 or more units, and 3.3 percent mobile homes. The housing type that experienced the most growth between 2010 and 2020 was Multiple Family, 5+ Units per Building, up 25 percent. The primary housing types that made up the City's housing stock in 2020 are shown in Table 2.

Table 2 Housing Units by Type

Housing Type	Number of Units	Percent of Total
Single Family Detached[1]	176,908	52.5%
Single Family Attached[1]	32,620	9.7%
Multiple Family, 2-4 Units per Building	23,353	7.0%
Multiple Family, 5+ Units per Building	92,667	27.5%
Mobile Homes	10,959	3.3%
Total	**336,507**	**100.0%**

[1] A single family housing unit is a separate building that either has open spaces on all sides or is separated from other units by dividing walls that extend from ground to roof, such as a townhouse.

Source: City of San José 2022

Existing and projected population households are shown in Table 3 for both the City and Santa Clara County. In 2019, there were approximately 325,114 households within the City. Looking forward, ABAG projects that approximately 117,215 additional households will be added in the City by 2040. This rate of growth is relatively consistent with the anticipated rate in the County as a whole.

Table 3 Population and Housing Estimates and Projections

	Population		Households	
Source	2019	2040	2019	2040
Santa Clara County	1,927,852	2,538,320	640,215	860,810
City of San José	1,021,786	1,377,145	325,114	448,310
City as a Percent of County	–	54.3%	–	32.0%

Source: ABAG Projections 2020. American Census Survey 2019

1.2.5 Employment

Santa Clara County is one of the Bay Area region's major job generators. Santa Clara County provided 28 percent of the Bay Area region's employment in 2000, or 1.0 million jobs, according to ABAG. The City added approximately 103,390 jobs between 1990 and 2000, growing from approximately 329,090 to nearly 432,480 jobs (a 31 percent increase). Following the "dot-com" collapse, ABAG estimates show reductions in jobs across all sectors in 2005, with employment in the City decreasing about 69,100 jobs. However, since that time the number of jobs in the City has continued to increase. By the baseline year of 2019, there were approximately 535,727 jobs in the City.

As shown in Table 4, ABAG expects Santa Clara County jobs to reach 1.3 million jobs by 2040; an increase of nearly 57 percent over 2019 levels. During the same time period, ABAG projects that the City's employment will nearly double from 369,500 to 708,980. With these projections, the City's share of total jobs in the County will increase from approximately 41 percent to 50 percent.

Table 4 ABAG Employment Projections

Jurisdiction(s)	Employed Residents 2019	Percent of County Employment	Bay Area Employment	Employed Residents 2040	Percent of County Employment	Bay Area Employment
City of San José	369,500	41%	11%	708,980	50%	14%
Santa Clara County	906,270	–	26%	1,412,620	–	28%

Source: American Community Survey, 5-year Estimates, 2019. ABAG Projections, 2020

Employed residents are expected to increase steadily in the County, growing from 906,270 to 1,412,620 between 2019 and 2040 (an increase of 56 percent). Employment in the City (under the existing 2040 General Plan) is projected to grow even faster, with the number of employed residents growing from 369,500 in 2019 to 708,980 in 2040, for an increase of 92 percent.

1.3 Housing Element Update

The City must plan for 62,200 housing units during the 2023-2031 planning period (i.e., the 6th Cycle). Table 5 summarizes the City's approach to meeting the assigned RHNA, broken out by type of housing units and income level. As shown in Table 5, approximately 20,399 units have been planned or approved for development consistent with existing 2040 General Plan land use designations and zoning since the 6th cycle RHNA projection period began on June 30, 2022. Additionally, 3,552 ADUs are forecasted to be issued during the planning period given recent development trends. A total of 204 alternative housing units have also been identified through HCD's project Homekey.[1] Together, planned, approved, and forecasted housing units comprise 24,155 housing units out of the City's total 62,200 RHNA.

Table 5 Planned and Projected Housing Units

Type of Housing Unit	Low	Moderate	Above Moderate	Total
Planned and Approved	5,344	178	14,877	20,399
ADUs	2,131	1,066	355	3,552
Alternative Sites	204	0	0	204
Opportunity Sites	21,799	11,779	19,854	53,432
Total	**29,478**	**13,023**	**35,086**	**77,587**
Buffer	24%	22%	27%	25%

Source: City of San José 2022

To achieve the full 62,200 housing units, the City has identified opportunity sites that are vacant or underutilized to allow development for the remaining 38,045 units. Per HCD's guidelines, the City also included a buffer of 15,387 units (or approximately 25% of the 62,200 RHNA), for a total of 53,432 units in opportunity sites. As Table 5 demonstrates, the Housing Element Update is able to accommodate the City's share of RHNA at all income levels.

[1] Project Homekey seeks to sustain and rapidly expand permanent and interim housing for persons experiencing homelessness or at risk of homelessness, and who are inherently impacted by, or at increased risk for, medical conditions due to the COVID-19 pandemic. For more information on Project Homekey in San José please visit https://www.sanjoseca.gov/your-government/departments-offices/housing/homelessness-response/project-homekey.

Changes to the 2040 General Plan land use designations and zoning to allow for residential units in certain areas of the City will be required for some of these opportunity sites where housing is currently not permitted. These actions, described in Sections 1.3.1 through 1.3.3 below, are the primary components of the project and are the subject of this EIR.

1.3.1 Growth Areas

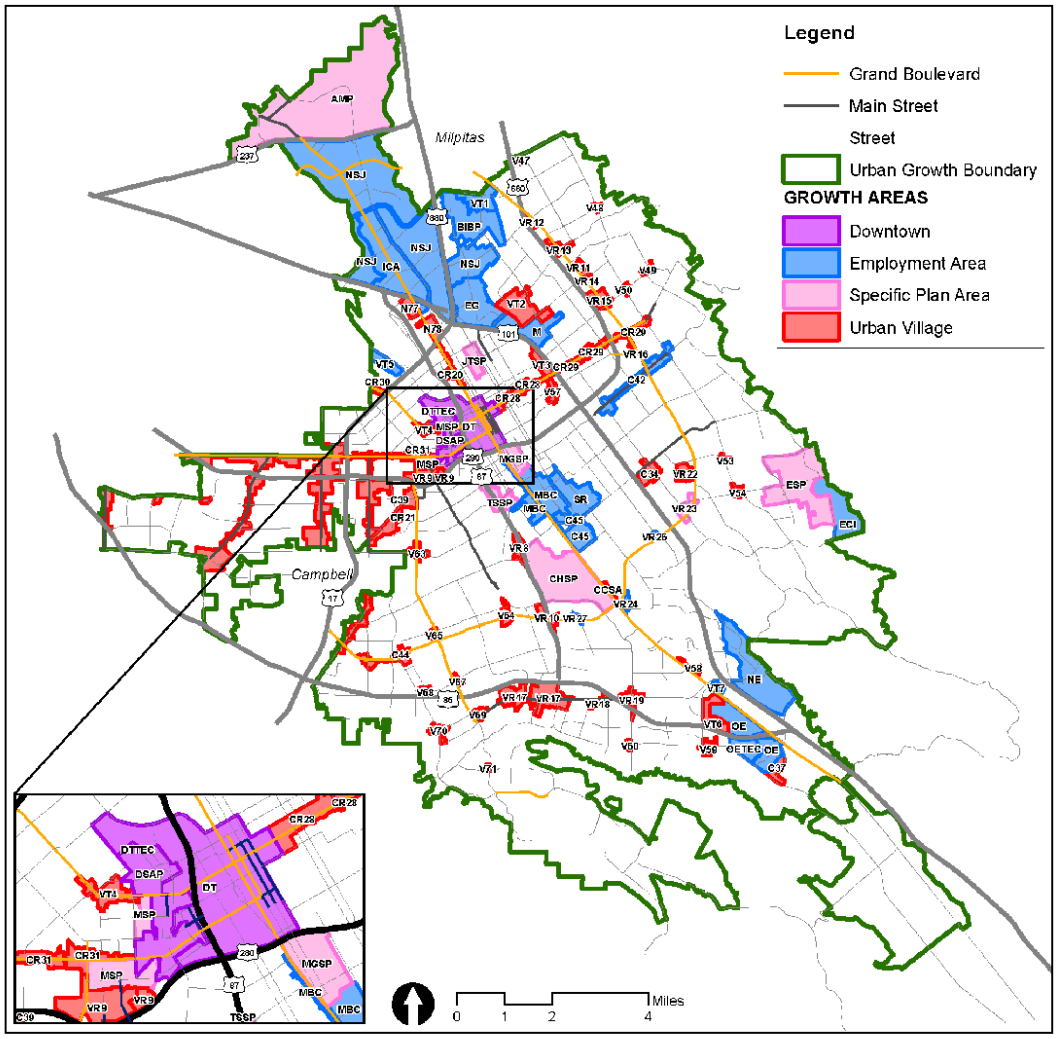
Growth areas are areas identified in the 2040 General Plan for higher density development to support job and/or housing growth within the existing City boundaries through redevelopment and intensification of already developed properties. Each of the growth areas identified in the 2040 General Plan have specific development capacities with a maximum number of housing units allowed. By focusing on specific growth areas, the 2040 General Plan sought to reduce environmental impacts while fostering transit use and walkability, protecting the quality of existing neighborhoods, and enabling the development of new Urban Village areas that are attractive to the growing demographic groups (i.e., an aging population and young workers seeking an urban experience). Growth areas identified in the 2040 General Plan include:

- North San José (including the Rincon Urban Village)
- Downtown
- Diridon Station Area
- Specific Plan Areas
- Neighborhood Business Districts (NBDs)
- Urban Villages with adopted plans ("Planned UVs")
- Urban Villages without adopted plans ("Unplanned UVs")

A complete map of all planned growth areas identified by the City is shown in Figure 1.

To facilitate the development of the 38,045 opportunity site housing units, the City conducted a comprehensive inventory of remaining development capacity in previously identified growth areas and of land suitable and available for residential development. The City also considered recent development trends, including the effects of the Covid-19 pandemic (for a full description of the City's methodology, refer to Chapter 5 of the Housing Element Update). Through this exercise, the City found that some growth areas have an excess of available land suitable for residential development, while some growth areas have an excess of unused residential development capacity. Table 6 shows the growth areas with available land for residential development that currently lack residential growth capacity as assigned by the 2040 General Plan. As part of the project, the City proposes to reallocate the required units for each growth area from the North San José and Rincon Urban Village Growth Area, which has a planned growth capacity surplus of approximately 23,000 units. The total development capacity for the City would remain unchanged; no additional growth beyond what was analyzed under the 2040 General Plan EIR would occur.

Figure 1 Planned Growth Areas



Downtown
DT = Downtown
DSAP = Diridon Station Area Plan

Specific Plan Areas
AMP = Alivio (Master Plan)
CHSP = Communications Hill
ESP = Evergreen
JTSP = Jackson-Taylor (Residential Strategy)
MGSP = Martha Gardens
MSP = Midtown
TSSP = Tamien Station Area
VR23 = E. Capitol Ex/Silver Creek Rd

Employment Area
BIBP = Berryessa International Business Park
DTTEC = Downtown Transit Employment Center
ECI = Evergreen Campus Industrial
EG = East Gish
ICA = Industrial Core Area
M = Mabury
MBC = Monterey Business Corridor
NE = New Edenvale
NSJ = North San Jose
OE = Old Edenvale
OETEC = Old Edenvale Transit Employment Center
SR = Senter Road

C42 = Story Rd
C 45 = County Fairgrounds

VR16 = S. Capitol Av/Capitol Ex
VR24 = Monterey Hy/Senter Rd
VR26 = E. Capitol Ex/McLaughlin Av
VR27 = W. Capitol Ex/Vistapark Dr

Employment Areas (cont.)
VT1 = Lundy/Milpitas BART
VT5 = Santa Clara/Airport West (FMC)
CT7 = Blossom Hill Rd/Monterey Rd

Urban Villages
C34 = Tully Rd/S. King Rd
C35 = Valley Fair/Sanatana Row
C36 = Paseo de Saratoga
C37 = Santa Teresa Bl/Bernal Rd
C38 = Winchester Bl
C39 = S. Bascom Av (North)
C40 = S. Bascom Av (South)
C41 = Saratoga Av
C43 = S. De Anza Bl
C44 = Camden Av/Hillsdale Av

CCSA = Capitol CaltrainStation Area

CR20 = N. 1st St
CR21 = Southwest Ex
CR28 = E. Santa Clara St
CR30 = The Alameda (West)
CR 31 = W. San Carlos St
CR32 = Stevens Creek Bl

N77 = Rincon South 1
N78 = Rincon South 2

V47 = Landess Av/Morrill Av
V48 = Piedmont Rd/Sierra Rd
V49 = McKee Rd/Toyon Av
V50 = McKee Rd/White Rd
V53 = Quimby Rd/S. White Rd
V54 = Aborn Rd/San Felipe Rd

Urban Villages (cont.)
V57 = S. 24th St/William Ct
V58 = Monterey Rd/Chynoweth Av
V59 = Santa Teresa Bl/Cottle Rd
V60 = Santa Teresa Bl/Snell Av
V61 = Bollinger Rd/Miller Av
V62 = Bolling Rd/Lawrence Ex
V63 = Hamilton Av/Meridian Av
V64 = Almaden Ex/Hillsdale Av
V65 = Foxworthy Av/Meridian Av
V67 = Branham Ln/Meridian Av
V68 = Camden Av/Branham Ln
V69 = Kooser Rd/Meridian Av
V70 = Camden Av/Kooser Rd
V71 = Meridian Av/Redmond Av

VR8 = Curtner Light Rail/Caltrain
VR9 = Race St Light Rail
VR10 = Capitol Ex/Hy 87 Light Rail
VR11 = Penitencia Creek Light Rail
VR12 = N. Capitol Av/Hostetter Rd
VR13 = N. Capitol Av/Berryessa Rd
VR14 = N. Capitol Av/Madbury Rd
VR15 = N. Capitol Av/McKee Rd
VR17 = Oakridge Mall and Vicinity
VR18 = Blossom Hill Rd/Cahalan Av
VR19 = Blossom Hill Rd/Snell Av
VR22 = Arcadia/Eastridge

VT2 = Berryessa BART
VT3 = Five Wounds BART
VT4 = The Alameda (East)
VT6 = Blossom Hill Rd/Hitachi

Table 6 Growth Areas Receiving Additional Growth Capacity from North San José

Urban Villages/Growth Areas	Planned Growth Capacity in Housing Element Update (units)	Remaining Growth Capacity in 2040 General Plan (units)	Units to be Reallocated from North San José
Saratoga Avenue	680	225	455
Blossom Hill Road/Snell Avenue	753	209	544
Camden Avenue/Hillsdale Avenue	676	450	147
Capitol Expressway/Highway 87 Light Rail	617	531	723
Curtner Light Rail Station	463	435	28
S. Bascom Avenue (South)	694	195	499
S. De Anza Boulevard	754	463	291
Urban Villages (Aborn Road/San Felipe Road, Almaden Expressway/Hillsdale Avenue, Camden Avenue/Kooser Road, Hamilton Avenue/Meridian Avenue, McKee Road/Toyon Avenue, McKee Road/White Road, Piedmont Road/Sierra Road, Santa Teresa Boulevard/Snell Avenue)	1,973	1,430	408
Total Reallocation from North San José and Rincon Urban Village			**3,095**

Source: City of San José 2022

1.3.2 2040 General Plan Amendments and Zoning Code Amendments

Several land use and zoning changes would be required to facilitate the development of the City's RHNA and to allow for the reallocation of residential development capacity discussed in Section 1.3.1. These would occur within the North San José and Rincon Urban Village growth area. While 2040 General Plan-designated land uses within this growth area are primarily employment-related (i.e., industrial and commercial), a Transit Employment Residential Overlay (TERO) allows for transit-oriented residential development as an alternate use on certain sites within the growth area.

The TERO is intended to make efficient use of land to provide residential units in support of nearby industrial employment centers. This overlay supports residential development as an alternate use at a minimum average net density of 75 units per acre. Sites with this overlay may also be developed with uses consistent with the underlying designation. This designation permits development with commercial uses on the first two floors and residential use on the upper floors, as well as wholly residential projects. Land within this overlay area may also be converted for the development of new schools and parks as needed to support residential development.

Due to a variety of economic factors, development within TERO areas of the North San José and Rincon Urban Village growth area has continued to be primarily employment-related despite the residential overlay, resulting in the 23,000-unit residential development capacity surplus referenced in Section 1.3.1.

One site (1601 Technology) would be added to the TERO General Plan and Zoning overlay and 11 other sites would be removed from the General Plan and Zoning TERO overlay because the sites are no longer feasible residential properties due to changed circumstances.

Similar to the TERO, two new General Plan land use designation overlays would be introduced: the Affordable Housing Overlay (AHO) and Mixed Income Housing Overlay (MIHO). The AHO overlay would support residential development as an alternate use at a minimum average net density of 75 units per acre. The residential uses however must be one hundred percent affordable at incomes at or below eighty percent of area median income (AMI). Sites with this overlay could also continue to be developed with uses consistent with the current underlying land use designation. The Mixed-Income Housing Overlay (MIHO) would support residential development as an alternate use at a minimum average net density of 75 units per acre. This overlay would require at least twenty-five percent (25 percent) of the units be affordable at or below eighty percent (80 percent) of area median income (AMI).

In addition to the proposed General Plan land use designation overlays, Zoning overlays would be introduced consistent with the new land use overlays designations (AHO and MIHO), that would include development standards. Figure 2 identifies the sites proposed to be part of these new overlays.

In addition to reallocating 3,095 units to other growth areas shown in Table 6, the City proposes to expand the TERO areas within the North San José and Rincon Urban Village growth area to encourage more residential development, as part of the implementation of an updated Housing Element. Zoning in these areas would also be updated, consistent with the new overlay. New TERO sites and accompanying zoning changes are shown in Figure 2.

1.3.3 Interim Housing Communities

Bridge Housing Communities

The City operates five interim housing communities, which are sometimes called Bridge Housing Communities (BHCs). The first BHC opened in January 2020 to provide interim housing for formerly unhoused individuals. The purpose of interim housing is to give participants an opportunity to stabilize their lives and work toward self-sufficiency. The first two BHC sites are located on Mabury Road near the Berryessa BART station, and on Felipe Avenue near Story Road.

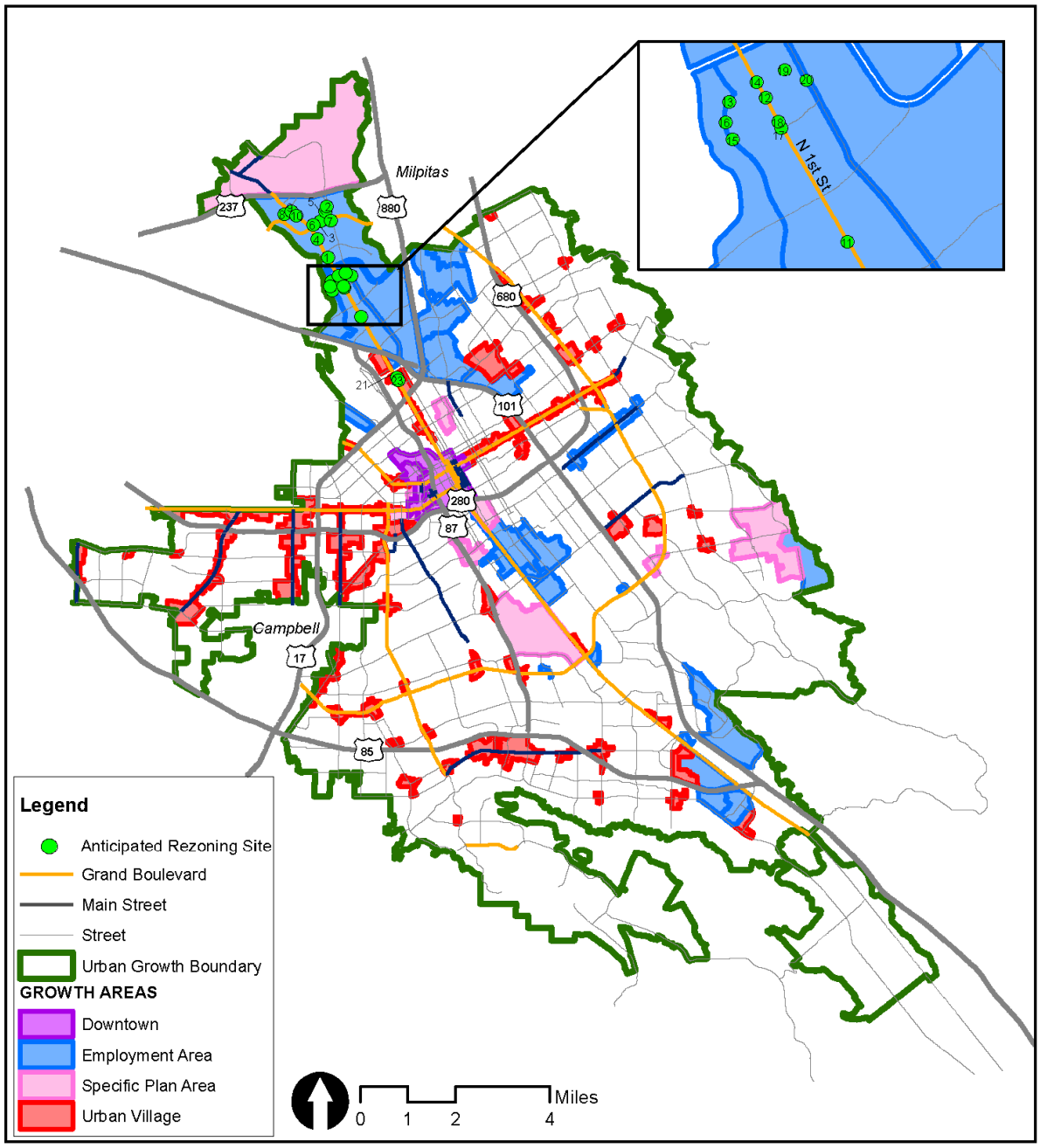
Emergency Interim Housing

During the coronavirus pandemic, the City built three Emergency Interim Housing (EIH) communities. These are similar to the two BHCs although the site design and construction are slightly different. The EIH communities have been used to house medically vulnerable unhoused residents who are at risk of severe illness or death if they contract COVID-19. As the pandemic subsides, the EIH communities are being rolled into a broader interim housing program with the BHCs. The three EIH sites are located at the intersection of Bernal Road and Monterey Road; on Rue Ferrari near the entrance to Highway 101; and on Evans Lane near the entrance to Almaden Expressway. A fourth EIH community is under construction near SJPD headquarters.

Safe Parking Program

The City provides opportunities for homeless families and individuals living in cars and RVs to park in safe places overnight. The Safe Parking Program allows businesses and non-profits to establish Safe Parking Areas in their parking lots.

Figure 2 Anticipated Rezoning Sites



Anticipated Rezoning Sites

1 - (APN: 097-06-032) 3331 N 1st St, San Jose, CA, 95134
2 - (APN: 097-07-028) 255 Baypointe Pkwy, San Jose, CA, 95134
3 - (APN: 097-07-039) 111 Baypointe Pkwy, San Jose, CA, 95134
4 - (APN: 097-07-040) 3550 N 1st St, San Jose, CA, 95134
5 - (APN: 097-07-047) 240 Baypointe Pkwy, San Jose, CA, 95134
6 - (APN: 097-07-063) No Address Assigned, San Jose, CA, 95134
7 - (APN: 097-07-085) No Address Assigned, San Jose, CA, 95134
8 - (APN: 097-52-027) 71 Vista Montana, San Jose, CA, 95134
9 - (APN: 097-53-007) 4001 N 1st St, San Jose, CA, 95134
10 - (APN: 097-53-008) 3939 N 1st St, San Jose, CA, 95134
11 - (APN: 101-02-011) 2347 N 1st St, San Jose, CA, 95134
12 - (APN: 101-29-005) 3011 N 1st St, San Jose, CA, 95134
13 - (APN: 101-29-006) 3000 Orchard Pkwy, San Jose, CA, 95134
14 - (APN: 101-29-007) 3003 N 1st St, San Jose, CA, 95134
15 - (APN: 101-29-010) 2820 Orchard Pkwy, San Jose, CA, 95134
16 - (APN: 101-29-011) 2904 Orchard Pkwy, San Jose, CA, 95134
17 - (APN: 101-29-012) 3 W Plumeria Dr, San Jose, CA, 95134
18 - (APN: 101-29-013) 2825 N 1st St, San Jose, CA, 95134
19 - (APN: 101-30-004) 101 Daggett Dr, San Jose, CA, 95134
20 - (APN: 101-30-006) 2865 Zanker Rd, San Jose, CA, 95134
21 - (APN: 235-02-031) 1488 N 1st St, San Jose, CA, 95112
22 - (APN: 235-02-033) 1550 N 1st St, San Jose, CA, 95112
23 - (APN: 235-02-035) 1490 N 1st St, San Jose, CA, 95112

1.4 Changes to Future Development Actions

The Housing Element Update establishes policies, goals and guidelines, and reallocations of planned housing development capacities within the City that may or may not be built on any particular site, therefore this programmatic environmental document is necessarily general and not project-specific. The CEQA Guidelines instruct that environmental review of a planning-level document need not contain the level of detail required for review of a specific construction project, for example CEQA Guidelines, Section 15146 states that "[the degree of specificity required will correspond to the degree of specificity involved in the underlying activity".

The City's inventory of sites is a state-mandated requirement to ensure that the City's RHNA can be accommodated. In other words, the housing inventory demonstrates that there is enough land zoned at appropriate densities to accommodate the RHNA allocation. However, this inventory does not include all potential residential development sites within the City limits, and does not mean that sites in the inventory will be developed at the allowable densities. In addition, information about the design and placement of buildings on the sites will not be available unless/until a specific development is proposed.

It is important to note that while the law requires the City's Housing Element Update to include an inventory of housing sites and requires the City to zone those sites for multifamily housing, the City is not required to develop housing on these sites. Future development on the identified sites will be up to the property owners and will be largely dependent on market forces and (in the case of affordable housing) available subsidies.

2 Air Quality

2.1 Environmental and Regulatory Setting

2.1.1 Local Climate and Meteorology

The project site is in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards.

The City of San Jose is located in the southern portion of the SFBAAB and the proximity to the San Francisco Bay influence the climate in the city and surrounding region. As most of San Francisco's topography is below 200 feet, marine air is able to flow easily across the city, making its climate cool and windy. The annual high temperature is approximately 72°F, while the annual low temperature is approximately 45°F. Winds play a large role in controlling climate in the area, and annual average winds range between five and ten miles per hour in this region (BAAQMD 2017a).

2.1.2 Air Pollutants of Primary Concern

Pollutants may be emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere; these pollutants include carbon monoxide, nitrogen dioxide, particulate matter with a diameter of up to ten microns (PM_{10}) and up to 2.5 microns ($PM_{2.5}$), sulfur dioxide, and lead.

Additionally, pollutants may be created indirectly through chemical reactions in the atmosphere. Ozone is created by atmospheric chemical and photochemical reactions between reactive organic gases[2] (ROG) and nitrogen oxides (NO_X). The following subsections describe the characteristics, sources, and health and atmospheric effects of air pollutants of primary concern.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_X) and ROG. ROG are composed of non-methane hydrocarbons (with some specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and nitrogen dioxide. NO_X are formed during the combustion of fuels, while ROG are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROG and NO_X levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. In addition, because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans, including changes in breathing patterns, reduction of breathing capacity,

[2] CARB defines VOC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term ROG is used in this analysis.

increased susceptibility to infections, inflammation of lung tissue, and some immunological changes (BAAQMD 2017a). Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a localized pollutant that is found in high concentrations only near its source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is the incomplete combustion of petroleum fuels by automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes or proximate to locations of vehicle idling, such as parking structures or congested high-capacity roadway intersections. Other sources of carbon monoxide include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. The health effects of carbon monoxide are related to its affinity for hemoglobin in the blood. Carbon monoxide causes a number of health problems, including aggravation of some heart diseases (e.g., angina), reduced tolerance for exercise, impaired mental function, and impaired fetal development. At high levels of exposure, carbon monoxide reduces the amount of oxygen in the blood, leading to mortality (BAAQMD 2017a). Carbon monoxide tends to dissipate rapidly into the atmosphere; consequently, violations of the NAAQS and/or CAAQS for carbon monoxide are generally associated with localized carbon monoxide "hotspots" that can occur at major roadway intersections during heavy peak-hour traffic conditions.

Nitrogen Dioxide

Nitrogen dioxide is a by-product of fuel combustion; the primary sources are motor vehicles and industrial boilers and furnaces. The principal form of NO_X produced by combustion is nitric oxide, but nitric oxide reacts rapidly to form nitrogen dioxide, creating the mixture of nitric oxide and nitrogen dioxide commonly called NO_X. Nitrogen dioxide is an acute irritant that can aggravate respiratory illnesses and symptoms, particularly in sensitive groups ([BAAQMD 2017a). A relationship between nitrogen dioxide and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility (BAAQMD 2017a). It can also contribute to the formation of PM_{10} and acid rain.

Sulfur Dioxide

Sulfur dioxide is included in a group of highly reactive gases known as "oxides of sulfur." The largest sources of sulfur dioxide emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of sulfur dioxide emissions include industrial processes such as extracting metal from ore and the burning of fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Sulfur dioxide is linked to a number of adverse effects on the respiratory system, including aggravation of respiratory diseases, such as asthma and emphysema, and reduced lung function (BAAQMD 2017a).

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. Both PM_{10} and $PM_{2.5}$ are directly emitted into the atmosphere as by-products of fuel combustion and wind erosion of soil and unpaved roads. Particulate matter is also created in the atmosphere through chemical reactions. The characteristics,

sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be very different. PM_{10} is generally associated with dust mobilized by wind and vehicles while $PM_{2.5}$ is generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems (CARB 2020a). More than half of $PM_{2.5}$ that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance Suspended particulates can also reduce lung function, aggravate respiratory and cardiovascular diseases, increase mortality rates, and reduce lung function growth in children (BAAQMD 2017a).

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial sources. However, as a result of the U.S. EPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (U.S. EPA 2013). As a result of phasing out leaded gasoline, metal processing currently is the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. The health impacts of lead include behavioral and hearing disabilities in children and nervous system impairment (BAAQMD 2017a).

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about $1/70^{th}$ the diameter of a human hair) and thus is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2020b). Within the SFBAAB, DPM accounted for approximately 85 percent of the cancer risk from air toxics in the region with mobile sources being one of the top contributors (BAAQMD 2016, 2020)

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

2.1.3 Air Quality Regulation

Federal Air Quality Regulations

The Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. EPA developed Ambient Air Quality Standards which represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) have been designated for the following criteria pollutants of primary concern: ozone, carbon monoxide, nitrogen dioxide, lead, sulfur dioxide, $PM_{10,}$ and $PM_{2.5}$.

The U.S. EPA classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant based on the comparison of measured data with the NAAQS. States are required to adopt enforceable plans, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS. State plans also must control emissions that drift across state lines and harm air quality in downwind states. Table 7 lists the current federal standards for regulated pollutants.

Table 7 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS	CAAQS
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	–	–
	24-Hour	–	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	–	20 µg/m^3
	24-Hour	150 µg/m^3	50 µg/m^3
$PM_{2.5}$	Annual	12 µg/m^3	12 µg/m^3
	24-Hour	35 µg/m^3	–
Lead	30-Day Average	–	1.5 µg/m^3
	3-Month Average	0.15 µg/m^3	–

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m^3 = micrograms per cubic meter

Source: CARB 2023a

State Air Quality Regulations

CALIFORNIA CLEAN AIR ACT

The California Clean Air Act (CCAA) was enacted in 1988 (California Health & Safety Code (H&SC) §39000 et seq.). Under the CCAA, the State has developed the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the NAAQS. Table 7 lists the current state standards for regulated pollutants. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Like the federal CAA, the CCAA classifies specific geographic areas as either “attainment” or “nonattainment” areas for each pollutant, based on the comparison of measured data within the CAAQS.

California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. As discussed in Section 2.3, *Federal Air Quality Regulations*, the U.S. EPA classifies specific geographic areas as either “attainment” or “nonattainment” areas for NAAQS for each pollutant. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a nonattainment area for that pollutant. Under the federal and state Clean Air Acts, once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be redesignated to an attainment area for that pollutant. To be redesignated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. Areas that have been redesignated to attainment are called maintenance areas.

TOXIC AIR CONTAMINANTS

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: H&SC Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

STATE IMPLEMENTATION PLAN

The SIP is a collection of documents that set forth the state’s strategies for achieving the NAAQS and CAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls. CARB is the lead agency for all purposes related to the SIP under state law. Local air districts are

responsible for preparing and implementing air quality attainment plans for pollutants for which the district is in non-compliance; the plans are incorporated into the SIP. Additionally, other agencies such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

Regional and Local Regulations

Air Quality Management Plan

The BAAQMD is responsible for assuring that the federal and State ambient air quality standards are attained and maintained in the Bay Area. The BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities.

The SFBAAB is designated nonattainment for the federal standards for ozone and $PM_{2.5}$ and in nonattainment for the state standard for ozone, $PM_{2.5}$, and PM_{10}. The SFBAAB is designated unclassifiable or in attainment for all other federal and state standards.

The BAAQMD adopted the 2017 Clean Air Plan (2017 Plan) as an update to the 2010 Clean Air Plan in April 2017. The 2017 Plan provides a regional strategy to protect public health and the climate. Consistent with the GHG reduction targets adopted by the state, the 2017 Plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050 (BAAQMD 2017b). To fulfill state ozone planning requirements, the 2017 Plan includes all feasible measures to reduce emissions of ozone precursors—reactive organic gases (ROG) and nitrogen oxides (NO_X)—and reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and TAC (BAAQMD 2017b).

BAAQMD Rules

The BAAQMD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Rules and regulations relevant to the project include the following:

Regulation 8, Rule 3 (Architectural Coatings): This rule limits the quantity of volatile organic compounds that can supplied, sold, applied, and manufactured within the BAAQMD region (2009).

CEQA Air Quality Guidelines: The BAAQMD recommends the following fugitive dust control best management practices during construction for all projects (BAAQMD 2017a):

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times daily.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly-visible sign with the telephone number and person to contact at the County regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Envision San José General Plan

The Envision San José 2040 General Plan outlines goals and policies to guide planning and development practices within the City. Chapter 3, Environmental Leadership, outlines the City's air quality goals and policies (below) that are applicable to the project (City of San José 2011a).

Policy MS-1.2: Continually increase the number and proportion of buildings within San José that make use of green building practices by incorporating those practices into both new construction and retrofit of existing structures.

Policy MS-2.11: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g. design to maximize cross ventilation and interior daylight) and through site design techniques (e.g. orienting buildings on sites to maximize the effectiveness of passive solar design).

Goal MS-10: Air Pollutant Emission Reduction. Minimize air pollutant emissions from new and existing development.

Policy MS-10.1: Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

Policy MS-10.2: Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.

Policy MS-10.7: Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.

Policy MS-10.10: Actively enforce the City's ozone-depleting compound ordinance and supporting policy to ban the use of chlorofluorocarbon compounds (CFCs) in packaging and in building construction and remodeling. The City may consider adopting other policies or ordinances to reinforce this effort to help reduce damage to the global atmospheric ozone layer.

Goal MS-11: Toxic Air Contaminants. Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

Policy MS-11.2: For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.

Policy MS-11.3: Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

Policy MS-11.7: Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

Goal MS-13: Construction Air Emissions. Minimize air pollutant emissions during demolition and construction activities.

Policy MS-13.1: Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Policy MS-14.4: Implement the City's Green Building Policies so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption.

2.1.4 Current Air Quality

The BAAQMD operates a network of air quality monitoring stations throughout the SFBAAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and to determine whether ambient air quality meets the California and federal standards. The SFBAAB monitoring station closest to the project area is the San José Jackson Street Station. This monitoring station measures ozone, NO_x, $PM_{2.5}$, and PM_{10}.

Table 8 indicates the number of days that each of the federal and State standards has been exceeded at this station in each year from 2019 to 2021. One-hour ozone exceeded State thresholds

once in 2019, once in 2020, and three times in 2021. Eight-hour ozone exceeded both federal and State thresholds twice in 2019, twice in 2020, and four times in 2021. $PM_{2.5}$ exceeded federal thresholds 12 times in 2020 and once in 2021. PM_{10} exceeded State thresholds four times in 2019 and 10 times in 2020. No other thresholds were exceeded in the years 2019 through 2021.

Table 8 Ambient Air Quality – Monitoring Station Measurements (2019-2021)

Pollutant	2019	2020	2021
San Jose Jackson Station			
Ozone (ppm), Worst 1-Hour	0.095	0.106	0.098
Number of days above CAAQS (>0.09 ppm)	1	1	3
Number of days above NAAQS (>0.12 ppm)	0	0	0
Ozone (ppm), Worst 8-Hour Average	0.082	0.086	0.085
Number of days above CAAQS (>0.070 ppm)	2	2	4
Number of days above NAAQS (>0.070 ppm)	2	2	4
Nitrogen Dioxide (ppm), Worst 1-Hour	59.8	51.9	47.8
Number of days above CAAQS (>0.180 ppm)	0	0	0
Number of days above NAAQS (>0.100 ppm)	0	0	0
Particulate Matter <2.5 microns ($\mu g/m^3$), Worst 24 Hours	34.4	120.5	38.1
Number of days above NAAQS (>35 $\mu g/m^3$)	0	12	1
Particulate Matter <10 microns ($\mu g/m^3$), Worst 24 Hours	77.1	137.1	45.1
Number of days above CAAQS (>50 $\mu g/m^3$)	4	10	0
Number of days above NAAQS (>150 $\mu g/m^3$)	0	0	0

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard

Source: CARB 2023b

Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect people most susceptible to respiratory distress, such as children under 14; persons over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. Therefore, most of the sensitive receptor locations are schools, hospitals, senior living centers, and residential areas.

The project area currently includes a mix of residential, industrial, commercial, and retail uses. Sensitive receptors within the city include residential uses, schools, hospitals, and nursing homes.

2.2 Impact Analysis

a. Thresholds of Significance

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

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. 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;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

BAAQMD Significance Thresholds

The plan-level thresholds specified in the May 2017 BAAQMD *CEQA Air Quality Guidelines* were used to determine whether the proposed project impacts exceed the thresholds identified in *CEQA Guidelines* Appendix G.

Consistency with the Air Quality Plan

Under BAAQMD's methodology, a determination of consistency with *CEQA Guidelines* thresholds should demonstrate that a project:

1. Supports the primary goals of the 2017 Clean Air Plan;
2. Includes applicable control measures from the 2017 Clean Air Plan; and
3. Does not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

Construction Emissions Thresholds

The BAAQMD's May 2017 *CEQA Air Quality Guidelines* have no plan-level significance thresholds for construction air pollutants emissions. However, they do include project-level screening and emissions thresholds for temporary construction-related emissions of air pollutants. These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions and are discussed in detail below (BAAQMD 2017a). Construction emissions associated with plan implementation are discussed qualitatively to evaluate potential air quality impacts.

The BAAQMD developed screening criteria in the 2017 *CEQA Air Quality Guidelines* to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts. The screening criteria for residential land uses are shown in Table 9.

Table 9 BAAQMD Criteria Air Pollutant Screening Levels

Land Use Type	Operational Criteria Pollutant Screening Size (du)	Construction Criteria Pollutant Screening Size (du)
Single-family	325 (NO_X)	114 (ROG)
Apartment, low-rise	451 (ROG)	240 (ROG)
Apartment, mid-rise	494 (ROG)	240 (ROG)
Apartment, high-rise	510 (ROG)	249 (ROG)
Condo/townhouse, general	451 (ROG)	240 (ROG)
Condo/townhouse, high-rise	511 (ROG)	252 (ROG)
Mobile home park	450 (ROG)	114 (ROG)
Retirement community	487 (ROG)	114 (ROG)
Congregate care facility	657 (ROG)	240 (ROG)

du = dwelling unit; NO_X = oxides of nitrogen; ROG = reactive organic gases

Source: BAAQMD 2017a

If a project meets the screening criteria, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project's air pollutant emissions. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration (BAAQMD 2017a).

In addition to the screening levels above, several additional factors are outlined in the 2017 *CEQA Air Quality Guidelines* that construction activities must satisfy for a project to meet the construction screening criteria:

- All basic construction measures from the 2017 *CEQA Guidelines* must be included in project design and implemented during construction
- Construction-related activities would *not* include any of the following:
  - Demolition
  - Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously)
  - Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development)
  - Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity

For projects that do not meet the screening criteria above, the BAAQMD construction significance thresholds for criteria air pollutants, shown in Table 10, are used to evaluate a project's potential air quality impacts.

Table 10 BAAQMD Criteria Air Pollutant Significance Thresholds

Pollutant	Construction Thresholds Average Daily Emissions (lbs/day)	Operational Threshold Average Daily Emissions (lbs/day)	Operational Threshold Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	Not Applicable

lbs = pounds; NO_X = oxides of nitrogen; ROG = reactive organic gases; $PM_{2.5}$ = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns

Source: BAAQMD 2017a

For all projects in the SFBAAB, the BAAQMD 2017 *CEQA Air Quality Guidelines* recommends implementation of the Basic Construction Mitigation Measures listed in Table 8-2 of the Guidelines (BAAQMD 2017a). For projects that exceed the thresholds in Table 10, the BAAQMD 2017 *CEQA Air Quality Guidelines* recommends implementation of the Additional Construction Mitigation Measures listed in Table 8-3 of the Guidelines (BAAQMD 2017a).

Operation Emissions Thresholds

The BAAQMD's 2017 *CEQA Air Quality Guidelines* contain specific operational plan-level significance thresholds for criteria air pollutants. Plans must show the following over the planning period:

- Consistency with current air quality plan control measures, and
- Vehicle miles traveled (VMT) or vehicle trips increase is less than or equal to the plan's projected population increase.

If a plan can demonstrate consistency with both criteria, then impacts would be less than significant. The current air quality plan is the 2017 Clean Air Plan.

For project-level thresholds, the screening criteria for operational emissions are shown in Table 9. For projects that do not meet the screening criteria, the BAAQMD operational significance thresholds for criteria air pollutants, shown in Table 10, are used to evaluate a project's potential air quality impacts.

Carbon Monoxide Hotspots

BAAQMD provides a preliminary screening methodology to conservatively determine whether a proposed project would exceed CO thresholds. If the following criteria are met, the individual project would result in a less than significant impact related to local CO concentrations:

1. The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
2. Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and

3. Project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Toxic Air Contaminants

For health risks associated with TAC and $PM_{2.5}$ emissions, the BAAQMD May 2017 CEQA Air Quality Guidelines state a project would result in a significant impact if the any of the following thresholds are exceeded (BAAQMD 2017a):

- Non-compliance with Qualified Community Risk Reduction Plan; Increased cancer risk of > 10.0 in a million; or
- Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute); or Ambient $PM_{2.5}$ increase of > 0.3 µg/m^3 annual average.

Lead

Projects would be required to comply with BAAQMD Regulation 11, Rule 1 (Lead), which is intended to control the emission of lead into the atmosphere.

Asbestos

Demolition of buildings would be subject to BAAQMD Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing). BAAQMD Regulation 11, Rule 2 is intended to limit asbestos emissions from demolition and the associated disturbance of asbestos-containing waste material generated or handled during these activities. This rule requires notification of BAAQMD of any regulated demolition activity, and contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos. Impacts related to asbestos emissions from projects that comply with Regulation 11, Rule 2 are considered to be less than significant since the regulation would ensure the proper and safe disposal of asbestos containing material.

Odors

The BAAQMD provides minimum distances for siting of new odor sources shown in Table 11. A significant impact would occur if the project would result in other emissions (such as odors) affecting substantial numbers of people or would site a new odor source as shown in Table 11 within the specified distances of existing receptors.

Table 11 BAAQMD Odor Source Thresholds

Odor Source	Minimum Distance for Less than Significant Odor Impacts (in miles)
Wastewater Treatment Plant	2
Wastewater Pumping Facilities	1
Sanitary Landfill	2
Transfer Station	1
Composting Facility	1
Petroleum Refinery	2
Asphalt Batch Plant	2
Chemical Manufacturing	2
Fiberglass Manufacturing	1
Painting/Coating Operations	1
Rendering Plant	2

Source: BAAQMD 2017a

b. Methodology

Construction Emissions

Construction-related emissions are temporary but may still result in adverse air quality impacts. Construction of development associated with the proposed project would generate temporary emissions from three primary sources: the operation of construction vehicles (e.g., scrapers, loaders, dump trucks, etc.); ground disturbance during site preparation and grading, which creates fugitive dust; and the application of asphalt, paint, or other oil-based substances.

At this time, there is not sufficient detail to allow project-level analysis and thus it would be speculative to analyze project-level impacts. Rather, consistent with the programmatic nature of the project, construction impacts for the proposed project are discussed qualitatively and emissions are not compared to the project-level thresholds.

Operation Emissions

Based on plan-level guidance from the BAAQMD 2017 *CEQA Air Quality Guidelines,* long-term operational emissions associated with implementation of the proposed project are discussed qualitatively by comparing the proposed project to the 2017 Clean Air Plan goals, policies, and control measures. In addition, comparing the rate of increase of plan VMT and population is recommended by BAAQMD for determining significance of criteria pollutants. If the proposed project does not meet either criterion then impacts would be potentially significant.

2.2.1 Project Impacts

Issue 1:	Would the project conflict with or obstruct implementation of the applicable air quality plan?
Issue 2:	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Consistency with 2017 Clean Air Plan

The California Clean Air Act requires air districts to create a Clean Air Plan that describes how the jurisdiction will meet air quality standards. These plans must be updated periodically. The most recently adopted air quality plan for the SFBAAB is the 2017 Clean Air Plan. To fulfill State ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors (reactive organic gases [ROG] and nitrogen oxides [NO_X]) and reduce the transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Clean Air Plan builds upon and enhances BAAQMD's efforts to reduce emissions of $PM_{2.5}$ and toxic air contaminants (TACs). The 2017 Clean Air Plan does not include control measures that apply directly to individual development projects. Instead, the control strategy includes measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-greenhouse gas pollutants (BAAQMD 2017b).

The 2017 Plan focuses on two paramount goals (BAAQMD 2017b):

- Protect air quality and health at the regional and local scale by attaining all state and national air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs; and
- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050

Under BAAQMD's methodology, a determination of consistency with the 2017 Plan should demonstrate that a project:

- Supports the primary goals of the 2017 Clean Air Plan;
- Includes applicable control measures from the 2017 Clean Air Plan; and
- Would not disrupt or hinder implementation of any control measures in the 2017 Clean Air Plan.

A project that would not support the 2017 Clean Air Plan's goals would not be considered consistent with the plan. On an individual project basis, consistency with BAAQMD's quantitative thresholds is interpreted as demonstrating support for the 2017 Clean Air Plan's goals. The proposed project would redistribute residential units from the North San José and Rincon Urban Village growth area to other urban villages and growth areas as well as expand TERO areas within the North San José and Rincon Urban Village growth area which would encourage denser and an increased number of multi-family housing units in proximity to transit such as the Berryessa/North San Jose BART Station, the Caltrain Diridon Station, the Santa Clara Transit Center, the Eastridge Transit Center, and bus stops. By allowing for the easier use of alternative modes of transportation through proximity to services, jobs, bus stops, BART and Caltrain stations, and bicycle routes, development facilitated by the project would reduce the use of personal vehicles and subsequent mobile emissions than if development were placed further from transit.

In addition, development facilitated by the project would be required to comply with the latest Title 24 regulations, including requirements for residential indoor air quality. The analysis is based on compliance with 2022 Title 24 requirements although individual projects developed under the plan would be required to comply with the most current version of Title 24 at the time of project construction. These requirements currently mandate Minimum Efficiency Reporting Value 13 (or equivalent) filters for heating/cooling systems and ventilation systems in residences (Section 150.0[m]) or implementation of future standards that would be anticipated to be equal to or more stringent than current standards. Therefore, the project would improve air quality compared to development farther from transit and services through reducing VMT and would protect public health through stringent requirements for MERV-13 filters or equivalent indoor air quality measures, which would be consistent with the primary goals of the 2017 Clean Air Plan.

The project's consistency with applicable control measures in the 2017 Clean Air Plan is shown in in Table 12.

Table 12 Project Consistency with Applicable 2017 Plan Control Measures

Clean Air Plan Control Measures	Consistency
Transportation	
TR9: Bicycle and Pedestrian Access and Facilities. Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities.	**Consistent**: The proposed project would reallocate residential units from the North San José and Rincon Urban Village growth area to other urban villages and growth areas which aim to provide walkable, bicycle-friendly, and transit-oriented settings for new housing. Policy CD-3.2 of the Envision San José 2040 General Plan aims to ensure design of new facilities could accommodate future increases in bicycle and pedestrian activity, and Policy LU-9.3 aims to integrate housing development with the city's transportation, including transit, bicycle, and pedestrian facilities. By placing future residents in urban villages and growth areas in proximity to bicycle lanes, the project would facilitate pedestrian and bicycle circulation and minimize automobile trip generation. Furthermore, future development facilitated by the proposed project would be required to comply with Chapter 20.90, Part 2.5 of the San José Municipal Code (SJMC), which lists requirements for bicycle parking and bicycle parking space design standards.
Energy	
EN2: Decrease Electricity Demand. Work with local governments to adopt additional energy-efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.	**Consistent**: Future development facilitated under the project would be required to comply with Section 17.845.030 of the SJMC, which would prohibit natural gas infrastructure and require all-electric new construction. Additionally, the City provides incentives for electric vehicles and encourages the installation of home electric vehicle charging systems through implementing a streamlined residential permitting process (City of San José 2023a). Future development would be required to comply with Goals MS-1 through MS-3 and associated policies of the Envision San José 2040 General Plan that lists sustainability guidelines for green building design, energy conservation, and water conservation and quality (City of San José 2022).

Clean Air Plan Control Measures	Consistency
Buildings	
BL1: Green Buildings. Collaborate with partners such as KyotoUSA to identify energy-related improvements and opportunities for on-site renewable energy systems in school districts; investigate funding strategies to implement upgrades. Identify barriers to effective local implementation of the CALGreen (Title 24) statewide building energy code; develop solutions to improve implementation/enforcement. Work with ABAG's BayREN program to make additional funding available for energy-related projects in the buildings sector. Engage with additional partners to target reducing emissions from specific types of buildings.	**Consistent**: Future development facilitated by the proposed project would be required to comply with the energy and sustainability standards of Title 24 (including the California Energy Code and CALGreen) and the City's associated amendments that are in effect at that time. For example, the current CALGreen standards require a minimum 65 percent diversion of construction/demolition waste and the City requires at least 50 percent of diversion under its Construction and Demolition Diversion Program (CDD) (City of San José 2023b). Additionally, future developments adding more than 10,000 square feet of occupied space would be required to be designed and constructed to achieve at a minimum the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Rating System Silver level of certification with a goal of reaching LEED Gold or Platinum (City of San José 2023c).
Water	
WR2: Support Water Conservation. Develop a list of best practices that reduce water consumption and increase on-site water recycling in new and existing buildings; incorporate into local planning guidance.	**Consistent**: Depending on the location, future development requiring new or expanded water service would be required to comply with either the San José Municipal Water System's (Muni Water) water efficiency regulations, the San José Water Company's water efficiency regulations, of the Great Oaks Water Company's water efficiency regulations, which include water use restrictions and water efficient irrigation rules. Additionally, Policy MS-3.1 of the Envision San José 2040 General Plan requires water-efficient landscaping for future development, which conforms to the State's Model Water Efficient Landscape Ordinance; Policy MS-3.2 promotes the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling; and Policy MS-3.3 promotes the use of drought tolerant plants and landscaping materials (City of San José 2022).

As shown in Table 12, the project would be consistent with the applicable measures in the 2017 Clean Air Plan as development would be required to comply with the latest Title 24 regulations and would increase density in urban areas, allowing for greater use of alternative modes of transportation. Development facilitated by the project does not contain elements that would disrupt or hinder implementation of a 2017 Clean Air Plan control measures. Therefore, the project would conform to this determination of consistency for the 2017 Clean Air Plan and would not result in new or substantially more significant impacts than those identified in the 2040 General Plan EIR.

Criteria Air Pollutant Emissions – Construction

Construction activities such as demolition, grading, construction worker travel, delivery and hauling of construction supplies and debris, and fuel combustion by on-site construction equipment would generate pollutant emissions. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants, particularly during site preparation and grading. The extent of daily emissions, particularly ROGs and NO_X emissions, generated by construction equipment, would depend on the quantity of equipment used and the hours of operation for each project. The extent of $PM_{2.5}$ and PM_{10} emissions would depend upon the

following factors: 1) the amount of disturbed soils; 2) the length of disturbance time; 3) whether existing structures are demolished; 4) whether excavation is involved; and 5) whether transporting excavated materials offsite is necessary. Dust emissions can lead to both nuisance and health impacts. According to the 2017 BAAQMD *CEQA Air Quality Guidelines,* PM_{10} is the greatest pollutant of concern during construction (BAAQMD 2017a).

As discussed above, BAAQMD's 2017 *CEQA Air Quality Guidelines* have no plan-level significance thresholds for construction air pollutant emissions that would apply to the project. However, the guidelines include project-level thresholds for construction emissions. If an individual project is subject to CEQA and has construction emissions that fall below the project-level thresholds, the project's impacts on regional air quality would be individually and cumulatively less than significant. The BAAQMD has identified feasible fugitive dust control measures for construction activities, and recommends implementation of eight Basic Construction Mitigation Measures to reduce fugitive dust levels. Future development facilitated by the project would be required to comply with Goals MS-11 (Toxic Air Contaminants), and MS-13 (Construction Air Emissions) of the Environmental Leadership Element of the Envision San José 2040 General Plan. Policy MS-11.3 ensures projects that generate heavy duty truck traffic avoid sensitive land uses to minimize exposure to dust and exhaust emissions from trucks; and Policy MS-13.1 requires inclusion of dust, particulate matter, and construction equipment exhaust control measures, as well as conformation with BAAQMD's Basic Construction Mitigation Measures to reduce pollution from dust and exhaust.

Site preparation and grading during construction activities facilitated by development under the proposed project may cause wind-blown dust that could contribute particulate matter into the local atmosphere. The BAAQMD has not established a quantitative threshold for fugitive dust emissions but rather states that projects that incorporate best management practices for fugitive dust control during construction would have a less than significant impact related to fugitive dust emissions. As described above, future development facilitated by the project would be required to comply with Goals MS-11 and MS-13 and associated Policies MS-11.3 and MS-13.1 of the Envision San José 2040 General Plan which requires implementation of dust abatement actions and BAAQMD's Basic Construction Mitigation Measures.

Given the aforementioned, construction criteria pollutant emission impacts would be less than significant.

Criteria Air Pollutant Emissions – Operation

The proposed project would include the reallocation of residential units from the North San José and Rincon Urban Village growth area to other urban villages and growth areas as well as expansion of TERO areas within the North San José and Rincon Urban Village growth area. Long-term criteria pollutant emissions would result from the operation of an increased number of residential units supported by the proposed project. Operational air quality emissions are evaluated in terms of area source emissions, energy demand emissions, and mobile emissions. Area source emissions are the combination of many small emission sources that include use of outdoor landscape maintenance equipment, use of consumer products such as cleaning products, and periodic repainting of a project. Energy demand emissions result from use of electricity and natural gas. Mobile emissions result from automobile and other vehicle sources associated with daily trips to and from the project vicinity.

Operation of the proposed project would likely lead to increases in emissions in the SFBAAB since it would increase the density and number of residential units within the city. Nonetheless, development of future projects would be subject to the City's standard CEQA review process and

would be required to assess project-specific emissions in relation to the BAAQMD significance thresholds. Additionally, future development would be required to comply with Goals MS-10 (Air Pollutant Emission Reduction), MS-14 (Reduce Consumption and Increase Efficiency), and MS-15 (Renewable Energy) of the Envision San José 2040 General Plan. Policy MS-10.1 requires future development to conform with BAAQMD CEQA Guidelines and implement feasible air emission reduction measures; Policy MS-10.7 encourages air pollutant emission reduction through energy conservation; Policy MS-14.1 promotes housing growth in areas served by public transit and that have community amenities within a 20-minute walking distance; and Policy MS-15.3 which encourages homeowners to install solar roofs. Future development would also be required to comply with the Envision San José 2040 General Plan's Land Use and Transportation Element which contain land use and transportation policies that would provide air quality benefits from sustainable land use planning and design consideration, complete streets and other mobility considerations that would reduce vehicle trips, and infrastructure planning to support alternative means of transportation. Therefore, operational emission impacts would be less than significant.

Project VMT and Population Growth

According to the BAAQMD 2017 *CEQA Air Quality Guidelines,* the threshold for criteria air pollutants and precursors includes an assessment of the rate of increase of plan VMT versus population growth. The project would reallocate 3,095 residential units from the North San José and Rincon Urban Village growth area to other urban villages and growth areas as well as expand the TERO areas within the North San José and Rincon Urban Village growth area to encourage more residential development. As discussed above under Thresholds of Significance, to result in a less than significant impact, the analysis must show that the project's projected VMT increase would be less than or equal to its projected population increase. Table 13 summarizes the net increase in population versus VMT based on VMT modeling performed by Hexagon Transportation Consultants, Inc (Hexagon Transportation Consultants, Inc 2023). The VMT associated with project buildout would decrease by approximately 0.2 percent from baseline Envision San José 2040 General Plan conditions since the forecast population growth is the same as the baseline (i.e., population would increase zero percent over baseline conditions). VMT increases at a lower percentage because the proposed project would concentrate increased residential units in proximity to jobs and services to reduce singular vehicle trips and encourage alternative models of travel. Therefore, the project's VMT would not conflict with the BAAQMD's 2017 *CEQA Air Quality Guidelines* operational plan-level significance thresholds for criteria air pollutants and would be consistent with the 2017 Clean Air Plan. Impacts would be less than significant.

Table 13 Increase in Population Compared to VMT Under Project

Scenario	Baseline (Envision San José 2040 General Plan)	Proposed Project	Net Increase	Percent Change
Population	2,041,659	2,041,659	0	0
Vehicle Miles Traveled	27,062,221	27,021,232	-40,989	-0.2

Source: Data provided by Hexagon Transportation Consultants, Inc 2023

Issue 3:	Would the project expose sensitive receptors to substantial pollutant concentrations?

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. The entire Basin is in conformance with state and federal CO standards, as indicated by the recent air quality monitoring. There are no current exceedances of CO standards within the air district and the Bay Area has not exceeded CO standards since before 1994.[3] For 2019, the Bay Area's reported maximum 1-hour and average daily concentrations of CO were 5.6 ppm and 1.7 ppm respectively (BAAQMD 2019).[4] These are well below the respective 1-hour and 8-hour standards of 20 ppm and 9 ppm. Given the ambient concentrations, which includes mobile as well as stationary sources, a project in the Bay Area would need to emit concentrations three times the hourly maximum ambient emissions for all sources before project emissions would exceed the 1-hour standard. Additionally, the project would need to emit seven times the daily average for ambient concentrations to exceed the 8-hour standards. Typical development projects, even plan level growth, would not emit the levels of CO necessary to result in a localized hot spot. Therefore, impacts to CO hotspots would be less than significant.

Toxic Air Contaminants

In the Bay Area, there are several urban or industrialized communities where the exposure to TACs is relatively high in comparison to others. According to BAAQMD *CEQA Guidelines* (Figure 5-1), most of the city is located in an impacted community for 24-hour $PM_{2.5}$ due to its proximity to the freeway, rail, and industry. Sources of TACs include, but are not limited to, land uses such as freeways and high-volume roadways, truck distribution centers, ports, rail yards, refineries, chrome plating facilities, dry cleaners using perchloroethylene, and gasoline dispensing facilities (BAAQMD 2017a). Operation of development facilitated by the project would not involve these uses; therefore, it is not considered a source of TACs. In addition, residences do not typically include new stationary sources onsite, such as emergency diesel generators. However, if residences did include a new stationary source onsite, it would be subject to BAAQMD Regulation 2, Rule 2 (New Source Review) and require permitting. This process would ensure that the stationary source does not exceed applicable BAAQMD health risk thresholds. Additionally, BAAQMD employs the Community Air Risk Evaluation (CARE) Program, which applies strategies to reduce health impacts in impacted communities (BAAQMD 2022). CARE is currently activated in San José since it is an impacted community.

Future development would be required to comply with Goal MS-11 (Toxic Air Contaminants) of the Envision San José 2040 General Plan, which state guidelines for reducing potential TAC emissions and associated adverse health risk impacts to a less than significant level. Policy MS-11.1 requires completion of air quality modeling for new residential developments located near sources of pollution such as industrial uses and freeways, and requires incorporation of effective mitigation or be located an adequate distance from sources of TACs; Policy MS-11.3 ensures projects that generate heavy duty truck traffic avoid sensitive land uses to minimize exposure to TACs and particulate matter; Policy MS-11.4 encourages the installation of appropriate air filtration at residences; and Policy MS-11.5 encourages the use of pollution absorbing trees and vegetation in

[3] BAAQMD only has records for annual air quality summaries dating back to 1994.

[4] Data for 2019 was used as the data for 2020 and 2021 are not currently available.

buffer areas between substantial sources of TACs and sensitive land uses. Therefore, operational impacts from TAC emissions would be less than significant.

Asbestos

BAAQMD Regulation 11, Rule 2 is intended to limit asbestos emissions from demolition or renovation of structures and the associated disturbance of asbestos-containing waste material generated or handled during these activities (BAAQMD 2017a). The rule addresses the national emissions standards for asbestos along with some additional requirements. The rule requires the Lead Agency and its contractors to notify BAAQMD of any regulated renovation or demolition activity. This notification includes a description of structures and methods utilized to determine whether asbestos-containing materials are potentially present. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with BAAQMD Regulation 11, Rule 2, including specific requirements for surveying, notification, removal, and disposal of material containing asbestos. Therefore, individual projects that comply with Regulation 11, Rule 2 would ensure that asbestos-containing materials would be disposed of appropriately and safely. By complying with BAAQMD Regulation 11, Rule 2, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality. Per the BAAQMD Guidelines, because BAAQMD Regulation 11, Rule 2 is in place, no further analysis about the demolition of asbestos-containing materials is needed in a CEQA document (BAAQMD 2017a).

Issue 4:	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust both during normal use and when idling. However, these odors would be temporary and transitory and would cease upon completion. Therefore, construction of development facilitated by the project would not generate objectionable odors affecting a substantial number of people.

Table 10 provides BAAQMD odor screening distances for land uses with the potential to generate substantial odor complaints. Those uses include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants. Since the proposed project would only include residential development, none of the uses identified in the table would occur on the sites. Additionally, Goal MS-12 (Objectionable Odors) and Policy MS-12.2 of Envision San José 2040 General Plan would minimize and avoid exposure of residents to odors by requiring new residential development to be located an adequate distance from facilities that are existing and potential sources of odors. Therefore, development facilitated by the project would not generate objectionable odors affecting a substantial number of people during operation, and impacts would be less than significant.

3 Greenhouse Gas Emissions

3.1 Environmental and Regulatory Setting

3.1.1 Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years.

The United Nations Intergovernmental Panel on Climate Change (IPCC) expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatonnes of anthropogenic CO_2 was emitted (IPCC 2021). It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021). Furthermore, since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (U.S. EPA 2021a). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature.

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations.

GHGs are emitted by natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are usually by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (U.S. EPA 2021a).

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon

dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (IPCC 2021).[5]

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2022). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

3.1.2 Greenhouse Gas Emissions Inventory

Global Emissions Inventory

In 2015, worldwide anthropogenic total 47,000 million MT of CO_2e, which is a 43 percent increase from 1990 GHG levels (U.S. EPA 2021b). Specifically, 34,522 million metric tons (MMT) of CO_2e of CO_2, 8,241 MMT of CO_2e of CH_4, 2,997 MMT of CO_2e of N_2O, and 1,001 MMT of CO_2e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and use (includes fuels used by vehicles and buildings), which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed for three percent and two percent was due to international transportation sources. These sources account for approximately 98 percent because there was a net sink[6] of two percent from land-use change and forestry. (U.S. EPA 2021b).

United States Emissions Inventory

Total U.S. GHG emissions were 6,558 MMT of CO_2e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019; since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (U.S. EPA 2021c).

California Emissions Inventory

Based on the CARB California Greenhouse Gas Inventory for 2000-2019, California produced 418.2 MMT of CO_2e in 2019, which is 7.2 MMT of CO_2e lower than 2018 levels. The major source of GHG emissions in California is the transportation sector, which comprises 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 21 percent of the state's GHG emissions while electric power accounts for approximately 14 percent (CARB 2021). The magnitude of California's total GHG emissions is due in part to its large size and large population

[5] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWPs from the Fourth Assessment Report.

[6] Net sink refers to the taking in of more carbon than can be emitted.

compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO_2e (CARB 2022). The annual 2030 statewide target emissions level is 260 MMT of CO_2e (CARB 2017).

Local Emissions Inventory

In 2019, the City of San José emitted approximately 5,477,619 MT CO_2e. Transportation was the largest source of emissions (51 percent), followed by buildings (19 percent natural gas and 14 percent electricity). Process and fugitive emissions contributed 9 percent, while solid waste contributed 5 percent. The remaining contributors were other residential fuels (1 percent) and wastewater (0.4 percent). GHG emissions fell by 5 percent from 2017 to 2019. Most of the GHG emission reductions can be attributed to a decrease in VMT due to newer and more fuel efficient vehicles, as well as the use of cleaner electricity provided by San José Clean Energy (SJCE) (City of San José 2021).

3.1.3 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Each of the past three decades has been warmer than all the previous decades in the instrumental record, 2013 through 2021 all rank among the ten-warmest years on record. It also marked the 45th consecutive year (since 1977) with global temperatures rising above the 20th century average (NOAA 2022). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations jointly indicate that LSAT and sea surface temperatures have increased.

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies (State of California 2018). However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality and Wildfires

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C (36.32°F to 37.76°F) in the next 50 years and by 3.1 to 4.9°C (37.58°F to 40.82°F) in the next century (State of California 2018). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California

2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2020, observed by satellites, is approximately 3.3 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2020). Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880 (National Aeronautics and Space Administration 2020). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise ranging between 0.25 to 0 1.01 meters by 2100 with the sea level ranges dependent on a low, intermediate, or high GHG emissions scenario (IPCC 2021). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California’s water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has an over $50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2020). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions as a result of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

3.1.4 Regulatory Setting

The following regulations and case law address both climate change and GHG emissions.

Federal Regulations

Federal GHG Emissions Regulation

The U.S. Supreme Court determined in Massachusetts et al. v. Environmental Protection Agency et al. ([2007] 549 U.S. 05-1120) that the USEPA has the authority to regulate motor vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In Utility Air Regulatory Group v. Environmental Protection Agency (134 Supreme Court 2427 [2014]), the U.S. Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

In the most recent West Virginia v. Environmental Protection Agency (20-1530 [2022]), the U.S. Supreme Court held that the USEPA may not regulate emissions from coal- and gas-fired power

plants using generation shifting[7] that was implemented as part of the 2015 Clean Power Plan. The Court held that the USEPA is not permitted, under the Clean Air Act, to implement regulations for power plants that were allowed under the Clean Power Plan. However, the Court upheld EPA's authority to continue regulating greenhouse gas emissions from the power sector (Supreme Court 2021).

Safer Affordable Fuel-Efficient Vehicles Rule

In April 2020, EPA and NHTSA issued the Safer Affordable Fuel Efficient (SAFE) Vehicles Rule, which required automakers to improve fuel efficiency 1.5 percent annually from model years 2021 through 2026. The SAFE rule also upended State emission programs, and withdrew the waiver for California's Advanced Clean Cars Program, Zero Emission Vehicle Program (ZEV), and Low-Emission Vehicle Program (LEV). In response, California and other states sued in federal court to challenge the final action on preemption of state vehicle standards. In April 2021, the Biden administration, USEPA, and Department of Transportation began the process of dropping limitations on California's waiver. In December 2021, NHTSA issued a repealing of the SAFE Vehicle Rule Part One. In March 2022, USEPA did the same, thereby reinstating California's waiver and the ability of other states to adopt the California standards (Center for Climate and Energy Solutions [C2ES] 2022).

State Regulations

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below. For more information on the Senate and Assembly Bills, executive orders, building codes, and reports discussed below, and to view reports and research referenced below, please refer to the following websites: https://www.energy.ca.gov/data-reports/reports/californias-fourth-climate-change-assessment, www.arb.ca.gov/cc/cc.htm, and https://www.dgs.ca.gov/BSC/Codes.

California Advanced Clean Cars Program

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the U.S. EPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles, beginning with the 2009 model year, which allows California to implement more stringent vehicle emission standards than those promulgated by the U.S. EPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as "LEV (Low Emission Vehicle) III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, the rules will be fully implemented, and new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels.

[7] Switching electricity generation from fossil fuels to clean sources.

California Global Warming Solutions Act of 2006 (Assembly Bill 32, and Senate Bill 32, and Assembly Bill 1279)

California's major initiative for reducing GHG emissions is outlined in AB 32, the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by CARB on December 11, 2008 and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

Senate Bill (SB) 32, signed into law on September 8, 2016, extends AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and policies, such as SB 350 and SB 1383 (see below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of 6 MT CO_2e by 2030 and 2 MT CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the State (CARB 2017).

AB 1279, "The California Climate Crisis Act," was passed on September 16, 2022, and declares the State would achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. In addition, the bill states that the State would reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The Draft 2022 Scoping Plan Update has been prepared to assess the progress towards the 2030 target as well as to outline a plan to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022).

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan

(RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") can receive incentives to streamline CEQA processing.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Metropolitan Transportation Commission (MTC)/Association of Bay Area Government (ABAG) was assigned targets of a 10 percent reduction GHGs from per capita GHG emissions from passenger vehicles by 2020 and a 19 percent reduction in per capita GHG emissions from passenger vehicles by 2035. The MTC/ABAG adopted the Plan Bay Area 2040 in July 2017, which meets the requirements of SB 375. MTC/ABAG are currently in the process of updating this RTP/SCS with the Plan Bay Area 2050 document. The draft environmental impact report for the Plan Bay Area 2050 is currently being prepared.

Senate Bill 1383

Adopted in September 2016, SB 1383 (Lara, Chapter 395, Statues of 2016) requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard (RPS) Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18

On September 10, 2018, the former Governor Brown issued Executive Order (EO) B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

Clean Energy, Jobs, and Affordability Act of 2022 (Senate Bill 1020)

Adopted on September 16, 2022, SB 1020 creates clean electricity targets for eligible renewable energy resources and zero-carbon resources to supply 90 percent of retail sale electricity by 2035, 95 percent by 2040, 100 percent by 2045, and 100 percent of electricity procured to serve all state agencies by 2035. This bill shall not increase carbon emissions elsewhere in the western grid and shall not allow resource shuffling.

California Building Standards Code

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality." The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.

On August 11, 2021, the CEC adopted the 2022 Title 24 Standards, which go into effect on January 1, 2023. The 2022 standards continue to improve upon the previous (2019) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings (CEC 2022a). The 2022 Title 24 Standards "build on California's technology innovations, encouraging energy efficient approaches to encourage building decarbonization, emphasizing in particular on heat pumps for space heating and water heating. This set of Energy Codes also extends the benefits of photovoltaic and battery storage systems and other demand flexible technology to work in combinations with heat pumps to enable California buildings to be responsive to climate change. This Energy code also strengthens ventilation standards to improve indoor air quality. This update provides crucial steps in the state's progress toward 100 percent clean carbon neutrality by midcentury" (CEC 2022b). The 2022 Energy Code is anticipated to reduce GHG emissions by 10 MMT of CO_2e over the next 30 years and result in approximately 1.5 billion dollars in consumer savings (CEC 2022c). Compliance with Title 24 is enforced through the building permit process.

Regional and Local Regulations

Bay Area Air Quality Management District

In 2013, the BAAQMD adopted resolution no. 2013-11, "Resolution Adopting a Greenhouse Gas Reduction Goal and Commitment to Develop a Regional Climate Protection Strategy" that builds on state and regional climate protection efforts by (BAAQMD 2013):

1. Setting a goal for the Bay Area region to reduce GHG emissions by 2050 to 80 percent below 1990 levels

2. Developing a Regional Climate Protection Strategy to make progress towards the 2050 goal, using BAAQMD's Clean Air Plan to initiate the process
3. Developing a 10-point work program to guide the BAAQMD's climate protection activities in the near-term

The BAAQMD is currently developing the Regional Climate Protection Strategy and has outlined the 10-point work program, which includes policy approaches, assistance to local governments, and technical programs that will help the region make progress toward the 2050 GHG emissions goal.

The BAAQMD is responsible for enforcing standards and regulating stationary sources in its jurisdiction, including the San Francisco Bay Area Air Basins and the City of San José. The BAAQMD regulates GHG emissions through specific rules and regulations, as well as project and plan level emissions thresholds for GHGs to ensure that new land use development in the San Francisco Bay Area Air Basin contributes to its fair share of emissions reductions (BAAQMD 2017a).

Plan Bay Area 2050

Plan Bay Area 2050 is a state-mandated, integrated long-range transportation, land-use, and housing plan that would support a growing economy, provide more housing and transportation choices and reduce transportation-related pollution in the nine-county San Francisco Bay Area (MTC/ABAG 2021). The SCS builds on earlier efforts to develop an efficient transportation network and grow in a financially and environmentally responsible way. Plan Bay Area 2050 focuses on advancing equity and improving resiliency in the Bay Area by creating strategies in the following four elements: Housing, Economy, Transportation, and Environment. The Plan discusses how the future is uncertain due to anticipated employment growth, lack of housing options, and outside forces, such as climate change and economic turbulence. These uncertainties will impact growth in the Bay Area and exacerbate issues for those who are historically and systemically marginalized and underserved and excluded. Thus, Plan Bay Area 2050 has created strategies and considered investments that will serve those systemically underserved communities and provide equitable opportunities. The Plan presents a total of 35 strategies to outline how the $1.4 trillion dollar investment would be utilized. The strategies include, but are not limited to, the following: providing affordable housing, allowing higher-density in proximity to transit-corridors, optimizing the existing roadway network, creating complete streets, providing subsidies for public transit, reducing climate emissions, and expanding open space area. Bringing these strategies to fruition will require participation by agencies, policymakers, and the public. An implementation plan is also included as part of the Plan to assess the requirements needed to carry out the strategies, identify the roles of pertinent entities, create an appropriate method to implement the strategies, and create a timeline for implementation (ABAG/MTC 2021).

Climate Smart San José

Climate Smart San José was adopted by the City Council in 2018 and is the City's overarching visionary plan to reduce emissions geared toward the Paris Agreement. Climate Smart San José serves as a roadmap to deep carbon reductions aligned with the state's GHG targets set by AB 32, SB 32, and EO S-3-05, as well as the decarbonization goals of the Paris Agreement, while supporting 40 percent growth in the city's population by 2050 and continued economic growth. It employs a people-centered approach, encouraging the entire San José community to join an ambitious campaign to reduce GHG emissions, save water, and improve the community's quality of life, while also promoting economic growth (City of San José 2018). In November 2021, the City Council set a goal of communitywide carbon neutrality by 2030, thereby accelerating Climate Smart. The

proposed Pathway to Carbon Neutrality by 2030 was heard by City Council on June 14, 2022, which contains four strategies to achieve carbon neutrality by 2030: move to zero emission vehicles; reduce the miles travelled in vehicles by at least 20 percent; switch appliances from fossil fuels to electric; and power the community with 100 percent carbon-neutral electricity (City of San José 2022).

Envision San José 2040 General Plan and GHG Reduction Strategy

The Envision San José 2040 General Plan includes strategies, policies, and action items that are incorporated in the City's GHG Reduction Strategy to help reduce GHG emissions (City of San José 2011a). Multiple policies and actions in the General Plan have GHG implications, including land use, housing, transportation, water usage, solid waste generation and recycling, and reuse of historic buildings. The following General Plan policies are related to GHG emissions and are applicable to the proposed project.

Policy MS-1.2: Continually increase the number and proportion of buildings within San José that make use of green building practices by incorporating those practices into both new construction and retrofit of existing structures.

Policy MS-2.11: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g. design to maximize cross ventilation and interior daylight) and through site design techniques (e.g. orienting buildings on sites to maximize the effectiveness of passive solar design).

Goal MS-10: Air Pollutant Emission Reduction. Minimize air pollutant emissions from new and existing development.

Policy MS-10.1: Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

Policy MS-10.2: Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.

Policy MS-10.7: Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.

Policy MS-10.10: Actively enforce the City's ozone-depleting compound ordinance and supporting policy to ban the use of chlorofluorocarbon compounds (CFCs) in packaging and in building construction and remodeling. The City may consider adopting other policies or ordinances to reinforce this effort to help reduce damage to the global atmospheric ozone layer.

Goal MS-13: Construction Air Emissions. Minimize air pollutant emissions during demolition and construction activities.

Policy MS-13.1: Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Policy MS-14.4: Implement the City's Green Building Policies so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption.

CITY OF SAN JOSÉ GREENHOUSE GAS REDUCTION STRATEGY

The GHG Reduction Strategy is intended to meet the mandates outlined in the CEQA Air Quality Guidelines, as well as the BAAQMD requirements for Qualified GHG Reduction Strategies. The Envision San José 2040 General Plan includes strategies, policies, and action items that are incorporated in the City's GHG Reduction Strategy to help reduce GHG emissions. Multiple policies and actions in the General Plan have GHG implications, including land use, housing, transportation, water usage, solid waste generation and recycling, and reuse of historic buildings.

On December 15, 2015, the San José City Council certified a Supplemental Program Environmental Impact Report to the Envision San José 2040 Final Program Environmental Impact Report and re-adopted the City's GHG Reduction Strategy in the General Plan. The City updated its GHG Reduced Strategy and adopted the *City of San José 2030 Greenhouse Gas Reduction Strategy* in August 2020. The City's 2030 Greenhouse Gas Reduction Strategy (2030 GHG Reduction Strategy) is a comprehensive update to the city's original GHG Reduction Strategy and reflects the plans, policies, and codes as approved by the City Council. The 2030 GHG Reduction Strategy provides a set of strategies and additional actions for achieving the 2030 target established by SB 32 and the 2045 carbon neutrality target established by EO B-55-18. The 2030 GHG Reduction Strategy serves as a Qualified Climate Action Plan for purposes of tiering and streamlining under CEQA. The City included a Development Compliance Checklist in the 2030 GHG Reduction Strategy that serves to apply the relevant General Plan and 2030 GHG Reduction Strategy policies through a streamlined review process for proposed new development projects that are subject to discretionary review and that trigger environmental review under CEQA.

City of San José Municipal Code

The City's Municipal Code includes the following regulations designed to reduce GHG emissions from future development:

- Green Building Ordinance (Chapter 17.84)
- Prohibition of Natural Gas Infrastructure in Newly Constructed Buildings (Chapter 17.845)
- Water Efficient Landscape Standards for New and Rehabilitated Landscaping (Chapter 15.10)

- Construction and Demolition Diversion Deposit Program (Chapter 9.10)
- Wood Burning Ordinance (Chapter 9.10)

City of San José Private Sector Green Building Policy (6-32)

In October 2008, the City adopted the Private Sector Green Building Policy (6-32) that establishes baseline green building standards for private sector new construction and provides a framework for the implementation of these standards. This policy requires that applicable projects achieve minimum green building performance levels using the Council adopted standards. The green building standards required by this policy are intended to advance GHG reduction by reducing per capita energy use, providing energy from renewable sources, diverting waste from landfills, using less water, and encouraging the use of recycled wastewater.

3.2 Impact Analysis

a. Thresholds of Significance

To determine whether a project would result in a significant impact related to GHG emissions, Appendix G of the *CEQA Guidelines* requires consideration of whether a project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Individual projects do not generate enough GHG emissions to create significant project-specific environment effects. However, the environmental effects of a project's GHG emissions can contribute incrementally to cumulative environmental effects that are significant, contributing to climate change, even if an individual project's environmental effects are limited (*CEQA Guidelines* Section 15064[h][1]). The issue of a project's environmental effects and contribution towards climate change typically involves an analysis of whether a project's contribution towards climate change is cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines* Section 15064[h][1]).

CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions. *CEQA Guidelines* Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, as long as any threshold chosen is supported by substantial evidence (see *CEQA Guidelines* Section 15064.7[c]).

BAAQMD recently adopted updated thresholds for evaluating the significance of climate impacts from plan-level projects on April 20, 2022. The updated thresholds state that a plan-level project must either meet the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or be consistent with a local GHG reduction strategy that meets the

criteria under State CEQA Guidelines Section 15183.5(b). As discussed above under Regulatory Setting, the City's 2030 GHG Reduction Strategy is a qualified CAP since it was developed in conformance with CEQA Guidelines Section 15183.5 for purposes of tiering and streamlining, and was adopted in a public process following environmental review. The City included a Development Compliance Checklist in the 2030 GHG Reduction Strategy that serves to apply the relevant Envision San José 2040 General Plan and 2030 GHG Reduction Strategy policies through a streamlined review process for proposed new development projects that are subject to discretionary review and that trigger environmental review under CEQA. (City of San José 2020). Therefore, since the City's 2030 GHG Reduction Strategy constitutes as a qualified CAP, the project would result in less than significant impacts if it would be consistent with the Development Compliance Checklist of the 2030 GHG Reduction Strategy. Additionally, the project's GHG emissions are provided for informational purposes.

Issue 1:	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
Issue 2:	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Project Consistency with 2030 GHG Reduction Strategy

Table 14 shows the project's consistency with applicable Development Compliance Checklist items. As shown in Table 14, the proposed project would be consistent with applicable items from the Development Compliance Checklist. As discussed above under Thresholds of Significance, BAAQMD's updated thresholds state that a plan-level project would have less than significant impact if it would be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). Since the 2030 GHG Reduction Strategy is a qualified CAP, and the proposed project would be consistent with applicable actions within, this impact would be less than significant.

Table 14 Project Consistency with Applicable Development Compliance Checklist Items

Checklist Item	Consistent?	Explanation
Consistency with the Land Use/Transportation Diagram (Land Use and Density)		
Is the proposed project consistent with the Land Use/Transportation Diagram?	No	As discussed in Section 1.3.2, several land use and zoning changes would be required to facilitate the development of the City's RHNA and to allow for the reallocation of residential development capacity. Therefore, the project would not be consistent with the Land Use/Transportation Diagram. However, the proposed project would redistribute residential units from the North San José and Rincon Urban Village growth area to other urban villages and growth areas as well as expand TERO areas within the North San José and Rincon Urban Village growth area which would encourage denser and an increased number of multi-family housing units in proximity to transit such as the Berryessa/North San Jose BART Station, the Caltrain Diridon Station, the Santa Clara Transit Center, the Eastridge Transit Center, and bus stops. By allowing for the easier use of alternative modes of transportation through proximity to services, jobs, bus stops, BART and Caltrain stations, and bicycle routes, development facilitated by the project would reduce the use of personal vehicles and subsequent mobile emissions than if development were placed further from transit. Additionally, as discussed under Impact 1 of *Air Quality*, VMT associated with project buildout would increase at a slower rate than population, which would correlate to a decrease in GHG emissions. Accordingly, the project would reduce mobile-source GHG emissions compared to existing conditions and would be consistent with this checklist item.
If not, and the proposed project includes a General Plan Amendment, does the proposed amendment decrease GHG emissions (in absolute terms or per capita, per employee, per service population) below the level assumed in the GHG Reduction Strategy based on the existing planned land use? (The project could have a higher density, mix of uses, or other features that would reduce GHG emissions compared to the planned land use).	Yes	
If not, would the proposed project and the General Plan Amendment increase GHG emissions (in absolute terms or per capita, per employee, per service population)? Project is not consistent with GHG Reduction Strategy and further modeling will be required to determine if additional mitigation measures are necessary.	Yes	
Implementation of Green Building Measures		
MS-2.2: Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.	Yes	Future development would be required to comply with the most recent iteration of Title 24, and incorporate the most updated rooftop solar requirements at the time of construction. Future development would also be required to comply with Section 17.845.030 of the SJMC, which requires all-electric construction for all newly constructed buildings. Electricity for future development would be supplied by SJCE or PG&E, which are required to generate electricity that would increase renewable energy resources to 60 percent by 2030 and 100 percent by 2045. As the City's main electricity provider, SJCE enrolls new customers in their GreenSource program, which consists of 60 percent renewable energy and up to 95 percent carbon-free power. Customers have the option to upgrade to SJCE's TotalGreen program, which consists of 100 percent renewable energy (SJCE 2023).

Checklist Item	Consistent?	Explanation
MS-2.3: Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.	Yes	See explanation for MS-2.2, above.
MS-2.7: Encourage the installation of solar panels or other clean energy power generation sources over parking areas.	Yes	Future development would be encouraged to install solar panels or other clean energy power generation sources over parking areas.
MS-2.11: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).	Yes	Future development facilitated by the proposed project would be required to comply with the City's Green Building Code.
MS-16.2: Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.	Yes	Future development would occur in areas where electricity utility already exists. As the City's main electricity provider, SJCE enrolls new customers in their GreenSource program, which consists of 60 percent renewable energy and up to 95 percent carbon-free power. Customers have the option to upgrade to SJCE's TotalGreen program, which consists of 100 percent renewable energy (SJCE 2023).
Pedestrian, Bicycle, and Transit Site Design Measures		
CD-2.1: Promote the Circulation Goals and Policies in the Envision San José 2040 General Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of the Envision San José 2040 General Plan:		The proposed project would redistribute residential units from the North San José and Rincon Urban Village growth area to other urban villages and growth areas as well as expand TERO areas within the North San José and Rincon Urban Village growth area which would encourage denser development and an increased number of multi-family housing units in proximity to transit, jobs, and services. This would reduce reliance on single-occupancy vehicles and promote bicycling and walking. Future development would be required to comply with Section 20.90.220 of the SJMC which outlines requirements for a reduction in required off-street parking spaces.
▪ Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.	Yes	
▪ Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at	Yes	

Checklist Item	Consistent?	Explanation
intersections, and on-street parking that buffers pedestrians from vehicles.		
▪ Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.	Yes	
CD-2.5: Integrate Green Building Goals and Policies of the Envision San José 2040 General Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc.	Yes	Future development facilitated by the proposed project would be required to comply with Chapter 15.11, Part 3 of the SJMC, which outlines landscape and water efficiency design requirements. Additionally, future development would be required to install stormwater treatment measures in the form of bioretention basins, vegetated swales, tree well filters, and media filtration systems in order to capture pollutants before discharging into the storm drain system. Future development would also be required to comply with the appropriate building orientations of their respective zoning districts.
CD-2.11: Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.	Yes	Future development located within the Downtown and Urban Village Overlay areas would avoid the construction of surface parking lots and, as applicable, utilize structured parking to fulfill parking requirements.

Checklist Item	Consistent?	Explanation
CD-3.2: Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.	Yes	The proposed project would redistribute residential units from the North San José and Rincon Urban Village growth area to other urban villages and growth areas as well as expand TERO areas within the North San José and Rincon Urban Village growth area which would encourage denser and an increased number of multi-family housing units in proximity to transit such as the Berryessa/North San Jose BART Station, the Caltrain Diridon Station, the Santa Clara Transit Center, the Eastridge Transit Center, and bus stops. By allowing for the easier use of alternative modes of transportation through proximity to services, jobs, bus stops, BART and Caltrain stations, and bicycle routes, development facilitated by the project would promote bicycling and walking instead of using single-occupancy vehicles.
CD-3.4: Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.	Yes	See explanation for CD-3.2, above.
LU-3.5: Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.	Yes	Future development facilitated by the project would be required to comply with Section 20.90.060 of the SJMC, which requires one bicycle parking space per four residential units[1] for multiple dwelling and one bicycle parking space per residential unit for multiple dwellings in the pedestrian-oriented zoning districts.
TR-2.8: Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.	Yes	Future development facilitated by the project would be required to comply with Section 20.90.060 of the SJMC, which requires one bicycle parking space per four residential units[1] for multiple dwelling and one bicycle parking space per residential unit for multiple dwellings in the pedestrian-oriented zoning districts.
TR-7.1: Require large employers to develop TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies, transit incentives and other measures.	Not applicable	The proposed project would only facilitate residential development and would not include large employment uses.

Checklist Item	Consistent?	Explanation
TR-8.5: Promote participation in car share programs to minimize the need for parking spaces in new and existing development.	Not applicable	The proposed project would only facilitate residential development and would not include employment projects with opportunity for car share or carpooling. However, future development facilitated by the project would be served by Uber, Lyft, and other rideshares.
Water Conservation and Urban Forestry Measures		
MS-3.1: Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial and developer-installed residential development unless for recreation needs or other area functions.	Yes	Pursuant to Chapter 15.11 of the SJMC, new construction projects with a total landscape area equal to or greater than 500 square feet that require a building permit would be required to demonstrate that the project meets the city's water efficiency criteria through either plant-type restriction or water budget calculation. Additionally, a landscape documentation package shall be submitted as part of the development permit application or building permit application. Future development would also be required to conform to the State's Model Water Efficient Landscape Ordinance.
MS-3.2: Promote the use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.	Yes	Future development facilitated by the project would be required to comply with Sections 15.11.970 through 15.11.1010, which outlines requirements for irrigation design and landscape irrigation systems with recycled water. Additionally, future development would be subject to the City's Green Building Code. Future development would also be required to comply with Policy MS-3.2 of the Envision San José 2040 General Plan, which promotes the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling
MS-19.4: Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.	Yes	Future development would be required to comply with Section 15.11.960 of the SJMC, which requires the use of recirculating systems or recycled water for decorate water features such as ponds, lakes, waterfalls, and fountains; Section 15.11.980 which states that all landscape areas in excess of 10,000 square feet shall be designed to allow for the current and future use of recycled water; and Section 15.11.1000, which states that plants adapted for the San José climate shall be irrigated with recycled water.

Checklist Item	Consistent?	Explanation
MS-21.3: Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.	Yes	Future development facilitated by the proposed project would be required to comply with Section 15.11.950 and include water conserving plant species in the landscape design plan. The use of invasive plant species and/or noxious plant species is prohibited. Additionally, future development would be required to comply with Policy MS-3.3 of the Envision San José 2040 General Plan, which promotes the use of drought tolerant plants and landscaping materials (City of San José 2022).
MS-26.1: As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.	Yes	Future development would be required to achieve a level of tree coverage in compliance with and that implements City laws, policies, and guidelines.
ER-8.7: Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.	Yes	Future development subject to Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) Municipal Regional Stormwater Permit (MRP) would be required to include Low Impact Design (LID) site design, source control, and treatment measures, such as bioretention, pervious pavement, and infiltration trenches, in order to reduce stormwater runoff.

[1] Bicycle parking spaces shall consist of at least 60 percent long-term and at most 40 percent short-term spaces.

Source: City of San José 2022

Project Consistency with 2022 Scoping Plan

The principal State plans and policies for reducing GHG emissions are AB 32, SB 32, and AB 1279. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020; the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030; and the goal of AB 1279 is to achieve net zero greenhouse gas emissions no later than 2045, and reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan expands upon earlier plans to include the AB 1279 targets. The 2022 Scoping Plan's strategies that are applicable to the proposed project include reducing fossil fuel use and vehicle miles traveled; decarbonizing the electricity sector, maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals since future development would be required to comply with the latest Title 24 Green Building Code and Building Efficiency Energy Standards, as well as the AB 341 waste diversion goal of 75 percent and recycle organic wastes pursuant to SB 1383. Future development facilitated by the project would also be located in proximity to transit such as the Berryessa/North San Jose BART Station, the Caltrain Diridon Station, the Santa Clara Transit Center, the Eastridge Transit Center, and bus stops, which would reduce reliance on single-occupancy vehicles and VMT. SJMC Section 17.845.030 would also prohibit natural gas infrastructure and require all-electric new construction. Additionally, future development would receive electricity from SJCE or PG&E. As the City's main electricity provider, SJCE enrolls new customers in their GreenSource program, which consists of 60 percent renewable energy and up to 95 percent carbon-free power. Customers also have the option to upgrade to SJCE's TotalGreen program, which consists of 100 percent renewable energy (SJCE 2023). Therefore, the project would not conflict with the 2022 Scoping Plan and this impact would be less than significant.

Potential Emissions Generated by the Proposed HEU

For informational purposes, GHG emissions associated with development under the proposed project are shown in Table 15. Since Section 17.845.030 of the SJMC requires all-electric construction for future residential uses, it was assumed that the natural gas demand estimated for the project would instead be supplied by electricity to account for increased electricity usage. As shown in the table, the 3,095 relocated units would generate 11,864 $MTCO_2e$ per year.

Table 15 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (MT CO_2e)
Project Operational	
Mobile	9,098
Area	197
Energy	1,733
Water	137
Solid Waste	695
Refrigerants	4
Total Emissions from Proposed Project	**11,864**

Source: Table 2.5 in GHG CalEEMod worksheets, see Appendix A for calculations and for GHG emission factor assumptions.

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Appendix A

California Emissions Estimator Model Results for Greenhouse Gas Emissions

San Jose HEU Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	San Jose HEU
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	1.60
Location	San Jose, CA, USA
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1858
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	3,095	Dwelling Unit	81.4	2,971,200	0.00	0.00	9,007	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.9	56.1	39.8	117	0.09	1.81	24.4	24.9	1.66	10.1	11.8	—	33,196	33,196	1.00	2.16	107	33,958
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.6	55.9	39.8	103	0.09	1.81	24.4	24.9	1.66	10.1	11.8	—	31,579	31,579	1.15	2.17	2.76	32,255
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.99	39.8	23.1	68.3	0.06	0.77	17.5	17.8	0.71	4.17	4.42	—	22,369	22,369	0.70	1.51	30.6	22,860
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.28	7.25	4.22	12.5	0.01	0.14	3.19	3.25	0.13	0.76	0.81	—	3,703	3,703	0.12	0.25	5.06	3,785

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.77	4.01	39.8	36.3	0.05	1.81	19.8	21.6	1.66	10.1	11.8	—	5,451	5,451	0.22	0.05	0.71	5,472
2024	10.9	9.32	34.3	117	0.08	1.45	20.8	21.4	1.33	4.96	5.54	—	30,952	30,952	1.00	2.09	107	31,706

2025	10.4	8.85	27.3	110	0.08	0.55	20.8	21.3	0.52	4.96	5.48	—	30,422	30,422	0.93	2.03	99.1	31,148
2026	9.30	8.38	25.5	103	0.08	0.50	20.8	21.3	0.47	4.96	5.43	—	29,905	29,905	0.93	2.03	89.8	30,622
2027	10.4	56.1	26.2	115	0.09	0.48	24.4	24.9	0.45	5.83	6.28	—	33,196	33,196	0.95	2.16	93.0	33,958
2028	10.1	55.8	24.5	109	0.09	0.44	24.4	24.9	0.35	5.83	6.18	—	32,602	32,602	0.88	1.41	83.3	33,128
2029	9.60	55.4	23.6	103	0.09	0.41	24.4	24.8	0.33	5.83	6.15	—	32,004	32,004	0.88	1.41	74.2	32,521
2030	8.64	55.2	22.2	98.3	0.09	0.33	24.4	24.8	0.31	5.83	6.14	—	31,409	31,409	0.82	1.35	65.6	31,898
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.77	4.01	39.8	36.2	0.06	1.81	19.8	21.6	1.66	10.1	11.8	—	6,763	6,763	0.27	0.06	0.02	6,788
2024	10.6	8.96	34.4	103	0.08	1.45	20.8	21.4	1.33	4.96	5.54	—	29,517	29,517	1.15	2.14	2.76	30,185
2025	9.52	8.59	29.3	96.7	0.08	0.55	20.8	21.3	0.52	4.96	5.48	—	29,019	29,019	1.03	2.07	2.57	29,666
2026	9.09	7.55	27.5	90.9	0.08	0.50	20.8	21.3	0.47	4.96	5.43	—	28,532	28,532	1.03	2.07	2.33	29,178
2027	10.2	55.9	27.7	101	0.09	0.48	24.4	24.9	0.45	5.83	6.28	—	31,579	31,579	1.06	2.17	2.41	32,255
2028	9.75	55.6	26.7	95.6	0.09	0.44	24.4	24.9	0.35	5.83	6.18	—	31,015	31,015	1.00	2.11	2.16	31,670
2029	9.41	55.2	25.1	91.3	0.09	0.41	24.4	24.8	0.33	5.83	6.15	—	30,445	30,445	0.94	2.10	1.92	31,097
2030	8.39	54.8	23.6	87.2	0.09	0.33	24.4	24.8	0.31	5.83	6.14	—	29,876	29,876	0.93	2.04	1.71	30,510
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.13	1.79	17.4	15.4	0.02	0.77	4.13	4.90	0.71	2.01	2.71	—	2,476	2,476	0.10	0.02	0.15	2,486
2024	5.42	4.59	23.1	49.1	0.05	0.72	11.0	11.7	0.67	3.12	3.79	—	13,556	13,556	0.51	0.83	17.5	13,834
2025	6.73	6.07	20.3	68.3	0.06	0.40	14.8	15.2	0.37	3.54	3.91	—	20,864	20,864	0.70	1.45	30.6	21,343
2026	6.39	5.33	19.0	64.3	0.06	0.36	14.8	15.2	0.34	3.54	3.88	—	20,514	20,514	0.70	1.45	27.6	20,990
2027	6.75	25.5	19.0	67.0	0.06	0.34	16.3	16.7	0.32	3.90	4.22	—	21,657	21,657	0.70	1.51	27.1	22,150
2028	6.99	39.8	18.4	68.0	0.06	0.31	17.5	17.8	0.25	4.17	4.42	—	22,369	22,369	0.67	1.51	25.7	22,860
2029	6.69	39.4	17.2	64.4	0.06	0.29	17.4	17.7	0.23	4.16	4.39	—	21,899	21,899	0.67	1.50	22.9	22,386
2030	2.70	16.8	8.81	28.7	0.03	0.16	7.28	7.44	0.15	1.74	1.89	—	9,406	9,406	0.28	0.40	8.46	9,541
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.39	0.33	3.18	2.82	< 0.005	0.14	0.75	0.89	0.13	0.37	0.50	—	410	410	0.02	< 0.005	0.03	412

2024	0.99	0.84	4.22	8.95	0.01	0.13	2.01	2.14	0.12	0.57	0.69	—	2,244	2,244	0.08	0.14	2.90	2,290
2025	1.23	1.11	3.70	12.5	0.01	0.07	2.70	2.77	0.07	0.65	0.71	—	3,454	3,454	0.12	0.24	5.06	3,534
2026	1.17	0.97	3.46	11.7	0.01	0.07	2.70	2.77	0.06	0.65	0.71	—	3,396	3,396	0.12	0.24	4.58	3,475
2027	1.23	4.65	3.47	12.2	0.01	0.06	2.98	3.05	0.06	0.71	0.77	—	3,585	3,585	0.12	0.25	4.48	3,667
2028	1.28	7.25	3.36	12.4	0.01	0.06	3.19	3.25	0.05	0.76	0.81	—	3,703	3,703	0.11	0.25	4.26	3,785
2029	1.22	7.19	3.13	11.8	0.01	0.05	3.18	3.24	0.04	0.76	0.80	—	3,626	3,626	0.11	0.25	3.79	3,706
2030	0.49	3.06	1.61	5.23	0.01	0.03	1.33	1.36	0.03	0.32	0.34	—	1,557	1,557	0.05	0.07	1.40	1,580

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	54.6	124	49.3	416	0.79	2.77	25.5	28.3	2.77	4.48	7.25	1,440	110,110	111,550	126	3.15	51.5	115,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	37.8	108	50.7	231	0.75	2.71	25.5	28.2	2.69	4.48	7.17	1,440	106,049	107,490	126	3.39	22.1	111,669
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	40.1	112	19.5	288	0.54	0.32	24.2	24.6	0.31	4.26	4.57	1,440	66,138	67,578	125	3.10	33.7	71,658
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.32	20.3	3.56	52.5	0.10	0.06	4.43	4.48	0.06	0.78	0.83	238	10,950	11,188	20.7	0.51	5.58	11,864

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	34.9	33.0	17.1	227	0.59	0.24	25.5	25.7	0.22	4.48	4.70	—	60,096	60,096	2.22	2.34	30.3	60,880
Area	19.7	90.8	32.2	189	0.20	2.53	—	2.53	2.55	—	2.55	0.00	39,244	39,244	0.75	0.08	—	39,286
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	10,364	10,364	1.68	0.20	—	10,466
Water	—	—	—	—	—	—	—	—	—	—	—	240	406	646	0.89	0.53	—	827
Waste	—	—	—	—	—	—	—	—	—	—	—	1,201	0.00	1,201	120	0.00	—	4,200
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.3	21.3
Total	54.6	124	49.3	416	0.79	2.77	25.5	28.3	2.77	4.48	7.25	1,440	110,110	111,550	126	3.15	51.5	115,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	34.2	32.2	20.1	218	0.56	0.24	25.5	25.7	0.22	4.48	4.70	—	56,505	56,505	2.54	2.59	0.78	57,339
Area	3.57	75.6	30.5	13.0	0.19	2.47	—	2.47	2.47	—	2.47	0.00	38,775	38,775	0.73	0.07	—	38,815
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	10,364	10,364	1.68	0.20	—	10,466
Water	—	—	—	—	—	—	—	—	—	—	—	240	406	646	0.89	0.53	—	827
Waste	—	—	—	—	—	—	—	—	—	—	—	1,201	0.00	1,201	120	0.00	—	4,200
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.3	21.3
Total	37.8	108	50.7	231	0.75	2.71	25.5	28.2	2.69	4.48	7.17	1,440	106,049	107,490	126	3.39	22.1	111,669
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	32.1	30.2	17.9	200	0.53	0.23	24.2	24.5	0.21	4.26	4.47	—	54,181	54,181	2.28	2.36	12.4	54,954
Area	8.02	81.3	1.55	87.4	0.01	0.09	—	0.09	0.10	—	0.10	0.00	1,188	1,188	0.03	< 0.005	—	1,189
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	10,364	10,364	1.68	0.20	—	10,466
Water	—	—	—	—	—	—	—	—	—	—	—	240	406	646	0.89	0.53	—	827
Waste	—	—	—	—	—	—	—	—	—	—	—	1,201	0.00	1,201	120	0.00	—	4,200
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.3	21.3

Total	40.1	112	19.5	288	0.54	0.32	24.2	24.6	0.31	4.26	4.57	1,440	66,138	67,578	125	3.10	33.7	71,658
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.85	5.51	3.27	36.6	0.10	0.04	4.43	4.47	0.04	0.78	0.82	—	8,970	8,970	0.38	0.39	2.06	9,098
Area	1.46	14.8	0.28	15.9	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	197	197	< 0.005	< 0.005	—	197
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,716	1,716	0.28	0.03	—	1,733
Water	—	—	—	—	—	—	—	—	—	—	—	39.7	67.3	107	0.15	0.09	—	137
Waste	—	—	—	—	—	—	—	—	—	—	—	199	0.00	199	19.9	0.00	—	695
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.52	3.52
Total	7.32	20.3	3.56	52.5	0.10	0.06	4.43	4.48	0.06	0.78	0.83	238	10,950	11,188	20.7	0.51	5.58	11,864

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.39	2.84	27.3	23.5	0.03	1.20	—	1.20	1.10	—	1.10	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.93	0.78	7.49	6.44	0.01	0.33	—	0.33	0.30	—	0.30	—	938	938	0.04	0.01	—	942
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.37	1.17	< 0.005	0.06	—	0.06	0.06	—	0.06	—	155	155	0.01	< 0.005	—	156
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.71	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	134	134	0.01	< 0.005	0.61	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	34.3	34.3	< 0.005	< 0.005	0.07	34.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.68	5.68	< 0.005	< 0.005	0.01	5.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2023) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.65	6.53	5.83	0.01	0.30	—	0.30	0.27	—	0.27	—	870	870	0.04	0.01	—	873
Dust From Material Movement	—	—	—	—	—	—	3.23	3.23	—	1.66	1.66	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.19	1.06	< 0.005	0.05	—	0.05	0.05	—	0.05	—	144	144	0.01	< 0.005	—	145
Dust From Material Movement	—	—	—	—	—	—	0.59	0.59	—	0.30	0.30	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.83	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	156	156	0.01	0.01	0.71	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.71	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	144	144	< 0.005	0.01	0.02	146
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.0	24.0	< 0.005	< 0.005	0.05	24.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.97	3.97	< 0.005	< 0.005	0.01	4.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2023) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.43	3.72	37.3	31.4	0.06	1.59	—	1.59	1.47	—	1.47	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	0.33	3.36	2.83	0.01	0.14	—	0.14	0.13	—	0.13	—	594	594	0.02	< 0.005	—	596
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.61	0.52	< 0.005	0.03	—	0.03	0.02	—	0.02	—	98.3	98.3	< 0.005	< 0.005	—	98.7

Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	165	165	< 0.005	0.01	0.02	167
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.0	15.0	< 0.005	< 0.005	0.03	15.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.49	2.49	< 0.005	< 0.005	0.01	2.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Grading (2024) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.18	11.5	10.2	0.02	0.49	—	0.49	0.45	—	0.45	—	2,221	2,221	0.09	0.02	—	2,229
Dust From Material Movement	—	—	—	—	—	—	3.10	3.10	—	1.23	1.23	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	2.11	1.85	< 0.005	0.09	—	0.09	0.08	—	0.08	—	368	368	0.01	< 0.005	—	369

Dust From Material Movement	—	—	—	—	—	—	0.57	0.57	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.88	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	175	175	< 0.005	0.01	0.75	178
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.76	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	< 0.005	0.01	0.02	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	55.1	55.1	< 0.005	< 0.005	0.11	55.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.12	9.12	< 0.005	< 0.005	0.02	9.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.46	4.26	4.98	0.01	0.19	—	0.19	0.17	—	0.17	—	910	910	0.04	0.01	—	913
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.78	0.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	151	151	0.01	< 0.005	—	151
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.55	7.78	6.02	97.9	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	19,483	19,483	0.34	0.72	83.0	19,789

Vendor	0.91	0.34	12.0	5.73	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	9,072	9,072	0.56	1.35	23.8	9,510
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.26	7.44	7.52	84.3	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	18,042	18,042	0.49	0.77	2.15	18,287
Vendor	0.89	0.32	12.7	5.90	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	9,077	9,077	0.56	1.35	0.62	9,492
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.10	2.81	2.58	31.5	0.00	0.00	6.99	6.99	0.00	1.64	1.64	—	6,925	6,925	0.17	0.29	13.5	7,030
Vendor	0.34	0.12	4.71	2.21	0.02	0.05	0.88	0.93	0.05	0.24	0.29	—	3,445	3,445	0.21	0.51	3.89	3,606
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57	0.51	0.47	5.74	0.00	0.00	1.28	1.28	0.00	0.30	0.30	—	1,146	1,146	0.03	0.05	2.24	1,164
Vendor	0.06	0.02	0.86	0.40	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	570	570	0.04	0.08	0.64	597
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.80	7.46	9.31	0.02	0.31	—	0.31	0.28	—	0.28	—	1,713	1,713	0.07	0.01	—	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.36	1.70	< 0.005	0.06	—	0.06	0.05	—	0.05	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.16	7.39	5.40	91.1	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	19,098	19,098	0.34	0.72	75.5	19,397
Vendor	0.84	0.34	11.5	5.53	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	8,926	8,926	0.49	1.28	23.7	9,345
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.34	7.14	6.84	78.1	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	17,690	17,690	0.44	0.77	1.96	17,933
Vendor	0.83	0.32	12.0	5.62	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	8,931	8,931	0.49	1.28	0.62	9,327
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	5.17	5.03	4.37	55.0	0.00	0.00	13.1	13.1	0.00	3.08	3.08	—	12,774	12,774	0.28	0.52	23.2	12,958
Vendor	0.60	0.23	8.45	4.00	0.04	0.09	1.66	1.75	0.09	0.46	0.55	—	6,377	6,377	0.35	0.92	7.32	6,667
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.94	0.92	0.80	10.0	0.00	0.00	2.40	2.40	0.00	0.56	0.56	—	2,115	2,115	0.05	0.09	3.85	2,145
Vendor	0.11	0.04	1.54	0.73	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,056	1,056	0.06	0.15	1.21	1,104
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.19	7.04	4.73	84.9	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	18,737	18,737	0.34	0.72	68.4	19,029
Vendor	0.83	0.27	10.9	5.33	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	8,771	8,771	0.49	1.28	21.4	9,188
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.00	6.22	6.17	72.5	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	17,358	17,358	0.44	0.77	1.78	17,601
Vendor	0.81	0.25	11.5	5.41	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	8,777	8,777	0.49	1.28	0.55	9,172
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.89	4.38	3.89	51.2	0.00	0.00	13.1	13.1	0.00	3.08	3.08	—	12,534	12,534	0.28	0.52	21.1	12,716
Vendor	0.59	0.19	8.03	3.86	0.04	0.09	1.66	1.75	0.09	0.46	0.55	—	6,267	6,267	0.35	0.92	6.57	6,555
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.89	0.80	0.71	9.34	0.00	0.00	2.40	2.40	0.00	0.56	0.56	—	2,075	2,075	0.05	0.09	3.49	2,105
Vendor	0.11	0.03	1.47	0.70	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,038	1,038	0.06	0.15	1.09	1,085
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.90	6.18	4.68	79.5	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	18,394	18,394	0.29	0.72	61.7	18,679
Vendor	0.77	0.27	10.4	5.13	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	8,593	8,593	0.49	1.28	18.9	9,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.70	5.98	5.50	67.8	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	17,041	17,041	0.39	0.72	1.60	17,268
Vendor	0.75	0.25	10.9	5.27	0.06	0.12	2.33	2.45	0.12	0.64	0.77	—	8,599	8,599	0.48	1.28	0.49	8,994
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.72	4.20	3.86	47.9	0.00	0.00	13.1	13.1	0.00	3.08	3.08	—	12,306	12,306	0.25	0.52	19.0	12,485
Vendor	0.54	0.19	7.65	3.71	0.04	0.09	1.66	1.75	0.09	0.46	0.55	—	6,139	6,139	0.35	0.92	5.83	6,427
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.86	0.77	0.70	8.75	0.00	0.00	2.40	2.40	0.00	0.56	0.56	—	2,037	2,037	0.04	0.09	3.15	2,067
Vendor	0.10	0.03	1.40	0.68	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,016	1,016	0.06	0.15	0.97	1,064
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2028) - Unmitigated

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

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

Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.65	5.93	4.05	74.7	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	18,073	18,073	0.29	0.15	55.5	18,180
Vendor	0.76	0.27	9.85	4.94	0.06	0.12	2.33	2.45	0.06	0.64	0.71	—	8,383	8,383	0.42	1.22	16.7	8,772
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.46	5.73	5.45	63.7	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	16,746	16,746	0.39	0.72	1.44	16,972

Vendor	0.68	0.25	10.4	5.07	0.06	0.12	2.33	2.45	0.06	0.64	0.71	—	8,389	8,389	0.42	1.22	0.43	8,764
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.59	4.07	3.42	45.3	0.00	0.00	13.2	13.2	0.00	3.09	3.09	—	12,125	12,125	0.25	0.52	17.1	12,303
Vendor	0.54	0.19	7.32	3.58	0.04	0.09	1.67	1.76	0.04	0.46	0.50	—	6,006	6,006	0.30	0.87	5.17	6,278
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.84	0.74	0.62	8.26	0.00	0.00	2.41	2.41	0.00	0.56	0.56	—	2,007	2,007	0.04	0.09	2.84	2,037
Vendor	0.10	0.03	1.34	0.65	0.01	0.02	0.30	0.32	0.01	0.08	0.09	—	994	994	0.05	0.14	0.86	1,039
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.13	9.22	0.02	0.20	—	0.20	0.18	—	0.18	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.12	1.68	< 0.005	0.04	—	0.04	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.36	5.63	4.00	70.5	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	17,771	17,771	0.29	0.15	49.5	17,872
Vendor	0.70	0.27	9.42	4.80	0.06	0.12	2.33	2.45	0.06	0.64	0.71	—	8,148	8,148	0.42	1.22	14.8	8,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.21	5.44	4.82	60.3	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	16,467	16,467	0.34	0.72	1.28	16,692
Vendor	0.68	0.25	9.95	4.93	0.06	0.12	2.33	2.45	0.06	0.64	0.71	—	8,155	8,155	0.42	1.22	0.38	8,528
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.40	3.88	2.93	42.4	0.00	0.00	13.1	13.1	0.00	3.08	3.08	—	11,891	11,891	0.25	0.52	15.3	12,066
Vendor	0.49	0.19	6.95	3.47	0.04	0.09	1.66	1.75	0.04	0.46	0.50	—	5,822	5,822	0.30	0.87	4.57	6,093
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.80	0.71	0.53	7.74	0.00	0.00	2.40	2.40	0.00	0.56	0.56	—	1,969	1,969	0.04	0.09	2.53	1,998

Vendor	0.09	0.03	1.27	0.63	0.01	0.02	0.30	0.32	0.01	0.08	0.09	—	964	964	0.05	0.14	0.76	1,009
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2030) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.28	2.48	3.81	0.01	0.08	—	0.08	0.07	—	0.07	—	708	708	0.03	0.01	—	711
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.45	0.69	< 0.005	0.01	—	0.01	0.01	—	0.01	—	117	117	< 0.005	< 0.005	—	118
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.59	5.49	3.38	66.4	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	17,488	17,488	0.25	0.15	43.9	17,582
Vendor	0.70	0.21	9.00	4.61	0.06	0.06	2.33	2.39	0.06	0.64	0.71	—	7,893	7,893	0.42	1.15	13.0	8,261
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.39	5.24	4.15	57.0	0.00	0.00	18.4	18.4	0.00	4.32	4.32	—	16,205	16,205	0.34	0.72	1.14	16,430
Vendor	0.68	0.19	9.45	4.73	0.06	0.06	2.33	2.39	0.06	0.64	0.71	—	7,900	7,900	0.42	1.15	0.34	8,254
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.56	1.52	1.20	16.6	0.00	0.00	5.44	5.44	0.00	1.27	1.27	—	4,841	4,841	0.09	0.04	5.61	4,862
Vendor	0.20	0.06	2.75	1.38	0.02	0.02	0.69	0.71	0.02	0.19	0.21	—	2,333	2,333	0.12	0.34	1.66	2,440
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.28	0.22	3.03	0.00	0.00	0.99	0.99	0.00	0.23	0.23	—	802	802	0.01	0.01	0.93	805
Vendor	0.04	0.01	0.50	0.25	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.04	—	386	386	0.02	0.06	0.27	404
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Paving (2030) - Unmitigated

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

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

Off-Road Equipment	0.77	0.64	6.28	9.90	0.01	0.22	—	0.22	0.20	—	0.20	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	6.28	9.90	0.01	0.22	—	0.22	0.20	—	0.20	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.89	2.98	< 0.005	0.07	—	0.07	0.06	—	0.06	—	455	455	0.02	< 0.005	—	457
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.35	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.4	75.4	< 0.005	< 0.005	—	75.6
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.45	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	118	118	< 0.005	< 0.005	0.30	118
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.38	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	109	109	< 0.005	< 0.005	0.01	111
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.2	33.2	< 0.005	< 0.005	0.04	33.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.50	5.50	< 0.005	< 0.005	0.01	5.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Architectural Coating (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.47	< 0.005	0.01	—	0.01	0.01	—	0.01	—	55.9	55.9	< 0.005	< 0.005	—	56.1
Architectural Coatings	—	19.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.26	9.26	< 0.005	< 0.005	—	9.29
Architectural Coatings	—	3.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.38	1.24	0.94	15.9	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,679	3,679	0.06	0.14	12.3	3,736

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.34	1.20	1.10	13.6	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,408	3,408	0.08	0.14	0.32	3,454
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.49	0.45	5.62	0.00	0.00	1.54	1.54	0.00	0.36	0.36	—	1,443	1,443	0.03	0.06	2.23	1,464
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.03	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	239	239	< 0.005	0.01	0.37	242
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Architectural Coating (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.58	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.6	95.6	< 0.005	< 0.005	—	96.0
Architectural Coatings	—	33.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.9
Architectural Coatings	—	6.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.33	1.19	0.81	14.9	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,615	3,615	0.06	0.03	11.1	3,636

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.29	1.15	1.09	12.7	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,349	3,349	0.08	0.14	0.29	3,394
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.92	0.81	0.68	9.05	0.00	0.00	2.64	2.64	0.00	0.62	0.62	—	2,425	2,425	0.05	0.10	3.43	2,461
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.12	1.65	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	401	401	0.01	0.02	0.57	407
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Architectural Coating (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.57	0.79	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.4	95.4	< 0.005	< 0.005	—	95.7
Architectural Coatings	—	33.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.10	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Architectural Coatings	—	6.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.13	0.80	14.1	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,554	3,554	0.06	0.03	9.90	3,574

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.24	1.09	0.96	12.1	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,293	3,293	0.07	0.14	0.26	3,338
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.88	0.78	0.59	8.48	0.00	0.00	2.63	2.63	0.00	0.62	0.62	—	2,378	2,378	0.05	0.10	3.05	2,413
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.11	1.55	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	394	394	0.01	0.02	0.51	400
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Architectural Coating (2030) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	47.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.24	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.5	40.5	< 0.005	< 0.005	—	40.6
Architectural Coatings	—	14.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.70	6.70	< 0.005	< 0.005	—	6.73
Architectural Coatings	—	2.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.12	1.10	0.68	13.3	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,498	3,498	0.05	0.03	8.78	3,516

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.08	1.05	0.83	11.4	0.00	0.00	3.68	3.68	0.00	0.86	0.86	—	3,241	3,241	0.07	0.14	0.23	3,286
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.31	0.25	3.41	0.00	0.00	1.12	1.12	0.00	0.26	0.26	—	994	994	0.02	0.01	1.15	998
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.62	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	165	165	< 0.005	< 0.005	0.19	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

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

Apartments	34.9	33.0	17.1	227	0.59	0.24	25.5	25.7	0.22	4.48	4.70	—	60,096	60,096	2.22	2.34	30.3	60,880
Total	34.9	33.0	17.1	227	0.59	0.24	25.5	25.7	0.22	4.48	4.70	—	60,096	60,096	2.22	2.34	30.3	60,880
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	34.2	32.2	20.1	218	0.56	0.24	25.5	25.7	0.22	4.48	4.70	—	56,505	56,505	2.54	2.59	0.78	57,339
Total	34.2	32.2	20.1	218	0.56	0.24	25.5	25.7	0.22	4.48	4.70	—	56,505	56,505	2.54	2.59	0.78	57,339
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	5.85	5.51	3.27	36.6	0.10	0.04	4.43	4.47	0.04	0.78	0.82	—	8,970	8,970	0.38	0.39	2.06	9,098
Total	5.85	5.51	3.27	36.6	0.10	0.04	4.43	4.47	0.04	0.78	0.82	—	8,970	8,970	0.38	0.39	2.06	9,098

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	10,364	10,364	1.68	0.20	—	10,466
Total	—	—	—	—	—	—	—	—	—	—	—	—	10,364	10,364	1.68	0.20	—	10,466
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	—	10,364	10,364	1.68	0.20	—	10,466
Total	—	—	—	—	—	—	—	—	—	—	—	—	10,364	10,364	1.68	0.20	—	10,466
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,716	1,716	0.28	0.03	—	1,733
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,716	1,716	0.28	0.03	—	1,733

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

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

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.57	1.79	30.5	13.0	0.19	2.47	—	2.47	2.47	—	2.47	0.00	38,775	38,775	0.73	0.07	—	38,815
Consumer Products	—	63.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	10.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	16.1	15.2	1.62	176	0.01	0.06	—	0.06	0.08	—	0.08	—	469	469	0.02	< 0.005	—	471
Total	19.7	90.8	32.2	189	0.20	2.53	—	2.53	2.55	—	2.55	0.00	39,244	39,244	0.75	0.08	—	39,286
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.57	1.79	30.5	13.0	0.19	2.47	—	2.47	2.47	—	2.47	0.00	38,775	38,775	0.73	0.07	—	38,815
Consumer Products	—	63.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	10.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.57	75.6	30.5	13.0	0.19	2.47	—	2.47	2.47	—	2.47	0.00	38,775	38,775	0.73	0.07	—	38,815
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.02	0.01	0.14	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	158	158	< 0.005	< 0.005	—	158

Consum Products	—	11.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.45	1.37	0.15	15.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	38.3	38.3	< 0.005	< 0.005	—	38.5
Total	1.46	14.8	0.28	15.9	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	197	197	< 0.005	< 0.005	—	197

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	240	406	646	0.89	0.53	—	827
Total	—	—	—	—	—	—	—	—	—	—	—	240	406	646	0.89	0.53	—	827
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	240	406	646	0.89	0.53	—	827
Total	—	—	—	—	—	—	—	—	—	—	—	240	406	646	0.89	0.53	—	827
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	39.7	67.3	107	0.15	0.09	—	137
Total	—	—	—	—	—	—	—	—	—	—	—	39.7	67.3	107	0.15	0.09	—	137

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,201	0.00	1,201	120	0.00	—	4,200
Total	—	—	—	—	—	—	—	—	—	—	—	1,201	0.00	1,201	120	0.00	—	4,200
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,201	0.00	1,201	120	0.00	—	4,200
Total	—	—	—	—	—	—	—	—	—	—	—	1,201	0.00	1,201	120	0.00	—	4,200
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	199	0.00	199	19.9	0.00	—	695
Total	—	—	—	—	—	—	—	—	—	—	—	199	0.00	199	19.9	0.00	—	695

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.3	21.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.3	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.3	21.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.3	21.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.52	3.52
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.52	3.52

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	4/4/2023	8/22/2023	5.00	100	—
Site Preparation	Site Preparation	8/23/2023	11/15/2023	5.00	60.0	—
Grading	Grading	11/16/2023	6/20/2024	5.00	155	—
Building Construction	Building Construction	6/21/2024	5/31/2030	5.00	1,550	—
Paving	Paving	6/1/2030	11/2/2030	5.00	110	—
Architectural Coating	Architectural Coating	6/1/2027	6/4/2030	5.00	786	—

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	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	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	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2,228	11.7	LDA,LDT1,LDT2

Building Construction	Vendor	331	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	446	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	6,016,680	2,005,560	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	90.0	0.00	—
Grading	—	—	465	0.00	—
Paving	0.00	0.00	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

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

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005
2029	0.00	204	0.03	< 0.005
2030	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	16,837	15,196	12,659	5,842,034	92,915	83,863	69,857	32,239,685

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	1578
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1517
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
6016680	2,005,560	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	18,544,217	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	112,244,508	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	765	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.6	annual days of extreme heat
Extreme Precipitation	2.55	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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

6.2. Initial Climate Risk Scores

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

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

6.3. Adjusted Climate Risk Scores

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

Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	37.5
AQ-DPM	76.9
Drinking Water	22.7
Lead Risk Housing	61.3
Pesticides	13.7
Toxic Releases	33.2
Traffic	13.0
Effect Indicators	—
CleanUp Sites	7.71
Groundwater	96.8
Haz Waste Facilities/Generators	75.5
Impaired Water Bodies	51.2
Solid Waste	0.00

Sensitive Population	—
Asthma	84.5
Cardio-vascular	48.2
Low Birth Weights	29.2
Socioeconomic Factor Indicators	—
Education	80.6
Housing	90.5
Linguistic	85.3
Poverty	82.4
Unemployment	67.5

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.07917362
Employed	81.98383164
Median HI	18.79892211
Education	—
Bachelor's or higher	62.49197998
High school enrollment	100
Preschool enrollment	61.70922623
Transportation	—
Auto Access	1.62966765
Active commuting	90.82509945
Social	—
2-parent households	9.790837931

Voting	39.93327345
Neighborhood	—
Alcohol availability	11.79263442
Park access	81.35506224
Retail density	97.61324265
Supermarket access	94.25125112
Tree canopy	58.28307455
Housing	—
Homeownership	8.443474913
Housing habitability	24.89413576
Low-inc homeowner severe housing cost burden	96.52252021
Low-inc renter severe housing cost burden	48.36391634
Uncrowded housing	49.60862312
Health Outcomes	—
Insured adults	18.72192994
Arthritis	74.6
Asthma ER Admissions	23.5
High Blood Pressure	59.0
Cancer (excluding skin)	68.9
Asthma	46.1
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	48.6
Life Expectancy at Birth	49.3
Cognitively Disabled	7.3
Physically Disabled	10.8
Heart Attack ER Admissions	41.4

Mental Health Not Good	45.5
Chronic Kidney Disease	45.1
Obesity	51.8
Pedestrian Injuries	50.9
Physical Health Not Good	46.9
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	57.0
Current Smoker	48.5
No Leisure Time for Physical Activity	40.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	64.0
Elderly	30.4
English Speaking	10.3
Foreign-born	83.4
Outdoor Workers	82.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	15.1
Traffic Density	22.0
Traffic Access	87.4
Other Indices	—
Hardship	63.1
Other Decision Support	—
2016 Voting	38.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	33.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Population calculated using 2.91 persons per household (DOF 2022)
Construction: Construction Phases	Architectural occurs simultaneously as building construction
Construction: Architectural Coatings	BAAQMD Regulation 8 Rule 3
Operations: Architectural Coatings	BAAQMD Regulation 8 Rule 3
Operations: Energy Use	Section 17.845.030 of the SJMC prohibits natural gas infrastructure and requires all-electric new construction
Operations: Water and Waste Water	San Jose Santa Clara Regional Wastewater Facility 100% aerobic