FOSTER CITY RECREATION CENTER REBUILD PROJECT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOSTER CITY, CALIFORNIA

LSA

July 2023

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NOTICE OF INTENT (NOI) TO ADOPT A
MITIGATED NEGATIVE DECLARATION FOR THE
PROPOSED FOSTER CITY RECREATION CENTER REBUILD PROJECT

Project Name: Foster City Recreation Center Rebuild Project

Project File Number: UP2023-0003/ CIP 301-678

Lead Agency:
City of Foster City
610 Foster City Boulevard
Foster City, CA 94404
Attn: Thai-Chau Le
Planning Manager
tle@fostercity.org
(650) 286-3244

Applicant:
City of Foster City
610 Foster City Boulevard
Foster City, CA 94404
Attn: Derek Schweigart
Parks and Recreation Director
dschweigart@fostercity.org
(650) 286-3390

NOTICE IS HEREBY GIVEN that the City of Foster City (City), as the lead agency under the California Environmental Quality Act (CEQA), has completed an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Foster City Recreation Center Rebuild Project (proposed project).

PROJECT LOCATION: 650 Shell Blvd, Foster city, CA 94404 (Assessor's Parcel Numbers [APNs] 094-470-130 and 094-470-150). Specifically, the approximately 6-acre project site is located within Leo J. Ryan Park at 650 Shell Boulevard, in the City of Foster City, San Mateo County. The project site is bound by Shell Boulevard to the north, Leo J. Ryan Park to the east and west, and the Foster City Lagoon to the south. The project site is currently developed with the William E. Walker Recreation Center, which is a multi-purpose facility with classrooms and event spaces as well as various other community-oriented uses. Originally constructed in 1974, the William E. Walker Recreation Center is a one-story, approximately 24-foot-tall, 32,000-square-foot building with approximately 18,000 square feet devoted to programming space.

PROPOSED PROJECT: Demolish the existing 32,000-square-foot recreation center and construct the new Foster City Recreation Center in approximately the same location. The new recreation center building would be two stories and a maximum of approximately 40 feet in height and approximately 40,000 square feet in size. The proposed project would also include improvements to Leo J. Ryan Park consisting of new outdoor gathering spaces, new landscaping, and restriped parking lots.

FINDINGS: The Initial Study prepared by the City was undertaken for the purpose of deciding whether the proposed project may have a significant effect on the environment. On the basis of the Initial Study, the City has concluded that the proposed project will not have a significant effect on the environment and, therefore, has prepared a Mitigated Negative Declaration. The project site is not on a list of hazardous waste sites compiled pursuant to Government Code Section 65962.5.

PUBLIC REVIEW: The Draft Initial Study, MND, and reference documents are available for review online at: www.fostercity.org/ReccenterCEQA. Paper copies of the IS/MND are also available for review from 8:00 a.m. to 5:00 p.m. at the City's Community Development Department, located at 610 Foster City Boulevard, Foster City, CA 94404. **The public comment period for this Draft IS/MND begins on July 26, 2023 and ends on August 15, 2023.** Comments from all Responsible Agencies and interested parties are requested. Any person wishing to comment on the Draft IS/MND must submit written comments to the Lead Agency's contact listed above.

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FOSTER CITY RECREATION CENTER REBUILD PROJECT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOSTER CITY, CALIFORNIA

Submitted to:

City of Foster City
610 Foster City Boulevard
Foster City, California 94404

City File Numbers: UP2023-0003/CIP 301-678

Prepared by:

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Project No. 20231009

LSA

July 2023

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LIST OF ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
AFY	acre feet per year
BAAQMD	Bay Area Air Quality Management District
Bay	San Francisco Bay
Basin Plan	Water Quality Control Plan
BAT	Best Available Technology
BAWSCA	Bay Area Water Supply and Conservation Agency
BCT	Best Conventional Technology
BMPs	best management practices
CalEEMod	California Emissions Estimator Model
CalGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CH_4	methane
City	City of Foster City

CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
COA	Condition of Approval
CRMP	Construction Risk Management Plan
CWA	Clean Water Act
dB	decibel
dBA	A-weighted sound level
DOT	Department of Transportation
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EC	Energy-Community
ED	Education
EM	Energy-Municipal
EMID	Estero Municipal Improvement District
ESA	Endangered Species Act
EV	electric vehicle
EW	Energy and Water
FCPD	Foster City Police Department
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FTA	Federal Transit Administration
GHG	greenhouse gas emissions

GWh	gigawatt-hours
GWP	global warming potential
HFCs	hydrofluorocarbons
HP	horsepower
HVAC	heating, ventilation, and air conditioning
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
kWh	kilowatt-hours
LCSD	Lower Crystal Springs Dam
L_{dn}	day-night average noise level
L_{eq}	equivalent continuous sound level
LID	Low Impact Development
LOS	level of service
LUST	Leaking Underground Storage Tank
MEI	maximally exposed individual
mgd	million gallons per day
MLD	Most Likely Descendant
mpg	miles per gallon
MRP	Municipal Regional Permit
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent
NO_x	nitrogen oxide
NO_2	nitrogen dioxide
NWIC	Northwest Information Center

N_2O	nitrous oxide
OPR	Governor's Office of Planning and Research
OS	Open Space
OSHA	Occupational Safety and Health Administration
Ox Mountain	Ox Mountain Sanitary Landfill
Pb	lead
PCBs	polychlorinated biphenyls
PD	Planned Development
P-F	Public Facilities
PFCs	perfluorocarbons
PG&E	Pacific Gas & Electric
$PM_{2.5}$	particulate matter
PM_{10}	particulate matter
POTWs	publicly owned treatment works
PPV	peak particle velocity
PRC	Public Resources Code
QSP	Qualified SWPPP Practitioner
RCRA	Resource Conservation and Recovery Act
RMS	root-mean-square
ROG	reactive organic gasses
RWS	Regional Water System
SB	Senate Bill
SDS	Safety Data Sheets
SMCFD	San Mateo Consolidated Fire Department

SO_2	sulfur dioxide
SF_6	sulfur hexafluoride
SFO	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SR 92	State Route 92
SRA	State Responsibility Area
State Water Board	State Water Resources Control Board
SWCP	Stormwater Control Plan
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminants
TDML	total maximum daily load
TL	Transportation and Land Use
TM	Transportation-related Municipal Operations
$\mu g/m^3$	micrograms per cubic meter
USEPA	United States Environmental Protection Agency
USDA	United States Department of Agriculture
US 101	US Highway 101
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
Water Board	San Francisco Bay Regional Water Quality Control Board
WC	Waste
WWTP	San Mateo Wastewater Treatment Plant

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1.0 PROJECT INFORMATION

1. **Project Title:**

   Foster City Recreation Center Rebuild Project

2. **Lead Agency Name and Address:**

   City of Foster City
   610 Foster City Boulevard
   Foster City, CA 94404

3. **Contact Person and Phone Number:**

   Thai-Chau Le
   Planning Manager
   Planning/Code Enforcement Division
   City of Foster City
   (650) 286-3244

4. **Project Location:**

   650 Shell Boulevard
   Foster City, California 94404
   Assessor's Parcel Numbers [APNs] 094-470-130 and 094-470-150

5. **Project Sponsor's Name and Address:**

   City of Foster City
   610 Foster City Boulevard
   Foster City, CA 94404

6. **General Plan Designation:**

   Parks and Recreation

7. **Zoning:**

   Public Facilities (P-F)/Planned Development (PD) and Open Space and Conservation District (OSC)

8. **Description of Project:**

   The proposed project is the redevelopment of the existing William E. Walker Recreation Center to create a new Foster City Recreation Center in generally the same location. See Section 2.0, Project Description of this Initial Study, for a detailed description of the proposed project.

9. **Surrounding Land Uses and Setting:**

   The project site is located in a developed area of the City of Foster City and is surrounded primarily by public open space to the west, residential to the north, and institutional uses such as the Foster City Library and Community Center to the northeast.

10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

None

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

California Native American tribes traditionally and culturally affiliated with the project site and area have been notified of the proposed project. No tribes have requested consultation. Refer to Section 4.18 below for further details.

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2.0 PROJECT DESCRIPTION

The following describes the Foster City Recreation Center Rebuild Project (proposed project) that is the subject of this Initial Study/Mitigated Negative Declaration (IS/MND) prepared pursuant to the California Environmental Quality Act (CEQA). The proposed project is the redevelopment of the existing William E. Walker Recreation Center (recreation center) to create a new Foster City Recreation Center in generally the same location. This Initial Study was prepared in compliance with the City of Foster City/Estero Municipal Improvement District (EMID) Environmental Review Guidelines.[1]

2.1 PROJECT SITE

The following section describes the project location, existing conditions, surrounding land uses, and the regulatory setting.

2.1.1 Project Location

The approximately 6-acre project site is located within Leo J. Ryan Park at 650 Shell Boulevard, in the City of Foster City (City), San Mateo County. Foster City is located approximately 23 miles south of San Francisco, at the southwest edge of San Francisco Bay (Bay) and 10 miles north of San Jose. The project site is bound by Shell Boulevard to the north, Leo J. Ryan Park to the east and west, and the Foster City Lagoon to the south. Additional parking lots that are within Leo J. Ryan Park to the southeast provide parking for the recreation center, but are not located within the project site. The project's location and regional vicinity is shown in Figure 2-1, and an aerial of the project site and surrounding land uses are shown in Figure 2-2. Regional vehicular access to the project site is provided by State Route 92 (SR 92) via the Foster City Boulevard on- and off-ramps located to the east and US Highway 101 (US 101), via the SR 92 interchange to the north. Direct local access to the project site is provided via two driveways along Shell Boulevard. The project site is served by two nearby Caltrain stations outside of the City limits: the Hillsdale Station located approximately 1.9 miles west of the project site and Hayward Park Station located approximately 2.1 northwest of the project site, providing weekday service from San Francisco to Gilroy and weekend service from San Francisco to San Jose.

2.1.2 Existing Conditions

The project site is currently developed with the William E. Walker Recreation Center, which is a multi-purpose facility with classrooms and event spaces as well as various other community-oriented uses. Originally constructed in 1974, the William E. Walker Recreation Center is a one-story, approximately 24-foot-tall, 32,000-square-foot building with approximately 18,000 square feet devoted to programming space. The center was subsequently modified multiple times during the 1990s. Average attendance is approximately 2,570 during persons per week during the fall (September through November), 2,625 in the summer (June through August), 1,860 during the spring (March through May) and 1,500 in the winter (December through February).

[1] Foster City, City of/Estero Municipal Improvement District. 2007. *Environmental Review Guidelines.* October 1.

2.1.3 Surrounding Land Uses

As shown in Figure 2-2, a variety of land uses are located within the vicinity of the project site. Immediately north of the project site is Shell Boulevard, across which are multi-family residential uses, commercial uses, and institutional and public uses such as the Foster City Library, Foster City Community Center, and Foster City Police Department. Leo J. Ryan Park, an approximately 20-acre local park with lawn areas, basketball courts, tennis courts, pedestrian and bicycle paths, lagoon access, and picnic space borders the site to the east and west. Further west of the project site is East Hillsdale Boulevard, across which are commercial and residential uses, and farther east of the project site are additional single-family residential uses. The Foster City Lagoon, an approximately 212-acre drainage detention basin, borders the project site to the south. Single-family residential uses are located south of the project site across the lagoon.

2.1.4 Parking, Circulation, and Access

A surface parking lot located on the southeastern portion of the project site provides approximately 157 parking spaces for visitors of the recreation center. Additional surface parking lots northwest of the recreation center and southeast of the project site provide an additional 28 and 42 parking spaces, respectively, for a total of 227 spaces. As noted above, the parking lots to the southeast are not located within the project site. All three parking lots are accessible via driveways along Shell Boulevard. The northwestern parking lot also includes a drop-off and pickup loop. Pedestrian access to and throughout the project site is provided by sidewalks along Shell Boulevard and concrete pathways within Leo J. Ryan Park.

2.1.5 Regulatory Setting

The project site is designated as Parks and Recreation on the City's General Plan Land Use Map.[2] This designation is for improved open space lands where the purpose is recreation. A portion of the existing Recreation Center is located on two different parcels with two different zonings districts of Public Facilities (P-F)/Planned Development (PD) and Open Space and Conservation (OSC).[3] The P-F district is reserved for the construction, use and occupancy of governmental, public utility and educational buildings and facilities, and other uses compatible with the semipublic character of the district. Buildings and facilities owned and operated by the City are permitted within the P-F district. Permitted uses within the OSC district include agricultural crops, wildlife sanctuaries, open space areas to be preserved from building or set aside for general public use, water-oriented use or boating where land is submerged, and public parks. The OSC district allows for public parks and public structures and facilities are allowable with Conditional Use Permits. The project site is also within the Planned Development (PD) combining district, which is designed to accommodate various types of development, such as single- and multi-family residential developments, community shopping centers, professional and administrative areas, commercial service centers, and other uses or a combination of uses which can be made appropriately a part of a planned development. The district is established to allow flexibility of design which is in accordance with the objectives and spirit of the General Plan.

[2] Foster City, City of. 2016. *Foster City General Plan*. February 1.
[3] Foster City, City of. 2021. *Foster City Municipal Code* (as amended). Title 17. January 19.

2.2 PROPOSED PROJECT

The proposed project would include three components: 1) demolition of the existing William E. Walker Recreation Center and construction of a new Foster City Recreation Center (recreation center); 2) improvements to Leo J. Ryan Park; and 3) parking improvements. Each of these components is described below.

2.2.1 Community Center Redevelopment

The existing 32,000-square-foot recreation center would be demolished and the new Foster City Recreation Center would be constructed in approximately the same location with a different, larger footprint. The new recreation center building would be two stories and a maximum of approximately 40 feet in height and approximately 40,000 square feet in size. The first floor of the new recreation center building would include multiple event spaces, as well as space for classrooms, offices and staff rooms, meeting rooms, a community lounge/lobby, a senior lounge, and a kitchen. Additionally, the first floor would include restrooms, storage, and building mechanical space. Building service areas would also include generator[4] and trash enclosures near the northern boundary of the site. The second floor would include space for fitness rooms, multi-purpose activity rooms, an arts room, meeting rooms, and additional office space as well as an outdoor patio on the south side of the building facing the Foster City Lagoon. The proposed conceptual site plan is shown in Figure 2-3, and proposed conceptual floor plans are shown in Figures 2-4 and 2-5.

Average attendance at the new recreation center building is anticipated to be approximately 2,825 during persons per week during the fall (September through November), 2,850 in the Summer (June through August), 2,050 during the spring (March – May) and 1,650 in the winter (December through February). Therefore, average weekly attendance would be anticipated to increase by approximately 150 to 250 people per week, depending on the season.

2.2.2 Leo J. Ryan Park and Landscaping Improvements

The proposed project would include improvements to Leo J. Ryan Park within the immediate vicinity of the proposed building. These improvements would largely consist of new outdoor gathering spaces, including a waterfront terrace near the lagoon, a social terrace near the proposed building that could include a beer garden, and a garden terrace and rose garden that would include public seating. Existing pathways adjacent to the proposed building would also be reconfigured to connect the proposed social spaces to existing pathways and recreational spaces such as the meadow to the northwest and the amphitheater to the south. New pedestrian amenities such as benches and lighting would also be provided along the waterfront pathway. The site currently has 85 trees and approximately 26 would be removed for the full reconfiguration and expansion of the project. Additionally, new landscaping would be installed throughout the project site, including along the northern boundary of the site where an existing parking lot would be replaced with new lawn areas, managed landscape areas, and pedestrian pathways. New landscaping and lawn areas would be generally consistent with the amount of landscaping and lawn that are currently provided.

[4] For purposes of this analysis, a 335-horsepower generator was assumed to run one hour per week for testing.

2.2.3 Parking Improvements

The existing parking lot immediately south of the existing William E. Walker Recreation Center would be restriped to contain a total of approximately 169 parking space. The northern parking lot would be moved south of the proposed recreation center and would contain 29 parking spaces. The parking lot along the eastern boundary of the project site would not be modified. In total, the proposed project would increase parking on the project site to 240 spaces.[5] All three parking lots would continue to be accessed from the existing driveways along Shell Boulevard on the southern portion of the site, while the driveway that previously provided access to the northwestern parking lot would be removed.

2.2.4 Utilities

The project site is currently served by water, wastewater, stormwater, and electric utilities, all of which have connections to the exiting building within Shell Boulevard. An underground electrical line along the project frontage provides service to the site, as well as a 16-inch water main and 15-inch sanitary sewer line. A 54-inch stormwater main that connects to mains within Civic Center Drive and Balcutha Drive runs through the center of the project site. The proposed project would include new connections to each of these utilities but is not anticipated to require expansion or replacement of any existing lines. The proposed project would be designed to be all-electric and would not include the use of natural gas.

2.2.5 Construction Schedule

Construction of the proposed project is anticipated to begin in July 2024 and would take approximately 24 months. Construction staging areas would be determined by the construction manager, but would be contained on the project site. Approximately 2,500 cubic yards of soil would be imported to the project site as a result of grading and approximately 160 tons of demolition waste would be exported. Approximately 26 trees are expected to be removed from the project site, and 57 trees would be replanted.

2.3 PROJECT APPROVALS

A number of permits and approvals would be required for the proposed project. A list of the potential permits and approvals that may be required is provided in Table 2.A.

Table 2.A: Potential Permits and Approvals

Lead Agency	Potential Permits/Approvals
City of Foster City	● IS/MND adoption ● Provision of grading, demolition, building, tree removal, parking, traffic, erosion, and Storm Water Pollution Prevention Plan permits and approvals ● Approval of water lines, water hookups, wastewater lines, wastewater hookups

Source: LSA (2023).

[5] The number of parking spaces provided on the project site would continue to be refined throughout the design process, but would not exceed 240 spaces. The final design could include fewer parking spaces, but to be conservative this analysis assumes 240 spaces.

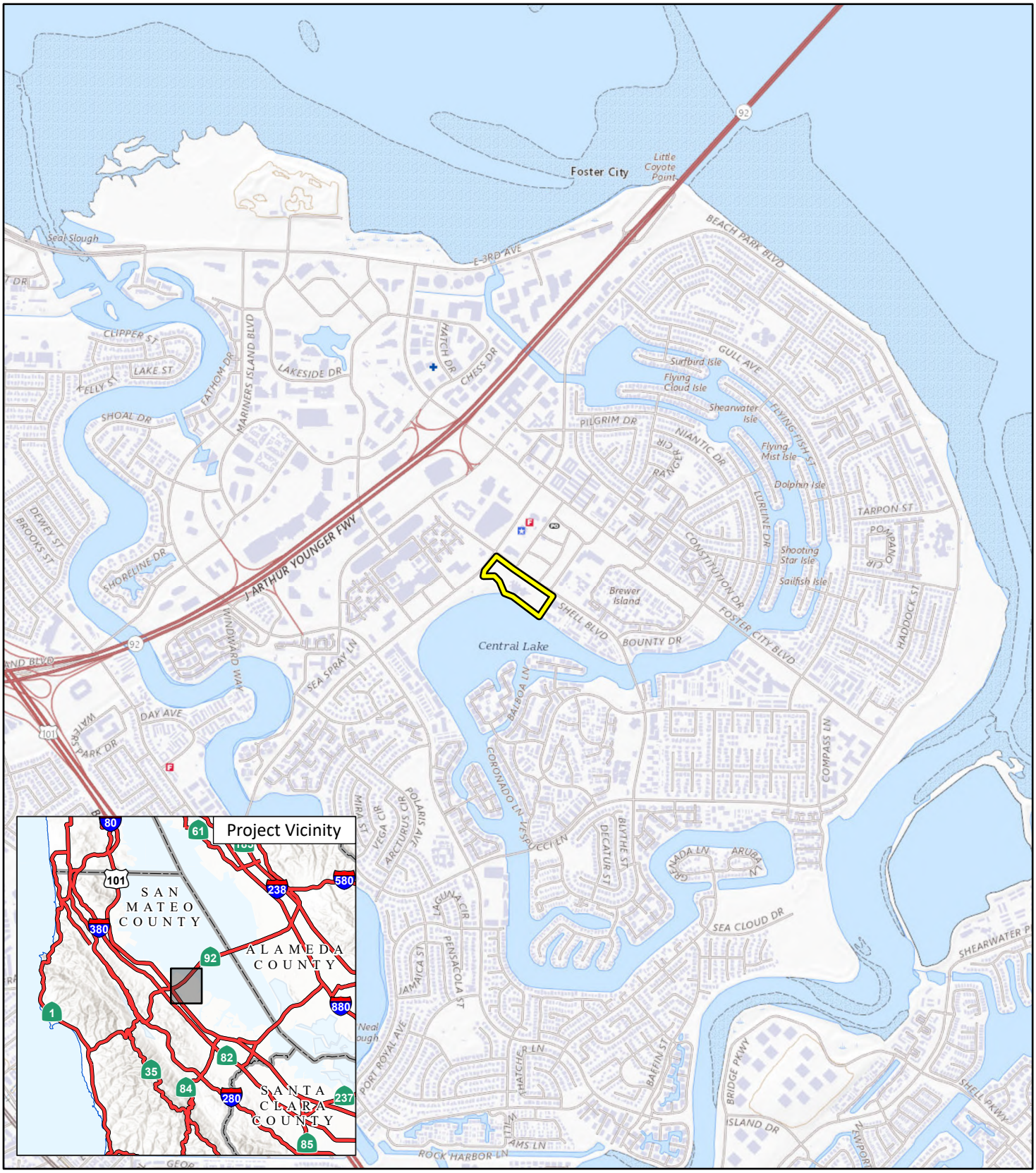

FIGURE 2-1

0 1000 2000
FEET

SOURCE: USGS The National Map (2018)

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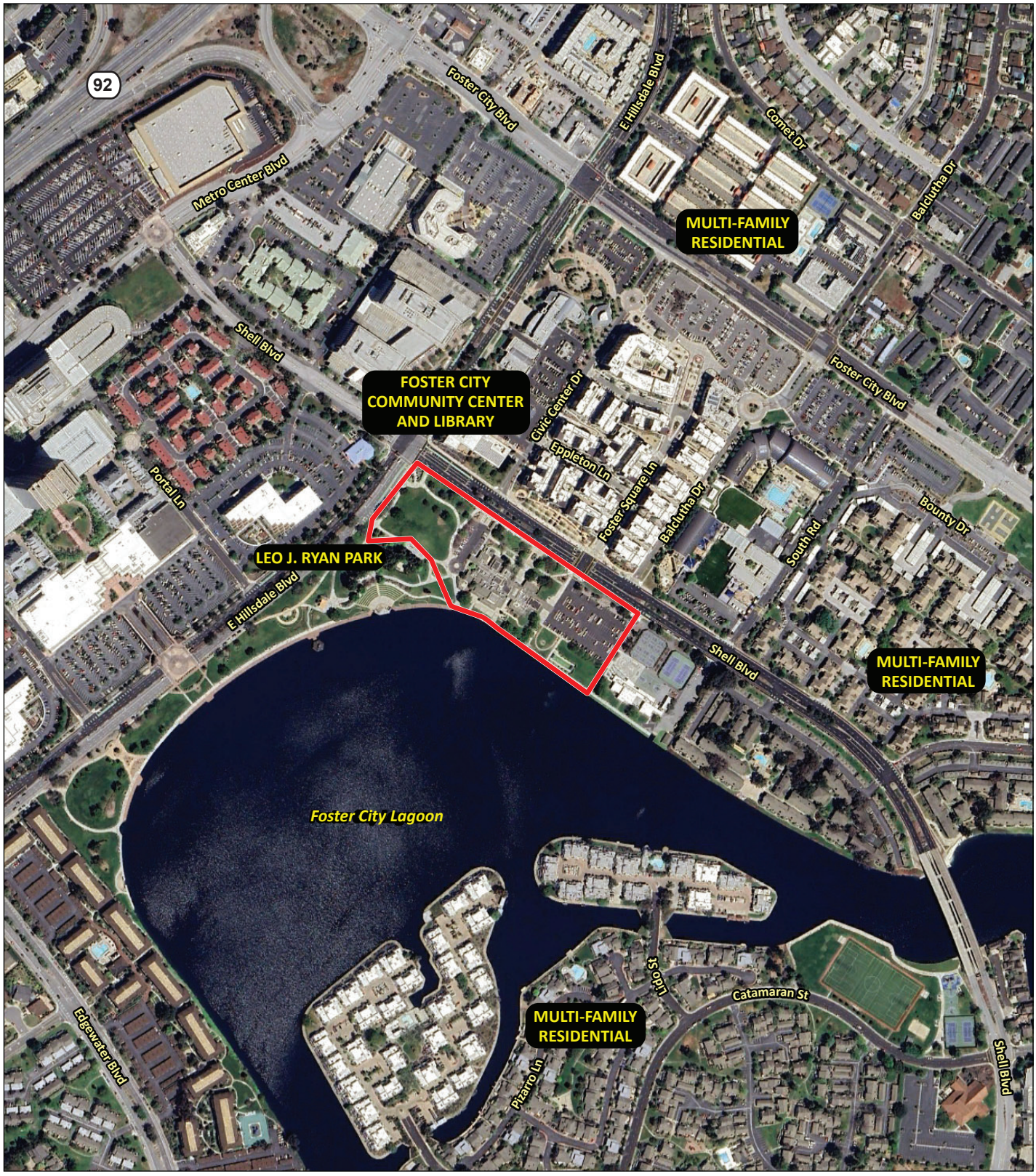
Foster City Recreation Center Rebuild Project IS/MND

Project Location



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Project Site Boundary

FIGURE 2-2

N

0 250 500

FEET

SOURCE: Google Earth, 2023

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Foster City Recreation Center Rebuild Project IS/MND

Aerial Photo of Project Site and Surrounding Land Uses

LSA

Project Site Boundary

FIGURE 2-3

N

0 50 100

FEET

SOURCES: Group 4; City of Foster City, 7/19/2023

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Foster City Recreation Center Rebuild Project IS/MND
Proposed Conceptual Site Plan

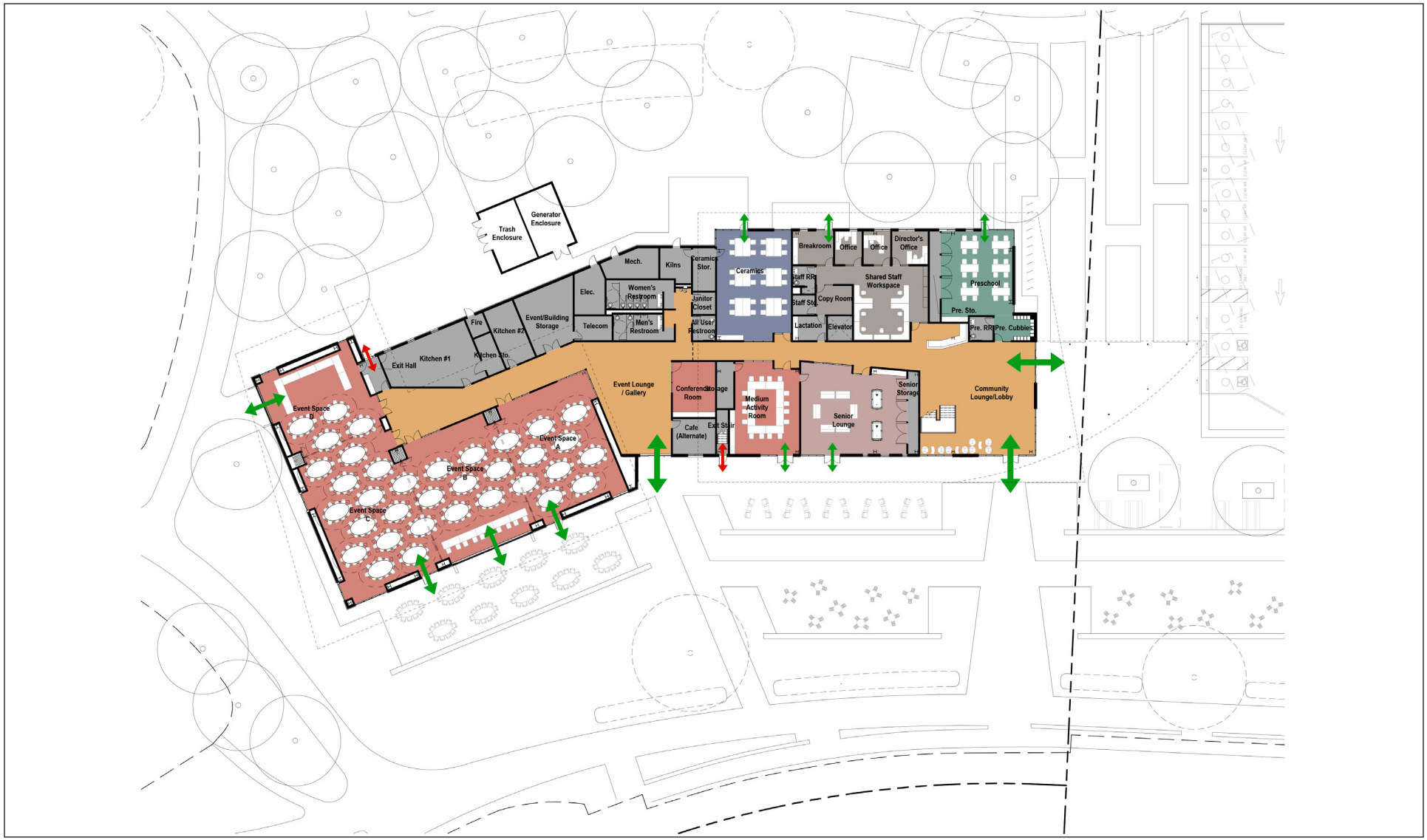

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FIGURE 2-4

N

NOT TO SCALE

Foster City Recreation Center Rebuild Project IS/MND
Proposed Conceptual Floor Plan - First Floor

SOURCES: Group 4; City of Foster City, 7/19/2023

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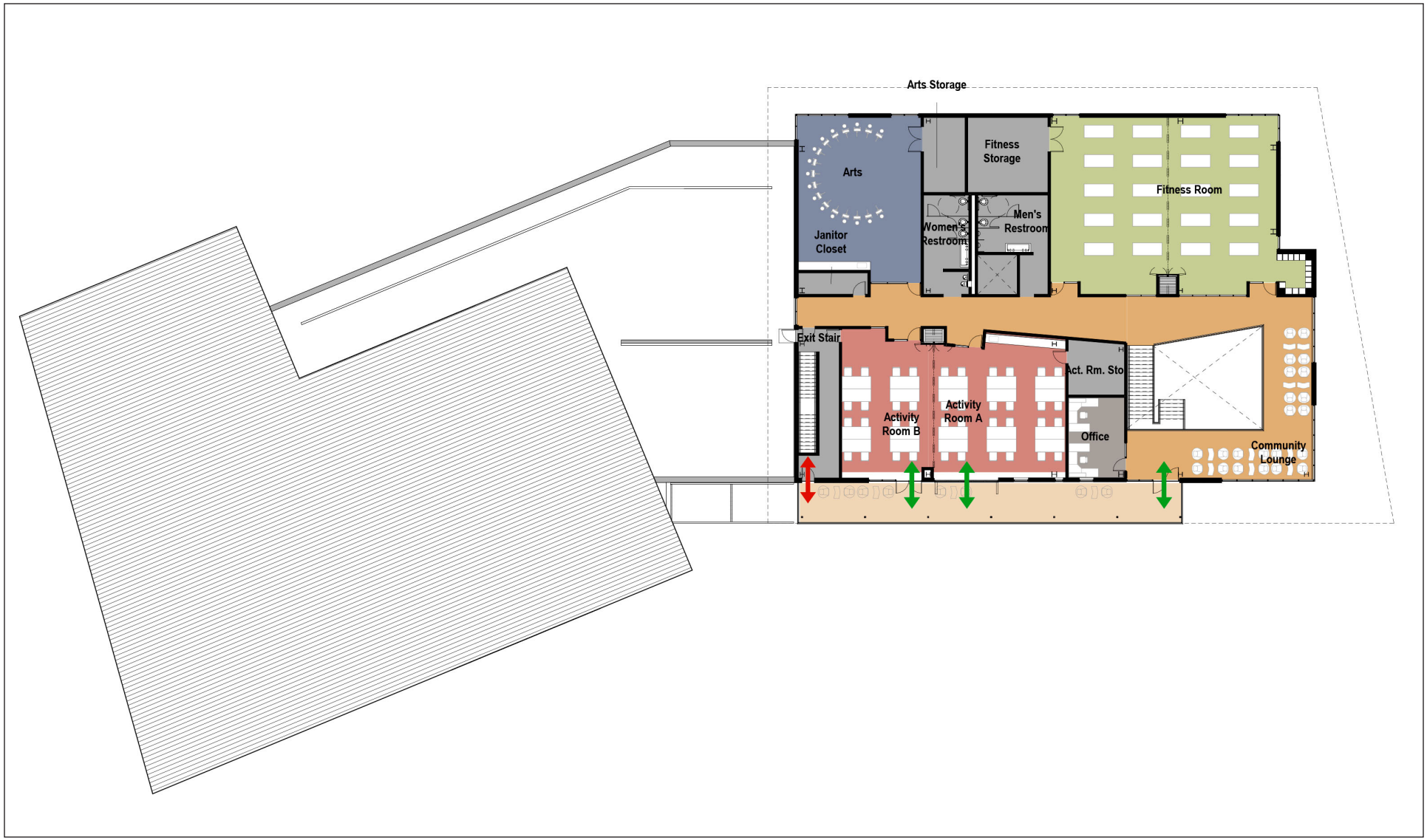

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FIGURE 2-5

NOT TO SCALE

SOURCES: Group 4; City of Foster City, 7/19/2023

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Foster City Recreation Center Rebuild Project IS/MND
Proposed Conceptual Floor Plan - Second Floor

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," but these impacts would be reduced to a less than significant level through the implementation of identified mitigation measures, as indicated by the checklist in Chapter 3.0.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

3.1 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

7-26-23

Date

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4.0 CEQA ENVIRONMENTAL CHECKLIST

4.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☒	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a. Would the project have a substantial effect on a scenic vista? ***(Less-Than-Significant Impact)***

A scenic vista is generally defined as a public vantage point with an expansive view of a significant landscape feature. Foster City is situated along the southwestern coast of the San Francisco Bay, east of San Mateo. The city is midway between San Francisco and San Jose; tidal marshes along the bay and rolling hills to the west characterize the region's viewshed. The project site is not designated as a scenic vista in the Foster City General Plan[6] or the San Mateo County General Plan.[7] Although the Foster City General Plan has identified the San Francisco Bay, Marina Lagoon, Belmont Slough, Foster City Lagoon and Canal System, and Vintage Park Lake as important scenic resources the General Plan does not specifically designate any scenic viewsheds. However, the Foster City/EMID Environmental Review Guidelines[8] state that aesthetic impacts to the Foster City Lagoon should be considered for projects that propose the placement of buildings that would affect the Lagoon.

The project site is located in an urban area and is surrounded by urban and recreational uses. The site is bounded to the south by the Foster City Lagoon, an approximately 212-acre drainage detention basin. The site is currently developed with the existing recreation center and Leo J. Ryan park and associated park facilities. The proposed project would include demolition of the existing recreation center and construction of a new recreation center as well as associated park and parking

6 Foster City. 2011. *Foster City General Plan*. Website: https:/ https://www.fostercity.org/commdev/page/general-plan (accessed May 20, 2023).

7 County of San Mateo. 1985. San Mateo *County General Plan*. Website: https://www.smcgov.org/planning/general-plan (accessed May 15, 2023).

8 Foster City, City of/Estero Municipal Improvement District. 2007. Op. cit.

improvements. The new recreation center building would be two stories and a maximum of approximately 40 feet in height and approximately 40,000 square feet in size. While western views of the Foster City Lagoon are available from the project site, the proposed building would be located in the same general location as the existing recreation center. The proposed building would be a maximum of approximately 16 feet taller in height than the existing recreation center, but would not result in any physical changes to the Lagoon itself that would change the visual character of the Lagoon. In addition, views of the Lagoon would still be available from within and around the project site, including from public vantage points, such as along Shell Boulevard. Furthermore, the proposed project would not be readily visible from any scenic vista, nor would the project substantially block existing public views of a scenic vista. Therefore, the proposed project would have a less-than-significant impact on publicly accessible scenic vistas.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ***(No Impact)***

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

According to the California Scenic Highway Mapping System[9], there are no officially designated scenic highways or scenic corridors in Foster City. In addition, no damage to a scenic resources, including trees, natural features, or historic buildings, would occur. Therefore, there would be no impact.

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? ***(Less-Than-Significant Impact)***

The project site is located within an urbanized area. As noted in Chapter 2.0, Project Description, the project site is located within the Public Facilities (P-F) zoning district. The P-F district reserved for the construction, use and occupancy of governmental, public utility and educational buildings and facilities, and other uses compatible with the semipublic character of the district. There are no specific design standards pertaining to visual quality (such as building height) for the P-F district.

As previously stated above, the proposed project would result in the demolition of a one-story approximately 24-foot-tall building and construction of a new two-story approximately 40-foot-tall building; for a height increase of approximately 16 feet while maintaining a similar ground coverage and footprint from the existing condition to the proposed project. While the increase in building

[9] California Department of Transportation (2019) Website : https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed June, 8 2023)

height would alter the character of the project site and immediate vicinity, the new building would not be out of character with existing buildings in the vicinity such as the Foster City Library and Community Center and Foster Square Apartments. Furthermore, the proposed project would not expand the construction footprint closer into the Lagoon area and would not result in a change to the Lagoon itself.

The proposed project would be required to undergo design review through the Use Permit Planning application as it would consist of a new development. Design review would ensure that the proposed project is attractively designed and potential aesthetic elements are considered and consistent with City policies. Therefore, conformance with the design review process would ensure that the proposed project would not conflict with the applicable zoning and other regulations governing scenic quality, and this impact would be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ***(Less-Than-Significant Impact)***

The primary sources of daytime glare are generally sunlight reflecting from structures and other reflective surfaces and windows. The primary sources of nighttime lighting are generally from exterior building lights, streetlights, and vehicle headlights. Title 17.68.080 of the Foster City Municipal Code[10] requires that an exterior lighting plan including fixture and standard design, coverage, and intensity, to be reviewed and approved by the Community Development Department and the Police Department. In its review of the lighting plan, the City shall ensure that any outdoor night lighting proposed for the project is downward facing and shielded so as to minimize nighttime glare and lessen impacts to neighboring properties. Therefore, compliance with the Foster City Municipal Code would ensure this impact would be less than significant.

[10] Foster City Municipal Code. 17.68.080 Glare. Website:. https://www.codepublishing.com/CA/FosterCity/ ((accessed June 8, 2023)

4.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ***(No Impact)***

The project site is currently developed with the existing recreation center building and is surrounded by urban uses. There are no agricultural resources located on or near the project site. The project site is classified as "Urban and Built-Up Land" by the State Department of Conservation.[11] Therefore, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and would have no impact.

[11] California Department of Conservation. 2016. Division of Land Use Resource Protection. California Important Farmland Finder. Website: maps.conservation.ca.gov/dlrp/ciff (accessed June 2021).

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? ***(No Impact)***

The project site is designated as Parks and Recreation on the City's General Plan Land Use Map.[12] The project site is not under a Williamson Act contract.[13] Therefore, the proposed project would have no impact.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? ***(No Impact)***

The project site is currently developed with the existing recreation center and Leo J. Ryan Park, and is surrounded by residential, institutional, and public uses. Additionally, the project site is designated as Parks and Recreation on the City's General Plan Land Use Map. The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Therefore, the proposed project would have no impact.

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use? ***(No Impact)***

Refer to Section 4.2.c. The proposed project would not result in the loss of forest land or conversion of forest land to a non-forest use. Therefore, the proposed project would have no impact.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? ***(No Impact)***

Refer to Sections 4.2.a and 4.2.c. The proposed project would not involve any other changes to the existing environment which, due to their location or nature, could result in conversion of Farmland to a non-agricultural use, or conversion of forest land to a non-forest use. Therefore, the proposed project would have no impact.

12 Foster City, City of. 2016. *Foster City General Plan*. February 1.

13 Lands associated with the Williamson Act Website: https://data.smcgov.org/Environment/Lands-associated-with-the-Williamson-Act/883b-b5g8 (accessed March 27, 2023)

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

The project site is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In the City of Foster City, and the rest of the San Francisco Bay Area air basin, exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Within the BAAQMD, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM_{10}, $PM_{2.5}$), and lead (Pb) have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. Based on current reporting, the San Francisco Area Air Basin under State non-attainment status for ozone and particulate matter standards and is in non-attainment for the federal ozone 8-hour standard and non-attainment for the federal $PM_{2.5}$ 24-hour standard.

*a. Would the project conflict with or obstruct implementation of the applicable air quality plan? **(Less Than Significant with Mitigation Incorporated)***

The applicable air quality plan is the BAAQMD 2017 Clean Air Plan (Clean Air Plan),[14] which was adopted on April 19, 2017. The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest heath risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate.

[14] Bay Area Air Quality Management District (BAAQMD). 2017b. *Clean Air Plan*. April 19.

Consistency with the Clean Air Plan can be determined if the project: (1) supports the goals of the Clean Air Plan; (2) includes applicable control measures from the Clean Air Plan; and (3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan.

Clean Air Plan Goals. The primary goals of the Bay Area Clean Air Plan are to: attain air quality standards; reduce population exposure and protect public health in the Bay Area; and reduce greenhouse gas emissions and protect climate.

The BAAQMD has established significance thresholds for project construction and operational impacts at a level at which the cumulative impact of exceeding these thresholds would have an adverse impact on the region's attainment of air quality standards. The health and hazards thresholds were established to help protect public health. As discussed below in Section 4.3.b, implementation of the proposed project would result in less-than-significant operation-period emissions and, with implementation of AIR-COA-1, the project would result in less-than-significant construction-period emissions. Therefore, the project would not conflict with the Clean Air Plan goals.

Clean Air Plan Control Measures. The control strategies of the Clean Air Plan include measures in the following categories: Stationary Source Measures, Transportation Measures, Energy Measures, Building Measures, Agriculture Measures, Natural and Working Lands Measures, Waste Management Measures, Water Measures, and Super-Greenhouse Gas (GHG) Pollutants Measures.

Stationary Source Control Measures. The Stationary Source Measures, which are designed to reduce emissions from stationary sources such as metal melting facilities, cement kilns, refineries, and glass furnaces, are incorporated into rules adopted by the BAAQMD and then enforced by BAAQMD Permit and Inspection programs. Since the project would not include any stationary sources, the Stationary Source Measures of the Clean Air Plan are not applicable to the proposed project.

Transportation Control Measures. The BAAQMD identifies Transportation Control Measures as part of the Clean Air Plan to decrease emissions of criteria pollutants, toxic air contaminants (TACs), and GHGs by reducing demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. The proposed project involves the demolition of the existing William E. Walker Recreation Center and construction of a new recreation center, improvements to Leo J. Ryan Park, and parking improvements. A variety of land uses are located within the vicinity of the project site, including multi-family residential uses, commercial uses, and institutional and public uses such as the Foster City Library, Foster City Community Center, and Foster City Police Department. In addition, SamTrans buses travel along the project's frontage, pedestrian access would be provided by existing sidewalks along Shell Boulevard and pathways within Leo J. Ryan Park, and the project site is served by City-designated Class II bicycle lanes along Shell Boulevard. Therefore, the project would support the ability to use alternative modes of transportation. As such, the proposed project would promote BAAQMD initiatives to reduce vehicle trips and vehicle miles traveled (VMT) and would increase the use of alternate means of transportation.

Energy Control Measures. The Clean Air Plan also includes Energy Control Measures, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area, as well as decreasing the carbon intensity of the electricity used by switching to less GHG-intensive fuel sources for electricity generation. Since these measures apply to electrical utility providers and local government agencies (and not individual projects), the Energy Control Measures of the Clean Air Plan are not applicable to the proposed project.

Building Control Measures. The BAAQMD has authority to regulate emissions from certain sources in buildings such as boilers and water heaters but has limited authority to regulate buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that have authority over local building codes, to facilitate adoption of best GHG control practices and policies. The proposed project would be required to comply with the latest CALGreen Code standards. Therefore, the Building Control Measures of the Clean Air Plan are not applicable to the proposed project.

Agriculture Control Measures. The Agriculture Control Measures are designed to primarily reduce emissions of methane. Since the project does not include any agricultural activities, the Agriculture Control Measures of the Clean Air Plan are not applicable to the proposed project.

Natural and Working Lands Control Measures. The Natural and Working Lands Control Measures focus on increasing carbon sequestration on rangelands and wetlands, as well as encouraging local governments to enact ordinances that promote urban-tree plantings. Since the project does not include the disturbance of any rangelands or wetlands, the Natural and Working Lands Control Measures of the Clean Air Plan are not applicable to the proposed project.

Waste Management Control Measures. The Waste Management Measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The project would comply with local requirements for waste management (e.g., recycling and composting services). Therefore, the proposed project would be consistent with the Waste Management Control Measures of the Clean Air Plan.

Water Control Measures. The Water Control Measures focus on reducing emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works (POTWs), and promoting the use of biogas recovery systems. Since these measures apply to POTWs and local government agencies (and not individual projects), the Water Control Measures are not applicable to the proposed project.

Super-GHG Control Measures. The Super-GHG Control Measures are designed to facilitate the adoption of best GHG control practices and policies through the BAAQMD and local government agencies. Since these measures do not apply to individual projects, the Super-GHG Control Measures are not applicable to the proposed project.

Clean Air Plan Implementation. As discussed above, the proposed project would generally implement the applicable measures outlined in the Clean Air Plan, including Transportation Control Measures. Therefore, the project would not disrupt or hinder implementation of a control measure from the Clean Air Plan, and this impact would be less than significant.

b. 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 with Mitigation Incorporated)***

The San Francisco Bay Area Air Basin is currently designated as a non-attainment area for State and national ozone standards and national particulate matter ambient air quality standards. The non-attainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The following analysis assesses the potential construction- and operation-related air quality impacts and CO impacts of the proposed project.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by demolition, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxide (NO_x), reactive organic gases (ROG), directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter.

Site preparation and project construction would involve demolition, grading, paving, and other activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The BAAQMD has established standard measures for reducing fugitive dust

emissions (PM_{10}). With the implementation of these Basic Construction Mitigation Measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, ROGs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2022.1, consistent with BAAQMD recommendations. Construction of the proposed project is anticipated to occur over a 21-month construction period, which was included in CalEEMod. Construction activities would include the demolition of the existing building and walkways on the project site, which was also included in CalEEMod. In addition, it is anticipated that a total of 2,500 cubic yards of soils would be imported, which was included in CalEEMod. In addition, this analysis assumes the use of Tier 2 construction equipment as a conservative calculation. Tier 2 equipment is required by CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation.[15] In addition, as described below, Mitigation Measure AIR-1 would require the use of Tier 4 construction equipment. However, to be conservative, the modeling below assumes Tier 2 equipment. Other construction details are not yet known; therefore, default assumptions (e.g., construction fleet activities and construction trips) from CalEEMod were used. Construction-related emissions are presented in Table 4.A. CalEEMod output sheets are included in Appendix A.

Table 4.A: Project Construction Emissions (in Pounds Per Day)

Project Construction	ROG	NO_X	Exhaust PM_{10}	Fugitive Dust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust $PM_{2.5}$
Average Daily Emissions	1.2	13.4	0.5	0.7	0.4	0.3
BAAQMD Thresholds	**54.0**	**54.0**	**54.0**	**BMP**	**82.0**	**BMP**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA (June 2023)
BAAQMD = Bay Area Air Quality Management District
BMPs = best management practices
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
ROG = reactive organic gases

As shown in Table 4.A, construction emissions associated with the project would be less than significant for ROG, NO_X, $PM_{2.5}$, and PM_{10} exhaust emissions. The BAAQMD requires the implementation of the BAAQMD Basic Construction Mitigation Measures (best management practices) to reduce construction fugitive dust impacts to a less-than-significant level. The proposed project would be required to comply with the following COA, consistent with Foster City General

[15] California Air Resources Board. 2022. *Final Regulation Order, Regulation for In-Use Off-Road Diesel-Fueled Fleets* (as amended). November 17.

Plan policies, conditions and measures, to ensure that impacts related to construction period air quality would be less than significant.

AIR-COA-1 In order to meet the Bay Area Air Quality Management District's (BAAQMD) fugitive dust threshold, the following BAAQMD Basic Construction Mitigation Measures shall be implemented:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked-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 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturers' 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 shall be posted with the telephone number and person to contact at the City of Foster City regarding dust complaints. 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.

As shown in Table 4.A, construction emissions associated with the proposed project would be below established thresholds. In addition, consistent with BAAQMD requirements, AIR-COA-1 requires implementation of best management practices (BMPs) during construction to control fugitive dust emissions. Therefore, with implementation of this measure, construction of the proposed project would not 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, and impacts would be less than significant with mitigation incorporated.

Operational Emissions. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., natural gas), area sources (e.g., architectural coatings and the use of landscape maintenance equipment), and stationary sources (e.g., use of the emergency backup generator) related to the proposed project.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other particulate matter emissions processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which natural gas is used. The quantity of emissions is the product of usage intensity (i.e., the amount of natural gas) and the emission factor of the fuel source. The proposed project would be designed to be all electric and would not utilize natural gas.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of landscaping equipment.

Stationary source emissions would be associated with use of the emergency backup generator.

Emission estimates for operation of the project were calculated using CalEEMod. Model results are shown in Table 4.B. Trip generation rates in CalEEMod were based on the project's trip generation of approximately 231 net new average daily trips, as identified in Section 4.17, Transportation. In addition, the proposed project would include a 335 horsepower (HP) emergency backup generator expected to run one hour per week for testing, which was also included in CalEEMod. Where project-specific data were not available, default assumptions (e.g., energy usage, water usage, and solid waste generation) from CalEEMod were used to estimate project emissions. The daily and annual emissions associated with project operational trip generation, energy, and area sources are identified in Table 4.B for ROG, NO_x, PM_{10}, and $PM_{2.5}$. CalEEMod output sheets are included in Appendix A.

Table 4.B: Project Operational Emissions

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Pounds Per Day				
Mobile Source Emissions	0.7	0.6	1.7	0.4
Area Source Emissions	1.3	<0.1	<0.1	<0.1
Energy Source Emissions	0.0	0.0	0.0	0.0
Stationary Source Emissions	<0.1	<0.1	<0.1	<0.1
Total Emissions	**2.0**	**1.1**	**1.7**	**0.4**
BAAQMD Thresholds	54.0	54.0	82.0	54.0
Exceed Threshold?	**No**	**No**	**No**	**No**
Tons Per Year				
Mobile Source Emissions	0.1	0.1	0.3	0.1
Area Source Emissions	0.2	<0.1	<0.1	<0.1
Energy Source Emissions	0.0	0.0	0.0	0.0
Stationary Source Emissions	<0.1	<0.1	<0.1	<0.1
Total Emissions	**0.3**	**0.1**	**0.3**	**0.1**
BAAQMD Thresholds	10.0	10.0	15.0	10.0
Exceed Threshold?	**No**	**No**	**No**	**No**

Source: LSA (July 2023).
BAAQMD = Bay Area Air Quality Management District
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
ROG = reactive organic gases

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project, emissions are released in other areas of the San Francisco Bay Area air basin. The daily and annual emissions associated with project operational trip generation, energy, and area sources are identified in Table 4.B for ROG, NO_x, PM_{10}, and $PM_{2.5}$.

The results shown in Table 4.B indicate the project would not exceed the significance criteria for daily or annual ROG, NO_x, PM_{10} or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would not 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. Impacts would be less than significant.

Localized CO Impacts. Emissions and ambient concentrations of CO have decreased dramatically in the Bay Area with the introduction of the catalytic converter in 1975. No exceedances of the State or federal CO standards have been recorded at Bay Area monitoring stations since 1991. The BAAQMD 2022 CEQA Guidelines[16] include recommended methodologies for quantifying concentrations of localized CO levels for proposed projects. A screening level analysis using guidance from the BAAQMD CEQA Guidelines was performed to determine the impacts of the project. The screening methodology provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD CEQA Guidelines, a

16 BAAQMD. 2022. *California Environmental Quality Act Air Quality Guidelines*. April 20.

proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

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

Implementation of the proposed project would not conflict with the policies or programs of the San Mateo County Transportation Authority. As identified in Section 4.17, Transportation, the proposed project would generate approximately 15 net new AM peak hour trips and 20 net new PM peak hour trips; therefore, the project's contribution to peak hour traffic volumes at intersections in the vicinity of the project site would be well below 44,000 vehicles per hour. Therefore, the proposed project would not result in localized CO concentrations that exceed State or federal standards, and impacts would be less than significant.

c. Would the project expose sensitive receptors to substantial pollutant concentrations? ***(Less Than Significant with Mitigation Incorporated)***

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks.

According to the BAAQMD, a project would result in a significant impact if it would: individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 10.0 in one million, increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than 0.3 micrograms per cubic meter ($\mu g/m^3$).

The project site is located in an urban area in close proximity to existing residential uses that could be exposed to diesel emissions exhaust during the construction period. To estimate the potential cancer risk from project construction equipment exhaust (including diesel particulate matter), a dispersion model was used to translate an emission rate from the source location to a concentration at the receptor location (i.e., a nearby residential land use). Dispersion modeling varies from a simpler, more conservative screening-level analysis to a more complex and refined detailed analysis. This refined assessment was conducted using the California Air Resources Board (CARB) exposure methodology, with the air dispersion modeling performed using the United States Environmental Protection Agency (USEPA) dispersion model AERMOD. The model provides a detailed estimate of exhaust concentrations based on site and source geometry, source emissions strength, distance

from the source to the receptor, and site-specific meteorological data. Table 4.C, below, identifies the results of the analysis utilizing the standard Tier 2 construction equipment. Model snapshots of the sources are provided in Appendix B.

Table 4.C: Unmitigated Inhalation Health Risks from Project Construction to Off-Site Receptors

	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Residential Receptor Risk	67.55	0.057	0.000	0.285
School Receptor Risk	24.22	0.105	0000	0.525
Worker Receptor Risk	0.73	0.035	0.000	0.174
Threshold	**10 in one million**	**1.0**	**1.0**	**0.30**
Exceed?	**Yes**	**No**	**No**	**Yes**

Source: LSA (June 2023).
$\mu g/m^3$ = micrograms per cubic meter
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

As shown in Table 4.C, the maximum cancer risk for the residential receptor maximally exposed individual (MEI) would be 67.55 in one million and the school receptor risk would be 24.22 in one million, which would exceed the BAAQMD cancer risk threshold of 10 in one million. The worker receptor risk would be lower at 0.73 in one million. The chronic hazard index would be 0.057 for the residential receptor MEI, 0.105 for the school receptor MEI, and 0.035 for the worker receptor MEI, which is below the threshold of 1.0. In addition, the acute hazard index would be nominal (0.000), which would also not exceed the threshold of 1.0. The results of the analysis indicate that the $PM_{2.5}$ concentration would be 0.285 $\mu g/m^3$ for the residential receptor MEI and 0.174 $\mu g/m^3$ for the worker receptor MEI, which would not exceed the BAAQMD significance threshold of 0.30 $\mu g/m^3$. However, the $PM_{2.5}$ concentration at the school receptor would be 0.525 $\mu g/m^3$ which would exceed the BAAQMD threshold of 0.30 $\mu g/m^3$. As indicated above, the cancer risk of 57.55 in one million at the residential receptor MEI, cancer risk of 24.22 in one million at the school receptor MEI, and $PM_{2.5}$ concentration of 0.525 $\mu g/m^3$ at the school receptor MEI would exceed BAAQMD thresholds. Therefore, implementation of Mitigation Measure AIR-1 would be required to reduce substantial pollutant concentrations during project construction.

Mitigation Measure AIR-1

Prior to issuance of Building permits, the construction contractor shall submit a construction operations plan that includes specifications of the equipment to be used during construction to the Community Development Director or Director's designee for review and approval. The plan shall be accompanied by a letter signed by a qualified air quality specialist, verifying that the equipment included in the plan meets the standards set forth in these mitigation measures such as all off-road diesel-powered construction equipment of 50 horsepower or more used for the project construction at a

minimum meets the California Air Resources Board Tier 4 Final emissions standards or the equivalent.

Table 4.D identifies the results of the analysis with implementation of Mitigation Measure AIR-1.

Table 4.D: Mitigated Inhalation Health Risks from Project Construction to Off-Site Receptors

	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Residential Receptor Risk	4.73	0.004	0.000	0.021
School Receptor Risk	1.69	0.008	0.000	0.039
Worker Receptor Risk	0.05	0.003	0.000	0.013
Threshold	**10 in one million**	**1.0**	**1.0**	**0.30**
Exceed?	**No**	**No**	**No**	**No**

Source: LSA (June 2023).
$\mu g/m^3$ = micrograms per cubic meter
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

As shown in Table 4.D, the mitigated cancer risk would be 4.73 in one million at the residential receptor MEI and 1.69 in one million at the school receptor MEI, which would not exceed the BAAQMD cancer risk of 10 in one million. In addition, the mitigated $PM_{2.5}$ concentration would be 0.039 $\mu g/m^3$ at the school receptor MEI, which would be below the BAAQMD threshold of 0.30 $\mu g/m^3$. Therefore, with implementation of Mitigation Measure AIR-1, construction of the proposed project would not exceed BAAQMD thresholds and would not expose nearby sensitive receptors to substantial pollutant concentrations.

Once the proposed project is constructed, the proposed project would not be a source of substantial emissions. Therefore, implementation of the proposed project would not result in new sources of TACs. Therefore, the project would not expose sensitive receptors to substantial levels of TACs, and this impact would be less than significant with mitigation incorporated.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? ***(Less-Than-Significant Impact)***

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. The proposed project would not include any activities or operations that would generate objectionable odors and once operational, the project would not be a source of odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. This impact would be less than significant.

4.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

*a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? **(Less Than Significant with Mitigation Incorporated)***

The project site contains the existing recreation center building, landscaping including 85 mature trees,[17] grass lawns, and ornamental plants, and surface parking lots. Existing trees and ornamental landscaping are located within planters or managed landscape areas within the project site. For the purposes of evaluation under CEQA, special-status species are defined as follows:

1. Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA);

[17] SWA Group. 2023. *Foster City Recreation Center Tree Analysis.* June 21.

2. Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA);

3. Plant species that are on the California Rare Plant Rank Lists 1A, 1B, and 2;

4. Animal species that are designated as Species of Special Concern or Fully Protected by the California Department of Fish and Wildlife (CDFW); or

5. Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA Guidelines.

While the project site is located adjacent to the Foster City Lagoon and portions of the Leo J. Ryan Park, the project site is fully developed with the existing recreation center, associated pavements (including surface parking and walkways), and ornamental landscaping. The project site itself does not provide suitable habitat for any special-status plant species due to prior disturbance at the project site and the resulting lack of native plant communities, such as wetlands, salt marsh, woodlands, and grasslands.

Special-status species would likely not occur on the project site due to the lack of suitable habitat, such as salt marsh, wetlands, streams, and grasslands. A search of the California Natural Diversity Database (CNDDB) indicates that the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) has been observed within 5 miles of the project site. However, as noted above, the project site is entirely developed and lacks suitable habitat and foraging opportunities for any species and therefore the San Francisco garter snake is not anticipated to be present on the project site. Therefore, this impact would be less than significant.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ***(Less-Than-Significant Impact)***

The proposed project would not adversely affect any riparian habitat, which is absent from the site. The project site is located adjacent to the Foster City Lagoon, but project activities would not result in any adverse effects to riparian areas, as the proposed project would not include any modifications to the lagoon. In addition, as described in Section 4.10, Hydrology and Water Quality, stormwater and erosion controls would be required for the proposed project that would ensure that construction and operation of the proposed project would not result in any impacts to riparian habitat.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ***(Less-Than-Significant Impact)***

The project site is occupied by an existing building, landscaping, and surface parking lots and does not contain any State or federally protected wetlands. No ditches, drainage channels, or wetlands are present. The project site is located immediately adjacent to the Foster City Lagoon. However, as described in Section 4.10, Hydrology and Water Quality, stormwater and erosion controls would be

required for the proposed project that would ensure that construction and operation of the proposed project would not result in any direct removal, filling, or hydrological interruption of any jurisdictional features or wetlands. Therefore, this impact would be less than significant.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? ***(Less Than Significant with Mitigation Incorporated)***

The project site is not located within a migratory wildlife movement corridor. Furthermore, most of the species that likely use the site are "generalists" that are adept at moving through urban landscapes. However, trees, shrubs, other vegetation, and structures have the potential to support nests of many common native bird species. Urban-adapted wildlife that may move through or along the edges of the project site would be able to continue to move through or around the site. No native wildlife nursery sites, such as heron rookeries, are present.

Although unlikely to nest due to the lack of foraging habitat (i.e., grasslands) at or near the project site, birds could nest in the trees on or adjacent to the project site. Therefore, the proposed project could impact nesting birds protected by the Migratory Bird Treaty Act[18] and/or California Fish and Game Code, if present during construction of the project. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to protected nesting birds to a less-than-significant level by ensuring that any active nests are identified and avoided until the young have fledged.

Mitigation Measure BIO-1: If possible, the project sponsor shall avoid construction activities during the bird nesting season (February 1 through August 31). If construction activities are scheduled during the nesting season, a qualified biologist shall conduct a pre-construction survey of all suitable nesting habitat (i.e., trees, shrubs, structures) within 250 feet of the project site (where accessible). The pre-construction survey shall be conducted no more than 14 days prior to the start of work. Results of the survey shall be submitted to the City's Community Development Department prior to any ground disturbance activities. If the survey indicates the presence of nesting birds, protective buffer zones shall be established around active nests until the young have fledged (as determined by the qualified biologist), as follows: for raptor nests, the size of the buffer zone shall be a 250-foot radius centered on the nest; for other birds, the size of the buffer zone shall be a 50- to 100-foot radius centered on the nest, or as determined appropriate by the qualified biologist. In some cases, these buffers may be increased or decreased depending on the bird species and the level of disturbance that will occur near the nest.

[18] The Migratory Bird Treaty Act applies to all nesting birds regardless of whether or not they are listed as a special-status species.

Although buildings can provide suitable roosting habitat for bats, the on-site building appears to be in good condition and no visible openings, such as broken windows or openings within the eaves or roof of the building, were observed. However, the proposed project could impact roosting bats protected by CDFW, if they are present during construction, particularly during tree removal. Implementation of Mitigation Measure BIO-2 would reduce potential impacts to the pallid bat and other roosting bats to a less-than-significant level by ensuring that bat roosts are identified and buffers are established until they are no longer active.

Mitigation Measure BIO-2: A qualified biologist shall conduct a pre-construction survey for roosting bats at all suitable bat roosting habitat (i.e., trees, the unoccupied building) within the project area within 14 days prior to the beginning of project-related activities. If active bat roosts are discovered or if evidence of recent prior occupation is established, a buffer shall be established around the roost site until the roost site is no longer active. Before any construction activities begin in the vicinity of the identified bat roosts on the project site, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the bats and their habitat, the specific measures that are being implemented to conserve the bat roosts, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. If an active bat roost is identified and would be impacted by the project, CDFW shall be contacted to determine the best methodology for removing the roost and to determine appropriate mitigation (if needed), which may include the construction of a new bat roost within the project area.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ***(Less-Than-Significant Impact)***

As previously stated above, the project site contains the existing recreation center building, landscaping including mature trees, grass lawns, and ornamental plants, and surface parking lots. Most of the trees are Chinese Elm (*Ulmus parvifolia*), Crepe Myrtle (*Lagerstroemia indica*), and Black Acacia (*Robinia pseudoacacia)*. Of the existing 85 trees on the project site, 26 would be removed. Approximately 57 new trees would be planted throughout the project site. Development projects within the City are required to provide appropriate landscaping for off-site parking per Chapter 17.62.050. Furthermore, EMID Chapter 8.80 requires outdoor landscaping to implement best practices with size, species, and water usage profile. The proposed project would comply with these requirements, and therefore would not conflict with any policies or ordinances protecting biological resources, and there would be no impact.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ***(No Impact)***

The project site is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, the proposed project would not conflict with any such plan and there would be no impact.

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

*a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? **(Less-Than-Significant Impact)***

For a cultural resource to be considered a historical resource (i.e., eligible for listing in the California Register of Historical Resources [California Register), it generally must be 50 years or older. Under CEQA, historical resources can include pre-contact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts. Potential impacts to archaeological deposits are discussed in Section 4.5.b, below.

Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register (14 CCR Section 15064.5(a)(3)). For a cultural resource to qualify for listing in the California Register, it must be significant under one or more of the following criteria:

Criterion 1: Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage,

Criterion 2: Associated with the lives of persons important in our past,

Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values, or

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to being significant under one or more of these criteria, a resource must retain enough of its historic character and appearance to be recognizable as a historical resource and be able to convey the reasons for its significance (14 CCR Section 4852(c)).

To identify potential historical resources on or in the vicinity of the project site a records search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University in Rohnert Park, and appropriate background literature was reviewed. The results of the records search and literature review are

summarized below, and a full copy of the Department of Parks and Recreation (DPR) Form 523 is included in Appendix C.[19]

The existing building on the project site was built in 1974 and was the first recreation center constructed within the City. Development of the existing building was reflective of the overall development and growth of Foster City, therefore meeting Criterion 1. In addition, the building appears to be a representative work of master architect Germano Milono, therefore meeting Criterion 3. However, the existing building lacks sufficient integrity to convey its association with these two criteria. In particular, significant expansions and renovations including the 1998 addition of the senior center resulted in the removal of character-defining features of the building, including original facades, entryways, and signage. Therefore, the existing building would not be considered a historic resource under CEQA.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? ***(Less-Than-Significant Impact)***

In accordance with CEQA Guidelines Section 15064.5(c)), if the project would affect an archaeological deposit, the lead agency must first determine whether the deposit is a "historical resource" (see CEQA Guidelines Section 15064.5(a)). If the deposit is not a historical resource, the lead agency must determine if the deposit is a "unique archaeological resource."

On May 23, 2023, Justin Murazzo, Researcher at the NWIC, conducted the CHRIS record search for the project site and a 0.25-mile radius of the project site. The record search results (NWIC File No. 22-1679) indicate that no previous cultural resources studies have included the project site or any parcel within a 0.25-mile radius. As a result, no cultural resources (i.e., historic architectural resources or archaeological sites/deposits) have been recorded within the project site or a 0.25-mile radius.

Although no archaeological deposits are recorded at the project site, pre-contact archaeological deposits have been unearthed in San Mateo County during construction activities. Should project excavation unearth intact archaeological deposits, a substantial adverse change to a historical resource would occur due to the partial or complete destruction of the resource. This destruction would undermine the integrity of the resource, such that it would no longer be eligible for listing in the California Register. As such, project ground-disturbing activities could have a substantial adverse change on buried archaeological deposits that qualify as historical resources, as defined in CEQA Guidelines Section 15064.5, and could materially impair pre-contact archaeological deposits. Consistent with Foster City General Plan policies, development projects are required to comply with the following COA and measures.

> **CUL-COA-1. Accidental Discovery During Construction.** If deposits of prehistoric or historic archaeological materials are encountered during project activities, all work within 25 feet of the discovery shall be redirected and the Community Development Director immediately notified. A qualified archaeologist shall be contacted to assess the find, consult with agencies as

[19] LSA. 2023. *Department of Parks and Recreation (DPR) Form 523 for the William E. Walker Recreational Center, Foster City, California.* June.

appropriate, and make recommendations for the treatment of the discovery. Prehistoric materials can include flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone-milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal and other refuse.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results of the analysis, and provide recommendations for the treatment of the archaeological deposits discovered. The report shall be submitted to the project sponsor, the Foster City Community Development Department and the Northwest Information Center. Project personnel shall not collect or move any archaeological materials or human remains. Adverse effects to such deposits shall be avoided by project activities. If avoidance is not feasible (as determined by the City, in conjunction with the qualified archaeologist), the archaeological deposits shall be evaluated for their eligibility for listing in the California Register. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, avoidance of project impacts on the deposit shall be the preferred mitigation. If adverse effects on the deposits cannot be avoided, such effects must be mitigated. Mitigation can include, but is not necessarily limited to: excavation of the deposit in accordance with a data recovery plan (see CEQA Guidelines Section 15126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; preparation of a brochure for public distribution that discusses the significance of the archaeological deposit; an interpretive display of recovered archaeological material sat a local school, museum, or library; and public lectures at local schools and/or historical societies on the findings and significance of the site and recovered archaeological materials. The City shall ensure that any mitigation involving excavation of the deposit is implemented prior to the resumption of actions that could adversely affect the deposit.

Work stoppage and review by a qualified archaeologist in the event of an archaeological discovery would ensure that: (1) if archaeological cultural resources are identified during excavation, these resources would be evaluated, documented, and studied in accordance with standard archaeological practice; and (2) archaeological deposits and human remains would be treated in accordance with appropriate State codes and regulations. As such, implementation of the above COA would ensure that the project's potential impacts to archaeological historical resources would be less than significant.

c. Would the project disturb any humans remains, including those interred outside of formal cemeteries? ***(Less-Than-Significant Impact)***

No human remains have been identified at the project site. Native American skeletal remains are often associated with archaeological deposits, which are frequently buried in this region beneath Holocene alluvial soils. If human remains are identified during project construction, Section 7050.5

of the California Health and Safety Code and Section 5097.98 of the Public Resources Code shall apply, as appropriate. Project ground-disturbing activities have the potential to unearth Native American human remains. Consistent with Foster City General Plan policies, development projects are required to comply with the following COA and measures. Therefore, the proposed project would be required to comply with the following COA to ensure that this impact would be less than significant.

> **CUL-COA-2. Human Remains.** If human remains are encountered, work within 25 feet of the discovery shall be directed and the County Coroner and the Community Development Director immediately notified. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. The project sponsor shall also be notified. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The project sponsor shall comply with these recommendations. The report shall be submitted to the project sponsor, the Foster City Community Development Department, the MLD, and the Northwest Information Center.

Work stoppage and review by a qualified archaeologist in the event of a discovery of human remains would ensure that human remains would be treated in accordance with appropriate State codes and regulations. As such, implementation of the above COA would ensure that the project's potential impacts to archaeological historical resources would be less than significant.

4.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☒	☐	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

*a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? **(Less Than Significant with Mitigation Incorporated)***

The proposed project would result in a small increase in the demand for electricity and gasoline. The discussion and analysis provided below is based on data included in the California Emissions Estimator Model (CalEEMod) output, which is included in Appendix A.

Construction-Period Energy Use. The proposed project would require demolition, grading, site preparation, building, paving, and architectural coating activities during construction. Construction of the proposed project would require energy for the manufacture and transportation of construction materials, demolition of the existing community center building, preparation of the site for grading activities, and construction of the proposed Foster City Recreation Center and other improvements. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. Effects caused by construction such as the use of fuels and building materials that are fundamental to construction of new buildings are unavoidable. While full construction details are not finalized at this stage, equipment and fuel are not typically used wastefully on the site due to added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited and are often tied to best management practices on site during construction phases. As mentioned in Section 4.3, Air Quality, the project would include several measures that would improve the efficiency of the construction process such as AIR-COA-1. This would restrict equipment idling times to 5 minutes or less and would require the construction contractor to post signs on the project site reminding workers to shut off idle equipment. Furthermore, the project would include condition of approvals to provide Waste Management Plan for all aspect of constructions and include opportunities to recycle/dispose of construction materials in accordance with Chapter 15.44 of the FCMC. Furthermore, energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources and with implementation of the air quality-related best management practices, construction energy due to unavoidable effects of development impacts would be less than significant.

Operational Energy Use. Energy use consumed by the proposed project would be associated with electricity consumption and fuel used for vehicle trips associated with the project. As discussed above, the proposed project would be designed to be all electric and would not utilize natural gas.

Energy consumption was estimated for the project using default energy intensities by building type in CalEEMod. In addition, the proposed buildings would be constructed to California Green Building Standards Code (CALGreen) standards, which was included in CalEEMod inputs. Electricity usage estimates associated with the proposed project are shown in Table 4.E.

In addition, the proposed project would result in energy usage associated with gasoline to fuel project-related trips. Based on the CalEEMod analysis, the proposed project would result in approximately 868,103 net new vehicle miles traveled (VMT) per year. The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.9 mpg in 2020.[20] The average fuel economy for heavy-duty trucks in the United States has also steadily increased, from 5.7 mpg in 2013 to a projected 8.0 mpg in 2021.[21] Therefore, based on the default vehicle fleet mix assumed in CalEEMod and using the U.S. Environmental Protection Agency (USEPA) fuel economy estimates for 2020 and 2021, the proposed project would result in the consumption of approximately 30,548 gallons of gasoline per year and 21,069 gallons of diesel fuel per year.

Table 4.F, below, shows the estimated potential increased energy usage associated with the proposed project.

Table 4.E: Estimated Annual Energy Use of Proposed Project

Electricity Use (kWh per year)	Gasoline (gallons per year)	Diesel (gallons per year)
518,828	30,548	21,069

Source: LSA (June 2023).
kWh = kilowatt-hours

As shown in Table 4.E, the estimated potential increased electricity demand associated with the proposed project is 518,828 kilowatt-hours (kWh) per year. In 2021, California consumed approximately 280,738 gigawatt-hours (GWh) or 280,738,376,720 kWh.[22] Of this total, San Mateo County consumed 4,157 GWh or 4,157,271,751 kWh.[23] Therefore, electricity demand associated with the proposed project would be less than 0.1 percent of San Mateo County's total electricity demand.

In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. As shown above in Table 4.E, vehicle trips associated with the proposed

20 United States Department of Transportation (USDOT). 2017. "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: https://www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles (accessed June 2023).

21 California Energy Commission (CEC). 2015. Medium and Heavy-Duty Truck Prices and Fuel Economy 2013–2026. Website: efiling.energy.ca.gov/getdocument.aspx?tn=206180 (accessed June 2023).

22 CEC. 2022a. Energy Consumption Data Management Service. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed June 2023).

23 Ibid.

project would consume approximately 30,548 gallons of gasoline per year and 21,069 gallons of diesel fuel per year. Based on fuel consumption obtained from EMFAC2021, approximately 244.4 million gallons of gasoline and approximately 28.3 million gallons of diesel fuel will be consumed from vehicle trips in San Mateo County in 2023. Therefore, gasoline and diesel fuel demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in San Mateo County. Fuel consumption associated with vehicle trips generated by project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

In addition, proposed new development would be constructed using energy efficient modern building materials and construction practices, and the proposed project also would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for residential uses.

Pacific Gas & Electric (PG&E) is the private utility that would supply the proposed project's electricity services. In 2021, a total of 50 percent of PG&E's delivered electricity came from renewable sources, including solar, wind, geothermal, small hydroelectric and various forms of bioenergy.[24] PG&E reached California's 2020 renewable energy goal in 2017, and is positioned to meet the State's 60 percent by 2030 renewable energy mandate set forth in Senate Bill (SB) 100. In addition, PG&E plans to continue to provide reliable service to their customers and upgrade their distribution systems as necessary to meet future demand.

Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Construction and operation period impacts related to consumption of energy resources would be less than significant.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ***(Less Than Significant Impact)***

In 2002, the State Legislature passed SB 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

[24] Pacific Gas & Electric (PG&E). 2021. *Exploring Clean Energy Solutions*. Website: https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy (accessed June 2023).

The most recently adopted CEC energy report is the *2023 Integrated Energy Policy Report.* The *2023 Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2020 Integrated Energy Policy Report covers a broad range of topics, including implementation of SB 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to SB 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources, and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC 2023 Integrated Energy Policy Report. Therefore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and this impact would be less than significant**.**

4.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

*a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides? **(Less-Than-Significant Impact)***

Fault Rupture. Fault rupture is generally expected to occur along active fault traces that have exhibited signs of recent geological movement (i.e., 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within the delineated area. The project site is not located within an Alquist-Priolo Earthquake Fault Zone.[25] Therefore, the proposed project would have no impact related to fault rupture.

[25] California, State of. 2019. Department of Conservation. Alquist-Priolo Earthquake Fault Zones. Website: www.conservation.ca.gov/cgs/alquist-priolo (accessed March 28, 2023).

Seismic Ground Shaking. Seismic ground shaking generally refers to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events.

The 2022 California Building Code (CBC) is based on the 2021 International Building Code and covers grading and other geotechnical issues, building specifications, and non-building structures, such as chimneys and tanks. The City of Foster City Municipal Code amends the most current State building codes, as indicated in Municipal Code Chapter 15.02. The City's Building Division is responsible for reviewing plans, issuing building permits, and conducting field inspections. The design of the project would be required to conform to the current CBC at the time of plan review, which would be the 2022 CBC.

The 2022 CBC requires that a site-specific geotechnical investigation be conducted and a geohazard report be prepared by a licensed professional for all proposed construction to evaluate geologic and seismic hazards, except for one-story, wood-frame and light-steel-frame buildings that are located outside of the Earthquake Fault Zones or Seismic Hazard Zones as shown in the CGS maps with less than or equal to 4,000 square feet in floor area. The purpose of a site-specific geotechnical investigation is to identify seismic and geologic conditions that may need to be addressed to ensure safety and adequate performance of improvements, such as ground shaking, liquefaction, differential settlement, and expansive soils. Based on the conditions of the site, the building code requires specific design parameters to ensure construction of buildings that will resist collapse during an earthquake. These design parameters do not protect buildings from all earthquake shaking hazards but are designed to reduce hazards to a manageable level. Requirements for the geotechnical investigation are presented in Chapter 16 "Structural Design" and Chapter 18 "Soils and Foundation" of the 2022 CBC.

Compliance with the 2022 CBC would ensure that the project would be designed and constructed in accordance with geotechnical recommendations to account for and withstand seismic and geologic hazards that could have adverse effects on the project, thereby minimizing exposure of people and structures to substantial risk of loss, injury, or death during a large regional earthquake. It is acknowledged that seismic hazards cannot be completely eliminated, even with site-specific geotechnical investigation/design and advanced building practices. However, the seismic design standards of the 2022 CBC are intended to prevent catastrophic building failure in the most severe earthquakes currently anticipated.

In addition, consistent with the General Plan's policies, development projects are required to comply with the following standard COA and measures. Implementation of GEO-COA-1, as follows, would require a final design-level geotechnical investigation report (the Geotechnical Investigation prepared for this project) to be approved by the City's Building Division. Adherence to the requirements and guidelines of the 2022 CBC and the final design-level geotechnical investigation would ensure that potential impacts related to seismic ground shaking would be less than significant.

> **GEO-COA-1. Geotechnical Reports.** Three (3) sets of a site specific, design level, fault zone geotechnical report satisfactory to the Chief Building Official, including one electronic or pdf version, shall be submitted for review and approval to the Building Division and contain design

recommendations for grading, footings, retaining walls, and provisions for anticipated differential settlement for each construction site within the project area. Specifically:

- Each investigation shall include an analysis of expected ground motions at the site identified faults. The analysis shall be in accordance with applicable City ordinances and policies, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults. The analysis presented in the geotechnical investigation report shall provide recommendations to minimize seismic damage to structures from total and differential settlements and to protect steel and concrete (and any other material that may be placed in the subsurface) from long-term deterioration caused by contact with corrosive on-site soils. All design measures, recommendations, design criteria, and specifications set forth in the final geotechnical investigation report shall be implemented.

- The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots and sidewalks).

- The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Foster City.

- The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the "No Build" zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge.

- The geotechnical report for the project shall include evaluation of fixtures, furnishings, and fasteners with the intent of minimizing collateral injuries to building occupants from falling fixtures or furnishings during the course of a violent seismic event. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the projects design phase, shall be incorporated in the project.

- Final seismic considerations for the site shall be submitted to and approved by the Building Division prior to commencement of the project.

- If deemed necessary by the Chief Building Official, a peer review may be required for the geotechnical report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the sponsor or subdivider of further geologic and engineering studies to more adequately define active fault traces.

- A licensed geotechnical engineer or their representatives shall be retained to provide geotechnical observation and testing during all earthwork and foundation construction activities. The geotechnical engineer shall be allowed to evaluate any conditions differing

from those encountered during the geotechnical investigation and shall provide supplemental recommendations, as necessary. At the end of construction, the geotechnical engineer shall provide a letter regarding contractor compliance with project plans and specifications and with the recommendations of the final geotechnical investigation report and any supplemental recommendations issued during construction. The letter shall be submitted for review to the Building Division.

The final geotechnical investigation report shall provide recommendations to minimize the potential damage to structures from total and differential settlement and to protect steel and concrete (and any other material that may be placed in the subsurface) from long-term deterioration caused by contact with corrosive on-site soils. All design measures, recommendations, design criteria, and specifications set forth in the final geotechnical investigation report shall be implemented.

Liquefaction. Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy.

The California Geological Survey (CGS) has mapped Seismic Hazard Zones that delineate areas susceptible to liquefaction and/or landslides that require proposed new developments in these areas to conduct additional investigation to determine the extent and magnitude of potential ground failure. According to mapping by CGS,[26] the project site is located in an area mapped as a liquefaction hazard zone, specifically in a very high liquefaction zone.[27] The proposed project would be designed and constructed consistent with the most current earthquake resistance standards for Seismic Zone 4 in the 2022 CBC, which includes specifications for site preparation, such as compaction requirements for foundations. In addition, implementation of GEO-COA-1, described above, would reduce potential impacts associated with these hazards to a less-than-significant level.

Landslides. A landslide generally occurs on relatively steep slopes and/or on slopes underlain by weak materials. The project site is located on a relatively flat area and is not located next to any hills. The project site is considered Flatland, and therefore would not be susceptible to landslides.[28] Therefore, the potential for the proposed project to expose people or structures to risk as a result of landslides would be less than significant.

26 California Geological Survey. 2019, op. cit.

27 Metropolitan Transportation Commission and Association of Bay Area Governments. 2018. Probabilistic Earthquake Shaking Hazard Map. Website: mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8 (accessed June 8, 2023).

28 Ibid.

b. Would the project result in substantial soil erosion or the loss of topsoil? ***(Less-Than-Significant Impact)***

Soil erosion, which is discussed in detail in Section 4.10, Hydrology and Water Quality, could occur during project construction. As described in Section 4.10, Hydrology and Water Quality, compliance with the State Water Resources Control Board's Construction General Permit, including preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), would ensure that the project would result in a less than significant impact related to erosion or loss of top soil during construction of the project. During operation of the proposed project, the project site would be covered with buildings, pavement surfaces, and landscaping, which would minimize post-development erosion. Therefore, the potential impact related to substantial erosion or loss of topsoil would be less than significant.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ***(Less-Than-Significant Impact)***

The majority of Foster City is underlain by approximately 40 to 60 feet of Bay Mud overlying alluvial deposits. Settlement of Bay Mud due to consolidation under the weight of existing fill may be incomplete, and introduction of new loads, such as additional fill, foundations, and buildings, would be expected to result in additional settlement. Differential settlement may occur below exterior improvements across subsurface features such as buried sloughs, abandoned levees, and/or in areas underlain by non---engineered fill, engineered fill, and native soils over Bay Mud. If unstable soils are not properly addressed during grading and foundation preparation, structural damage, warping, and cracking of roads, driveways, parking areas and sidewalks, and rupture of utility lines may occur. Development in areas with the potentially unstable soils pose a geologic hazard to structures and people unless special design criteria are incorporated into the design.[29]

The proposed project would be designed and constructed in accordance with standard engineering practices and the CBC. The project site is not anticipated to become unstable as a result of the proposed project, or potentially result in on- or off-site landslides, liquefaction, or lateral spreading. Further, conformance with the policies and programs set in place by the Foster City General Plan, which would require a site-specific, design level, fault zone geotechnical report with recommendations, would ensure that the proposed project would not result in a geologic hazard from landslide, lateral spreading, subsidence, liquefaction, or collapse. This impact would be less than significant.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? ***(Less-Than-Significant Impact)***

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount

[29] Foster City, City of. 2015. Foster City General Plan Update and Climate Action Plan Draft Environmental Impact Report. September.

and type of clay minerals present and can be measured by the percent change of the soil volume. [30] Soils underlying the project site are composed of Urban land-Orthents, reclaimed complex, 0 to 2 percent according to the United States Department of Agriculture (USDA) Natural Resources Conservation Service Web Soil Survey. [31] Urban land-Orthents is a shallow, well-drained soil type, with low shrink and swell potential. [32] In addition, compliance with CBC requirements would ensure that geotechnical design of the proposed project would reduce potential impacts related to expansive soils to a less-than-significant level. As such, the risk of expansive soil affecting the proposed project is considered low and would represent a less-than-significant impact.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? ***(No Impact)***

The proposed project would connect to the City's wastewater conveyance system. On-site treatment and disposal of wastewater is not proposed for the project; therefore, the proposed project would have no impacts associated with soils incapable of supporting alternative wastewater disposal systems.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ***(Less-Than-Significant Impact)***

The results of a search of identified paleontological localities collections database maintained by the University of California Museum of Paleontology did not identify any paleontological finds in Bay Mud near the project site. [33] While it is possible that the Bay Mud could preserve a variety of marine invertebrate fossils (mollusks, clams, foraminifera, microorganisms, etc.), such fossils exist in other Bay Mud deposits all around the Bay Area and would not be considered significant or unique. Therefore, the Bay Mud beneath the project site is considered to have low paleontological sensitivity.

The age and sensitivity of the underlying alluvial deposits are not known for certain. However, in much of the Bay Area, the Bay Mud is underlain by Pleistocene alluvium [34] and may contain fossils. Review of Pleistocene age paleontological localities in a collections database maintained by the University of California Museum of Paleontology identified fossil plants, vertebrates, and invertebrates with locality names that are not in the vicinity of the project site. However, the review

30 Natural Resources Conservation Service. 2017. *Web Soil Survey*. Website: websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed June 2023).

31 United States Department of Agriculture. Natural Resources Conservation Service. Web Soil Survey. Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed June 8, 2023).

32 United States Department of Agriculture Soil Conservation Service. 1975. *Soil Survey of Alameda County, Western Part*. Available online at: www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA610/0/alameda.pdf (accessed April 8, 2021).

33 University of California Museum of Paleontology. 2023. Collections Database, Locality Search. Website: ucmpdb.berkeley.edu/loc.html (accessed June).

34 Helley, E.J. and K.R. LaJoie. 1979. Flatland deposits of the San Francisco Bay Region, California-their geology and engineering properties, and their importance to comprehensive planning. USGS Professional Paper 943.

also identified some invertebrates and microfossils that do not have a specified locality name and, therefore, could be located in the project vicinity.[35] Therefore, the stiffer underlying alluvial deposits could be paleontologically sensitive. However, the project would not involve substantial excavation that would disturb the underlying alluvial deposits (i.e., only foundation piles would extend into this unit). Since the dominant geologic units at the project site that would be disturbed by construction (artificial fill and Bay Mud) are not considered paleontologically sensitive, the potential impacts on paleontological resources would be less than significant. Consistent with Foster City General Plan policies, development projects are required to comply with the following standard COA and measures. The following COA would be implemented in the event that paleontological resources are encountered during ground disturbing activities. Implementation of this COA would further ensure that this impact would be less than significant.

> **GEO-COA 2. Paleontological Resources:** If paleontological resources are discovered during project activities, all work within 25 feet of the discovery shall be redirected and the Community Development Director immediately notified. A qualified paleontologist shall be contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Paleontological resources include fossil plants and animals, and evidence of past life such as trace fossils and tracks. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Fossil vertebrate land animals may include bones of reptiles, birds, and mammals. Paleontological resources also include plant imprints, petrified wood, and animal tracks.
>
> Upon completion of the assessment, the paleontologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the paleontological resources discovered. This report shall be submitted to the project sponsor, the Foster City Community Development Department, and the paleontological curation facility.

Adverse effects to paleontological resources shall be avoided by project activities. If avoidance is not feasible (as determined by the City, in conjunction with the qualified paleontologist), the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, adverse effects on the resources shall be avoided, or such effects shall be mitigated. Mitigation can include, but is not necessarily limited to: excavation of paleontological resources using standard paleontological field methods and procedures; laboratory and technical analyses of recovered materials; production of a report detailing the methods, findings, and significance of recovered fossils; curation of paleontological materials at an appropriate facility (e.g., the University of California Museum of Paleontology) for future research and/or display; an interpretive display of recovered fossils at a local school, museum, or library; and public lectures at local schools on the findings and significance of the site and recovered fossils. The City shall ensure that any mitigation involving excavation of the resource is implemented prior to project construction or actions that could adversely affect the resource.

[35] University of California Museum of Paleontology. 2021, op. cit.

4.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (N_2O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulfur Hexafluoride (SF_6).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, believed to be causing global warming. While human-made GHGs include naturally occurring GHGs such as CO_2, methane, and N_2O, some gases such as HFCs, PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ***(Less Than Significant with Mitigation Incorporated)***

The BAAQMD's 2022 CEQA Guidelines identifies applicable GHG significance thresholds. The BAAQMD recommends these thresholds of significance for use in determining whether a proposed project will have a significant impact related to climate change. These thresholds are applied in the evaluation of a project based on the potential effect on California's efforts to meet the State's long-term climate goals. Applying this approach, the BAAQMD identifies and provides supporting documentation, outlining the requirements for new land use development projects necessary to achieve California's long-term climate goal of carbon neutrality by 2045. Based on their analysis, the BAAQMD found that new land use development projects need to incorporate design elements to contribute the "fair share" towards implementing the goal of carbon neutrality by 2045. If a project is designed and built to incorporate the identified design elements, then it will contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and an agency reviewing the project under CEQA can conclude that the project will not make a cumulatively considerable contribution to global climate change. The BAAQMD determined that if a project does not incorporate these design elements, then it should be found to make a significant climate impact because it will hinder California's efforts to address climate change.

According to the BAAQMD, a project would have a less-than-significant impact related to GHG emissions if it would:

a. Include, at a minimum, the following project design elements:

    1. Buildings

        a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

        b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

    2. Transportation

        a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:

            1. Residential projects: 15 percent below the existing VMT per capita

            2. Office projects: 15 percent below the existing VMT per employee

3. Retail projects: no net increase in existing VMT

b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

b. Or be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

The City of Foster City Climate Action Plan[36] meets the BAAQMD requirements for a Qualified GHG Reduction Strategy and is designed to streamline environmental review of future development projects in the City of Foster City consistent with *State CEQA Guidelines* Section 15183.5(b) and the BAAQMD CEQA Air Quality Guidelines. However, the City's Climate Action Plan identifies emission reduction goals to reduce GHG emissions in Foster City by 15 percent below the 2005 emissions levels by 2020, consistent with Assembly Bill (AB) 32 and Executive Order S-3-05. The proposed project would not be operational until post-2020; therefore, because the City's Climate Action Plan was prepared based on the 2020 GHG targets, which are now superseded by the 2030 GHG targets established in Senate Bill (SB) 32 and carbon neutrality by 2045 as established in Executive Order B-55-18, the City's Climate Action Plan would not be applicable for CEQA streamlining. Therefore, this section evaluates the proposed project's consistency with the BAAQMD's project design element thresholds.

Natural Gas Usage. According to the BAAQMD, a less-than-significant GHG impact would occur if the project does not include natural gas appliances or natural gas plumbing. Electricity service is currently provided to the project site by Pacific Gas & Electric Company. The proposed project would be designed to be all electric and would not utilize natural gas. Since the proposed project would not include natural gas, the proposed project would be consistent with this required design element.

Energy Usage. The project must not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*. Energy use consumed by the proposed project would be associated with electricity consumption and fuel used for vehicle trips associated with the project. Energy consumption was estimated for the project using default energy intensities by land use type in the CalEEMod output, which is included in Appendix A.

As previously discussed in Section 4.6, Energy, the estimated potential increased electricity demand associated with the proposed project is 518,828 kWh per year. In 2021, San Mateo County consumed 4,157 GWh or 4,157,271,751 kWh. Therefore, electricity demand associated with the proposed project would be less than 0.1 percent of San Mateo County's total electricity demand.

In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. As discussed in Section 4.6, Energy, vehicle trips associated with the proposed project would consume approximately 30,548 gallons of gasoline per year and 21,069

[36] Foster City, City of. 2017. *City of Foster City Climate Action Plan*. September 15. Website: https://www.fostercity.org/sites/default/files/fileattachments/city_manager/page/2861/final-foster-city-cap_9-16-15.pdf (accessed July 2023).

gallons of diesel fuel per year. Based on fuel consumption obtained from EMFAC2021, approximately 244.4 million gallons of gasoline and approximately 28.3 million gallons of diesel fuel will be consumed from vehicle trips in San Mateo County in 2023. Therefore, gasoline and diesel fuel demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in San Mateo County.

As such, based on this analysis, as required under Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy and energy efficiency measures into the building design, equipment use, and transportation. As such, the proposed project would be consistent with this design element.

Vehicle Miles Traveled (VMT). To meet the BAAQMD's VMT threshold, the project must achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's (OPR) 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*. As discussed in Section 4.17, Transportation, the proposed project would consist of a local-serving use as it is intended to serve the residents of Foster City and would result in less-than-significant VMT impacts. Therefore, the proposed project would be consistent with this design element.

Electric Vehicle (EV) Requirements. This criterion requires that the project achieve compliance with off-street electric vehicle requirements in the most recently adopted version of the CALGreen Code Tier 2 measures. It is not yet known whether the proposed project would include electric vehicle charging; therefore, implementation of Mitigation Measure GHG-1 would be required to ensure the proposed project would provide electric vehicle charging consistent with CALGreen Tier 2. With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with this design element.

Mitigation Measure GHG-1 Prior to issuance of any building permits, the proposed project shall provide electric vehicle charging capabilities consistent with the off-street electric vehicle requirements in the most recently adopted version of the California Green Building Standards Code (CALGreen Code) Tier 2 measures.

With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with the BAAQMD's project design elements related to natural gas, energy, VMT, and EV requirements. Therefore, the proposed project would be consistent with the BAAQMD's GHG emission thresholds. As such, the proposed project would not generate significant GHG emissions that would have a significant effect on the environment, and this impact would be less than significant with mitigation incorporated.

*b. 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 with Mitigation Incorporated**)*

City of Foster City Climate Action Plan. The City of Foster City Climate Action Plan identifies emission reduction goals to reduce GHG emissions in the City by 15 percent below the 2005 emission levels by 2020, consistent with AB 32. The proposed project would not be operational until post-2020; therefore, because the City's Climate Action Plan was prepared based on the 2020 GHG targets, which are now superseded by the 2030 GHG targets established in SB 32 and carbon neutrality by 2045 as established in Executive Order B-55-18. The Climate Action Plan sets forth goals, measures, and actions to achieve emission reductions; therefore, a qualitative analysis of the proposed project's consistency with these goals, measures, and actions is provided. These goals include measures related to Energy-Community (EC), Energy-Municipal (EM), Transportation and Land Use (TL), Transportation-related Municipal Operations (TM), Waste (WC), Energy and Water (EW) and Education (ED). The following measures are applicable to the proposed project:

- EM 1: Implement Energy Efficient Street Lighting
- TL 1: Implement Smart Growth Development
- TL 2: Implement Complete Streets and Pedestrian and Bicycle-friendly design
- TL 4: Encourage a Preferred Parking/Electric Plug-in Policy for Alternative Fuel Vehicles
- TL 5: Support Safe Routes to School
- WC 1: Achieve a Higher Diversion Rate of 75 Percent
- WC 5: Adopt a Construction and Demolition Ordinance
- WC 7: Facilitate Recycling of Styrofoam and Hard-to-Recycle Plastics
- EW 2: Adopt a Water-wise Landscaping Ordinance and Outdoor Water Saving Incentives
- EW 3: Adopt an Ordinance and Incentives for Indoor Water Savings

The proposed project involves the demolition of the existing recreation center on the project site and the construction of a new recreation center. The proposed project would be required to adhere to all federal, State, and local requirements for energy efficiency, including current Title 24 and CALGreen standards which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy and water usage consistent with the intent of Measures EM 1, EM 3, EW 2, and EW 3. In addition, the proposed project would be required to comply with the California Model Water Efficient Landscape Ordinance, consistent with Measure EW 2. The proposed project would also be consistent with all requirements for recycling and waste diversion consistent with WC 1, WC 5, and WC 7. Furthermore, a variety of land uses are located

within the vicinity of the project site, including multi-family residential uses, commercial uses, and institutional and public uses such as the Foster City Library, Foster City Community Center, and Foster City Police Department and the proposed recreation center would be consistent with these surrounding uses, supporting the intent of Measure TL 1. In addition, SamTrans buses travel along the project's frontage, pedestrian access would be provided by existing sidewalks along Shell Boulevard and pathways within Leo J. Ryan Park, and the project site is served by City-designated Class II bicycle lanes along Shell Boulevard. In addition, the proposed project would be required to provide electric vehicle charging capabilities consistent with the off-street electric vehicle requirements in CALGreen Code Tier 2 measures with implementation of Mitigation Measure GHG-1. Therefore, the project would support the ability to use alternative modes of transportation consistent with Measure TL 2, TL 4, and TL 5.

CARB Scoping Plan. The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, Executive Order N-79-20 requires all new passenger vehicles sold in California to be zero-emission by 2035, and all other fleets to transition to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

In addition, the 2022 Scoping Plan includes key project attributes that reduce operational GHG emissions in Appendix D, Local Actions, of the 2022 Scoping Plan. The proposed project includes some of the key project attributes from Appendix D, including: is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer); does not result in the loss or conversion of natural and working lands; consists of transit-supportive densities (minimum of 20 residential dwelling units per acre) or is in proximity to existing transit stops (within a half mile) or satisfies more detailed and stringent criteria specified in the region's SCS; and results in no net loss of affordable units.

Energy efficiency measures are intended to maximize energy-efficient building and appliance standards; pursue additional efficiency efforts, including new technologies and new policy and implementation mechanisms; and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As identified above, the proposed project would comply with current CALGreen Code standards regarding energy conservation and green building.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would be required to comply with current CALGreen Code standards, which include a variety of different measures,

including reduction of wastewater and water use. In addition, the proposed project would be required to comply with the California Model Water Efficient Landscape Ordinance.

The goal of transportation and motor vehicle measures is to increase zero-emission vehicles and decrease VMT. As discussed above, SamTrans buses travel along the project's frontage, pedestrian access would be provided by existing sidewalks along Shell Boulevard and pathways within Leo J. Ryan Park, and the project site is served by City-designated Class II bicycle lanes along Shell Boulevard. In addition, the proposed project would be required to provide electric vehicle charging capabilities consistent with the off-street electric vehicle requirements in CALGreen Code Tier 2 measures with implementation of Mitigation Measure GHG-1.

Overall, the proposed project would incorporate various conservation and efficiency measures, consistent with the State's GHG emissions reduction goals.

Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the GHG emissions. This impact would be less than significant.

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? ***(Less-Than-Significant Impact)***

Small quantities of commercially available hazardous materials (e.g., paint, cleaning supplies) would be routinely used at the project site and in the new community center during operation based on events, programs, and other recreational activities. However, the City would be required to comply with existing government regulations[37] regarding the use of such materials and their disposal, and those materials would not be used in sufficient strength or quantity to create a substantial risk to human or environmental health. Therefore, the proposed project would have a less-than-significant impact related to the routine transport, use, or disposal of hazardous materials.

Construction of the proposed project would involve the transport, use, and disposal of chemical agents, solvents, paints, fuel and oil for construction equipment, and other hazardous materials that are commonly associated with construction activities. The routine handling and use of hazardous

[37] The United States Environmental Protection Agency regulates "small-quantity generators" (SQGs) of hazardous wastes, which are defined as facilities that generate more than 100 kg (approximately 220 lbs), but less than 1,000 kg (2,200 lbs), of hazardous waste per month.

materials by construction workers would be performed in accordance with Occupational Safety and Health Administration (OSHA) regulations, which include training requirements for construction workers and a requirement that hazardous materials be accompanied by manufacturers' Safety Data Sheets (SDSs). California Occupational Safety and Health Administration (Cal/OSHA) regulations include requirements for protective clothing, training, and limits on exposure to hazardous materials. Compliance with these existing regulations would ensure that construction workers are protected from exposure to hazardous materials that may be used on site.

Because the proposed project would result in soil disturbance greater than 1 acre, management of hazardous materials during construction activities would be subject to the requirements of the Stormwater Construction General Permit, which requires preparation and implementation of a SWPPP that includes hazardous materials storage requirements. For example, construction site operators must store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed that is completely enclosed.

In 1990 and 1994, the federal Hazardous Material Transportation Act was amended to improve the protection of life, property, and the environment from the inherent risks of transporting hazardous material in all major modes of commerce. The Department of Transportation (DOT) developed hazardous materials regulations that govern the classification, packaging, communication, transportation, and handling of hazardous materials as well as employee training and incident reporting. The transportation of hazardous materials is subject to both federal Resource Conservation and Recovery Act (RCRA) and DOT regulations. The California Highway Patrol, California Department of Transportation (Caltrans), and the Department of Toxic Substances Control (DTSC) are responsible for enforcing federal and State regulations pertaining to the transportation of hazardous materials.

The proposed project would comply with existing government regulations (federal, State, regional, and local) regarding the transport, use, and disposal of hazardous materials. Therefore, the proposed project would have a less-than-significant impact related to the potential release of hazardous materials commonly associated with construction activities into the environment.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ***(Less-Than-Significant Impact)***

An accidental release of hazardous materials (e.g., oils, fuels, solvents, or paints) during project construction could result in exposure of construction workers, the public, and/or the environment to hazardous materials. As discussed above, the proposed project would be subject to the requirements of the Construction General Permit, which requires preparation and implementation of a SWPPP to reduce the risk of spills or leaks from reaching the environment, including procedures to address minor spills of hazardous materials. Measures to control spills, leakage, and dumping must be addressed through structural as well as nonstructural best management practices (BMPs), as required by the Construction General Permit. For example, equipment and materials for cleanup of spills must be available on site, and spills and leaks must be cleaned up immediately and disposed of properly. BMPs also include treatment requirements, operating procedures, and practices to

control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

As discussed above, the transportation of hazardous materials is subject to both RCRA and DOT regulations. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and contain the spill), and is responsible for the discharge cleanup.

The proposed project would result in the demolition of the existing building which was built in 1974. As required by HAZ-COA-1 through HAZ-COA-4, a lead-based paint, hazardous building materials survey (polychlorinated biphenyls [PCBs], mercury), and asbestos survey (for those structures not previously surveyed) shall be performed by a qualified environmental professional prior to issuance of a demolition permit for structures located on the project site. Based on the findings of the survey, all loose and peeling lead-based paint and identified asbestos hazards shall be abated by a certified contractor in accordance with local, State, and federal requirements and requirements for worker health and safety. As required by HAZ-COA-1, a Waste Disposal and Hazardous Materials Transportation Plan shall be prepared prior to construction activities where hazardous materials or materials requiring off-site disposal would be generated. Furthermore, the project would requires hazardous materials and wastes generated during demolition activities, such as fluorescent light tubes, mercury switches, lead-based paint, asbestos containing materials, PCB wastes, and subsurface hazardous building materials generated during grading and trenching activities, such as asbestos-cement piping, to be managed and disposed of in accordance with the applicable universal waste and hazardous waste regulations.

HAZ-COA-1 – Waste Disposal and Hazardous Materials Plan: The contractor shall prepare a Waste Disposal and Hazardous Materials Transportation Plan prior to construction activities where hazardous materials or materials requiring off-site disposal would be generated. The Plan shall include a description of analytical methods for characterizing wastes, handling methods required to minimize the potential for exposure, and shall establish procedures for the safe storage of contaminated materials, stockpiling of soils, and storage of dewatered groundwater. The required disposal method for contaminated materials (including any lead-based paint, asbestos, or other hazardous building materials requiring disposal), the approved disposal site, and specific routes used for transport of wastes to and from the project site shall be indicated. The Plan shall be prepared prior to demolition or development activities and submitted to the City.

HAZ-COA-2: Building Materials Surveys. Prior to issuance of a demolition permit for structures located on the project site, a lead-based paint, hazardous building materials survey (PCBs, mercury), and asbestos survey (for those structures not previously surveyed) shall be performed by a qualified environmental professional. Based on the findings of the survey, all loose and peeling lead-based paint, and identified asbestos hazards shall be abated by a certified contractor in accordance with local, state, and federal requirements (including the requirements of the BAAQMD, District Regulation 11, Rule 20) and requirements for worker health and safety.

HAZ-COA-3: Hazardous Disposal. Hazardous materials and wastes generated during demolition activities, such as fluorescent light tubes, mercury switches, lead based paint, asbestos containing materials, and PCB wastes, and subsurface hazardous building materials generated during grading and trenching activities, such as asbestos-cement piping, shall be managed and disposed of in accordance with the applicable universal waste and hazardous waste regulations. Federal and state construction worker health and safety regulations shall apply to the removal of hazardous building materials and demolition activities, and any required worker health and safety procedures shall be incorporated into the contractor's specifications for the project. Documentation of the surveys and abatement activities shall be provided to the City prior to the demolition of structures located at the project site.

In addition, HAZ-COA-4 requires the designation of storage areas suitable for material delivery, storage, and waste collection. COA 2.18 requires a CRMP to be prepared to protect construction workers, the general public, and the environment from subsurface hazardous materials previously identified in addition to unknown contamination or hazards potentially encountered in the subsurface. If subsurface contamination is encountered, COA 9.13 requires a Site Remediation Plan to be developed.

HAZ-COA-4: Site Logistics Plan. Prior to commencement of any site work or placement of any construction trailers, the applicant shall submit a Site Logistics Plan showing proposed haul routes, placement of the construction trailers (if any) and areas for materials/equipment materials/equipment delivery, materials/equipment storage, waste collection and maintenance/fueling of vehicles/equipment. The Site Logistics Plan shall be subject to approval by the Community Development Director.

- The Site Logistics Plan designated storage areas for material delivery, storage, and waste collection shall be as far away from catch basins, gutters, drainage courses, and water bodies as possible. All hazardous materials and wastes used or generated during project site development activities shall be labeled and stored in accordance with applicable local, state, and federal regulations. In addition, an accurate up-to-date inventory, including Material Safety Data Sheets, shall be maintained on-site to assist emergency response personnel in the event of a hazardous materials incident.

- The Site Logistics Plan designated area for all maintenance and fueling of vehicles and equipment shall be bermed or over a drip pan that will not allow run-off of spills. Vehicles and equipment shall be regularly checked and have leaks repaired promptly at an off-site location. Secondary containment shall be used to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed, or poured. The Site Logistics Plan shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

HAZ-COA-5: Construction Risk Management Plan (CRMP): The applicant shall prepare a project-specific Construction Risk Management Plan (CRMP) to protect construction workers, the general public, and the environment from subsurface hazardous materials previously identified

and to address the possibility of encountering unknown contamination or hazards in the subsurface. The CRMP shall:

- Provide procedures for evaluating, handling, storing, testing and disposing of soil and groundwater during project excavation and dewatering activities, respectively;

- Require the preparation of a project specific Health and Safety Plan that identifies hazardous materials present, describes required health and safety provisions and training for all workers potentially exposed to hazardous materials in accordance with state and federal worker safety regulations, and designates the personnel responsible for Health and Safety Plan implementation;

- Require the preparation of a Contingency Plan that shall be applied should previously unknown hazardous materials be encountered during construction activities. The Contingency Plan shall be developed by the contractor(s), with the approval of the City and/or appropriate regulatory agency, prior to demolition or issuance of the first building permit. The Contingency Plan shall include provisions that require collection of soil and/or groundwater samples in the newly discovered affected area by a qualified environmental professional prior to further work, as appropriate. The samples shall be submitted for laboratory analysis by a state-certified laboratory under chain-of-custody procedures. The analytical methods shall be selected by the environmental professional. The analytical results of the sampling shall be reviewed by the qualified environmental professional and submitted to the appropriate regulatory agency, if appropriate. The environmental professional shall provide recommendations, as applicable, regarding soil/waste management, worker health and safety training, and regulatory agency notifications, in accordance with local, state, and federal requirements. Work shall not resume in the area(s) affected until these recommendations have been implemented under the oversight of the City of regulatory agency, as appropriate; and

- Designate personnel responsible for implementation of the CRMP. The CRMP shall be submitted to the Fire Department for review and approval prior to construction activities.

- Emergency Preparedness and Response Procedures shall be developed by the contractor(s) for emergency notification in the event of an accidental spill or other hazardous materials emergency during project site preparation and development activities. These Procedures shall include evacuation procedures, spill containment procedures, required personal protective equipment, as appropriate, in responding to the emergency. The contractor(s) shall submit these procedures to the City prior to demolition or development activities.

HAZ-COA-6: If the presence of hazardous materials is found on site, site remediation may be required by the applicable state or local regulatory agencies. Specific remedies would depend on the extent and magnitude of contamination and requirements of the regulatory agency(ies). Under the direction of the regulatory agency(ies) and the City, a Site Remediation Plan shall be prepared, as required, by the applicant. The Plan shall: 1) specify measures to be taken to

protect workers and the public from exposure to the potential hazards and, 2) certify that the proposed remediation would protect the public health in accordance with local, state, and federal requirements, considering the land use proposed. Excavation and earthworking activities associated with the proposed project shall not proceed until the Site Remediation Plan has been reviewed and approved by the regulatory oversight agency and is on file with the City.

Compliance with existing regulations and HAZ-COA-1 through 6 would ensure that potential impacts from an accidental release of hazardous materials would be less than significant.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ***(Less-Than-Significant Impact)***

Refer to Section 4.9.a and 4.9.b. Various public and private schools are located within 0.25 mile of the project site, including the Ronald C. Wornick Jewish Day School, which is located across Shell Boulevard from the project site. The City would be required to comply with all applicable local, State, and federal regulations and standards related to hazardous emissions and materials. As noted above, compliance with all applicable regulations would reduce any significant hazards to the public or the environment related to hazardous materials, and the proposed project would have a less than significant impact.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ***(Less-Than-Significant Impact)***

The project site does not include any active storage sites listed on the San Francisco Bay Regional Water Quality Control Board (Water Board) Leaking Underground Storage (LUST) database or the Water Board's site cleanup program,[38] two of the component databases that comprise the State Cortese List of known hazardous materials compiled pursuant to Government Code Section 65962.5. Active sites are not listed for the project on other components of the Cortese List, including the DTSC hazardous waste and substance list.[39] Therefore, no impact associated with locating a project on a site included on a list of hazardous materials is expected to occur.

e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ***(Less-Than-Significant Impact)***

The project site is not located within the vicinity of a private airstrip. The project site is 2.9 miles north of the San Carlos Airport and approximately 6.2 miles southeast of San Francisco International Airport (SFO). The site is within Area A of the AIA Boundary of the San Carlos Airport, where

38 San Francisco Bay Regional Water Quality Control Boar. 2023. GeoTracker. Website: geotracker.waterboards.ca.gov/map (accessed June 6, 2023).

39 California, State of. 2023. Department of Toxic Substances Control. Hazardous Waste and Substances Site List. Website: www.envirostor.dtsc.ca.gov/public (accessed June 6, 2023).

requirements for real estate disclosure are mandatory due to potential noise issues. The project site is also within Area B of the AIA Boundary of SFO, where land development proposals shall be reviewed by the Airport Land Use Commission. Review by the Airport Land Use Commission is required if one or more of the following changes are proposed:

1. An increase in the proposed residential density;

2. The addition of a land use that is incompatible under the ALUCP;

3. The height of a structure is to be increased and would create a hazard or obstruction as determined by the FAA; or

4. The addition of a characteristic that would create a hazard to air navigation.

The proposed project would not include any residential density and does not lie within the 65 dBA CNEL noise contour (as discussed in Section 4.13) or a safety compatibility zone, and therefore would be a compatible use. The highest obstruction permitted within the project site associated with the approach surface is approximately 700 feet. The proposed building would be a maximum of approximately 40 feet in height. In addition, the proposed project would continue to include public recreational uses on the project site, and would not include any characteristics (such as highly reflective buildings or distracting lights) that would create a hazard to air navigation. Therefore, the proposed project would have a less-than-significant impact related to airport safety hazards.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ***(Less-Than-Significant Impact)***

The proposed project would include the reconstruction of a building of the same use at the same location. The project construction footprint would be within the same disturbed area as the existing recreation center. Furthermore, while the new recreation center would include more space and activity programming, the use is a localized use, would not physically alter the existing roadway, and would not add new users to the City. Therefore, the proposed project would not interfere with any emergency evacuation routes within San Mateo County or an adopted emergency response plan, and this impact would be less-than-significant.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? ***(Less-Than-Significant Impact)***

The project site is located in an urban area and is not located within a very high fire hazard severity zone.[40] Therefore, the proposed project would not expose people or structures to a significant loss, injury or death involving wildland fires and there would be no impact.

[40] Cal Fire, 2008. *San Mateo County Very High Fire Hazard Severity Zones in LRA.* November 24.

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

*a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? **(Less-Than-Significant Impact)***

The State Water Resources Control Board (State Water Board) and its nine regional water boards regulate water quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project vicinity, the San Francisco Bay Regional Water Quality Control Board is responsible for implementing the Water Quality Control Plan (Basin Plan).[41] The Basin Plan establishes beneficial water uses for waterways and water bodies within the region and is a master policy document for managing water quality in the region.

Foster City Lagoon is listed in the Basin Plan as providing the beneficial uses of estuarine habitat, wildlife habitat, water contact recreation, and noncontact water recreation. The Lower San Francisco Bay is listed as providing the beneficial uses of industrial service supply, commercial and sport fishing, shellfish harvesting, estuarine habitat, fish migration, preservation of rare and

[41] San Francisco Bay Regional Water Quality Control Board. 2019. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).* Incorporating all amendments as of November 5.

endangered species, fish spawning, wildlife habitat, water contact and noncontact recreation, and navigation.[42]

Under Section 303(d) of the federal Clean Water Act (CWA), states must present the U.S. Environmental Protection Agency (EPA) with a list of "impaired water bodies," defined as those water bodies that do not meet water quality standards, which in some cases results in the development of a total maximum daily load (TMDL) for the water body. On a broad level, the TMDL process leads to a "pollution budget" designed to restore the health of a polluted body of water. The TMDL process includes a quantitative assessment of the sources of pollution contributing to a violation of the water quality standards and identifies the pollutant load reductions or control actions needed to restore and protect the beneficial uses of the impaired waterbody. Foster City Lagoon is not listed as an impaired water body. Lower San Francisco Bay has been listed as an impaired water body due to impacts from chlordane, dichlorodiphenyltrichloroethane [DDT], dieldrin, dioxin compounds, furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs), dioxin-like PCBs, and trash. TMDLs have been established for mercury and PCBs in Lower San Francisco Bay.[43]

National Pollutant Discharge Elimination System. Under Section 402 of the CWA, the discharge of pollutants through a point source into waters of the United States is prohibited unless the discharge complies with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program regulates the discharge of pollutants from municipal and industrial wastewater treatment plants and sewer collection systems, as well as stormwater discharges from industrial facilities, municipalities, and construction sites. In California, implementation and enforcement of the NPDES program is conducted through the State Water Board and the nine regional water boards. The regional water boards set standard conditions for each permittee in their region, which includes effluent limitations and monitoring programs. NPDES requirements that would apply to both the construction-phase and the operation phase of the project are described below.

Construction Stormwater Runoff. The proposed project would involve construction activities that would disturb over 1 acre of land and therefore would be required to comply with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 (Construction General Permit).[44]

To obtain coverage under the Construction General Permit, the project sponsor, in this case the City of Foster City, must provide, via electronic submittal, a Notice of Intent (NOI), a Stormwater Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and ground disturbances such as grubbing and excavation. Construction General Permit

42 Ibid.

43 State Water Board. 2017. *Final 2014 and 2016 California Integrated Report* (Clean Water Act Section 303(d) List/305(b) Report). Website: www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/category5_report.shtml (accessed June 2021).

44 State Water Resources Control Board Division of Water Quality. 2009. Construction General Permit Fact Sheet. 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ.

activities are regulated at the local level by the San Francisco Bay Regional Water Quality Control Board.

The Construction General Permit uses a risk-based permitting approach and mandates certain requirements based on the project risk level (i.e., Level 1, Level 2, or Level 3). The project risk level is based on the risk of sediment discharge and the receiving water risk. The sediment discharge risk depends on the project location and season (e.g., wet-weather versus dry-weather activities). The receiving water risk depends on whether the project would discharge to a sediment-sensitive water body. The project risk level would be determined by the project sponsor, in this case the City of Foster City, when the NOI is filed (and when further details on the timing of construction activity are known).

The Construction General Permit performance standard calls for dischargers to minimize or prevent pollutants in stormwater discharges (as well as authorized non-stormwater discharges) through the use of controls, structures, and best management practices (BMPs) that utilize Best Available Technology for treatment of toxic and nonconventional pollutants and Best Conventional Technology for treatment of conventional pollutants. A SWPPP must be prepared by a Qualified SWPPP Developer that meets the certification requirements in the Construction General Permit. The purposes of the SWPPP are to (1) help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges; and (2) describe and ensure implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. The operation of BMPs must be overseen by a Qualified SWPPP Practitioner who meets the requirements outlined in the Construction General Permit.

The SWPPP must include a construction site monitoring program. Depending on the project risk level, the monitoring program could include visual observations of site discharges, water quality monitoring of site discharges (pH, turbidity, and non-visible pollutants, if applicable), and receiving water monitoring (pH, turbidity, suspended sediment concentration, and bioassessment).

The City is part of the San Mateo Countywide Stormwater Pollution Prevention Program, which provides guidance and assistance to municipalities in San Mateo County to help them comply with requirements of the Construction General Permit. Additionally, the proposed project would be required to comply with the following COAs as well as HAZ-COA-4, consistent with Foster City General Plan policies, conditions and measures, to ensure that impacts related to construction period water quality would be less than significant.

HYDRO-COA-1: Prior to issuance of a building permit, the Construction Best Management Practices (BMPs) from the San Mateo Countywide Stormwater Pollution Prevention Program shall be included as notes on the building permit drawings.

- Prior to issuance of a building permit, any development involving one or more acres of total land area must obtain a General Permit from the State Water Resources Control Board. This permit requires the owner/developer to do the following:

- Submit a Notice of Intent (NOI) to the State Water Resources Control Board prior to commencement of construction activity;

- Copies of the NOI and the Storm Water Pollution Prevention Plan (SWPPP) must be submitted to the Engineering Division along with proof of compliance.

HYDRO-COA-2: The applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts to surface water quality during the construction period. The SWPPP shall be prepared by a Qualified SWPPP Practitioner (QSP). The SWPPP shall include the minimum BMPs required for the identified Risk level. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction. The SWPPP shall be designed to address the following objectives:

- All pollutants and their sources, including sources of sediment associated with construction activity are controlled;

- Where not otherwise required to be under a Regional Water Board permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;

- Site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology and Best Conventional Technology (BAT/BCT) standard; and

- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

- BMPs shall be designed to mitigate construction-related pollutants and at a minimum, include the following:

    - Practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with stormwater. The SWPPP shall specify properly-designed centralized storage areas that keep these materials out of the rain.

    - Reduce erosion of exposed soil which may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased if grading is performed during the rainy season because disturbed soil can be exposed to rainfall and storm runoff.

    - If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control (i.e. keeping sediment on the site). End-of-pipe sediment control measures (e.g. basins and traps) shall be used only as secondary measures. Ingress and egress from the construction site shall be carefully controlled to minimize

off-site tracking of sediment. Vehicle and equipment wash-down facilities shall be designed to be accessible and functional during both dry and wet conditions.

- The SWPPP shall specify a monitoring program to be implemented by the construction site supervisor, and shall include both dry and wet weather inspections. In addition, in accordance with State Water Resources Control Board requirements, monitoring shall be required during the construction period for pollutants that may be present in the runoff that are "not visually detectable in runoff."

- To educate on-site personnel and maintain awareness of the importance of stormwater quality protection, site supervisors shall conduct regular tailgate meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list shall be specified in the SWPPP.

- A QSP shall be responsible for implementing BMPs at the site. The QSP shall also be responsible for performing all required monitoring, and BMP inspection, maintenance and repair activities. The developer shall retain an independent monitor to conduct weekly inspections and provide written monthly reports to the Engineering Division to ensure compliance with the SWPPP. Water Board personnel, who may make unannounced site inspections, are empowered to levy considerable fines if it is determined that the SWPPP has not been properly prepared and implemented.

- The SWPPP shall be prepared to the satisfaction of the Engineering Division.

Implementation of HYDRO-COA-1 above requires the use of construction BMPs from the San Mateo Countywide Stormwater Pollution Prevention Program to be included as notes on the building permit prior to issuance of a building permit. Furthermore, it would requires the City to submit evidence of compliance with Construction General Permit to the City's Engineering Division. Implementation of HYDRO-COA-2 requires the SWPPP to include BMPs consistent with the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction. Implementation of Site Logistics Plan, as required by HAZ-COA-4, requires storage areas for material delivery, storage, and waste collection as far away from catch basins, gutters, drainage courses, and water bodies as possible, and requires labeling and storing all hazardous materials and wastes in accordance with applicable local, State, and federal regulations.

Compliance with the requirements of the Construction General Permit and with the City's COAs would ensure that water quality impacts due to discharge of construction-related stormwater runoff would be less than significant.

Construction Dewatering. Groundwater levels were measured at approximately 1 foot below ground surface. Temporary dewatering from excavations could be necessary during construction. Dewatering effluent may have high turbidity. Turbid/contaminated groundwater could cause degradation of the receiving water quality if discharged directly to storm drains without treatment. As stated in the Construction General Permit, non-stormwater discharges to receiving waters or the storm drain system have the potential to negatively impact water quality.

The discharge of dewatering effluent would be subject to permits from the Estero Municipal Improvement District or the San Francisco Bay Regional Water Quality Control Board, depending on whether the dewatering effluent is discharged to the sanitary sewer or stormwater system, respectively. Any discharge or activity which may result in pollutants entering the City's stormwater system would also be required to comply with the City's Green Infrastructure Plan[45] as codified by Foster City Municipal Code Section 13.12.110.B. Under existing State law, it is illegal to allow unpermitted non-stormwater discharges to receiving waters. The discharger must implement measures to control all non-stormwater discharges during construction, and from dewatering activities associated with construction. Discharging any pollutant-laden water that would cause or contribute to an exceedance of water quality standards is prohibited.[46]

In order to discharge the potentially contaminated dewatering effluent generated during construction activities on the project site to the storm drains (receiving water), the discharger could prepare a Report of Waste Discharge, and if approved by the San Francisco Bay Regional Water Quality Control Board, be issued site-specific Waste Discharge Requirements under the NPDES regulations. Site-specific Waste Discharge Requirements contain rigorous monitoring requirements and performance standards that, when implemented, ensure that receiving water quality is not substantially degraded.

If it is determined that the water is not suitable for discharge to the storm drain (receiving water) and it is not possible to obtain Waste Discharge Requirements, dewatering effluent may be discharged to the EMID sanitary sewer system if special discharge criteria are met. These include, but are not limited to, application of treatment technologies or best management practices that will result in achieving compliance with the wastewater discharge limits. Discharges to EMID's facilities must occur under a Special Discharge Permit. EMID manages the water it accepts into its facilities so that it can ensure proper treatment of wastewater at the treatment facility prior to discharge.

If it is infeasible to acquire site-specific Waste Discharge Requirements or meet EMID Special Discharge Permit requirements, the construction contractor would be required to transport the dewatering effluent off-site for treatment and disposal.

Compliance with local and NPDES regulatory requirements governing non-stormwater discharges to the sanitary sewer system and stormwater system/receiving waters, respectively, would ensure that water quality impacts related to discharges of construction dewatering effluent would be less than significant.

Operation Stormwater Runoff. Because the proposed project would replace over 10,000 square feet of existing impervious surface area, the project would be required to comply with Provision C.3 of the NPDES Municipal Regional Permit (MRP). The MRP is overseen by the San Francisco Bay Regional Water Quality Control Board.

Provision C.3 requires regulated projects to implement Low Impact Development (LID) source control, site design, and stormwater treatment. LID employs principles such as preserving and

[45] Foster City, City of. 2019. *Green Infrastructure Plan*. August.
[46] State Water Resources Control Board Division of Water Quality. 2009, op. cit.

recreating natural landscape features and minimizing impervious surfaces to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and flow-through planter/tree boxes. The project would include a combination of lined bioretention areas and lined flow-through planters.

MRP Provision C.3.g pertains to hydromodification management and contains the following requirements: (1) stormwater discharges shall not cause an increase in the erosion potential of the receiving stream over the existing condition; and (2) increases in runoff flow and volume shall be managed such that post-project runoff does not exceed estimated pre-project rates and durations, where such increased flow and/or volume is likely to cause increased potential for erosion of creek beds and banks, silt pollutant generation, or other adverse impacts on beneficial uses due to increased erosive force. The project site is not susceptible to hydromodification as the project site is in a low-gradient area (i.e., the project site is generally flat).

The City is part of the San Mateo Countywide Stormwater Pollution Prevention Program, which provides guidance and assistance to municipalities in San Mateo County to help them comply with requirements of the MRP. Additionally, the proposed project would be required to comply with the following COAs to ensure that impacts to operation period water quality would be less than significant.

HYDRO-COA-3: Water Pollution Prevention Program. Prior to issuance of a building permit, the plans shall demonstrate compliance with the San Mateo Countywide Water Pollution Prevention Program, (see www.flowstobay.org including, but not limited to, submittal of checklists related to impervious surface and stormwater:

- C.3 and C.6 Checklist
- Project sponsor checklist for NPDES Permit Requirements
- Stormwater Control Plan: Any improvements identified in the SWCP shall be constructed prior to first occupancy to the satisfaction of the Engineering Division.

HDRO-COA-4: The applicant shall fully comply with the C.3 provisions of the Municipal Regional Stormwater NPDES Permit (MRP). Responsibilities include, but are not limited to, designing Best Management Practices (BMPs) into the project features and operation to reduce potential impacts to surface water quality associated with operation of the project. These features shall be included in the design-level drainage plan and final development drawings. Specifically, the final design shall include measures designed to mitigate potential water quality degradation of runoff from all portions of the completed development.

- All Stormwater control measures outlined in the current San Mateo Countywide Water Pollution Prevention Program's C.3 Stormwater Technical Guidance manual shall be incorporated into the project design. Low Impact Development features, including rainwater harvesting and reuse, and passive, low-maintenance BMPs (e.g., grassy

swales, porous pavements) are required under the MRP. Higher-maintenance BMP's may only be used if the development of at-grade treatment systems is not possible, or would not adequately treat runoff. Funding for long-term maintenance for all BMPs must be specified (as the City will not assume maintenance responsibilities for these features). The sponsor shall establish a self-perpetuating drainage system maintenance program for the life of the project that includes annual inspections of any stormwater detention devices and drainage inlets. Any accumulation of sediment or other debris would need to be promptly removed. In addition, an annual report documenting the inspection and any remedial action conducted shall be submitted to the Public Works Development for review and approval.

- The drainage plan shall be prepared to the satisfaction of the Engineering Division.

HYDRO-COA-5: The applicant shall submit a letter signed and stamped by the licensed landscape architect verifying that the plants that have been selected for the bioretention area/swale are drought tolerant, inundation tolerant, and require minimal maintenance consistent with the C.3/C.6 Checklist, as provided in Appendix A of the San Mateo County Wide Water Pollution Prevention Program's C.3 Stormwater Technical Guidance Handbook at www.flowstobay.org.

HDRO-COA-6: Hydromodification. Prior to final building inspection, the property owner shall submit a Maintenance Agreement for Stormwater Treatment Measures and Hydromodification Management Controls, including a Maintenance Plan pertinent to the type(s) of measures included in the project, pursuant to the San Mateo Countywide Water Pollution Prevention Program (www.flowstobay.org). Following review and approval by City staff, the property owner shall have the Maintenance Agreement recorded prior to building occupancy approval. The Maintenance Agreement shall be made a part of any CC&Rs recorded for the property and shall include the following statements:

- The property owner shall be responsible for conducting all servicing and maintenance as described and required by the approved Maintenance Plan(s). Maintenance of all site design and treatment control measures shall be the owner's responsibility.

- Site access shall be granted to representatives of the City, the San Mateo County Mosquito and Vector Control District, and the Water Board, at any time, for the sole purpose of performing operation and maintenance inspections of the installed stormwater treatment systems.

Implementation of COAs above require the City to prepare a Stormwater Control Plan (SWCP) to demonstrate compliance with the San Mateo Countywide Water Pollution Prevention Program, compliance with Provision C.3 of the MRP, and specific plants for bioretention areas or swales that are drought tolerant, inundation tolerant, and require minimal maintenance. Implementation of COA 10.9 requires a Maintenance Agreement for stormwater treatment measures and hydromodification management controls.

Compliance with the requirements of the MRP and with the City's COAs would ensure that water quality impacts during operation of the proposed project would be less than significant.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? ***(Less-Than-Significant Impact)***

As noted above, temporary dewatering from excavations could be necessary during construction as groundwater was recorded at a depth of 1 foot below ground surface. Construction-related dewatering would be temporary and limited to the area of excavations on the project site and would not substantially contribute to depletion of groundwater supplies.

Groundwater on site would not be used during the operation phase of the project. However, the overall stormwater flow rate would slightly decrease due to the detention in the C.3 stormwater treatment measures (bioretention areas and flow through planters). The bioretention area and flow through planters slow down the flow rate of stormwater runoff when discharging to the existing public system. Therefore, the potential for the project to impact groundwater supplies or groundwater recharge would be less than significant.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. Result in substantial erosion or siltation on- or off-site; ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. Impede or redirect flood flows? ***(Less-Than-Significant Impact)***

Erosion or Siltation. Erosion generally occurs when sloped soils are exposed during construction activities. The project site gently slopes from east to west towards the Foster City Lagoon. Construction activities would involve excavation and grading, which would temporarily alter drainage patterns and expose soil to potential erosion. As described under Section 4.10.a above, compliance with the Construction General Permit and the City's COAs would ensure that erosion of exposed soil and sedimentation of receiving waters or the sewer system would be minimized to the extent feasible during construction of the proposed project.

During operation of the project, the site and surrounding areas would be covered by buildings, pavement, and landscaped areas, with no ongoing soil exposure or disturbance that could result in erosion and siltation. Because the project site is in a low-gradient area and stormwater is conveyed from the project site to the Bay via underground storm drainpipes, stormwater runoff from the project site would not cause erosion in the downstream drainage courses. Therefore, operation of the project would have a less-than-significant impact on erosion or siltation associated with changing drainage patterns.

Flooding and Local Stormwater System Drainage Capacity. Implementation of the proposed project would involve placement of new impervious surfaces on the project site, but would result in an overall reduction of impervious surfaces as the project consists of increasing in the overall building height/number of floors while within the same development footprint and reconfiguration and adding new landscaping areas. Without proper design, the placement of new impervious surfaces could result in increased runoff volumes and rates that could exceed the capacity of the existing

storm drain systems and result in localized flooding. While the proposed project would result in the redevelopment of an existing fully disturbed area, replacement of previous landscaped areas with hardscape would be required to comply with stormwater improvement requirements as noted above. Furthermore, the design standards and conditions below would be required. With the implementation of these conditions, the project would result in a less than significant impact.

HYDRO-COA-7: Prior to issuance of a building permit, the improvement plans shall include the design of stormwater improvements in accordance with the City's Standard Details/Specifications and to the satisfaction of the Engineering Division. Stormwater improvements items of construction should include at least the following:

- Surface and subsurface storm drain facilities;
- Manholes with manhole frames and covers;
- Catch basins and laterals;
- Construct all catch basins as silt detention basins; and
- Together with appurtenances, to any or all of the above.

HYDRO-COA-8: Prior to issuance of a building permit, a complete storm drainage study of the proposed development shall be prepared by a registered civil engineer and submitted as part of the improvement plans package. Drainage facilities shall be designed in accordance with accepted engineering principles and be approved by the Engineering Division. The hydrology/hydraulic analysis shall include the following:

- The amount of runoff, and existing and proposed drainage structure capacities.
- Verification that the existing storm drain system is adequately sized to handle the run-off from the project.
- Conformance with the City's Drainage Design Criteria/Standards available on the City's website: www.fostercity.org/publicworks/page/city-standard-design-criteria
- Calculations and plans showing hydraulic gradelines.
- Evidence that the system is capable of handling a 25-year storm with the hydraulic grade line at least one foot below every grate.
- No overloading of the existing system will be permitted. All needed improvements shall be installed by the sponsors at sponsors' sole cost.

Implementation of COAs requires the stormwater system to be capable of handling a 25-year storm and the drainage facilities to be designed in accordance with accepted engineering principles and

conform to the Foster City Drainage Design Criteria.[47] Implementation of COA 5.9.2 requires that a complete storm drainage study be approved by the City's Engineering Division, which ensures no overloading of the existing system. This COA also requires a hydrology/hydraulic analysis to be completed to verify the existing off-site storm drainage system is adequately sized to handle the runoff from the project. Implementation of COA 5.9.4 requires the City to pay for all necessary improvement costs if it is determined that the City's storm drain system or storm drain pumping capacity requires expansion or modification as a result of the proposed development.

Compliance with the City's COAs would ensure that the potential impacts related to on-site and off-site flooding and exceeding the local stormwater system drainage capacity as a result of changes in drainage patterns would be less than significant.

Flood Flows. The project site is designated as Zone X "Area with Reduced Flood Risk due to Levee" on Flood Insurance Rate Maps (FIRMs) published by the Federal Emergency Management Agency (FEMA).[48] However, FEMA has found that 85 percent of the Foster City's levee system does not meet FEMA requirements to provide the protection from the 1-percent annual chance (i.e., 100-year) flood.[49] FEMA granted Foster City a temporary "seclusion mapping" designation in 2015 to remain classified as Zone X with reduced flood risk due to levee. To address the deficiencies of the levee, Foster City has embarked on the Foster City Levee Protection Improvements Project (Foster City Levee Project) to provide flood protection and retain FEMA accreditation for its existing levee system. The Foster City Levee Project has gone through CEQA review and the EIR was certified in May 2017. Construction of the Foster City Levee Project started in October 2020. According to the most recent schedule that was updated June 2023, construction of the Foster City Levee Project is anticipated to be completed in January 2024.[50] Once the Foster City Levee Project is completed, the levee is anticipated to provide the City protection from the 100-year flood. As a result, the project is expected to remain in an area of reduced flood risk due to the upgraded levee and impacts associated with impeding or redirecting flood flows would be less than significant.

Dam failure could also result in downstream flooding. Foster City is located within the inundation area of the Lower Crystal Springs Dam (LCSD).[51] However, the LCSD is within jurisdiction of the State of California and the condition assessment rating is satisfactory, indicating no existing or potential dam safety deficiencies are recognized.[52] In addition, a risk evaluation from 2010 indicated that the potential for dam failure of an 8.3-magnitude earthquake at the LCSD would be low.[53] Furthermore, if a failure were to occur, water would flow down San Mateo Creek, spread out over portions of San

47 Foster City, City of. 2015. *Foster City Drainage Design Criteria.* June.
48 Federal Emergency Management Agency. 2019. Flood Insurance Rate Map (FIRM), San Mateo County, California and Incorporated Areas, Map Number 06081C0167G, revised April 5.
49 Foster City, City of. 2021. Public Works, Levee System. Website: www.fostercity.org/publicworks/page/levee-system (accessed June 2023).
50 Foster City, City of. 2021. Levee Improvements Project. Website: www.fostercitylevee.org/ (accessed June 2023).
51 Foster City, City of. 2016. *Foster City General Plan.* February 1.
52 California Department of Water Resources, Division of Safety of Dams. 2020. Dams Within Jurisdiction of the State of California. September.
53 Foster City, City of. 2016. *Foster City General Plan.* February 1.

Mateo, and flow into the Marina Lagoon without reaching Foster City. The City of San Mateo's Marina Lagoon Pump Station at the northern end of the Marina Lagoon is capable of moving 750,000 gallons of water per minute out of the lagoon and into San Francisco Bay. The Foster City Public Works Department estimates that a failure of the LCSD would result in a maximum flood height of about 2 feet at the county fairgrounds in the City of San Mateo, located approximately 1 mile west of Foster City. This flood height would be below the crest height (6 feet) of a levee along the Marina Lagoon in Foster City; it is therefore highly improbable that failure of the LCSD would cause inundation of Foster City.[54] Thus, there would be no impact.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? ***(Less-Than-Significant Impact)***

Seiches are not considered a hazard in the Bay based on the natural oscillations of the Bay.[55] Based on a map prepared by the California Geological Survey, the project site is not designated as a tsunami hazard area.[56] As previously discussed, the Foster City Levee Protection Improvements Project would reduce the risks from the 100-year flood. However, the project site could be inundated by extreme high tides or as a result of sea level rise.

During construction, the project would be required to comply with State and local regulations, as well as the COAs listed above, which would ensure that hazardous materials used during construction are properly managed and stored to protect receiving water quality. Therefore, the potential impact related to the release of pollutants during construction as a result of inundation by flood hazard, extreme high tides, or sea level rise would be less than significant.

During project operation, urban pollutants associated with the proposed land uses would include oils, fuels, and metals associated with motor vehicle traffic; fertilizers and pesticides used to maintain landscaped areas; and trash generated by new site occupants. The pollutants that flood waters would encounter on the project site would be similar to the urban pollutants found in the streets, buildings, and landscaped area of the park of the urban area surrounding the project site. Even without the occurrence of flooding, such pollutants are carried to the Bay by stormwater runoff from the project site and its vicinity during any storm event large enough to generate overland flows and flows to storm drains. The levels of urban pollutants occurring on the project site would be minimized through compliance with the MRP requirements, as well as applicable COAs (HYDRO-COA-4). For these reasons, the potential for the release of pollutants from the project site to impact the Bay during inundation of the site by flood hazard, extreme high tides, or sea level rise would be less than significant.

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54 Ibid.

55 Borrero, J., L. Dengler, B. Uslu, and C. Synolakis. 2006. *Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay*. Report prepared for Marine Facilities Division of the California State Lands Commission. June 8.

56 California Geological Survey. 2021. Tsunami Hazard Area Map, County of San Mateo. Website: https://www.conservation.ca.gov/cgs/tsunami/maps/san-mateo (accessed June 2023).

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ***(Less-Than-Significant Impact)***

There is currently no approved groundwater management plan for the Santa Clara Valley Groundwater Basin, San Mateo Plain Subbasin, and therefore the project would not conflict with a groundwater management plan.[57] The Basin Plan, which is the Water Quality Control Plan that addresses water quality issues in the region, is the master policy document that establishes the water quality objectives and strategies needed to protect designated beneficial water uses in the San Francisco Bay region.[58] The State Water Board and San Francisco Bay Regional Water Quality Control Board ensure compliance with (and initiate enforcement action when necessary) the water quality goals and objectives of the Basin Plan through the issuance of NPDES permits. As described above, the project's compliance with the Construction General Permit and MRP requirements is additionally enforced through the implementation of the City's COAs. Compliance with these permits would ensure that the project would not have the potential to conflict with the Basin Plan. Therefore, this impact would be less than significant.

[57] California Department of Water Resources. 2021. Non-SGMA Groundwater Management. Website: water.ca.gov/Programs/Groundwater-Management/Non-SGMA-Groundwater-Management (accessed June 2021).

[58] San Francisco Bay Regional Water Quality Control Board. 2017. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).* Incorporating all amendments as of May 4.

4.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☒	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

*a. Would the project physically divide an established community? **(Less-Than-Significant Impact)***

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility with an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

Implementation of the proposed project would result in the demolition of the existing recreation center and the construction of the new recreation center in approximately the same location with a different, larger footprint to improve recreational access and programming for the community. Associated improvements include improvements to the Leo J. Ryan Park and existing parking lots to improve visitor access and circulation. The proposed project would not result in the construction of any improvements that would remove a means of access or impair mobility within the community. Therefore, the proposed project would have a less-than-significant impact.

*b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? **(Less-Than-Significant Impact)***

The project site is designated as Parks and Recreation on the City's General Plan Land Use Map.[59] This designation is for improved open space lands where the purpose is recreation. The project site is located within the Public Facilities (P-F) zoning district.[60] The P-F district is reserved for the construction, use and occupancy of governmental, public utility and educational buildings and facilities, and other uses compatible with the semipublic character of the district. Buildings and facilities owned and operated by the City are permitted within the P-F district. The project site is also within the Planned Development (PD) combining district, which is designed to accommodate various types of development, such as single-family residential developments, multiple housing development, neighborhood and community shopping centers, professional and administrative

59 Foster City, City of. 2016. Foster City General Plan. February 1.
60 Foster City, City of. 2021. Foster City Municipal Code (as amended). Title 17. January 19.

areas, commercial service centers, and industrial parks and other uses or a combination of uses which can be made appropriately a part of a planned development.

Per CEQA Guidelines, policy conflicts do not, in and of themselves, constitute significant environmental impacts. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, associated physical environmental impacts are discussed in this Initial Study under specific topical sections.

The project site is located in an urban area within Foster City and is surrounded by a variety of land uses. Immediately north of the project site is Shell Boulevard and multi-family residential uses, commercial uses, and institutional and public uses. Leo J. Ryan Park borders the site to the east and west. The Foster City Lagoon borders the project site to the south. Single-family residential uses are located south of the project site across the lagoon. The proposed project would result in demolition of the existing recreation center and construction of a new recreation center in approximately the same location with associated park and parking improvements. The proposed project would remain consistent with existing and surrounding land uses. Therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect; impacts would be less than significant.

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

*a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? **(No Impact)***

The California Geological Survey has determined that the City does not contain any significant mineral deposits.[61] Therefore, there are no known mineral resources within or in the vicinity of the project site. The proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State. Therefore, the proposed project would have no impact.

*b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? **(No Impact)***

Refer to Section 3.12.a, above. The proposed project would not result in the loss of availability of any known locally-important mineral resource recovery sites. Therefore, the proposed project would have no impact.

[61] California Geological Survey. 2018. California's Non-Fuel Mineral Production. Website: www.conservation.ca.gov/cgs/minerals/mineral-production (accessed June 2023).

4.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a ten-fold increase in acoustic energy, while 20 dB is 100 times more intense and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements which better represent how humans are more sensitive to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on dBA. L_{dn}, sometimes denoted as DNL, represents the time varying noise over a 24-hour period, with a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours of 7:00 p.m. to 10:00 p.m.

Characteristics of Vibration. Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may not be discernible. Typically, there is more adverse reaction to effects associated with the shaking of a building. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet from the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 feet.[62] When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, both the construction of the project could result in ground-borne vibration that may be damaging.

Ground-borne vibration has the potential to damage buildings. Although it is very rare for typical construction activities to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings. Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The PPV is used to characterize potential for damage.

Regulatory Framework. The following section provides brief discussions of the federal and local regulatory framework related to noise.

Federal Transit Administration. The criteria for environmental impacts resulting from ground-borne vibration and noise are based on the maximum levels for a single event. The City of Foster City's (City) Municipal Code does not include specific criteria for assessing vibration impacts associated with structural damage. Therefore, for the purpose of determining the significance of vibration impacts experienced at sensitive uses surrounding the project site, the guidelines within the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018) (FTA Manual) have been used to determine vibration impacts associated with potential damage and are presented in Table 4.F below.

62 California Department of Transportation, 2013. *Caltrans Transportation and Construction Vibration Guidance Manual*. September.

Table 4.F: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced concrete, steel, or timber (no plaster)	0.50
Engineered concrete and masonry (no plaster)	0.30
Non-engineered timber and masonry buildings	0.20
Buildings extremely susceptible to vibration damage	0.12

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), Table 12-3.
FTA = Federal Transit Administration PPV = peak particle velocity
in/sec = inches per second

The FTA Manual guidelines show that a vibration level of up to 0.2 inches per second (in/sec) in PPV is considered safe for non-engineered timber and masonry building and would not result in any construction vibration damage. Therefore, to be conservative, the 0.2 in/sec in PPV threshold has been used when evaluating vibration impacts at the nearest structures to the site.

To provide numerical thresholds related to ground-borne vibration impacts, criteria included in the FTA Manual for human annoyance are shown in Table 4.G. The criteria account for the variation in project types as well as the frequency of events, which differ widely among projects. It is logical that when there would be fewer events per day, it should take higher vibration levels to evoke the same community response. The variation in project times and the frequency of events is accounted for in the criteria by distinguishing between projects with frequent and infrequent events, in which the term "frequent events" is defined as more than 70 events per day.

Table 4.G: Ground-Borne Vibration Impact Criteria for General Assessment

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 µin/sec)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), Table 8-1.

1 Frequent events are defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.

2 Occasional events are defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.

3 Infrequent events are defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

4 This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

µin/sec = microinches per second HVAC = heating, ventilation, and air-conditioning
FTA = Federal Transit Administration VdB = vibration velocity decibels

City of Foster City. The City addresses noise in the Noise Element of the General Plan[63] and in the Municipal Code. In addition, the City of Foster City requires implementation of standard Conditions of Approval (COAs) that would be applicable to the proposed project.

Foster City General Plan. The goals, policies and programs listed in the Noise Element that are applicable to the proposed project are summarized as follows:

- The Land Use Compatibility Standards identify acceptable noise exposure levels for new development according to land use. Community noise exposure levels up to 65 dBA L_{dn} are considered normally acceptable for office buildings, businesses, and commercial uses. Interior noise levels are a function of the use of space, and offices should generally be limited to 45 dBA L_{eq} or less.

- The noise environment in existing residential areas is required to be protected. The City requires mitigation measures for projects that would cause the L_{dn} to increase by 3 dBA or more where noise levels would exceed or currently exceed 60 dBA L_{dn}.

Foster City Municipal Code. The City's Municipal Code[64] has established regulations in the Noise Section (17.68.030) to regulate noise created within the city to surrounding sensitive receptors. Table 4.H below presents the noise limits.

Table 4.H: Noise Limits From the City Municipal Code

Receiving Land Use Category	Time Period	Exterior Noise Level Standards (dBA)	
		Any time duration greater than 3 minutes	Any time duration less than 3 minutes
One or two-family residential	10:00 p.m. – 7:30 a.m.	50	55
	7:30 a.m. – 10:00 p.m.	60	65
Multi-family, public space	10:00 p.m. – 7:30 a.m.	55	60
	7:30 a.m. – 10:00 p.m.	60	65
Commercial, office	10:00 p.m. – 7:30 a.m.	60	65
	7:30 a.m. – 10:00 p.m.	65	70
Light industrial	10:00 p.m. – 7:30 a.m.	65	70
	7:30 a.m. – 10:00 p.m.	70	75

Source: Foster City Municipal Code. Section 17.68.030

Section 17.68.030(E), Prohibited Acts, states that Operation of construction equipment is permitted only in a residential zone or within 100 feet of a residential zone between the hours of 7:30 a.m. and 8:00 p.m. on weekdays and between the hours of 9:00 a.m. and 8:00 p.m. on weekends and legal holidays. Additionally, noise from construction must not exceed 100 dB at the noise producer's property plane unless prior authorization is obtained.

Section 17.68.040, Vibration, states that no vibration shall be permitted to cause a noticeable tremor, measurable without instruments at the lot line. Because the City does not have established

63 Foster City, City of, 1993. *Foster City General Plan, Chapter 6: Noise Element*. May.
64 Foster City, City of, 2023a. *Foster City Municipal Code*. May 15.

specific vibration impact criteria, the FTA criteria presented above will be used to assess potential damage and human annoyance during construction activities.

Existing Noise Conditions. Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project site is surrounded by multi-family residential uses, commercial uses, and institutional and public uses to the north. Leo J. Ryan Park, an approximately 20-acre local park with lawn areas, basketball courts, tennis courts, pedestrian and bicycle paths, lagoon access, and picnic space borders the site to the east and west. Foster City Library and the multi-family residences located approximately 130 feet north and northeast of the project site boundary opposite Shell Boulevard are the closest sensitive receptors to the project site.

Existing Ambient Noise Level Measurements. The ambient noise environment in the vicinity of the project site is affected by a variety of noise sources. While noise associated with aircraft flyovers and sporadic events such as trash pick-up activities occur in the project area, the major sources of noise are traffic on Shell Boulevard and impacts from parking lot and park activities from the surrounding uses. Two long-term (24-hour) noise measurements (LT-1 & LT-2) were conducted May 4, 2023, through May 5, 2023, on the project site to establish the existing ambient noise environment on the project site. Data collected during the noise measurements are summarized in Table 4.I. The noise measurements indicate that ambient noise at the project site ranges between 58.3 dBA L_{dn} and 64.4 dBA L_{dn}. The noise measurement locations are shown in Figure 4-1 and noise measurement sheets are provided in Appendix D.

Table 4.I: Long-Term Ambient Noise Level Measurements (May 4 – May 5, 2023)

Location	Daytime Noise Levels[1] (dBA L_{eq})	Nighttime Noise Levels[2] (dBA L_{eq})	Daily Noise Level (dBA L_{dn})
LT-1: Northwest corner of project site, on a tree, approximately 90 feet away from Hillsdale Boulevard centerline and approximately 160 feet away from Shell Boulevard centerline.	59.7 – 68.8	49.5 – 59.1	64.4
LT-2: Southeast corner of project site on a tree near parking lot, approximately 290 feet away from Shell Boulevard centerline.	54.1 – 60.4	43.0 – 52.8	58.3

Source: Compiled by LSA. (2023).

[1] Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 7:00 p.m.

[2] Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.

dBA = A-weighted decibels

L_{dn} = day-night average noise level

L_{eq}=equivalent continuous sound level

LSA

LEGEND

- Project Site Boundary
- LT-1 - Long-term Noise Monitoring Location

FIGURE 4-1

N

0 150 300

FEET

SOURCE: Google Earth, 2023

Foster City Recreation Center Rebuild Project IS/MND

Noise Monitoring Locations

I:\20231009\G\Noise_Locs.ai (7/25/2023)

Figure 4-1: Noise Monitoring Locations

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? ***(Less-Than-Significant Impact)***

Construction Noise Impacts. Implementation of the proposed project would include construction activities that would result in a substantial temporary increase in ambient noise levels in the vicinity of the project site.

The project site is generally surrounded by a mix of commercial, institutional, residential, and public uses. The closest sensitive receptors include the multi-family residential uses located northeast of the project site approximately 340 feet from the center of project site. Project construction would result in short-term noise impacts to these sensitive receptors. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase of construction. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during grading and site preparation activities. Table 4.J lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Construction-related short-term noise levels would be higher than existing ambient noise levels in the project area, but would no longer occur once construction of the proposed project is complete.

Table 4.J: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Compressor	40	80
Cranes	16	85
Dozers	40	85
Drill Rig	20	84
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Generator	50	82
Man-lift	20	85
Rollers	20	85
Water Truck	40	84
Welder	40	73

Source: Roadway Construction Noise Model (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
L_{max} = maximum instantaneous sound level

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transportation of construction equipment and materials to the site for the proposed project, which would incrementally increase noise levels on roads leading to the site. As shown in Table 4.J,, there would be a relatively high single-event noise exposure potential at a maximum level of 85 dBA L_{max} with trucks passing at 50 feet.

The second type of short-term noise impact is related to noise generated during demolition, excavation, grading, and construction on the project site. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table 4.J lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Average maximum noise levels range up to 85 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation and grading phases, including excavation of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

As identified above, the closest receptor includes the multi-family residential uses located northeast of the project site approximately 340 feet from the center of project site. The 340-foot distance would decrease the noise level by approximately 17 dBA compared to the noise level measured at 50 feet from the construction activity. Therefore, the closest off-site receptors may be subject to short-term construction noise levels of 71 dBA L_{eq} when construction is occurring at the center of project site. Construction noise levels shall not exceed the interior noise level of 50 dBA L_{eq} (hourly average) or the maximum noise level of 70 dBA L_{max} within occupied noise sensitive land uses as required by NOI-COA-1, described below. Based on observations of the multi-family residential uses ventilation system, the ventilation system allows for windows to remain closed. With windows closed, a reduction of 25 dBA or more would be achieved and construction noise levels would remain below the interior noise level 50 dBA L_{eq}. All other receptors are further away and would be exposed to lower short-term construction noise levels. Construction equipment calculations are provided in Appendix E.

NOI-COA-1: Construction activities shall be limited to the hours of 8 a.m. to 5 p.m. on weekdays unless deviations from this schedule are approved in advance by the City. Nonconstruction activities may take place between the hours of 7 a.m. and 8 a.m. on weekdays and 9 a.m. and 4 p.m. on Saturdays but must be limited to quiet activities and shall not include the use of engine-driven machinery. No actual construction activities may take place between 7 a.m. and 8 a.m., except when post-tension slab foundations are being poured, the concrete pumper may be set up but no concrete may be poured. Forklifts shall be allowed to operate onsite between the hours of 5:00 p.m. and 6:30 p.m. on weekdays. Construction noise levels shall not exceed the

interior noise level of 50 dBA L_{eq} (hourly average) or the maximum noise level of 70 dBA L_{max} within occupied noise sensitive land uses. The Planning Commission reserves the right to rescind this condition and further restrict construction activities in the event that the public health, safety and welfare are not protected due to noise levels emanating from the construction project.

Any requested deviations from the allowed hours for construction activities shall be submitted to the Community Development Director a minimum of two (2) working days in advance for review and approval. Any approved deviations from the allowed hours shall be communicated to the Building Inspection Division and the Police Department.

Implementation of NOI-COA-1 would ensure that construction activity is limited to the less noise-sensitive periods of the day and that potential construction-period noise experienced by noise-sensitive receptors is reduced to the extent feasible. With implementation of NOI-COA-1 construction period noise generated by the proposed project would be temporary, reduced to the extent feasible, and would comply with the City's construction noise requirements; therefore, this impact would be less than significant.

Long-Term Noise Impacts. The proposed project would generate long-term noise impacts from traffic noise sources, as discussed below.

Traffic Noise Impacts. As a result of the implementation of the proposed project, off-site traffic volumes on surrounding roadways have the potential to increase. The proposed project trips generated were obtained from the *Trip Generation Analysis for the Foster City Recreation Center Rebuild Project.*[65] The proposed project would generate a net of 231 daily trips. As described previously, the increase in weekly attendance is anticipated to be approximately 150 to 250 persons per week. Therefore, this analysis is conservative and likely overestimates the number of new daily vehicle trips to the project site. The existing (2015) average daily trips on Shell Boulevard and East Hillsdale Boulevard in the vicinity of the project are 15,435 and 18,070, respectively.[66] While the current traffic volumes on the adjacent street segments are likely higher, using the 2015 volumes would be considered conservative. The following equation was used to determine the potential impacts of the project:

$$\text{Change in CNEL} = 10\ log_{10}\left[V_{e+p}/V_{existing}\right]$$

where: $V_{existing}$ = existing daily volumes
V_{e+p} = existing daily volumes plus project
Change in CNEL = increase in noise level due to the project

The results of the calculations show that an increase of approximately 0.1 dBA L_{dn} is expected along Shell Boulevard and East Hillsdale Boulevard. A noise level increase of less than 3 dBA would not be

[65] LSA Associates, Inc. (LSA). 2023. *Trip Generation Analysis for the Foster City Recreation Center Rebuild Project.* May 1.
[66] Urban Planning Partners Inc. 2017. *Foster City Levee Projection Planning and Improvements Project EIR*.

perceptible to the human ear in an outdoor environment; therefore, the traffic noise increase in the vicinity of the project site resulting from the proposed project would be less than significant.

Stationary Noise Impacts. The proposed project would redevelop the existing William E. Walker Recreation Center to create a new Foster City Recreation Center, which could result in an increase in ambient noise levels in the vicinity of the project area associated with outdoor play, parking lot noise, and mechanical equipment at the multi-use recreation center.

Outdoor Facilities. The proposed uses are expected to be similar to those of the existing community center and surrounding park facilities. The proposed project does not contain uses which are expected to utilize amplified speech or music and would not host sporting events. Any instances in which noise levels generated result in a disturbance, the City's Municipal Code would be utilized to minimize the operational impacts which are classified as nuisance issues.

Multi-Use Recreation Center. It is expected that the proposed recreation center would include the installation of heating, ventilation, and air conditioning (HVAC) equipment. It is expected that the equipment installed would comply with the City's noise standards of 55 dBA L_{eq}. The specific design of onsite mechanical equipment associated with the proposed structure has not yet been determined. However, mechanical equipment systems would typically be shielded from direct public exposure and usually housed on rooftops, within equipment rooms, or within exterior enclosures. The use of building mechanical systems is typically intermittent, would likely be limited to the daytime hours of operation, and would be largely masked by ambient traffic noise levels.

In addition to building mechanical equipment, the proposed recreation center would include various noise-generating interior recreational uses, including multipurpose spaces, dance rooms, and multi-purpose rooms. In general, noise generated by interior recreational activities would typically not be detectable within approximately 50 feet of the exterior of the structure. Predicted noise levels at the nearest noise-sensitive land uses would be largely masked by ambient traffic noise levels and would not be anticipated result in a significant increase in ambient noise levels that would exceed the City's noise standard of 55 dBA L_{eq}.

*b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels? **(Less-Than-Significant Impact)***

Construction Vibration. Construction of the proposed project could result in the generation of groundborne vibration. Ground-borne vibration from construction activity has the potential to be high when activities occur near project boundaries but would be mostly low to moderate as activities are more central to the project site. This construction vibration impact analysis discusses the level of human annoyance using vibration levels in RMS (VdB) and will assess the potential for building damages using vibration levels in PPV (in/sec) because vibration levels calculated in RMS are best for characterizing human response to building vibration, while vibration level in PPV is best used to characterize potential for damage.

The FTA Transit Noise and Vibration Impact Assessment guidelines indicate that a vibration level up to 0.5 in/sec in PPV is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-

engineered timber and masonry building, the construction vibration damage criterion is 0.2 in/sec in PPV. The FTA Transit Noise and Vibration Impact Assessment guidelines also indicate that a vibration level up to 72 VdB have the potential to cause human annoyance at residential uses.

Table 4.I shows the PPV and VdB values at 25 feet from a construction vibration source. As shown in Table 4.I, bulldozers and other heavy-tracked construction equipment (except for pile drivers and vibratory rollers) generate approximately 0.089 in/sec PPV or 87 VdB of groundborne vibration when measured at 25 feet, based on the Transit Noise and Vibration Impact Assessment.

Table 4.K: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 feet	
	PPV (in/sec)	L_V (VdB)[a]
Pile Driver (Impact), Typical	0.644	104
Pile Driver (Sonic), Typical	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Sources: *Transit Noise and Vibration Impact Assessment* (FTA 2018).
[a] RMS vibration velocity in decibels (VdB) is 1 µin/sec.
µin/sec = micro-inches per second
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

The distance to the nearest buildings for vibration damage impact analysis is measured between the nearest off-site buildings and the project boundary (assuming the construction equipment would be used at or near the project boundary) because vibration impacts occur normally within the buildings. The distance to the nearest buildings for vibration annoyance impact analysis is measured between the nearest off-site buildings and the center of the project site. The formula for vibration transmission is provided below.

$$L_vdB\ (D) = L_vdB\ (25\ ft) - 30\ Log\ (D/25)$$
$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Outdoor site preparation for the proposed project is expected to include the use of bulldozers and loaded trucks. The greatest levels of vibration are anticipated to occur during the site preparation phase. All other phases are expected to result in lower vibration levels.

The closest surrounding buildings to the project site include the existing Vibe Teen Community Center building, located approximately 40 feet east of the project site. The nearest sensitive receptors to the project site include the multi-family residential development, located approximately 130 feet north of the project site opposite Shell Boulevard. The Vibe Teen

Community Center building would experience vibration levels of up to 0.044 in/sec PPV, while the multi-family residential development would experience vibration levels of up to 0.008 in/sec PPV. These vibration levels at the nearest buildings from construction equipment would not exceed the FTA threshold of 0.2 in/sec PPV for building damage. Additionally, at a distance of 340 from the center of construction activities, vibration levels would be up to 53 VdB and would remain below the 72 VdB annoyance thresholds.

Although construction vibration levels at the nearest buildings would have the potential to result in vibration levels higher than ambient conditions, these vibration levels would no longer occur once construction of the project is completed.

Furthermore, construction of the project would be subject to NOI-COA-2, described below. Implementation of NOI-COA-2 would allow sources of potentially disruptive construction vibration to be quickly controlled or eliminated by designating a noise disturbance coordinator who will determine the cause of the noise/vibration complaints and institute reasonable measures warranted to correct the problem.

> **NOI-COA-2:** The construction contractor shall designate a "noise disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaints (e.g., beginning work too early, bad muffler) and institute reasonable measures warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.

Additionally, as previously described, NOI-COA-1 limits construction hours to between 8:00 a.m. and 5:00 p.m. on weekdays, which would limit any impacts to normal daytime hours, thereby reducing the likelihood of disturbing nearby sensitive receptors (i.e., through interfering with sleep). Therefore, with compliance with NOI-COA-1 and NOI-COA-2, ground-borne vibration impacts from construction activities associated with the proposed project would be less than significant.

Operational Vibration. The roadways surrounding the project area, including Hillsdale Boulevard, Shell Boulevard, and the existing driveways, are paved, smooth, and unlikely to cause significant groundborne vibration. In addition, the rubber tires and suspension systems of buses and other on-road vehicles make it unusual for on-road vehicles to cause groundborne noise or vibration problems. It is, therefore, assumed that no such vehicular vibration impacts would occur and, therefore, no vibration impact analysis of on-road vehicles is necessary.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ***(Less-Than-Significant Impact)***

The project site is not located within the vicinity of a private airstrip. The project site is 2.9 miles north of the San Carlos Airport and approximately 6.2 miles southeast of San Francisco International Airport (SFO). The site is within Area A of the AIA Boundary of the San Carlos Airport, where requirements for real estate disclosure are mandatory due to potential noise issues. The project site

is also within Area B of the AIA Boundary of SFO, where land development proposals shall be reviewed by the Airport Land Use Commission. In addition, real estate disclosures are also mandatory. Although aircraft-related noise is occasionally audible on the project site, the site does not lie within the 65 dBA CNEL noise contours[67,68] of either of these airports. Therefore, the proposed project would not expose people working in or visiting the project area to excessive noise levels and no impact would occur.

[67] City/County Association of Governments of San Mateo County, 2015. *Comprehensive Airport Land Use Compatibility Plan For the Environs of San Carlos Airport.* October.

[68] City/County Association of Governments of San Mateo County, 2012. *Comprehensive Airport Land Use Compatibility Plan For the Environs of San Francisco International Airport.* November.

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? ***(No Impact)***

The proposed project would be undertaken to provide the residents of the City with a new and updated recreation center with improved park and parking facilities. The proposed project does not include residential units and would not directly induce population growth on the project site. The new recreation center would include similar staffing levels to the existing recreation center, and therefore would not indirectly induce substantial population growth. Therefore, the proposed project would have no impact related to population growth.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ***(No Impact)***

The project site is currently developed with park and recreational uses and an existing recreation center, which does not include any residential units. Implementation of the proposed project would not result in the displacement of existing housing. Therefore, the proposed project would have no impact related to the displacement of homes.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: i. Fire protection? ii. Police protection? iii. Schools? iv. Parks? v. Other public facilities? ***(Less-Than-Significant Impact)***

The following section addresses the proposed project's potential effects on fire service, police service, schools, parks, and other public facilities. Impacts to public services would occur if the proposed project increases demand for services such that new or expanded facilities would be required, and construction or operation of these new facilities would cause environmental impacts.

Fire Protection. The San Mateo Consolidated Fire Department (SMCFD) provides fire protection and emergency medical services to the project site and serves the communities of Belmont, Foster City, and San Mateo. The SMCFD continuously operates nine fire stations and is staffed by 154 personnel that provide emergency services utilizing ten engine companies and two ladder trucks from the existing nine fire stations. The SMCFD responds to approximately 19,018 calls for service on an annual basis and has an average response time of approximately 5 minutes and 25 seconds.[69]

Primary service to the project site would be provided by Fire Station 28, which is located at 1040 E. Hillsdale Boulevard, approximately 0.2 miles northeast of the project site. Fire Station 28 houses two fire engines, a boat, and jet ski.

The SMCFD would continue providing services to the project site and would not require additional firefighters to serve the proposed project. The proposed project would increase the building size on

[69] Foster City Fire Department, 2022 Annual Report. Website: 2022-Annual-Report.pdf (smcfire.org) (accessed June 8, 2023)

the project site by approximately 8,000 square feet, but would not result in an increase in residential population. Therefore, the increase in demand for fire protection services would be minimal.

The construction of a new or expanded fire station would not be required. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services, and the potential increase in demand for services is not expected to adversely affect existing responses times to the site or within the city. Therefore, construction and operation of the proposed project would have a less-than-significant impact on fire protection and safety services and facilities.

Police Protection. The Foster City Police Department (FCPD) provides police protection to the project site. The FCPD headquarters are located at 1030 E Hilldale Boulevard, approximately 0.2 miles east of the project site. FCPD currently employs 39 sworn police officers and 15 civilian staff.[70] The proposed project would result in a slight increase in daytime population on the project site and incrementally increase demand for emergency police services to the project site compared to existing conditions. However, FCPD would continue to provide services to the project site and would not require additional officers to serve the project site. The construction of new or expanded police facilities would not be required. Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional police facilities or services and impacts to police services represent a less-than-significant impact.

Schools. The proposed project does not include the construction of any new residential uses. As described in Section 4.13, Population and Housing, the proposed project would not substantially induce housing or population growth, either directly or indirectly, within the city. Therefore, the proposed project would not result in an increase in the number of school-age children in the area. As such, the proposed project would not increase demand for schools and no impact would occur.

Parks. The project site is located within the existing Leo J. Ryan Park, which includes lawn areas, basketball courts, tennis courts, pedestrian and bicycle paths, lagoon access, and picnic space borders the site to the east and west. As a part of the proposed project, improvements would be made including new outdoor gathering spaces, including a waterfront terrace near the lagoon, a garden terrace and rose garden, among other amenities. Portions of Leo J. Ryan Park may be inaccessible during construction of the proposed project, which could result in a temporary and limited increase in demand for other nearby parks. However, this impact would be temporary in nature and would subside after construction of the proposed project is complete.

The proposed project would increase the building area on the project site by approximately 8,000 square feet, but would not result in an increase in residential population. The proposed project would not be anticipated to result in increased use of the park once it is operational. Therefore, the proposed project would have a less-than-significant impact related to the provision of park facilities.

Other Public Facilities. The project site includes the existing recreation center. During construction of the proposed project, the existing Recreation Center would be demolished. However, this impact

[70] Foster City Police Department, 2022 Annual Report. Website: https://www.fostercity.org/police (accessed June 8, 2023).

would be temporary in nature and would subside after construction of the proposed project is complete. In addition, existing programs would be temporarily relocated to other facilities. Once complete, the proposed project would result in a larger recreation center with more capacity to serve the existing community. Therefore, the proposed project would not increase the use at other public facilities such that additional construction would be necessary, and this impact would be less-than-significant.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ***(Less-Than-Significant Impact)***

Refer to Section 4.14.a. The proposed project would temporarily increase use at other parks during the construction period; however, this impact would be temporary in nature and would subside after construction of the proposed project is complete. Once complete, the proposed project would not result in an increase in use of other recreational facilities such that deterioration would occur or additional construction would be required. Therefore, the proposed project would have a less-than-significant impact on existing parks.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ***(Less-Than-Significant Impact)***

Refer to Section 4.14.a and 4.15.a. The proposed project would have a minor beneficial impact on existing recreation facilities, and this impact would be less than significant.

4.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

*a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? **(Less-Than-Significant Impact)***

The following includes an evaluation of the proposed project's potential to conflict with applicable programs, plans, ordinances, and policies addressing the circulation system. The section begins with a description of the proposed project's trip generating potential, compared to existing conditions, followed by an analysis of potential impacts to transit, bicycle, pedestrian, and roadway facilities. As discussed, this impact would be less than significant.

Trip Generation. Trip generation is the process of estimating the number of vehicles that would likely access the project site. Trip generation data is estimated using the data and methodology published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual, 11th Edition.

Table 4.J summarizes the trip generation for the proposed project based on ITE methodology and accounts for trips generated by the existing site uses. As shown in Table 4.J, it is estimated that the proposed project would generate approximately 231 daily trips, including 15 trips in the AM peak hour and 20 trips in the PM peak hour. As described previously, with implementation of the proposed project, it is anticipated that weekly attendance would increase by approximately 150 to 250 persons, which is lower than the estimated daily trip generation (231 net new daily trips) shown in Table 4.I.

Table 4.L: Proposed Project Trip Generation

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[a]									
Recreational Center		tsf	28.82	1.26	0.65	1.91	1.18	1.32	2.50
Project Trip Generation									
Recreational Center	40.0	tsf	1,153	50	26	76	47	53	100
Existing Trip Generation									
Recreational center	32.0	tsf	922	40	21	61	38	42	80
Net Trips (Project – Existing)			**231**	**10**	**5**	**15**	**9**	**11**	**20**

Source: LSA (2023).
a: Trip rates referenced from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021). Land Use Code 495 – Recreational Community Center.
tsf = thousand square feet

Transit Facilities. The project site fronts Shell Boulevard and the nearest transit stop is SamTrans route 251's stop at the intersection of Foster City Boulevard and East Hillsdale Boulevard. The proposed project would generate vehicle trips in the vicinity of existing transit services and would generate some new transit trips to existing routes.. The addition of 20 vehicle trips during the PM peak hour, or approximately one vehicle per three minutes, would not create a disruption to transit service surrounding the project site. Most people are expected to arrive by automobile to the project site; therefore, the proposed project is not expected to generate a substantial number of new transit trips that would cause any transit route to require additional capacity. The proposed project would not include features that would disrupt existing or planned transit routes or facilities. The project site's driveways would not cause disruptions to existing or planned transit service or transit stops. The proposed project would not conflict with any adopted transit system plans, guidelines, policies, or standards. Therefore, impacts to transit facilities would be less than significant.

Pedestrian and Bicycle Facilities. Pedestrian access to the project site would be provided by existing sidewalks along Shell Boulevard and pathways within Leo J. Ryan Park. The project site is also served by City-designated Class II bicycle lanes along Shell Boulevard.[71] The proposed project would not include any modifications to existing sidewalks or bicycle lanes along Shell Boulevard. Therefore, potential impacts related to pedestrian and bicycle facilities would be less than significant.

*b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)? **(Less-Than-Significant Impact)***

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. These changes include elimination of automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to "more appropriately balance the needs of congestion management with Statewide goals related to infill development,

[71] Foster City, City of. 2016. *Foster City General Plan.* Land Use and Circulation Element. February 1.

promotion of public health through active transportation, and reduction of greenhouse gas emissions."

In December 2018, the State Office of Planning and Research (OPR) completed an update to the CEQA Guidelines to implement the requirements of SB 743. The Guidelines state that VMT must be the metric used to determine significant transportation impacts. The Guidelines require all lead agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 1, 2020.

The OPR Guidelines recommend developing screening criteria for development projects that meet certain criteria that can readily lead to the conclusion that they would not cause a significant impact on VMT.[72] Since Foster City has not yet adopted citywide generally applicable VMT thresholds for impact determination (pursuant to 14 Cal. Code Regs 15064(b) and because LOS analysis can no longer be used to make impact determinations, the evaluation of project- related VMT uses the existing recommended screening criteria for local-serving use as explained below.

VMT Screening. The concept of project screening is that some projects have characteristics that would readily lead to the conclusion that they would not cause a VMT impact, and therefore those projects could be screened out of a detailed VMT analysis. The screening criteria applicable to the proposed project is the local-serving use criteria, which finds that projects that consist of local-serving uses can generally be presumed to have a less-than-significant impact absent substantial evidence to the contrary, since these types of projects will primarily draw users and customers from a relatively small geographic area that will lead to short-distance trips and trips that are linked to other destinations. The proposed project would consist of a local-serving use as it is intended to serve the residents of Foster City. Therefore, the proposed project would be screened out from a detailed VMT analysis, and this impact would be less than significant.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ***(Less-Than-Significant Impact)***

The proposed project would include modifications to the existing parking lot to restripe and add more parking spaces from 227 to 240, but would not include any changes to the existing driveways that provide access to the project site. No roadway geometry changes are proposed along adjacent roadways. Therefore, sight distance at the proposed driveways is expected to be adequate for drivers turning right out of both driveways, and this impact would be less than significant.

d. Would the project result in inadequate emergency access? ***(Less-Than-Significant Impact)***

Vehicle trips generated by the proposed project would represent a very small percentage of overall daily and peak hour traffic on roadways and freeways in Foster City. As stated above, and using the ITE rates, during the PM peak hour, the proposed project would generate 20 vehicle trips which would be distributed to nearby intersections. The proposed project does not include features that

[72] Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. April.

would alter emergency vehicle access routes or roadway facilities; fire and police vehicles would continue to have access to all facilities around the entire city. Upon construction, emergency vehicles would have full access to the project site. Therefore, the proposed project would not result in inadequate emergency access and impacts to emergency vehicle access would be less than significant.

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	☐	☐	☒	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. ***(Less-Than-Significant Impact)***

Assembly Bill 52 (AB 52), which became law on January 1, 2015, provides for consultation with California Native American tribes during the CEQA environmental review process, and equates significant impacts to "tribal cultural resources" with significant environmental impacts. Public Resources Code (PRC) Section 21074 states that "tribal cultural resources" are:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are one of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources.

- Included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1.

- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

A "historical resource" (PRC Section 21084.1), a "unique archaeological resource" (PRC Section 21083.2(g)), or a "nonunique archaeological resource" (PRC Section 21083.2 (h)) may also be a tribal cultural resource if it is included or determined to be eligible for inclusion in the California Register.

The consultation provisions of the law require that a public agency consult with local Native American tribes that have requested placement on that agency's notification list for CEQA projects. Within 14 days of determining that a project application is complete, or a decision by a public agency to undertake a project, the lead agency must notify tribes of the opportunity to consult on the project, should a tribe have previously requested to be on the agency's notification list. California Native American tribes must be recognized by the California Native American Heritage Commission as traditionally and culturally affiliated with the project site, and must have previously requested that the lead agency notify them of projects. Tribes have 30 days following notification of a project to request consultation with the lead agency.

The purpose of consultation is to inform the lead agency in its identification and determination of the significance of tribal cultural resources. If a project is determined to result in a significant impact on an identified tribal cultural resource, the consultation process must occur and conclude prior to adoption of a Negative Declaration or Mitigated Negative Declaration, or certification of an Environmental Impact Report (PRC Sections 21080.3.1, 21080.3.2, 21082.3).

Tribal Outreach and Consultation. The City sent letters describing the project and maps depicting the project site via certified mail and email on April 4 and 7, 2023, to Native American contacts that had previously requested to be contacted by the City for potential consultation pursuant to AB 52. The City did not receive any requests for consultation during the 30-day notification period. Therefore, the City considers the AB 52 consultation process to be concluded.

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

*a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? **(Less-Than-Significant Impact)***

As described in Section 2, Project Description, the project site is served by existing water, wastewater, stormwater, and electrical lines, all of which include mains within Shell Boulevard or the project site. The existing recreation center includes connections to each of these lines. In addition, a 54-inch stormwater main runs through the project site, connecting to mains within adjacent roadways and an outfall to the Foster City Lagoon.

The Estero Municipal Improvement District (EMID) manages the distribution, operation, and maintenance of the City's water supply and wastewater system. The proposed project would connect to existing water delivery and sanitary sewer systems within the vicinity of the site. The proposed project would connect to these existing facilities and it is anticipated that these pipelines would have sufficient capacity to support project water and wastewater flows. However, UTIL-COA-1, which is described below, requires the preparation of a water system capacity study to ensure the surrounding water infrastructure is appropriately sized. UTIL-COA-1 requires the City to construct all necessary improvements to the water distribution system. Therefore, compliance with COA 5.10.1 would ensure this impact would be less than significant.

> **UTIL-COA-1:** To properly evaluate necessary improvements, a complete water system capacity study of the on-and-off site water system which services the proposed project shall be prepared by a registered civil engineer approved by the City/District Engineer, and retained by the project

developer prior to approval of a building permit. The study shall include: a map showing the project location, utility drawings for the project area (pdf and CAD files), a project description (type of development, number of units, land use, acreage, etc.), and a system demand analysis (including average daily demand, maximum daily demand, peak hour demand, and fire flow requirements) specific to the proposed development. The study shall include a detailed water pipe hydraulic flow analysis to determine whether the existing water distribution system is properly sized to meet the projected new water demands on the project site. All needed construction improvements to upsize the existing water distribution system to meet the demands of the new project shall be constructed to meet California Fire Code and Foster City Fire Department requirements, by the applicant at the applicant's sole cost.

Wastewater service to the project site is provided by sanitary sewer lines that run within and adjacent to the project site along Shell Boulevard. The proposed project would include new connections to the existing sanitary sewer lines, but would not include or require any upgrades to existing wastewater mains that serve the project site. UTIL-COA-1, described below, requires the preparation of a sewer capacity study to confirm that existing infrastructure can accommodate projected wastewater flows. Therefore, compliance with UTIL-COA-1 would ensure this impact would be less than significant.

UTIL-COA-2: The applicant shall have a registered civil engineer prepare a sewer flow projection study and a hydraulic capacity study, to be submitted to the Engineering Division for review. The study shall meet the approval of the Engineering Division and should:

- Verify that the existing sewer system is properly sized to meet the projected increase in wastewater generation on the project site.
- Study the on and off-site sewer system (including lift stations) which services the project (both upstream and downstream).
- Show the new connecting points to the existing sewers and model the estimated flows and peaking factors, as they relate to the changes in land use for the proposed project.

  No on-site or downstream overloading of existing sewer system will be permitted. Any necessary improvements identified by the study shall be constructed by the developer/applicant at applicant's sole cost.

As described in Section 3.10, Hydrology and Water Quality, the proposed project would replace more than 10,000 square feet of existing impervious area and therefore would be required to comply with Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) MRP. Provision C.3 requires regulated projects to implement Low Impact Development (LID) source control, site design, and stormwater treatment. LID employs principles such as preserving and recreating natural landscape features and minimizing impervious surfaces to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain

gardens, bioretention units, bioswales, and flow-through planter/tree boxes. The proposed project would include a combination of lined bioretention areas and lined flow-through planters.

Implementation of COA 5.9.1 requires the stormwater system to be capable of handling a 25-year storm and the drainage facilities to be designed in accordance with accepted engineering principles and conform to the Foster City Drainage Design Criteria. Implementation of HYDRO-COA-8, as previously discussed, requires that a complete storm drainage study be approved by the City's Engineering Division, which ensures no overloading of the existing system. This COA also requires a hydrology/hydraulic analysis to be completed to verify the existing off-site storm drainage system is adequately sized to handle the runoff from the project.

Development of the proposed project would take place in a location that currently has electricity, gas, telephone, cable, and internet services, and these services would continue to be provided to the project site to serve the proposed development. As such, the proposed project would have a less than significant impact on electricity, gas, telecommunications, cable, and internet services.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? ***(Less-Than-Significant Impact)***

Water service at the project site and in the project area is provided by the EMID. EMID purchases all of its potable water from the San Francisco Public Utilities Commission's (SFPUC) Regional Water System (RWS) and is a member of the Bay Area Water Supply and Conservation Agency (BAWSCA). Water distribution and conservation and water quality maintenance are EMID main water resources functions, as treated water purchased from the SFPUC RWS does not require further water treatment.

Approximately 85 percent of the water supply to the SFPUC RWS originates in the Hetch Hetchy watershed, located in Yosemite National Park, and flows down the Tuolumne River into the Hetch Hetchy Reservoir. Water from the Hetch Hetchy watershed is managed through the Hetch Hetchy Water and Power Project. The remaining 15 percent of water supply to the SFPUC RWS originates locally in the Alameda and Peninsula watersheds and is stored in six different reservoirs in Alameda and San Mateo Counties. The EMID does not have any groundwater or recycled water sources to supplement its supply.

The EMID does not hold any existing water rights; rather its water supply assurances are the result of its contract with the SFPUC. In August 2009, the BAWSCA and its member agencies signed a new Water Supply Agreement and Individual Water Sales Contract with SFPUC. The contract runs through June 30, 2034 and guarantees a supply assurance of 184 million gallons per day (mgd) to BAWSCA member agencies. The supply assurance to the EMID is 5.9 mgd or 6,610 acre feet per year (AFY). The portion of that supply assurance to EMID and the projected water demand through 2045 is shown in Table 4.J. Although the Master Agreement and accompanying Water Supply Contract expire in 2034, the Supply Assurance (which quantifies San Francisco's obligation to supply water to its individual wholesale customers) survives their expiration and continues indefinitely.

Table 4.M: EMID Water Demand and Supplies

Description	2025	2030	2035	2040	2045
Total Water Supply (AFY)	6,610	6,610	6,610	6,610	6,610
Total Water Demand (AFY)	4,715	4,732	4,722	4,642	4,696
Surplus (Shortfall)	1,895	1,872	1,889	1,968	1,914

Source: City of Foster City/EMID, Foster City Housing and Safety Elements Update EIR (2023).
EMID = Estero Municipal Improvement District

As shown in Table 4.M, EMID water demand is, and will remain, significantly lower than its SFPUC assured supply. The Supply Assurance is subject to reductions in the event of drought, water shortage, earthquake, or rehabilitation/maintenance of the system. Table 4.N shows SFPUC's projected deliveries to EMID for a single dry year and for an additional four consecutive dry years, based on the allocation of 2,154 mgy.

Table 4.N: EMID Water Demand and Supplies in Single and Consecutive Dry Years

Description	Normal Year	Single Year/Year 1	Year 2	Year 3	Year 4	Year 5
Total Water Supply (AFY	6,610	3,170	2,716	2,716	2,716	2,716
Total Water Demand (AFY)	4,715	4,244	3,772	3,301	2,829	2,358
Surplus (Shortfall)	1,895	(1,074)	(1,056)	(585)	(113)	358

Source: City of Foster City/EMID, Foster City Housing and Safety Elements Update EIR (2023).
EMID = Estero Municipal Improvement District

The proposed project would increase the building area on the site from approximately 32,000 to 40,000 square feet. The proposed project would not result in an increase in residential population within the City, and therefore the increase in water demand would be expected to be incremental. In addition, the proposed project would replace less efficient water delivery systems and appliances with new appliances such as low-flow toilets and efficient landscape watering systems. Therefore, existing water entitlements are sufficient to serve the proposed project, and impacts related to water supply would be less-than-significant.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? ***(Less-Than-Significant Impact)***

Wastewater treatment is provided by the San Mateo Wastewater Treatment Plant (WWTP), which is jointly owned by the EMID and the City of San Mateo and serves over 130,000 people and businesses. The EMID owns approximately 25 percent of the treatment plant. The treatment plant has a permitted daily dry-weather flow capacity of 15.7 mgd.[73] The WWTP has an actual average daily dry-weather flow of approximately 11 mgd. EMID's actual average daily flow is approximately

[73] Foster City, City of. 2016a. *Foster City General Plan*. November.

3.1 mgd, or 1.2 mgd below capacity.[74] Based on current flow data, average daily dry-weather flows EMID produces are below the capacities anticipated in the Joint Powers Agreement.

The WWTP can treat up to 60 mgd through primary treatment (using gravity to remove solid waste) and 40 mgd through secondary treatment (using biological processes to remove dissolved waste). During heavy rains this capacity is regularly exceeded, causing sewers to overflow. In addition, the WWTP is an aging wastewater collection system, with facilities and components that are up to 75 years old. To address these issues, the City of San Mateo's Clean Water Program is upgrading and expanding the WWTP facilities in collaboration with the City of Foster City/EMID. The WWTP upgrades will accommodate heavy storm events up to 78 mgd. Construction was initiated in August 2019 with an anticipated date of completion in winter 2024.

As described above, the proposed project would be expected to incrementally increase water demand on the project site. Similarly, the total amount of wastewater generated would be expected to be incremental. As noted above, the WWTP's average daily flow is approximately 1.2 mgd below capacity. Therefore, because the proposed project would allow EMID to remain well below its allocated daily flow capacity at the WWTP, it would result in a less-than-significant impact on wastewater treatment and disposal, as no new wastewater facilities would be required to serve the project.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? ***(Less-Than-Significant Impact)***

The project would be served by landfills with the capacity to handle solid waste generated by the operational phases of the proposed project. As required by AB 939, the California Integrated Waste Management Act, a minimum of 50 percent of the City's waste must be recycled. Per the City's construction and demolition ordinance, the construction contractor would be required to recycle a minimum of half of all demolition and construction debris to meet City requirements. Chapter 15.44 (Ordinance 593) of the Foster City Municipal Code requires construction contractors to take their construction and demolition debris to a facility that processes construction and demolition materials for recycling. Most of these facilities yield recycling rates in excess of 80 percent. The typical remaining refuse sent to the landfill is 10 to 15 percent of the debris. This would not substantially decrease the available capacity at the Ox Mountain Sanitary Landfill (Ox Mountain). Ox Mountain has a permitted throughput of 3,598 tons per day and an estimated "cease operation date" of January 1, 2034. As of December 31, 2015, the estimated remaining capacity was 22.18 million cubic yards.[75]

[74] San Mateo, City of. 2019. Clean Water Program. Website: https://cleanwaterprogramsanmateo.org/wwtp/?fbclid=IwAR20hW7e4gikVJFk3OL-qD85N0BE2DDq9Qy0bC38dPLzg8ymrLHnogef-Ow (accessed June 2023).

[75] Foster City, City of. 2023. *Foster City Housing and Safety Elements Update EIR.* February.

In 1997, CalRecycle provided an estimate that a public/institutional uses generates 0.004 pounds of solid waste per square foot on a daily basis.[76] The proposed project would result in the addition of 8,000 square feet, and therefore would generate an additional 56 pounds of waste per day. This represents approximately 0.01 percent of the total daily permitted throughout for the Shoreway Environmental Center, which is permitted for a daily throughput of 3,000 tons of solid waste and recyclables. The amount of solid waste generated by operation of the proposed project would not exceed the landfill capacity. In addition, Allied Waste Management currently provides recycling services to the project site. These services contribute to a reduction in solid waste generated by proposed development. The design and locations of on-site recycling bins serving new development would be subject to City review and approval prior to issuance of building permits. Therefore, development of the proposed project would have a less than significant impact on landfill capacity.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ***(Less-Than-Significant Impact)***

The proposed Project would comply with all Federal, State, and Local solid waste statutes and/or regulations related to solid waste. Also refer to Section 4.19.f.

[76] CalRecycle. 2019. Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates (accessed August 2021).

4.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

*a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? **(Less-Than-Significant Impact)***

The project site and adjacent areas are not located in a Very High Fire Hazard Severity Zone (VHFHSZ) as mapped by CAL Fire[77] or located within any State Responsibility Areas (SRAs) for fire service. Additionally, the project site is not located within an area identified by CAL FIRE as a community at risk for wildland fire. Due to the nature of the proposed project, no impairment or interference with emergency response or emergency evacuation plans would occur (as described in Section 4.9.f). Therefore, this impact would be less than significant.

*b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? **(Less-Than-Significant Impact)***

The proposed project would consist of the demolition and redevelopment of a new recreation center and associated improvements. The proposed project is located in a relatively flat urbanized area with some vegetation along the park perimeter and scattered within the park; however, the project site is not a wildland nor is it close to any wildlands that may pose a fire risk. Additionally, the proposed project would not involve the construction of residential structures. The construction of community structures such as the new recreation center would be for a limited duration of time.

[77] California Department of Forestry and Fire (CAL Fire). 2022. Fire Hazard Severity Zones in State Responsibility Area. November 21. Website: https://osfm.fire.ca.gov/media/0izm2t3k/fhsz_county_sra_11x17_2022_sanmateo_ada.pdf (accessed June 8, 2023).

Therefore, the proposed project would not exacerbate wildfire risks, and this impact would be less than significant.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? ***(Less-Than-Significant Impact)***

Refer to Sections 4.20.a and 4.20.b. The project site is located in a developed area within an existing neighborhood park. Construction and operation of the proposed project would not require the installation or operation/maintenance of infrastructure within undeveloped areas that may exacerbate wildfire risks. Therefore, this impact would be less than significant.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? ***(Less-Than-Significant Impact)***

Refer to Sections 4.20.a and 4.20.b. The project site is relatively flat and is not located within an SRA for fire service or VHFHSZ. The proposed project would not expose people or structures to significant risks associated with downslope or downstream flooding or landslides as a result of increased fire hazards or post-fire conditions. This impact would be less than significant.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ***(Less-Than-Significant Impact with Mitigation Incorporated)***

Implementation of CUL-COA-1 and 2 would ensure that potential impacts to historic and archaeological resources that could be uncovered during construction activities would be reduced to a less-than-significant level. Implementation of Mitigation Measures BIO-1 through BIO-2 would ensure that potential impacts related to migratory and nesting birds would be reduced to a less-than-significant level. Implementation of Mitigation Measure AIR-1 and AIR-COA-1 would ensure potential impacts related to consistency with the Clean Air Plan and the emission of criteria pollutants would be reduced to a less-than-significant level. Implementation of Mitigation Measures GHG-1 would ensure the proposed project would not result in substantial GHG emissions. Therefore, with the incorporation of mitigation measures, development of the proposed project would not: (1) degrade the quality of the environment; (2) substantially reduce the habitat of a fish or wildlife species; (3) cause a fish or wildlife species population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) reduce the number or restrict the range of a rare or endangered plant or animal; or (6) eliminate important examples of the major periods of California history.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? ***(Less-Than-Significant Impact)***

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound to increase other environmental impacts." Section 15130 of the CEQA Guidelines requires evaluation of potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of "reasonably foreseeable probable future" projects, per CEQA Section 15355. Cumulative impacts can result from a combination of the proposed project together with other closely related projects that cause an adverse change in the environment. Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

When future development proposals are considered by the City, these proposals would undergo environmental review pursuant to CEQA, and when necessary, mitigation measures would be adopted as appropriate. In most cases, this environmental review and compliance with project conditions of approval, relevant policies and mitigation measures, and the General Plan, and compliance with applicable regulations would ensure that significant impacts would be avoided or otherwise mitigated to less-than-significant levels.

Implementation of these measures would ensure that the impacts of the project and other projects within the vicinity would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ***(No Impact)***

The proposed project would not result in any environmental effects that would cause substantial direct or indirect adverse effects on human beings and there would be no impact.

5.0 LIST OF PREPARERS

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APPENDIX A

CALEEMOD OUTPUT SHEETS

Foster City Recreation Center Rebuild Project Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Foster City Recreation Center Rebuild Project
Construction Start Date	1/8/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.70
Precipitation (days)	36.6
Location	650 Shell Blvd, Foster City, CA 94404, USA
County	San Mateo
City	Foster City
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1257
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

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

Library	40.0	1000sqft	0.92	40,000	43,560	—	—	—
Parking Lot	240	Space	2.16	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	0.70	14.8	19.2	15.0	0.02	0.69	0.19	0.88	0.64	0.05	0.69	—	2,731	2,731	0.12	0.05	0.99	2,751
Mit.	0.31	14.8	2.35	15.0	0.02	0.05	0.19	0.23	0.05	0.05	0.09	—	2,731	2,731	0.12	0.05	0.99	2,751
% Reduced	56%	< 0.5%	88%	—	—	93%	—	74%	93%	—	87%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.12	14.8	39.9	28.9	0.05	1.12	19.8	20.9	1.02	10.1	11.2	—	5,435	5,435	0.41	0.32	0.10	5,455
Mit.	0.73	14.8	7.47	28.9	0.05	0.10	19.8	19.9	0.10	10.1	10.2	—	5,435	5,435	0.41	0.32	0.10	5,455
% Reduced	35%	< 0.5%	81%	—	—	91%	—	5%	90%	—	8%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.55	1.53	15.1	11.6	0.02	0.51	1.10	1.61	0.47	0.48	0.95	—	2,283	2,283	0.12	0.07	0.45	2,308
Mit.	0.27	1.36	2.19	11.6	0.02	0.04	1.10	1.14	0.04	0.48	0.51	—	2,283	2,283	0.12	0.07	0.45	2,308
% Reduced	51%	12%	85%	—	—	93%	—	29%	92%	—	46%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.28	2.75	2.11	< 0.005	0.09	0.20	0.29	0.09	0.09	0.17	—	378	378	0.02	0.01	0.07	382
Mit.	0.05	0.25	0.40	2.11	< 0.005	0.01	0.20	0.21	0.01	0.09	0.09	—	378	378	0.02	0.01	0.07	382
% Reduced	51%	12%	85%	—	—	93%	—	29%	92%	—	46%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.70	0.67	19.2	15.0	0.02	0.69	0.19	0.88	0.64	0.05	0.69	—	2,731	2,731	0.12	0.05	0.99	2,751
2025	0.69	14.8	19.2	15.0	0.02	0.69	0.19	0.88	0.64	0.05	0.69	—	2,725	2,725	0.12	0.05	0.93	2,743
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.12	1.12	39.9	28.9	0.05	1.12	19.8	20.9	1.02	10.1	11.2	—	5,435	5,435	0.41	0.32	0.10	5,455
2025	0.69	14.8	19.2	15.0	0.02	0.69	0.19	0.88	0.64	0.05	0.69	—	2,717	2,717	0.12	0.05	0.02	2,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.55	0.50	15.1	11.6	0.02	0.51	1.10	1.61	0.47	0.48	0.95	—	2,283	2,283	0.12	0.07	0.45	2,308
2025	0.31	1.53	8.48	6.68	0.01	0.31	0.09	0.40	0.29	0.02	0.31	—	1,195	1,195	0.05	0.02	0.18	1,203
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.10	0.09	2.75	2.11	< 0.005	0.09	0.20	0.29	0.09	0.09	0.17	—	378	378	0.02	0.01	0.07	382

2025	0.06	0.28	1.55	1.22	< 0.005	0.06	0.02	0.07	0.05	< 0.005	0.06	—	198	198	0.01	< 0.005	0.03	199

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.31	0.28	2.35	15.0	0.02	0.05	0.19	0.23	0.05	0.05	0.09	—	2,731	2,731	0.12	0.05	0.99	2,751
2025	0.30	14.8	2.33	15.0	0.02	0.05	0.19	0.23	0.05	0.05	0.09	—	2,725	2,725	0.12	0.05	0.93	2,743
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.73	0.54	7.47	28.9	0.05	0.10	19.8	19.9	0.10	10.1	10.2	—	5,435	5,435	0.41	0.32	0.10	5,455
2025	0.30	14.8	2.35	15.0	0.02	0.05	0.19	0.23	0.05	0.05	0.09	—	2,717	2,717	0.12	0.05	0.02	2,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.27	0.22	2.19	11.6	0.02	0.04	1.10	1.14	0.04	0.48	0.51	—	2,283	2,283	0.12	0.07	0.45	2,308
2025	0.14	1.36	1.10	6.68	0.01	0.02	0.09	0.11	0.02	0.02	0.04	—	1,195	1,195	0.05	0.02	0.18	1,203
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.05	0.04	0.40	2.11	< 0.005	0.01	0.20	0.21	0.01	0.09	0.09	—	378	378	0.02	0.01	0.07	382
2025	0.02	0.25	0.20	1.22	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	198	198	0.01	< 0.005	0.03	199

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.	1.10	1.97	1.03	8.48	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,677	2,699	2.39	0.07	6.30	2,787
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.78	1.68	1.11	6.55	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,589	2,611	2.40	0.08	0.31	2,695
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.92	1.80	1.06	7.17	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,595	2,617	2.39	0.07	2.81	2,702
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.33	0.19	1.31	< 0.005	0.01	0.31	0.31	0.01	0.08	0.09	3.68	430	433	0.40	0.01	0.47	447

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	0.74	0.67	0.52	6.32	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,812	1,812	0.06	0.06	6.15	1,837
Area	0.31	1.27	0.01	1.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Energy	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	851	851	0.10	0.01	—	856
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Waste	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Stationary	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Total	1.10	1.97	1.03	8.48	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,677	2,699	2.39	0.07	6.30	2,787
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.73	0.66	0.61	6.13	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,731	1,731	0.07	0.06	0.16	1,752
Area	—	0.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	851	851	0.10	0.01	—	856
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Waste	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Stationary	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Total	0.78	1.68	1.11	6.55	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,589	2,611	2.40	0.08	0.31	2,695
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.72	0.65	0.58	5.91	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,735	1,735	0.07	0.06	2.66	1,758
Area	0.15	1.13	0.01	0.86	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.53	3.53	< 0.005	< 0.005	—	3.54
Energy	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	851	851	0.10	0.01	—	856
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Waste	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.35	0.35	< 0.005	< 0.005	0.00	0.35
Total	0.92	1.80	1.06	7.17	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,595	2,617	2.39	0.07	2.81	2,702
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.10	1.08	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	287	287	0.01	0.01	0.44	291
Area	0.03	0.21	< 0.005	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.58	0.58	< 0.005	< 0.005	—	0.59
Energy	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	141	141	0.02	< 0.005	—	142
Water	—	—	—	—	—	—	—	—	—	—	—	0.40	0.75	1.15	0.04	< 0.005	—	2.46
Waste	—	—	—	—	—	—	—	—	—	—	—	3.29	0.00	3.29	0.33	0.00	—	11.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.06	0.06	< 0.005	< 0.005	0.00	0.06

Total	0.17	0.33	0.19	1.31	< 0.005	0.01	0.31	0.31	0.01	0.08	0.09	3.68	430	433	0.40	0.01	0.47	447

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.74	0.67	0.52	6.32	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,812	1,812	0.06	0.06	6.15	1,837
Area	0.31	1.27	0.01	1.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Energy	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	851	851	0.10	0.01	—	856
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Waste	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Stationary	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Total	1.10	1.97	1.03	8.48	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,677	2,699	2.39	0.07	6.30	2,787
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.73	0.66	0.61	6.13	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,731	1,731	0.07	0.06	0.16	1,752
Area	—	0.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	851	851	0.10	0.01	—	856
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Waste	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Stationary	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Total	0.78	1.68	1.11	6.55	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,589	2,611	2.40	0.08	0.31	2,695

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.72	0.65	0.58	5.91	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,735	1,735	0.07	0.06	2.66	1,758
Area	0.15	1.13	0.01	0.86	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.53	3.53	< 0.005	< 0.005	—	3.54
Energy	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	851	851	0.10	0.01	—	856
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Waste	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.35	0.35	< 0.005	< 0.005	0.00	0.35
Total	0.92	1.80	1.06	7.17	0.02	0.05	1.67	1.72	0.05	0.42	0.47	22.3	2,595	2,617	2.39	0.07	2.81	2,702
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.13	0.12	0.10	1.08	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	287	287	0.01	0.01	0.44	291
Area	0.03	0.21	< 0.005	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.58	0.58	< 0.005	< 0.005	—	0.59
Energy	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	141	141	0.02	< 0.005	—	142
Water	—	—	—	—	—	—	—	—	—	—	—	0.40	0.75	1.15	0.04	< 0.005	—	2.46
Waste	—	—	—	—	—	—	—	—	—	—	—	3.29	0.00	3.29	0.33	0.00	—	11.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.06	0.06	< 0.005	< 0.005	0.00	0.06
Total	0.17	0.33	0.19	1.31	< 0.005	0.01	0.31	0.31	0.01	0.08	0.09	3.68	430	433	0.40	0.01	0.47	447

3. Construction Emissions Details

3.1. Demolition (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.72	24.9	18.2	0.03	0.79	—	0.79	0.71	—	0.71	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.30	1.30	—	0.20	0.20	—	—	—	—	—	—	—
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	0.06	2.05	1.49	< 0.005	0.06	—	0.06	0.06	—	0.06	—	282	282	0.01	< 0.005	—	282
Demolition	—	—	—	—	—	—	0.11	0.11	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.37	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.6	46.6	< 0.005	< 0.005	—	46.8
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.04	0.04	0.04	0.47	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	< 0.005	0.01	121
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	0.32	0.04	2.93	1.82	0.02	0.02	0.41	0.43	0.02	0.11	0.13	—	1,758	1,758	0.27	0.29	0.09	1,850
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.84	9.84	< 0.005	< 0.005	0.02	9.98
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	0.03	< 0.005	0.24	0.15	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	144	144	0.02	0.02	0.12	152
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.63	1.63	< 0.005	< 0.005	< 0.005	1.65
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	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.9	23.9	< 0.005	< 0.005	0.02	25.2

3.2. Demolition (2024) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.36	4.51	18.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.30	1.30	—	0.20	0.20	—	—	—	—	—	—	—
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	0.03	0.03	0.37	1.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	282	282	0.01	< 0.005	—	282
Demolition	—	—	—	—	—	—	0.11	0.11	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	46.6	46.6	< 0.005	< 0.005	—	46.8
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.47	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	< 0.005	0.01	121
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	0.32	0.04	2.93	1.82	0.02	0.02	0.41	0.43	0.02	0.11	0.13	—	1,758	1,758	0.27	0.29	0.09	1,850
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.84	9.84	< 0.005	< 0.005	0.02	9.98
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	0.03	< 0.005	0.24	0.15	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	144	144	0.02	0.02	0.12	152
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.63	1.63	< 0.005	< 0.005	< 0.005	1.65

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	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.9	23.9	< 0.005	< 0.005	0.02	25.2

3.3. Site Preparation (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,296	5,296	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	0.03	0.03	1.09	0.78	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
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	0.20	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.55	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	139	139	< 0.005	0.01	0.01	141
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.83	3.83	< 0.005	< 0.005	0.01	3.88
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.63	0.63	< 0.005	< 0.005	< 0.005	0.64
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

3.4. Site Preparation (2024) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	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	0.01	0.01	0.07	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.55	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	139	139	< 0.005	0.01	0.01	141
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.83	3.83	< 0.005	< 0.005	0.01	3.88
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.63	0.63	< 0.005	< 0.005	< 0.005	0.64
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 (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.73	23.2	17.8	0.03	0.75	—	0.75	0.69	—	0.69	—	2,958	2,958	0.12	0.02	—	2,969

Dust From Material Movement	—	—	—	—	—	—	7.10	7.10	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.95	0.73	< 0.005	0.03	—	0.03	0.03	—	0.03	—	122	122	< 0.005	< 0.005	—	122
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.1	20.1	< 0.005	< 0.005	—	20.2
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.47	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	< 0.005	0.01	121
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	0.31	0.04	2.79	1.74	0.02	0.02	0.39	0.41	0.02	0.11	0.12	—	1,677	1,677	0.26	0.27	0.09	1,765

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.92	4.92	< 0.005	< 0.005	0.01	4.99
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	0.01	< 0.005	0.11	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	68.9	68.9	0.01	0.01	0.06	72.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.81	0.81	< 0.005	< 0.005	< 0.005	0.83
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	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.01	12.0

3.6. Grading (2024) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.29	2.04	17.8	0.03	0.06	—	0.06	0.06	—	0.06	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	7.10	7.10	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.73	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	122	122	< 0.005	< 0.005	—	122

Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.1	20.1	< 0.005	< 0.005	—	20.2
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.47	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	< 0.005	0.01	121
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	0.31	0.04	2.79	1.74	0.02	0.02	0.39	0.41	0.02	0.11	0.12	—	1,677	1,677	0.26	0.27	0.09	1,765
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.92	4.92	< 0.005	< 0.005	0.01	4.99
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	0.01	< 0.005	0.11	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	68.9	68.9	0.01	0.01	0.06	72.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.81	0.81	< 0.005	< 0.005	< 0.005	0.83
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	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.01	12.0

3.7. 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	0.62	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	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	0.62	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	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	0.34	0.34	10.4	7.89	0.01	0.38	—	0.38	0.35	—	0.35	—	1,323	1,323	0.05	0.01	—	1,328
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	0.06	1.90	1.44	< 0.005	0.07	—	0.07	0.06	—	0.06	—	219	219	0.01	< 0.005	—	220
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	0.05	0.04	0.04	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	141	141	< 0.005	0.01	0.52	144
Vendor	0.03	0.01	0.29	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	192	192	0.02	0.03	0.47	202
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	0.05	0.04	0.05	0.53	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	134	134	< 0.005	0.01	0.01	135
Vendor	0.03	0.01	0.30	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	192	192	0.02	0.03	0.01	201
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	0.03	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.0	74.0	< 0.005	< 0.005	0.12	75.1
Vendor	0.02	< 0.005	0.16	0.09	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	106	106	0.01	0.02	0.11	111
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	—	12.3	12.3	< 0.005	< 0.005	0.02	12.4
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.6	17.6	< 0.005	< 0.005	0.02	18.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2024) - Mitigated

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

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

Off-Road Equipment	0.23	0.23	2.03	14.3	0.02	0.04	—	0.04	0.04	—	0.04	—	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	0.23	0.23	2.03	14.3	0.02	0.04	—	0.04	0.04	—	0.04	—	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	0.13	0.13	1.12	7.89	0.01	0.02	—	0.02	0.02	—	0.02	—	1,323	1,323	0.05	0.01	—	1,328
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.20	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	219	219	0.01	< 0.005	—	220
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	0.05	0.04	0.04	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	141	141	< 0.005	0.01	0.52	144
Vendor	0.03	0.01	0.29	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	192	192	0.02	0.03	0.47	202
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	0.05	0.04	0.05	0.53	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	134	134	< 0.005	0.01	0.01	135

Vendor	0.03	0.01	0.30	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	192	192	0.02	0.03	0.01	201
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	0.03	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.0	74.0	< 0.005	< 0.005	0.12	75.1
Vendor	0.02	< 0.005	0.16	0.09	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	106	106	0.01	0.02	0.11	111
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	—	12.3	12.3	< 0.005	< 0.005	0.02	12.4
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.6	17.6	< 0.005	< 0.005	0.02	18.4
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 (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	0.62	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	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	0.62	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	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	0.24	0.24	7.35	5.57	0.01	0.27	—	0.27	0.25	—	0.25	—	934	934	0.04	0.01	—	937
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	1.34	1.02	< 0.005	0.05	—	0.05	0.05	—	0.05	—	155	155	0.01	< 0.005	—	155
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	0.05	0.04	0.03	0.52	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	138	138	< 0.005	< 0.005	0.46	139
Vendor	0.03	0.01	0.27	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	189	189	0.02	0.03	0.47	198
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	0.05	0.04	0.04	0.48	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.01	132
Vendor	0.03	0.01	0.28	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	189	189	0.02	0.03	0.01	197
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	0.01	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.08	51.8
Vendor	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	73.5	73.5	0.01	0.01	0.08	76.8
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	—	8.46	8.46	< 0.005	< 0.005	0.01	8.58

Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.2	12.2	< 0.005	< 0.005	0.01	12.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2025) - Mitigated

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

Location	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	0.23	0.23	2.03	14.3	0.02	0.04	—	0.04	0.04	—	0.04	—	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	0.23	0.23	2.03	14.3	0.02	0.04	—	0.04	0.04	—	0.04	—	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	0.09	0.09	0.79	5.57	0.01	0.02	—	0.02	0.02	—	0.02	—	934	934	0.04	0.01	—	937
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	1.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	155	155	0.01	< 0.005	—	155
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	0.05	0.04	0.03	0.52	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	138	138	< 0.005	< 0.005	0.46	139
Vendor	0.03	0.01	0.27	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	189	189	0.02	0.03	0.47	198
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	0.05	0.04	0.04	0.48	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.01	132
Vendor	0.03	0.01	0.28	0.17	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	189	189	0.02	0.03	0.01	197
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	0.01	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.08	51.8
Vendor	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	73.5	73.5	0.01	0.01	0.08	76.8
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	—	8.46	8.46	< 0.005	< 0.005	0.01	8.58
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.2	12.2	< 0.005	< 0.005	0.01	12.7
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. Paving (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	0.42	0.42	11.2	8.87	0.01	0.48	—	0.48	0.45	—	0.45	—	1,351	1,351	0.05	0.01	—	1,355
Paving	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.92	0.73	< 0.005	0.04	—	0.04	0.04	—	0.04	—	111	111	< 0.005	< 0.005	—	111
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.4	18.4	< 0.005	< 0.005	—	18.4
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.62	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	165	165	< 0.005	< 0.005	0.54	166
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	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	13.0
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	—	2.12	2.12	< 0.005	< 0.005	< 0.005	2.16
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

3.12. Paving (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.13	1.51	8.87	0.01	0.02	—	0.02	0.02	—	0.02	—	1,351	1,351	0.05	0.01	—	1,355
Paving	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.73	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	111	111	< 0.005	< 0.005	—	111
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.4	18.4	< 0.005	< 0.005	—	18.4
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.62	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	165	165	< 0.005	< 0.005	0.54	166
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	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	13.0
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	—	2.12	2.12	< 0.005	< 0.005	< 0.005	2.16
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

3.13. Architectural Coating (2025) - Unmitigated

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

Location	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	0.05	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	14.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	14.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.09	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	11.0	11.0	< 0.005	< 0.005	—	11.0
Architectural Coatings	—	1.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.82	1.82	< 0.005	< 0.005	—	1.82
Architectural Coatings	—	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	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.7	27.7	< 0.005	< 0.005	0.09	27.8
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.1	26.1	< 0.005	< 0.005	< 0.005	26.5
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.19
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
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

3.14. Architectural Coating (2025) - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	14.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	14.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.0
Architectural Coatings	—	1.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.82	1.82	< 0.005	< 0.005	—	1.82
Architectural Coatings	—	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	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.7	27.7	< 0.005	< 0.005	0.09	27.8
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.1	26.1	< 0.005	< 0.005	< 0.005	26.5
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.19
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.74	0.67	0.52	6.32	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,812	1,812	0.06	0.06	6.15	1,837
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.74	0.67	0.52	6.32	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,812	1,812	0.06	0.06	6.15	1,837
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.73	0.66	0.61	6.13	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,731	1,731	0.07	0.06	0.16	1,752
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.73	0.66	0.61	6.13	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,731	1,731	0.07	0.06	0.16	1,752
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.13	0.12	0.10	1.08	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	287	287	0.01	0.01	0.44	291
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.10	1.08	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	287	287	0.01	0.01	0.44	291

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.74	0.67	0.52	6.32	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,812	1,812	0.06	0.06	6.15	1,837

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.74	0.67	0.52	6.32	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,812	1,812	0.06	0.06	6.15	1,837
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.73	0.66	0.61	6.13	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,731	1,731	0.07	0.06	0.16	1,752
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.73	0.66	0.61	6.13	0.02	0.01	1.67	1.68	0.01	0.42	0.43	—	1,731	1,731	0.07	0.06	0.16	1,752
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.13	0.12	0.10	1.08	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	287	287	0.01	0.01	0.44	291
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.12	0.10	1.08	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	287	287	0.01	0.01	0.44	291

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	244	244	0.04	< 0.005	—	246
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	46.1	46.1	0.01	< 0.005	—	46.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	290	290	0.05	0.01	—	293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Library	—	—	—	—	—	—	—	—	—	—	—	—	244	244	0.04	< 0.005	—	246
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	46.1	46.1	0.01	< 0.005	—	46.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	290	290	0.05	0.01	—	293
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	40.4	40.4	0.01	< 0.005	—	40.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	< 0.005	< 0.005	—	7.70
Total	—	—	—	—	—	—	—	—	—	—	—	—	48.0	48.0	0.01	< 0.005	—	48.5

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	244	244	0.04	< 0.005	—	246
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	46.1	46.1	0.01	< 0.005	—	46.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	290	290	0.05	0.01	—	293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	244	244	0.04	< 0.005	—	246
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	46.1	46.1	0.01	< 0.005	—	46.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	290	290	0.05	0.01	—	293
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	40.4	40.4	0.01	< 0.005	—	40.8

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	< 0.005	< 0.005	—	7.70
Total	—	—	—	—	—	—	—	—	—	—	—	—	48.0	48.0	0.01	< 0.005	—	48.5

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.9	92.9	0.01	< 0.005	—	93.2
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.9	92.9	0.01	< 0.005	—	93.2

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	—	563
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.9	92.9	0.01	< 0.005	—	93.2
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.9	92.9	0.01	< 0.005	—	93.2

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	—	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.31	0.29	0.01	1.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Total	0.31	1.27	0.01	1.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.58	0.58	< 0.005	< 0.005	—	0.59
Total	0.03	0.21	< 0.005	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.58	0.58	< 0.005	< 0.005	—	0.59

4.3.1. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.31	0.29	0.01	1.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Total	0.31	1.27	0.01	1.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipme	0.03	0.03	< 0.005	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.58	0.58	< 0.005	< 0.005	—	0.59
Total	0.03	0.21	< 0.005	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.58	0.58	< 0.005	< 0.005	—	0.59

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	0.40	0.75	1.15	0.04	< 0.005	—	2.46
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.40	0.75	1.15	0.04	< 0.005	—	2.46

4.4.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	4.53	6.93	0.25	0.01	—	14.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	0.40	0.75	1.15	0.04	< 0.005	—	2.46
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.40	0.75	1.15	0.04	< 0.005	—	2.46

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	3.29	0.00	3.29	0.33	0.00	—	11.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.29	0.00	3.29	0.33	0.00	—	11.5

4.5.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.98	0.00	—	69.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	3.29	0.00	3.29	0.33	0.00	—	11.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.29	0.00	3.29	0.33	0.00	—	11.5

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Total	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Total	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.06	0.06	< 0.005	< 0.005	0.00	0.06
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.06	0.06	< 0.005	< 0.005	0.00	0.06

4.8.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53

Total	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Total	0.01	< 0.005	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	2.52	2.52	< 0.005	< 0.005	0.00	2.53
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.06	0.06	< 0.005	< 0.005	0.00	0.06
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.06	0.06	< 0.005	< 0.005	0.00	0.06

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	1/8/2024	2/16/2024	5.00	30.0	—
Site Preparation	Site Preparation	2/19/2024	3/1/2024	5.00	10.0	—
Grading	Grading	3/4/2024	3/22/2024	5.00	15.0	—
Building Construction	Building Construction	3/25/2024	7/18/2025	5.00	345	—
Paving	Paving	7/21/2025	8/29/2025	5.00	30.0	—
Architectural Coating	Architectural Coating	9/1/2025	10/10/2025	5.00	30.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 2	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Tier 2	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 2	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 2	1.00	8.00	36.0	0.38

Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 2	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 2	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 2	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Tier 2	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 2	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 2	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 2	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38

Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Tier 2	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	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	21.9	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	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	20.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	16.8	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	6.56	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	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	3.36	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

5.3.2. Mitigated

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	21.9	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	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	20.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	16.8	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	6.56	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	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	3.36	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

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	60,000	20,000	5,645

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	57,000	—
Site Preparation	—	—	15.0	0.00	—
Grading	2,500	—	15.0	0.00	—
Paving	0.00	0.00	0.00	0.00	2.16

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Library	0.00	0%
Parking Lot	2.16	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	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
Library	231	231	231	84,315	2,378	2,378	2,378	868,103
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Library	231	231	231	84,315	2,378	2,378	2,378	868,103

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	60,000	20,000	5,645

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Library	436,406	204	0.0330	0.0040	1,751,564
Parking Lot	82,422	204	0.0330	0.0040	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Library	436,406	204	0.0330	0.0040	1,751,564
Parking Lot	82,422	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)
Library	1,251,556	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Library	1,251,556	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

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

Library	36.8	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Library	36.8	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Library	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Library	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Library	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Library	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.15.2. Mitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	1.00	50.0	3.00	0.73

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	The proposed project would be constructed in approximately 21 months.
Construction: Off-Road Equipment	Assuming the use of Tier 2 construction equipment.
Operations: Vehicle Data	The net trip generation of the proposed project (project - existing) is 231 daily trips.

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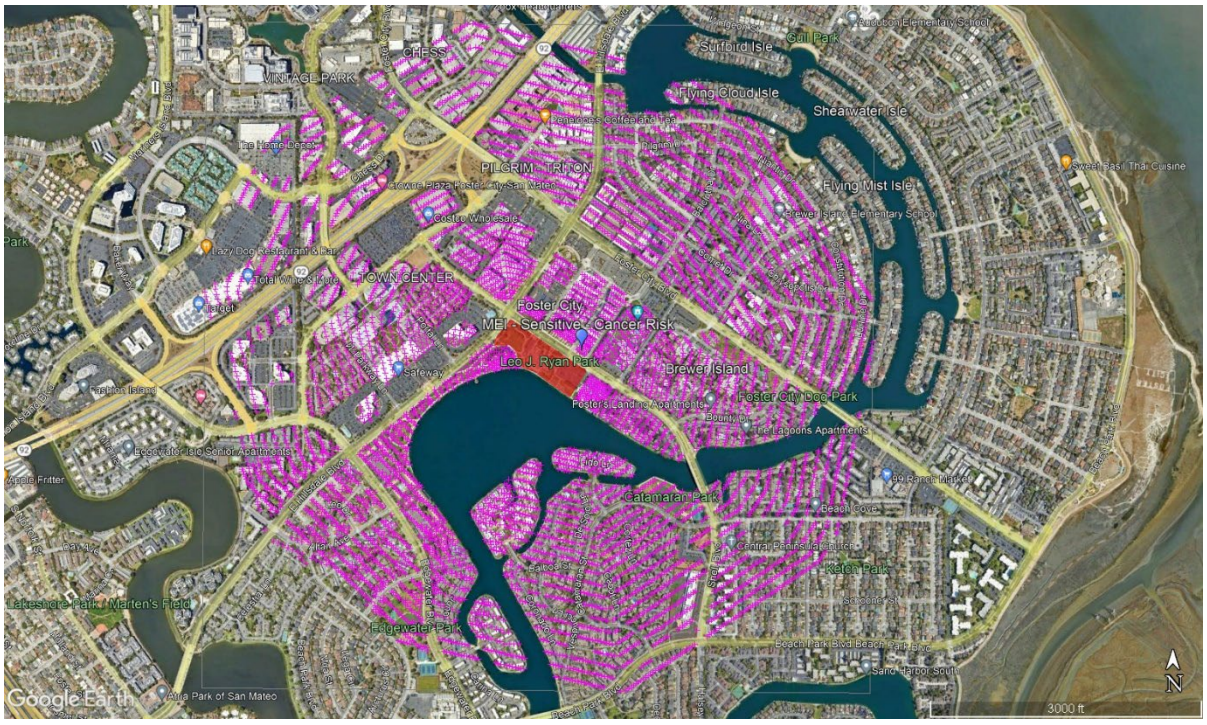
APPENDIX B

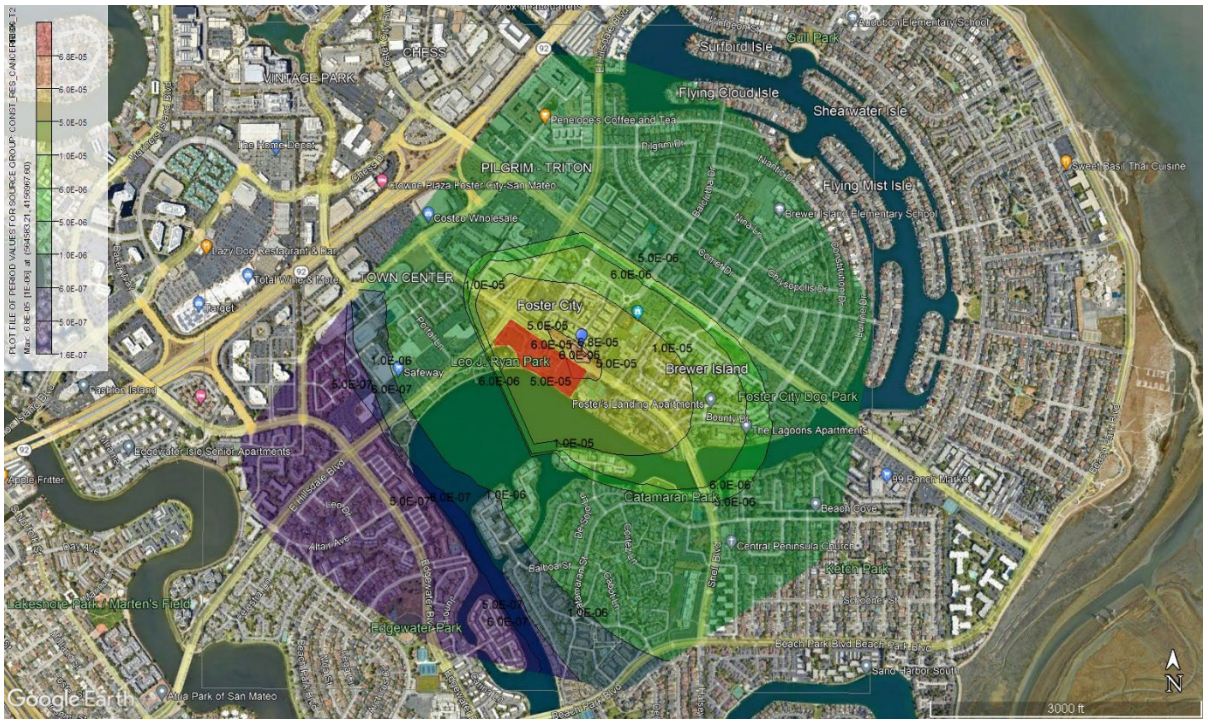
AERMOD SNAPSHOTS

Project Location

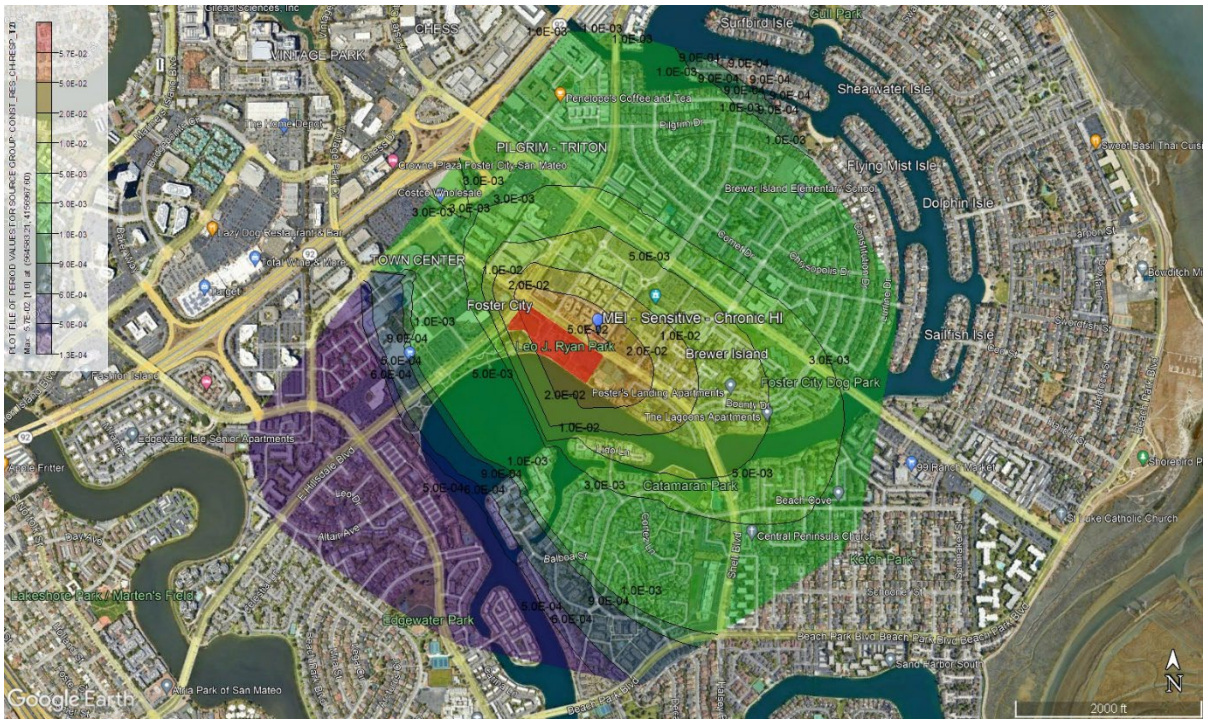
Receptor Grid



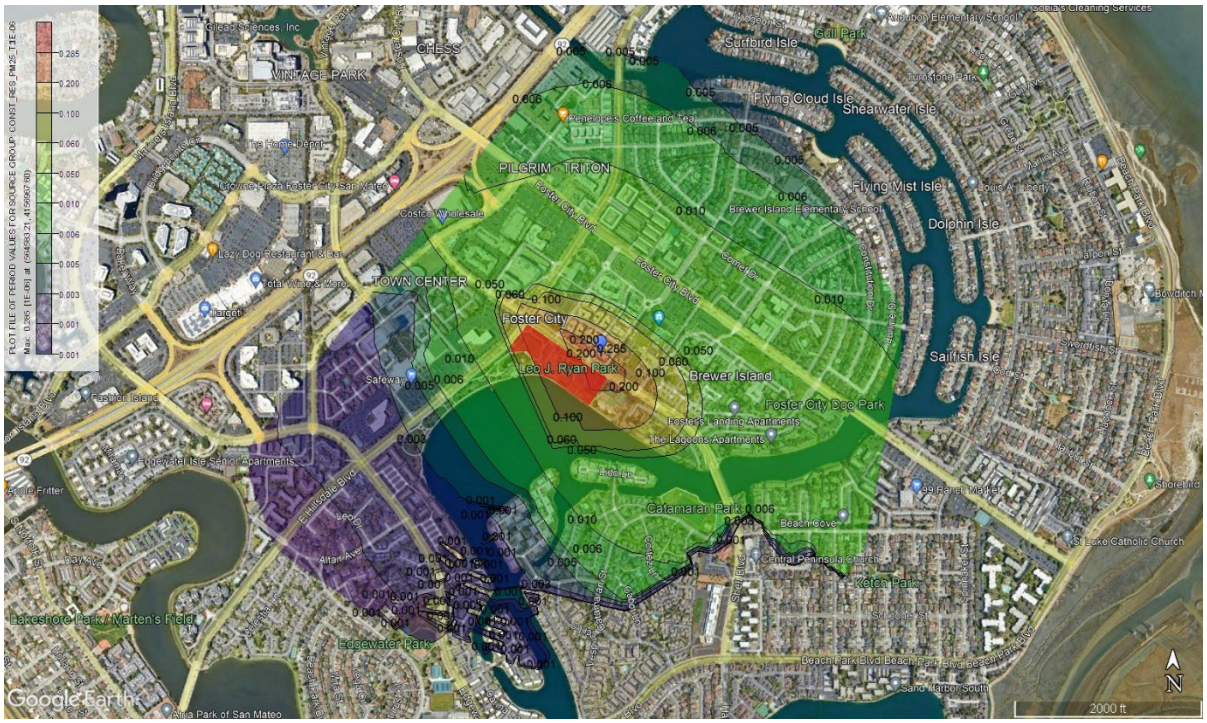
Unmitigated Construction Cancer Risk – Residential Receptors



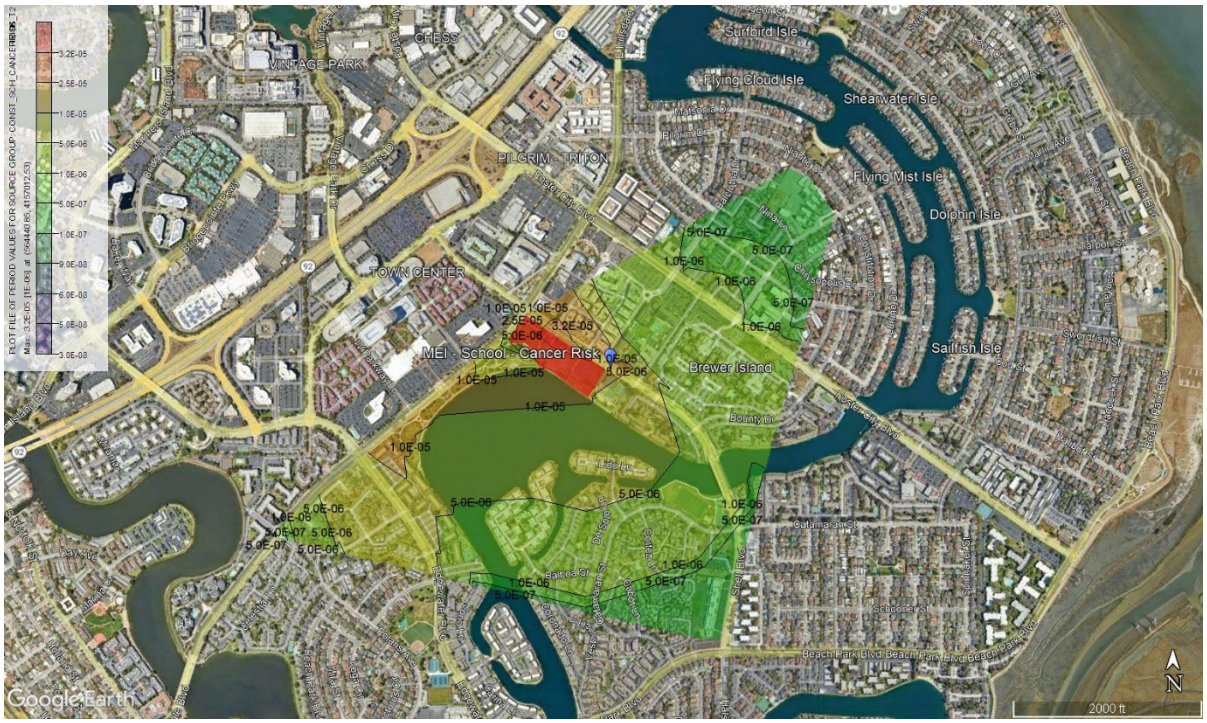
Unmitigated Construction Chronic Hazard Index – Residential Receptors



Unmitigated $PM_{2.5}$ Concentrations – Residential Receptors



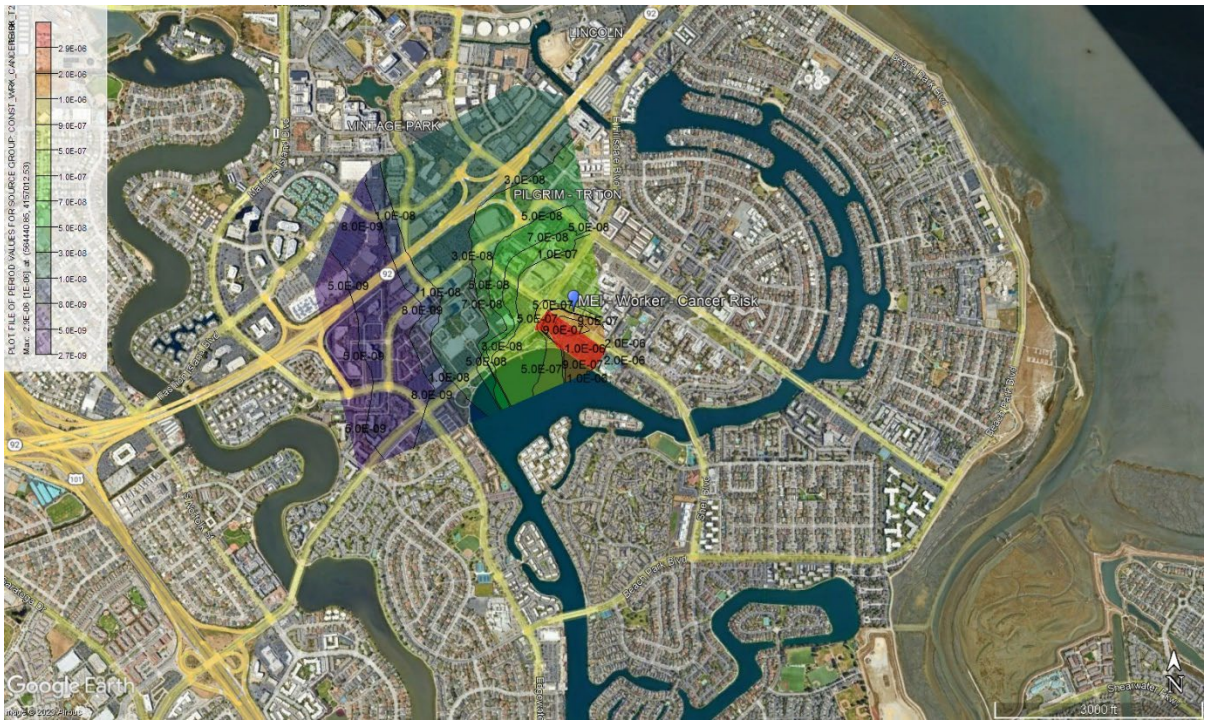
Unmitigated Construction Cancer Risk – School Receptors



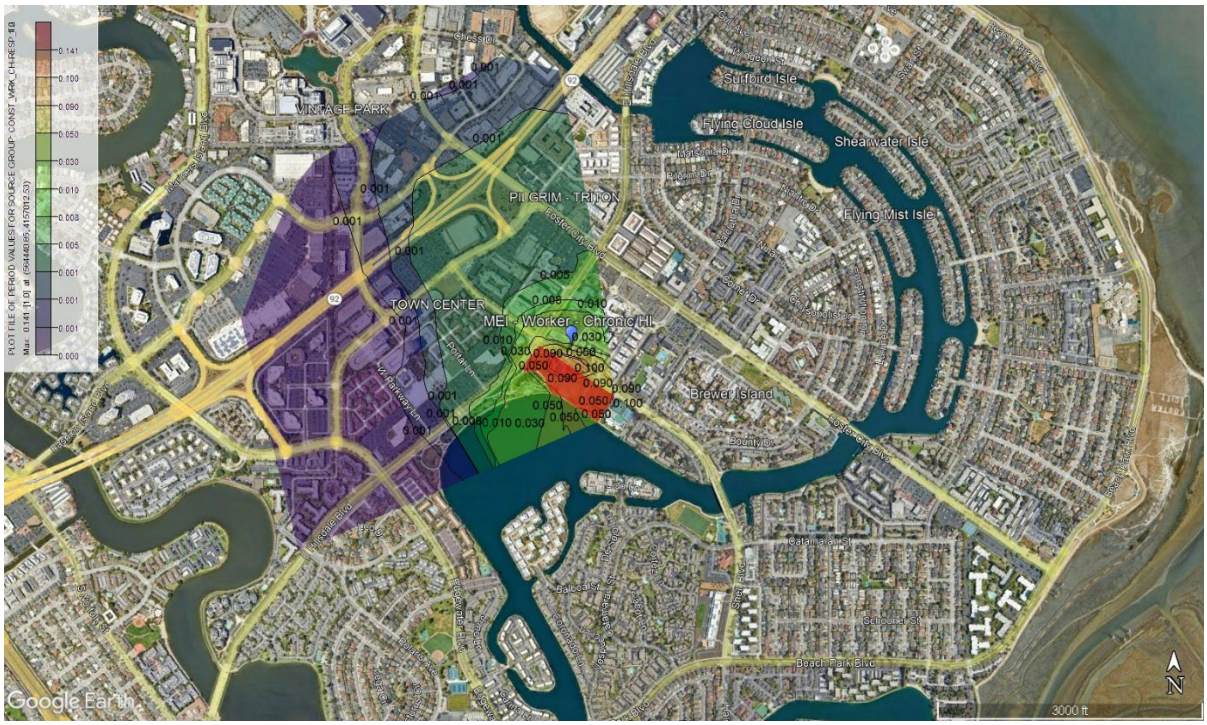
Unmitigated Construction Chronic Hazard Index – School Receptors

Unmitigated $PM_{2.5}$ Concentrations – School Receptors

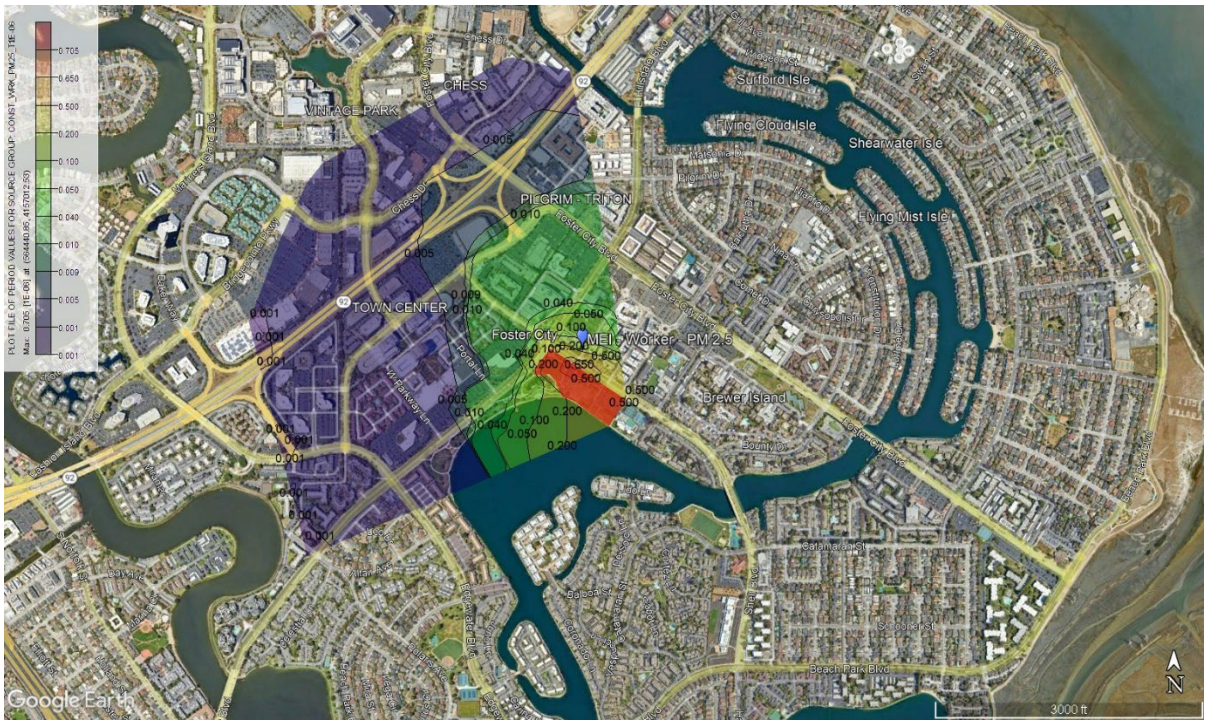
Unmitigated Construction Cancer Risk – Worker Receptors



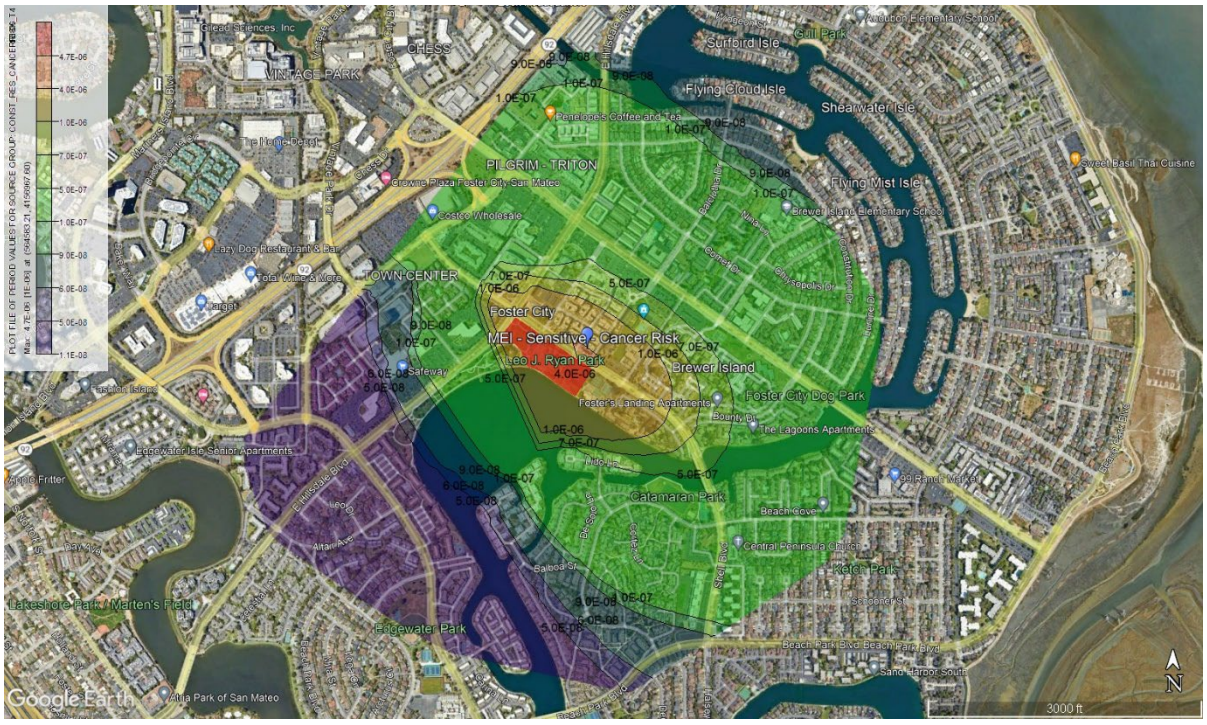
Unmitigated Construction Chronic Hazard Index – Worker Receptors



Unmitigated $PM_{2.5}$ Concentrations – Worker Receptors



Mitigated Construction Cancer Risk – Residential Receptors



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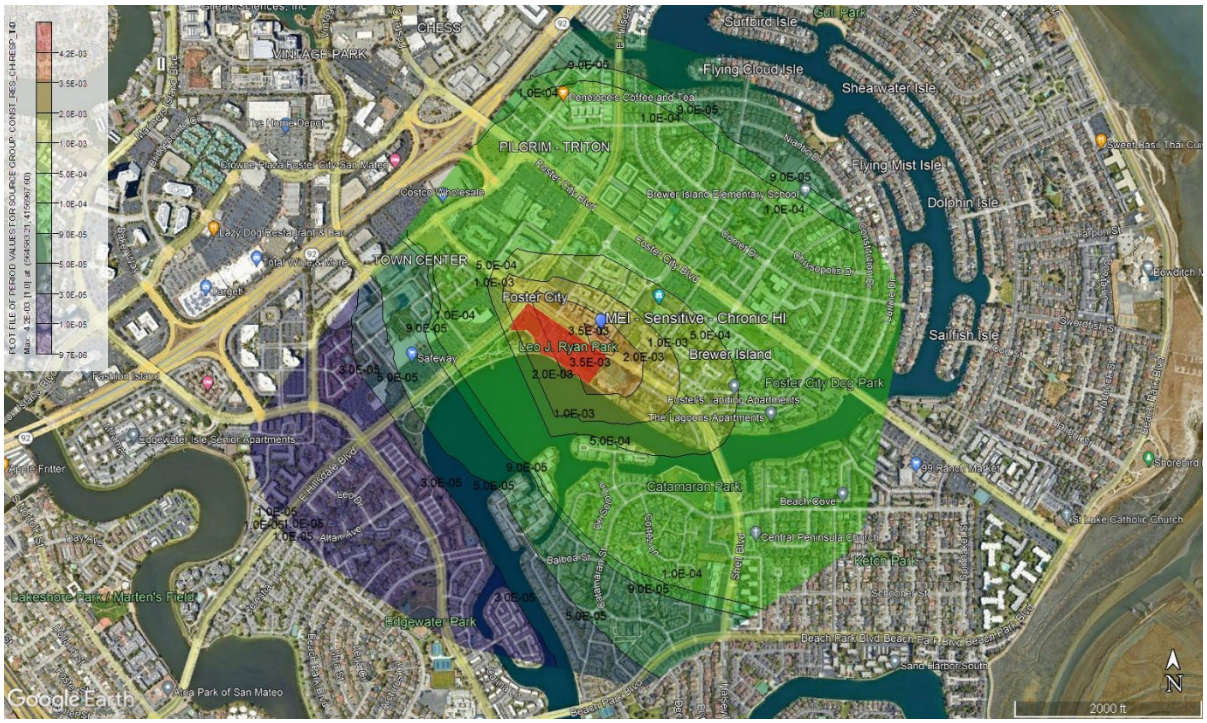
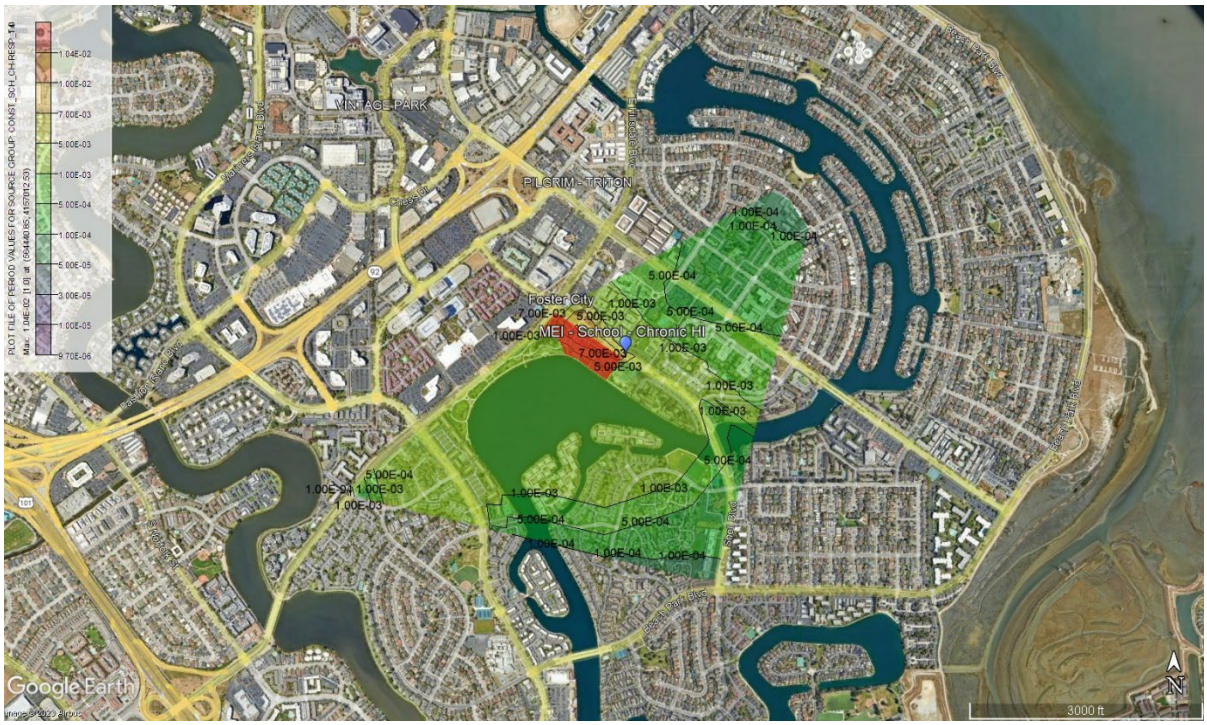


Mitigated $PM_{2.5}$ Concentrations – Residential Receptors

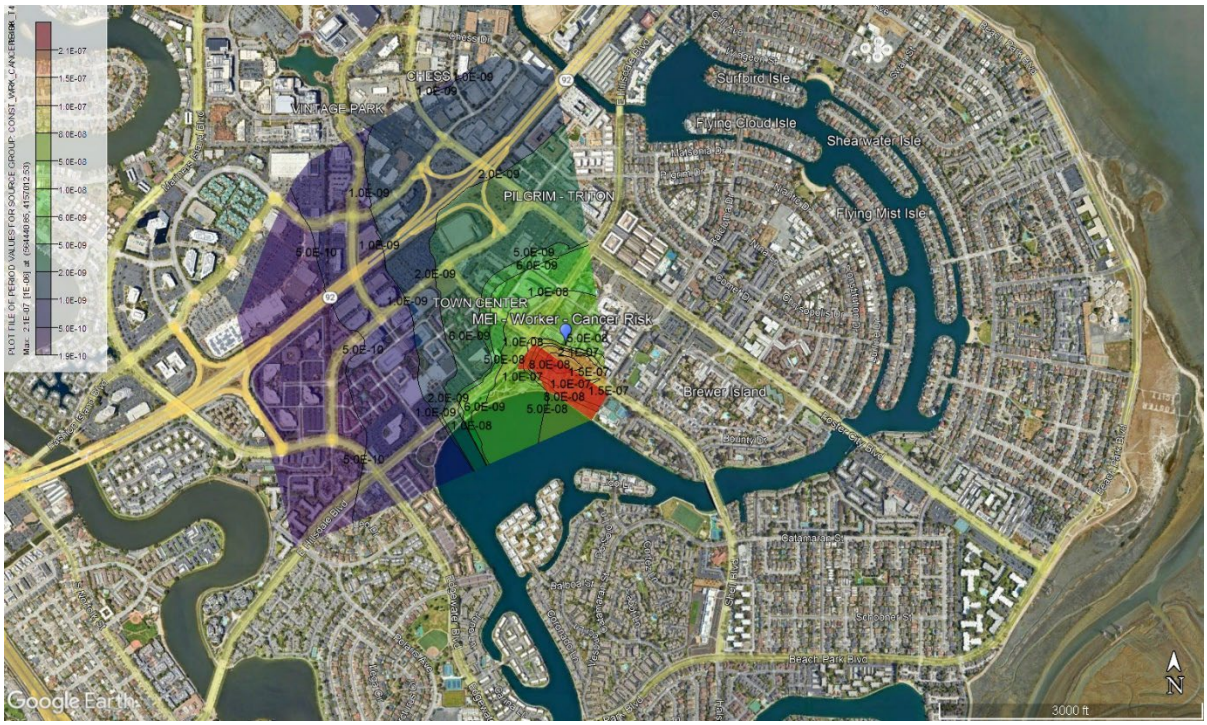
Mtigated Construction Cancer Risk – School Receptors

Mitigated Construction Chronic Hazard Index – School Receptors



Mitigated $PM_{2.5}$ Concentrations – School Receptors

Mitigated Construction Cancer Risk – Worker Receptors



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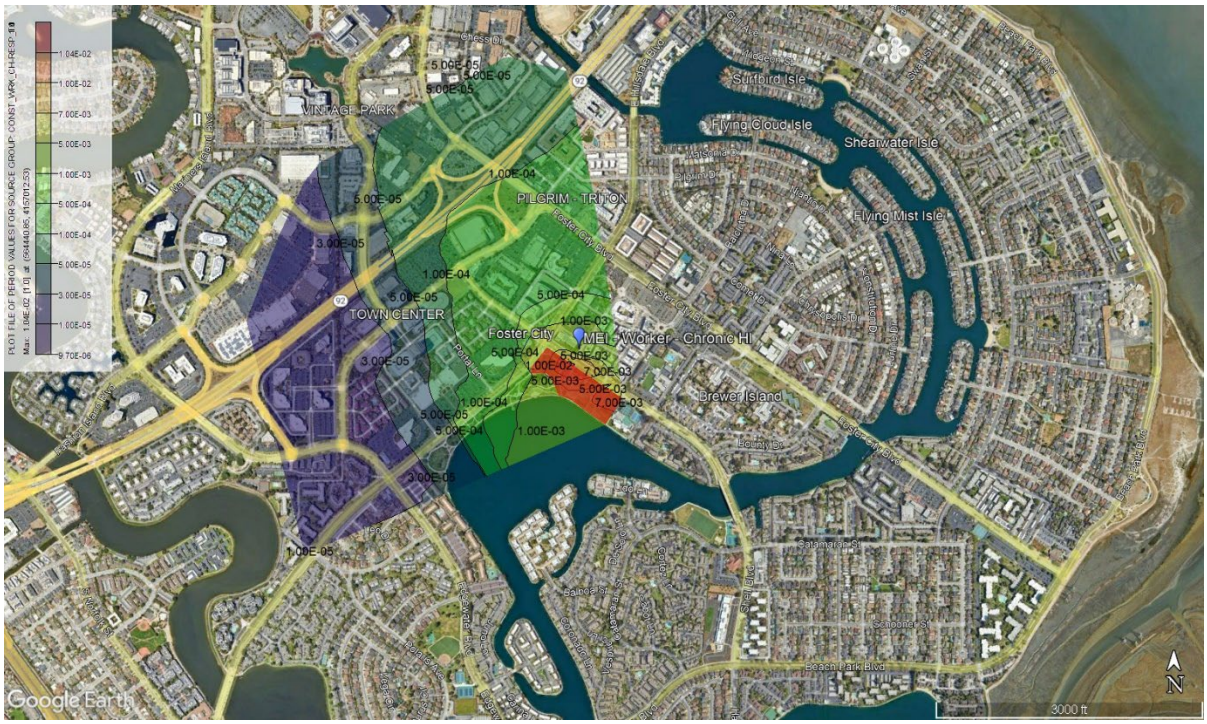

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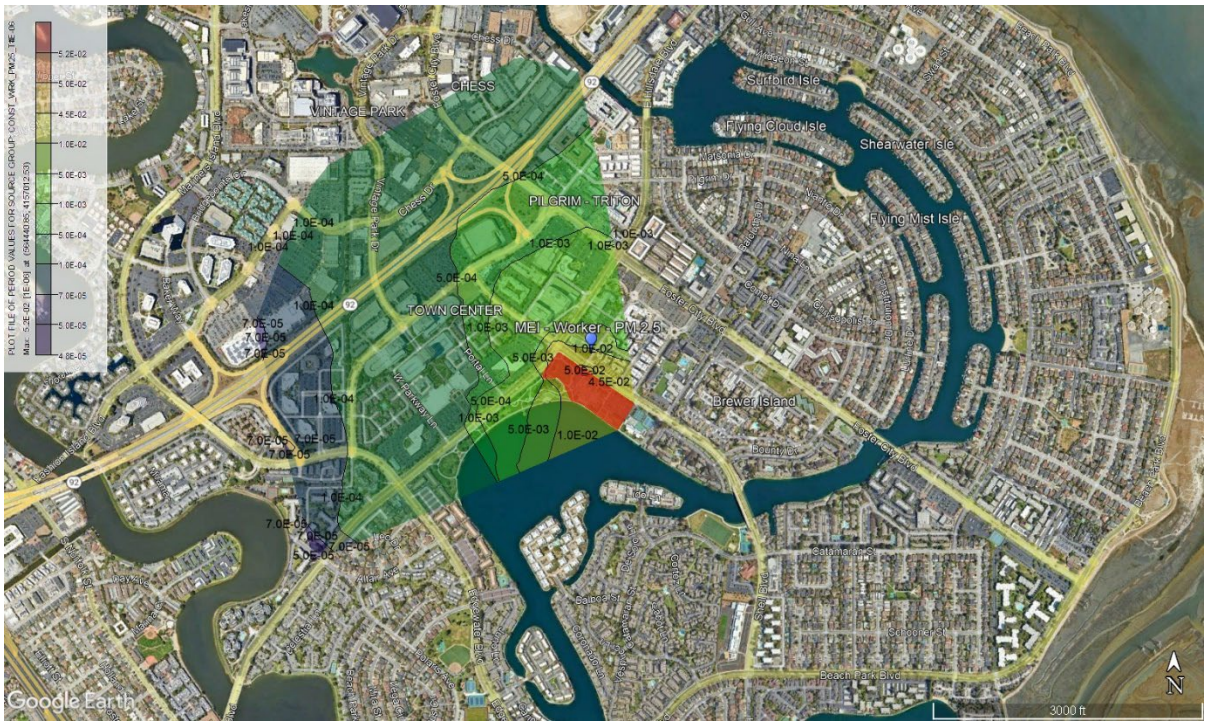

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APPENDIX C

DPR FORM 523

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Codes: 6Z

Other Listings
Review Code _____ **Reviewer** _____ **Date**

 Resource Name: William E. Walker Recreation Center

P1. Other Identifier: *Central Park Community Center* (1974-1998)
P2. Location: Not for Publication: Unrestricted: ☒
- **a. County:** San Mateo
- **b. USGS 7.5' Quad:** *San Mateo, Calif.* **Date:** 1993; **T**4S/R4W**;** Section 26; Mount Diablo **B.M.**
- **c. Address:** 650 Shell Boulevard **City** Foster City **Zip** 94404
- **d. UTM:** 10S 551562mN/4163261mE (approx. center)
- **e. Other Locational Data:** APNs 094-470-130; -150; Foster City Town Center Tract No. 850, parcels B and D

P3a. Description: This resource is an approximately 36,000-square-foot single-story recreation center comprised of classrooms, a central ballroom with lounge and a Senior Center of wood frame construction and cement paster cladding resting on a concrete slab foundation. The building was constructed in 1974 and subsequently remodeled and enclosed in 1998 and again in 2002. The building is located along the lagoon shore in Leo J. Ryan Park, in the center of Foster City. The building was originally designed in the Second Bay Tradition, but subsequently altered to resemble a more Contemporary appearance and materiality. The building massing is composed of a rambling interlocking rectangular shapes covered by a flat roof with a central variable-pitched crenellated roof atop the main ballroom space (Lagoon Room). Fenestration consists of tall, nearly full-height windows arranged singularly or as in ribbons. The main entrance comprises a pair of automatic double slider doors near the center of the north-facing façade. In the 1990s, Foster City undertook a series of significant alterations to the Recreation Center to modernize its uses, appearance, and expand the types of services for an aging and changing population. These changes included a new roof, removal of the original redwood cladding with cement plaster, new windows, doors as well as additions so the building that enclosed the original open spaces and covered walkways to provide a secure building. In the early 2000s, a Senior Wing was added to the west façade, further altering the building. Taken together, these significantly altered its original external appearance, massing, and ornamentation. This building is in fair condition and remains used as a recreation/exercise/sports center with conference spaces, classrooms, art studio, and a community room.

P3b. Resource Attributes: HP13. Community center/social hall
P4. Resources Present: ☒ **Building**
P5a. Photograph

P5b. Description of Photo: William E. Walker Recreation Center. North façade, view southeast. LSA photograph 6/7/23.

P6. Date Constructed/Age and Source: Historic built 1974; See B.12 References.

P7. Owners and Address:
City of Foster City & the Estero Municipal Improvement District
610 Foster City Blvd.,
Foster City, CA 94404-2222

P8. Recorded by:
Michael Hibma, M.A., AICP
LSA
157 Park Place
Point Richmond, California 94801

P9. Date recorded: 6/7/23.

P10. Survey Type: Intensive

P11. Report Citation: Hibma, Michael, 2023. *Historical Resource Evaluation of the Foster City Community Center, Foster City, San Mateo County, California*. LSA Associates, Inc., Point Richmond, California.

Attachments: ☒ **Location Map** ☒ **Continuation Sheets** ☒ **Building, Structure, and Object Record**

B1. **Historic Name:** Central Park Community Center (1974-1997)
B2. **Common Name:** William E. Walker Recreation Center (1998-present)
B3. **Original Use:** Recreation facility, social hall, and community space
B4. **Present Use:** Same
B5. **Architectural Style:** Second Bay Tradition (1974-1997); Contemporary (1998-present)
B6. **Construction History:** According to a February 8, 1974, article in *The Times* (San Mateo), historical USGS topographic quadrangles, and official government records, the William E. Walker Recreation Center (Recreation Center) was built in 1974. According to photographs available online via the Foster City Historical Society, the Recreation Center was a complex of three separate buildings connected by a covered walkway and arranged around a central courtyard arranged with raised concrete box planters. The building was clad in redwood cladding and roughly 2/3 the physical assize of the present Recreation Center. The Recreation Center was originally designed by San Francisco-based architect Germano Milono. In the 1990s, Foster City undertook a series of significant alterations to the Recreation Center to modernize its uses, appearance, and expand the types of services for an aging and changing population. These changes included a new roof, removal of the original redwood cladding with cement plaster, new windows, doors as well as additions so the building that enclosed the original open spaces and covered walkways to provide a secure building. In the early 2000s, a Senior Wing was added to the west façade, further altering the building. Taken together, these significantly altered its original external appearance, massing, and ornamentation (Foster City 1974; Foster City Historical Society 2023a, 2023b; Arquitectonica 1993).
B7. **Moved?** No
B8. **Related Features:** None
B9. **a. Architect:** Germano Milono and Associates, FAIA, 402 Jackson Street, San Francisco
b. Builder: Williams and Burrows, Inc., Belmont, California
B10. **Significance: Theme:** Community development, recreation, architecture **Area:** Foster City

Period of Significance: 1974 **Property Type:** Civic/Institutional **Applicable Criteria:** CRHR 1, 3

This institutional civic building is on two parcels compromising a 21-acre city park (Leo J. Ryan Park) in central Foster City. Research indicates that the Foster City Community Center is associated with the institutional development, provision of recreational facilities, and architecture of mid- to late-20th century Foster City. Please see the continuation sheets for the Recreation Center's historic context and an overview of land use history and property-specific development.

B11. **Additional Resource Attributes:** None

B12. **References:**
Abeloe, William N, et al. *Historic Spots of California*. Third Edition. 1966. Stanford University Press, Stanford, California.

See Continuation Sheets.

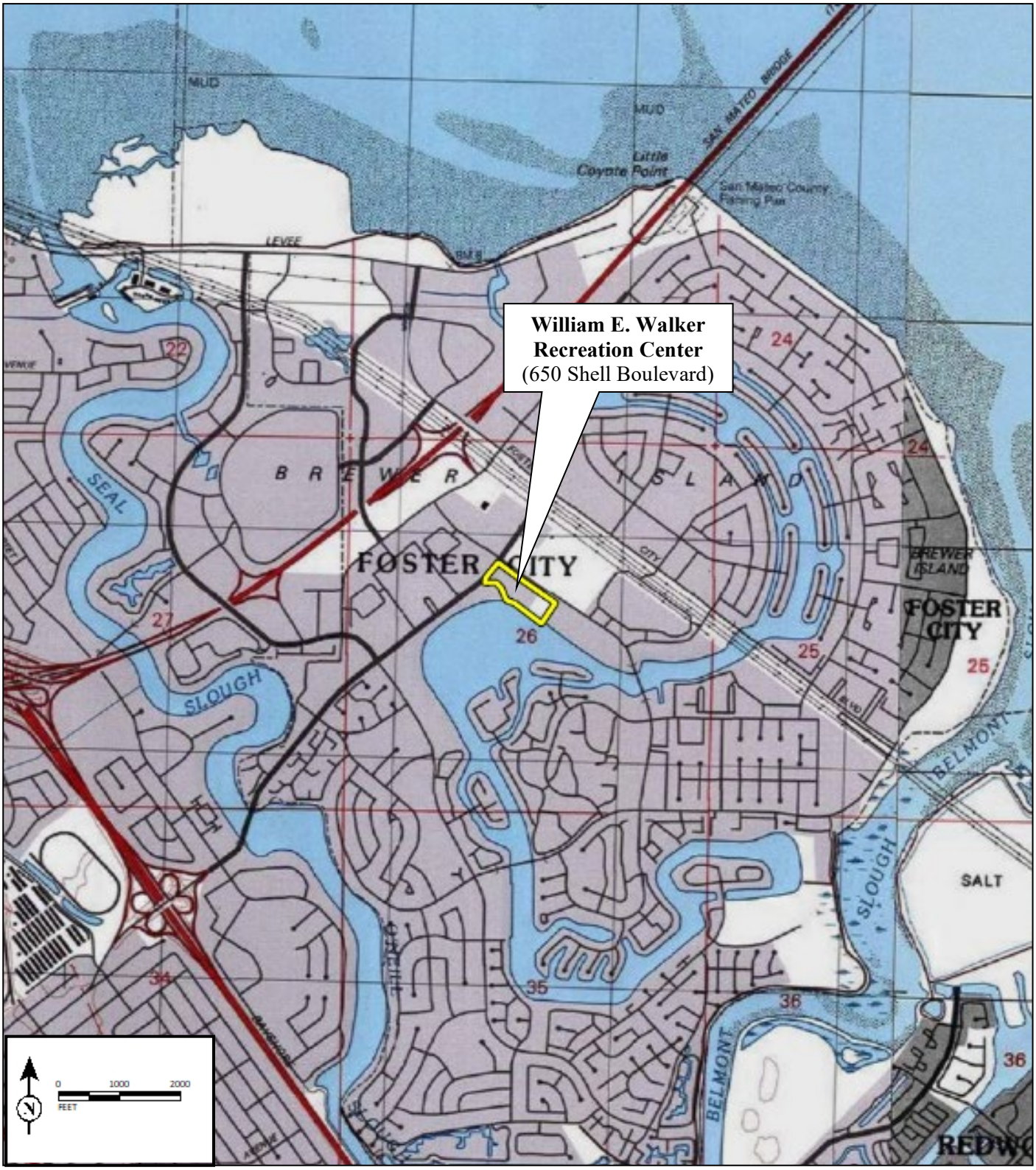
B13. **Remarks:** None

B14. **Evaluator:**
Michael Hibma, M.A., AICP
LSA
157 Park Place
Point Richmond, California 94801

Date of Evaluation: 6/7/23

(This space reserved for official comments.)

Map Names: USGS 7.5-min *San Mateo, Calif.,* and *Redwood Point, Calif.* **Scale:** 1:24,000 **Dates of Maps:** 1997, 1993



B10. Significance (continued)

HISTORICAL CONTEXT

The William E. Walker Recreation Center and vicinity have undergone several of the primary historic-period land use patterns of the San Francisco Bayshore and San Mateo County. These general historical trends are discussed below to provide context for the events that occurred in the resource area and its vicinity. The broad patterns of events that shaped the resource's land use history are described first below, followed by a description of local developments from the late-19th through the 20th centuries.

Precontact Period. Before European settlement, the San Francisco Bay was home to numerous tribal groups. These groups included the Ohlone, who inhabited the area that would become Foster City. These semi-nomadic people were hunter-gatherers who depended on coastal plant and animal species for food and other resources. Spanish records indicate that by the mid-18th century, 10 to 12 indigenous tribelets with an estimated total population between 1,000 to 2,400 lived within San Mateo County (Postel 2007:72).

Spanish Exploration. Intensive Hispanic exploration and settlement of the Bay Area began with the first recorded visit from November 6 to 11, 1769, by a Spanish expedition led by Lieutenant Gaspar de Portolá. The expedition accidentally discovered San Francisco Bay from atop Sweeny Ridge, approximately 10.8 miles west of William E. Walker Recreation Center (Postel 2007:189). On October 9, 1776, the Franciscan Order founded *Mission San Francisco de Asís*, or Mission Dolores, approximately 16.7 miles north of William E. Walker Recreation Center. The Mission claimed the surrounding area and forced the Ohlone out of their communities and into the new mission-controlled colony, which quickly resulted in the decimation of the native population. The priests capitalized on the peninsula's expansive and rich pasturelands to raise cattle and horses for the Spanish government and to financially sustain the missions. By 1810, the missions grazed more than 10,000 cattle (Postel 2007:72, 77-78).

Mexican Period. After Mexico declared independence in 1821, the republican ethos of the Mexican state favored secular growth over ecclesiastical and disbanded the mission system in 1834. This policy emancipated tens of thousands Native American neophytes from church custody and made available hundreds of thousands of acres then held in trust by the church for the Spanish Crown. California's Mexican governors liquidated church lands into land grant ranchos to populate the countryside with politically aligned citizens and assert Mexican sovereignty as well as to reward political allies and reward veterans for their military service. As a result, the number of ranchos in California doubled by 1844.

During this time, political developments in central Mexico distracted the Mexican government. Consequently, the Spanish-speaking native-born Alta Californians, or *Californios*, enjoyed peace and a relatively high degree of political, social, and economic autonomy with minimal intrusion into their affairs by the Mexican state (Works Progress Administration 1939:47-50; Bancroft 1888 II:607-627; McWilliams 1973:38, Monroy 1990:123-132; Marschner 2000:4-6; Robinson 1948:29-31). The William E. Walker Recreation Center, and most of Foster City, is located in lands outside any Spanish or Mexican land grant, largely due to the land being tidal marsh and not useable by ranchers and farmers.

Gold Rush and Statehood. The discovery of gold in Coloma in 1849 resulted in exponential population growth in California that soon overwhelmed existing law enforcement. Many Californio families subdivided and sold off portions of their lands to pay litigation fees and as real estate speculation. The abundance of redwood trees along the San Mateo Peninsula represented a valuable resource that was regulated by the government during the Spanish colonial period, which limited logging and levied a 10 percent tax on lumber exports. During the Mexican colonial period, these restrictions eased, and many newly arrived American and European settlers quickly expanded redwood logging.

In response to peninsula residents seeking to separate from the political corruption and lack of official attention from officials in San Francisco, the California State Legislature passed an act in 1856 to create San Mateo County – named after San Mateo Creek in what would become the City of San Mateo – by appropriating the southern 90 percent of the-then San Francisco County. Subsequent annexations of land in northern Santa Cruz County in 1868 (which included the communities of San Gregorio and Pescadero), as well as refinements with the San Francisco County border in 1901, enlarged San Mateo County to its present size (Coy 1923:236, 238-241; Postel 2007:19-21; Hynding 1982:141-142).

B10. Significance (continued)

HISTORICAL CONTEXT (continued)

Later Development. Although San Mateo County adjoins densely populated San Francisco County, it remained sparsely settled until the early 20th century. Following the construction of the San Francisco-San Jose Railroad in the 1860s, developers purchased large tracts of land near the rail corridor, spurring settlement, and private development throughout San Mateo County (Hynding 1982:63). This would change rapidly following the Earthquake and Fire of 1906. The aftermath of the disaster transformed regional land use patterns, destroying over 521 city blocks (nearly five square miles) of San Francisco and, within a week, over d, displaced persons fled the ruined city to points north and east across the Bay, and to the south. In the years following the reconstruction and recovery, 10,000 refugees chose to remain in San Mateo County, doubling its population (Hynding 1982:78). During the Great Depression, San Mateo County's industries provided a diverse economic base to lessen economic hardship; by 1934, only three percent of residents received aid (Works Progress Administration 1939; Hynding 1982:87). At the onset of World War II, defense workers moved to San Mateo County, creating another population boom, and defense housing quickly expanded many communities' suburban footprints (Hynding 1982:138).

Post War to Present Day. Following World War II, many defense industry workers, returning veterans, and migrants from the eastern United States wanted to remain and enjoy the state's warm climate and plentiful jobs. By 1970, the state's population doubled to nearly 20 million, which spurred a 20-year-long construction boom. Most of the new residents were mostly young families (Self 2003:257), which led to a pace of demographic change that transformed California. Governor Earl Warren characterized the influx of residents as adding "a whole new city of ten thousand people every Monday morning" (Weaver 1967:147). In San Mateo County, the growth of the aircraft industry and passenger air service at San Francisco International Airport spurred the growth of maintenance yards, shops, industrial parks, hotels, and restaurants. The popularity of the automobile and suburban development also fostered a boom in countywide transportation-related infrastructure (Hynding 1982:299-305); between 1946 and 1986, the Bayshore Freeway (U.S. 101), the J. Arthur Younger Freeway (State Route 92), the Portola Freeway (State Route 380), and State Route 280 were built and/or expanded. The San Mateo Bridge was built in 1967 and the Dumbarton Bridge opened in 1971 to carry State Route 84 over San Francisco Bay; the bridge was later enlarged in 1984 (Hynding 1982:256-261; Postel 2007:135-137).

San Mateo County's association with technological innovation in what was to become known as Silicon Valley began in 1948, when three scientists at New Jersey-based Bell Laboratories developed the transistor, the first semiconductor. One of the Bell scientists, William Shockley, relocated to Palo Alto in 1955 to be near his ailing mother in Menlo Park. He opened Shockley Transistors and soon assembled a talented staff via students from the University of California, Berkeley, and Stanford University. However, many found his abrasive managerial style discouraging and soon left Shockley Transistors, taking their knowledge with them. Many remained in the San Francisco Bay Area and formed their own company, Fairchild Semiconductors in 1957, using venture capital from New York bankers (Postel 2007:136; Storper 2015:81-83). This proved a precursor of a pattern of job hopping and venture capital-based firms that shaped Silicon Valley during the following 60 years.

City of Foster City. As previously noted, the lands that would later become Foster City were located along the Bayshore and generally not arable lands. The first major land use pattern for what became Foster City was the succession of industries extracting foods and minerals from the Bay for market. The first of these was oysters, followed by dairy farming, evaporative salt ponds, and finally extracting minerals derived from accumulated shells to manufacture cement. The historical association of this former bayshore area with extraction likely began during the precontact period as Native Americans fished, trapped, and harvested animals and foods from the bay margin. Commercial-level operations began in the 1860s by Booth & Company, a Chicago-based company that imported eastern oysters to San Francisco via the newly completed transcontinental railroad and stored them live in various fenced oyster beds located in San Francisco Bay.

B10. Significance (continued)

City of Foster City. (continued) In 1871, Booth & Company sold out to the Morgan Oyster Company founded by John Stillwell Morgan, an oysterman from New York who began widespread oyster harvesting in the Bay using Washington State oysters. He bought out smaller oyster farmers to by 1886 create a virtual monopoly in San Francisco Bay as the plentiful oysters were marketed and sold as cheap protein for working class workers (Postel 2007:100-102; Booth 2013:127-130). Morgan and other oyster harvesters realized that oyster beds closer to San Francisco were "exposed and prone to roiling in winter storms. Situated near the month of San Pablo Bay, they also endured annual floods of cold, sediment-laden mountain runoff from the Sacramento and San Josquin Rivers" (Booker 2013:136). Morgan and other oyster harvesters gradually shifted operations to the south bay where oyster thrived in the calmer and consistent currents, temperature, and clarity. The commercial "oyster boom" lasted for 50 years until the 1920s as increasing levels of Bay pollution from untreated sewage, industrial waste, and storm run-off killed oysters or rendered them unsafe to eat. By 1923, Morgan Oyster sold off their San Mateo oyster beds to Pacific-Portland Cement Company. A year later Pacific-Portland opened a cement plant in San Mateo was in operation using the minerals, mostly lime, dredged from the Bay floor and "for nearly fifty years thereafter cement companies dredged the Atlantic oyster shells and the ancient native oyster reefs that lay beneath, converting oyster shells to cement to build the highways and cities that now ring the bay" (Hynding1982:252-253; Booth 2013:149).

Onshore land use patterns for what would become Foster City during the late 19th and early 20th centuries was growing hay to feed dairy cattle providing perishable dairy products for the nearby San Francisco market. According to USGS topographic quadrangle maps of the area, what now contains Foster City was once part of Brewer's Island, created by draining and leveeing lands by Frank M. Brewer circa 1900 for use as a dairy ranch (USGS 1939, 1947, 1949, 1956). According to historian Vicki Beard, the "Brewers sold much of the dairy property,[…] to the Leslie Salt Company in the 1940s. Leslie Salt had large holdings along both sides of [the bay], with a large refining plant located near Redwood City, just south of Brewer's Island" (Beard 2016:5). Historian Matthew Morse Booker notes that "by 1936, Leslie controlled some forty-four thousand acres of tidal wetlands on both shores of the southern arm of San Francisco Bay," Booker goes on to state that by 1947, "Leslie's San Francisco Bay salt ponds produced five hundred thousand tons of salt, worth $3 million" (Booth 2017:162). By this time, the Shilling family had ownership control of Leslie salt, but kept the Leslie Salt brand name (Postel 2007:105).

In 1958, Texan developer and oil man T. Jack Foster and Bay Area business man Richard Grant purchased Brewers Island form the Shilling family/Leslie Salt to plan and build a community called Foster City. As described by Foster's son, Jack Jr., the planned development on "eight square miles of tidal mud" would use several guidelines:

- [place an] "[i]ndustrial park located north of the master planned Highway 92. That area was an ideal size for the industrial base that we committed to develop as part of the balanced tax base that we sought for the development.
- Placement of a lagoon to secure the best drainage of the land with the least amount of fill.
- A system of arterial street to allow easy vehicular access to the farthest reaches of Foster City.
- Residential neighborhoods of a size to accommodate an elementary school. The boundaries of each neighborhood would be [defined by] the lagoon or an arterial street.
- A central shopping area plus neighborhood convenience shopping areas. The neighborhood centers were to be on the lagoon to allow shopping by water access" (Cerny 2007:163-164; Foster Jr., 2012:20).

According to historian Susan Dinkelspiel Cerny, Foster and his team hired "*engineers and land planners Wisely & Ham [to develop] the complex hydrology and design of Foster City's system of roads, canals, and lagoon, The town plan included extensive office, retail, civic, and residential areas. T.Y Lin, engineers, and Lawrence Lackey, consulting architect, designed the high arch bridges over the canals. Durell Stone designed a number of the major early Foster City developments in his signature "modern" Neoclassicism, such as the extant Admiralty Apartments* (1962) [remodeled circa 2010] *at Foster City Boulevard and East Hillsdale [Boulevard]. The first homes in Foster City were completed in 1964 and were an instant commercial success, but many of the early 1960s buildings have largely been replaced*" (Cerny 2007:163-164).

B10. Significance (continued)

City of Foster City. (continued) As a planned development, Foster City's success is "*due to the quality of its initial plan and developments and to [Estero Municipal Improvement District], [Foster City Community Association], committed local residents and politicians, Foster City made it through these hard times to thrive in the 80s and 90s to essential build out. It became a prime example of the intrinsic value of the New Town model*" (Platt 2008:19). Designed in 1960 and incorporated in 1971, Foster City was initially planned for 35,000 residents, today (as of July 2022) it is home to 32,026 (United States Census Bureau 2023).

William E. Walker Community Center. Soon after Foster City incorporated, plans for a Community Center began to take shape. On March 6, 1973, the Estero Municipal Improvement District (EMID) solicited bids to build a community center "to provide some 18,000 square feet of floor area, with much of the 7.8 acres to go to outdoor tennis, volleyball, and basketball courts, walkways and landscaping" (*The Times* 1973a:21; 1973b:80). The building that would become the Community Center "to be in three buildings under one roof and the building capable of handling an estimated 560 persons in various activities" (ibid). The arrangement of the building's footprint and interior spaces was designed by San Francisco-based architectural firm of Germano Milono and Associates, who specified "for modern buildings with the liberal use of redwood" (ibid.).

The Community Center was dedicated February 9, 1974. According to the official ceremony program, the Community Center "sites on a 7.8-acre site and consists of four separate wings including: (1) a Main assembly wing; (2) Pre-school and dance wing; (3) Arts and crafts wing and (4) Teen center. Also included on the site are six lighted tennis courts, two volley ball courts and a boat launch ramp and sail boat storage facility. All the wings are connected by a covered walkway and several well-placed planter boxes add to the pleasant, well-planned landscape and open space areas" (Foster City Historical Society 2023a). The final cost to build the Community Center came to $1,423,582.00 (Ibid). On hand for the ceremony were federal, state, and local elected officials and representatives, County and Municipal Court judges, Foster City officials, and mayors from nineteen communities in San Mateo County.

The original configuration of the Community Center's original configuration was an indoor/outdoor complex of three, discrete separate buildings connected by covered walkways around a central courtyard with raised concrete planters. The several wings, referred to earlier, had fenced-in areas for outdoor activities. According to the Foster City Historical Society (FCHS), the original Community Center was clad in unpainted vertical redwood siding with wide, boxed overhanging eaves arranged around an interior courtyard with various raised, concrete walled planters. The rambling single-story building footprint was covered by a flat roof sheathed in tar and rock pebble roofing. The main, interior space was covered by a variable-pitched "Polynesian- style" crenelated roof (FCHS 2023).

For the next twenty years the Community Center provided Foster City residents and guests a space for dances, parties, ceremonies, games, art exhibitions, conferences, charity benefits, elderly and singles-club activities, worker union meetings, child day care, safety and emergency response training classes, adult education and hobby classes, a restaurant and two bars. By 1984, the building was renamed the Foster City Recreation Center and renamed again in 1998 for William Walker, a former Mayor of Foster City who "lobbied for more recreational space" (FCHS 2005:92).

Renaming the Community Center after William Walker coincided with a renovation program that expanded the original Community Center by approximately one-third in size and enclosed the complex into one building. The effort to renovate the Community Center took shape by 1993 when, according to the *Foster City Community Recreation Center Feasibility Study* prepared by Maimi, Florida-based Arquitectonica, the twenty-year old building began "to show extensive signs of wear and tear from its heavy public use and deterioration from exposure to the weather" (Arquitectonica 1993:3). The 1993 feasibility study offered three options or schemes, ranging from conservative (Scheme A) to more elaborate (Scheme C) in degree of change. Scheme A proposed to "maintain the current facilities with upgrading the overall appearance of the building" no expansions of current spaces were proposed, and current programming would remain in place (Ibid, 1993:11). No expansion of the building would occur.

B10. Significance (continued)

William E. Walker Community Center. (continued) Under Scheme C, the complex of buildings and open spaces would be reconfigured into "one unified structure, allowing for controlled access and improved security." This would be done by infilling the open courtyard and demolishing the Arts and Crafts Wing to reorganize the space into "more efficient layout of meeting rooms of larger size. Other significant aspects of Scheme C included relocate administrative space and an Art Gallery to a "a more central location allowing for monitoring and servicing of all Recreation Center areas." Other proposed changes to the Recreation Center would increase the building's total square footage by approximately 33%; from 17,746 square feet to 26,500 square feet (Arquitectonica 1993:19-20).

Under each design scheme, the Community Center/Recreation Center would remove or replace (1) the existing roof, (2) warped facia boards, (3) existing exterior redwood siding with an exterior cement plaster, (4) paint all wood trim, including covered walkway structures, (5) install exterior lighting for "security and aesthetic enhancement", (6) Americans with Disability act (ADA)-complaint signage, and similar aesthetic changes for the interior spaces, acoustics, lighting and doors, and etc. (Arquitectonica 1993). The Foster City Council reviewed each option and on February 10, 1994, directed City Staff to implement Scheme C and hired Arquitectonica to implement the modifications to the Recreation Center (Valkenaar 1994). The Foster City Recreation Center, renamed the William E. Walker Recreation Center, as noted above, was opened in 1998 (FCHS 2005:92). Four years later a 5,000 square foot Senior Center Wing was added to the building's west-facing façade accessed via concrete paved walkways, a surface parking lot with 27 parking stalls with access to Shell Boulevard and a circular turnaround area near the entrance (Liu 2016:2).

In 2016 a process to address the usefulness and adequacy of the Recreation Center began, in part due of the anticipated need to replace the building's roof. The implicit need for a center that reflects the changing and evolving demographics of Foster City as well as the practical needs as an emergency shelter had, by 2017, the City Council began the process of determining how to meet these needs (City of Foster City 2019).

Germano Milono. The design professional responsible for planning the Foster City Community Center was San Francisco-based architect German Milono. Born March 5, 1913, in Pittsburgh, Pennsylvania, to Charles and Delphano Milono, who immigrated to the United States from the northern Italian town of Vestignè in 1916 (Ancestry.com). They lived at 142 Sycamore Street, Pittsburgh. According to the Online Archive of California, (OAC), Milono, "taught architectural design for the museum extension of the [Works Progress Administration] in Pennsylvania, and in 1937 he received his architecture degree from Carnegie Institute of Technology [now Carnegie Mellon University], in Pittsburg.

In 1939, Germano married Gene Moe as actress from North Dakota (ancestry.com). Germano and Gene had two sons, Carlo, and Marco (San Francisco Examiner 1978). While working for the Farm Security Administration within the U.S. Department of Agriculture, Milono was drafted into the U.S. Army during World War II served in the United States Army 1942-1946 and acquired his California architecture license in 1947. In 1969 he was invested as a Fellow of the AIA. He was appointed to the California State Board of Architectural Examiners by Governor Edmund G. "Pat" Brown in 1964 and served until 1969. He also served as a member of the Housing Authority of the City and County of San Francisco during 1966-1969 (OAC 2023).

According to information from the University of California's online Environmental Design Archives, Germano Milono and Associates, based at 402 Jackson Street in San Francisco worked, "mostly in California and Nevada, [and] took on educational, civic, commercial, medical, religious, planning, and single-family residential projects. The firm collaborated with structural engineer T. Y. Lin and landscape architect Thomas D. Church. Notable projects include renovations to several buildings on the University of California, Berkeley campus, the Social Sciences Building on the University of California Santa Cruz campus, and Sonoma State College Library. Milono also worked extensively on the Santa Catalina School for Girls in Monterey, California, and designed several religious projects" (UCB Environmental Design Archives 2023). Germano Milono was a member of the American Institute of Architects of which he later became a Fellow in 1969 (Pacific Coast Architectural Database 2023). He died April 22, 1978, in San Francisco (San Francisco Examiner 1978).

B10. Significance (continued)

Germano Milono. (continued) The Online Archive of California (OAC) indicates Germano as familiar with Foster City and designed several civic and private residential projects. In addition to the original Community Center, Milono's other Foster City works include (1) the Captain's House (Foster City's first residence and the home of Jack Foster); (2) the Estero Municipal Utility District's Maintenance Facility (1973-74), (3) Foster City Sales Pavilion; (4) Raymond Foster residence (1963); (5) William Innes residence (1964); (6) Jack Kelley residence (1964); and (7-9) three Foster City model homes (1964) (OAC 2023).

Second Bay Tradition. The original design features and configuration of the William E. Walker Recreation are associated with the Second Bay Tradition, a regional-based subvariant of Modernism developed in the San Francisco Bay Area between the mid-1930s and late 1960s. Pioneered by architects such as William Wurster, Gardner Dailey, and Joseph Esherick, Second Bay Tradition was applied primarily to residences.

The Second Bay Tradition aesthetic focused on the idea of "California living" through simple massing, expansive windows, open floor plans, and a connection of indoor and outdoor spaces through a collaboration of architecture and landscape design to take full advantage of the region's mild Mediterranean climate. The use of local materials such as redwood further enhanced this aesthetics' regional flavor. These elements, in particular wood cladding and large windows, were also applied to non-residential buildings, with open floor plans to flexibly adapt and accommodate various uses.

As applied to the William E. Walker Recreation Center, the Second Bay Tradition is reflected via by its mostly one-story and interlocking rectangular massing, variable-pitched and crenelated roof above the main ballroom space, flat roofs with wide overhanging eaves, and large ribbon windows along certain façades that wrap around corners which lend to a sense of openness and natural light enhancing the aesthetics' fundamental indoor-outdoor connection as well as the original vertical redwood siding, and contrasting trim. According to the San Francisco Planning Department's *Modern Architecture and Landscape Design* context, several character-defining features of the Second Bay Tradition include:

- Low-pitched or flat roof
- Wood Cladding
- Overhanging Eaves
- Exposed Rafters
- Horizontal Massing
- Large Expanses of Glass
- Ribbon Windows
- Japanese Influence
- Plain, simple or vernacular appearance
- Woodsy, unfinished texture
- Linked to Landscape through pergola, atrium, or trellis (San Francisco Planning Department 2011:180).

B10. Significance (continued)

California Register of Historical Resources (CRHR) Evaluation

The following section applies the California Register of Historical resources (CRHR) significance criteria to the William E. Walker Recreation Center (Recreation Center). The period of significance for the Community Center is 1974, which represents the period when it was under construction. The evaluation analysis below quotes the applicable CRHR subject criteria and is followed by a combined significance finding and an assessment of integrity.

CRHR Criterion 1: *Is it associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage?*

The Recreation Center is associated with the early growth of Foster City and the emergence of its civic. Originally named the Foster City Community Center, this space, as is common to similar buildings in communities statewide are intended as active, multi-use public spaces. The Recreation Center is one of many in California that serve this purpose, however it weas the first such space in Foster City. The Recreation Center is also associated with the larger pattern of institutional growth, public recreation, and community development of Foster City in the late 1960s and into the 1970s. During and after the time of the Recreation Center's construction, other important modern civic buildings in Foster City, such as the City Hall, the Library, the city's parks and police and fire stations were built. Since its dedication, the Recreation Center continues to serve the community as a venue for events, classes, meetings, celebrations, parties, civic events, and organized sports; it is also used by local organizations for meetings, fund raising, and social events. In 1998, the City of Foster City rededicated the building as the William E. Walker Recreation Center and reaffirmed the building's original purpose as a multi-use community facility and amenity. Nearly 50 years later, it continues to serve the residents of Foster City and the wider public, however the building's original function as a Community Center was later reassigned to a replacement Community Center at 1000 East Hillsdale Boulevard. For these reasons, the Recreation Center appears significant under CRHR Criterion 1 at the local level of significance.

CRHR Criterion 2: *Is it associated with the lives of persons important in our past?*

Background research did not identify an association with any specific persons important in our past. Background research did not find an association with the life of an important local official, athlete, or coach. The Recreation Center is named after William E. Walker a former Foster City Mayor and an individual important in developing the city's youth sports and recreation programs. However, this association is commemorative in nature. For these reasons, the Recreation Center does not appear significant under CRHR Criterion 2.

CRHR Criterion 3: *Does it embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values?*

The Recreation Center building retains some of the original general architectural characteristics of Second Bay Tradition, a regional architectural style well represented in the existing building stock of the city of Foster City, San Mateo County, and the wider San Francisco Bay Area. It is a building type inexpensive to build, and this property was designed to provide a functional multi-use building to contain many different uses. Designed by architect Germano Milono, the building's flat roof with crenelated multi-pitched roof atop the main ballroom space is its signature design feature. A review of other community centers in the Bay Area and California found the Community Center's roof shape uncommon for community centers. As discussed above, Germano Milono was a prolific architect known for his work designing several early institutional and residential buildings in Foster City. His skill as an architect and as an important creative individual, as shown in Foster City to commission him to design the original Recreation Center, which displayed the range of his skill in applying Second Bay Tradition design to create a multi-purpose space. Milono's professional portfolio and contributions to the architectural community are well regarded by the architectural profession, having been made an AIA Fellow in 1969, five years before he designed the Recreation Center. The Recreation Center may have appeared significant as an example of Second Bay Tradition had it remained largely intact. However subsequent significant alterations have dissolved this association. For these reasons, the Recreation Center does not appear significant under CRHR Criterion C/3.

B10. Significance (continued)

California Register of Historical Resources (CRHR) Evaluation (continued)

CRHR Criterion 4: *Has it yielded, or may it be likely to yield, information important in prehistory or history?*

This criterion is typically used to evaluate the potential for archaeological deposits to contain information important in understanding past lifeways of modern Foster City's early historic-period and pre-European contact inhabitants. Its application to architecture is less common in eligibility assessments due to the prevalence of popular publications that thoroughly document the form, materials, and design of a given building type. Information about the Second Bay Tradition architectural style, design aesthetic, and construction methods, as represented by the Recreation Center, can be obtained from other widely available sources on this and other common architectural styles. The building is unlikely to yield information important to the history of Foster City, San Mateo County, or California. For these reasons, the Recreation Center does not appear significant under CRHR Criterion 4.

Integrity

In addition to being significant under one or more criteria, a resource must retain enough of its historic character and appearance to be recognizable as an historical resource and retain integrity, which is defined as the ability of a resource to convey the reasons for its significance (CCR Title 14 Section 4852(c)). There are seven aspects of integrity used to measure a property's ability to convey its significance: *location*, *design*, *setting*, *materials*, *workmanship*, *feeling*, and *association* (National Park Service 1997:45). Historical resources eligible for listing in the CRHR must meet one of the criteria of significance described above and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. "To retain historic integrity a property will always possess several, and usually most, of the aspects" (National Park Service 1997a:44; California Office of Historic Preservation 2011:22).

Integrity Assessment. The section below discusses the Recreation Center with respect to all seven aspects of integrity.

The Recreation Center has not been moved and retains integrity of *location*.

The Recreation Center retains integrity of *feeling* and *setting*. Leo J, Ryan Park (originally Central Park) began its function as a multi-use public area before the Recreation Center began construction. It has continued in this capacity to today. The areas to the north, east, and south are developed with civic building including a new Community Center, Library, and outdoor open space, and residential areas. The building's setting has been altered by a parking lot constructed to the west of the building, but this change has not diminished the experience of viewing the building from the east, south, or west. Since the building opened, the trees and landscaping have changed, and growth of trees near the building have partially blocked certain views of the main façade over time.

The Recreation Center no longer retains integrity of *workmanship*, *design*, and *materials*. In the 1990s, Foster City undertook a series of significant alterations to the Recreation Center to modernize its uses, appearance, and expand the types of services for an aging and changing population. These changes included a new roof, removal of the original redwood cladding with cement plaster, new windows, doors as well as additions so the building that enclosed the original open spaces and covered walkways to provide a secure building. In the early 2000s, a Senior Wing was added to the west façade, further altering the building. Taken together, these significantly altered its original external appearance, massing, and ornamentation.

The Recreation Center retains integrity of *association*. The building remains a multi-functional community space for recreation, education, socializing, physical fitness, and organized recreation for residents, visitors, and guests.

CONCLUSION. The Recreation Center retains integrity of location, feeling, setting, and association. However, the building's integrity of *workmanship*, *design*, and *materials* were significantly altered by subsequent remodeling in 1998 and 2002. Based on the discussion above, the Recreation Center no longer retains sufficient integrity to convey its significance under CRHR evaluative criteria; therefore, it *does not appear* individually eligible for inclusion in the CRHR, is not a contributing element to a known or potential historic district, and therefore the Recreation Center is not a historical resource for the purposes of CEQA as described in Section 21084.1 of the California Public Resources Code.

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P5a. Photograph (continued)

William E. Walker Recreation Center. North façade. View southeast from Shell Blvd., sidewalk. LSA photograph 6/7/23.

William E. Walker Recreation Center. Main Entrance. North façade. View south. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. North façade. Main entrance. LSA photograph 6/7/23.

William E. Walker Recreation Center. Entrance. East façade. View west. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. North and east façades. East entrance. LSA photograph 6/7/23.

William E. Walker Recreation Center. East and (partial) south façade. View northwest. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. South façade. View northwest. LSA photograph 6/7/23.

William E. Walker Recreation Center. South façade (partial). View northeast. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. West and south (partial) façades. View northeast. LSA photograph 6/7/23.

William E. Walker Recreation Center. South façade. View northwest from across lagoon. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. Main entrance area and lobby. View north. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. Commemorative plaque. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Spirit Room*. View southeast. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. *Spirit* Room. View southwest. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Mallard Room*. View south. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. *Mallard Room*. View southwest. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Gull Room*. View southwest. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. *Gull Room*. View northeast. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Crane Room*. View southwest. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. *Crane Room*. View northeast. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Spray Room*. View southwest. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. *Spray Room*. View northeast. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Bluebird Room*. View southwest. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. *Bluebird Room*. View northeast. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Lagoon Room*. View northeast. LSA photograph 6/7/23.

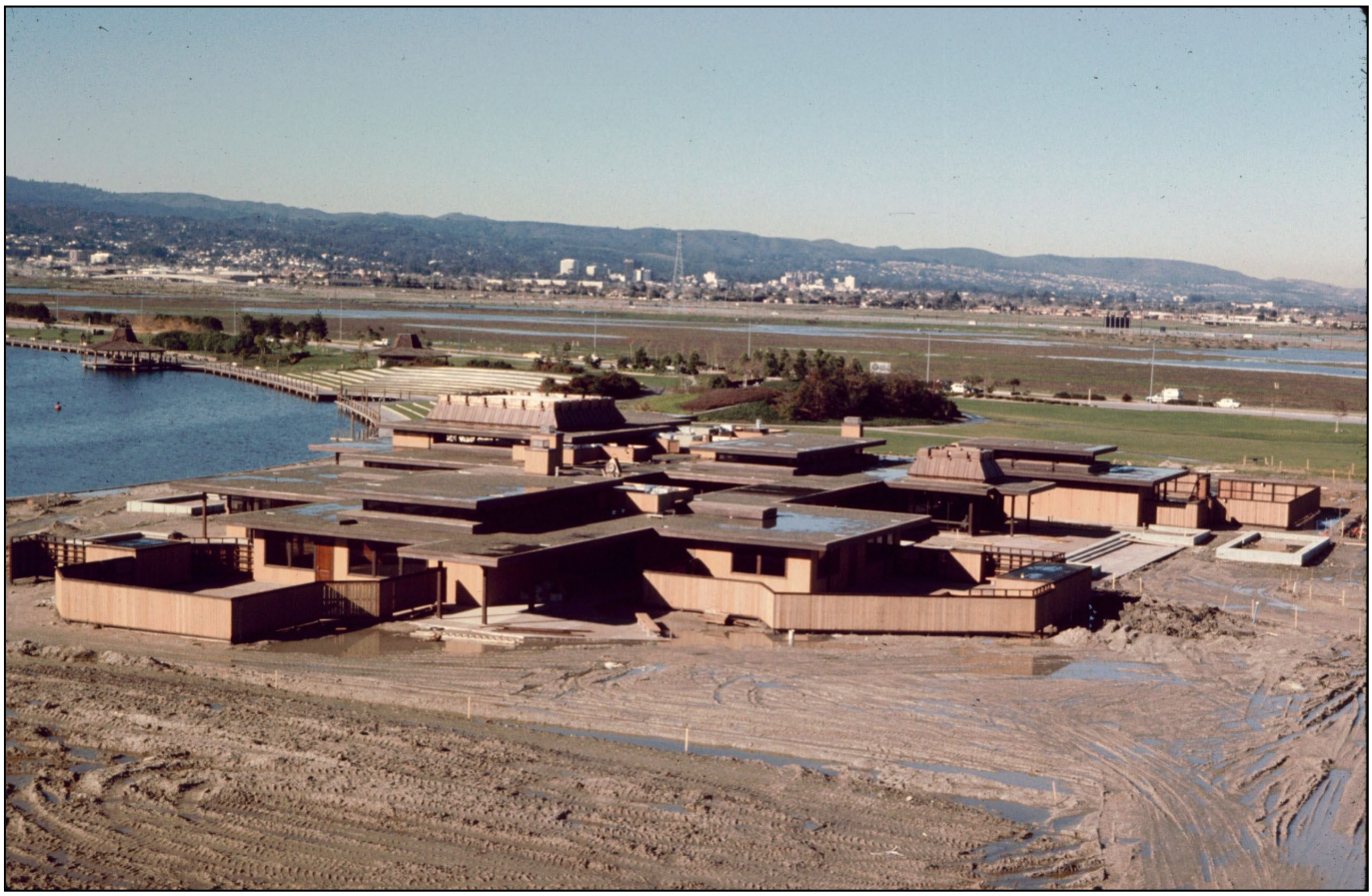
William E. Walker Recreation Center. Interior. *Lagoon Room*. View northwest. LSA photograph 6/7/23.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior. *Lagoon Room*. View east. LSA photograph 6/7/23.

William E. Walker Recreation Center. Interior. *Lagoon Room*. View west. LSA photograph 6/7/23.

P5a. Photograph (continued)



William E. Walker Recreation Center. East and partial north façade, view west towards area that contains MetroCenter. Original configuration as Foster City Community Center.
Photograph taken January 1974. Source: Foster City Historical Society:
https://fostercitylife.org/foster-city-recreation-center-construction-photos-1974-1976/.

P5a. Photograph (continued)

William E. Walker Recreation Center. Interior courtyard, original configuration as Foster city Community Center. Photograph taken October 1976. This are enclosed and plantings removed during 1998 remodeling. Source: Foster City Historical Society: https://fostercitylife.org/foster-city-recreation-center-construction-photos-1974-1976/.

P5a. Photograph (continued)

William E. Walker Recreation Center. Original configuration. Photograph taken March 19, 1984. North at top of frame. Source: FrameFinder Aerial Images – 650 Shell Boulevard, Foster City, University of California, Santa Barbara Library: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/.

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APPENDIX D

NOISE MEASUREMENT SHEETS

Noise Measurement Survey – 24 HR

Project Number: 20231009
Project Name: FCRC Project

Test Personnel: Moe Abushanab
Equipment: Spark 706RC (SN:18571)

Site Number: LT-1 Date: 5/4/23

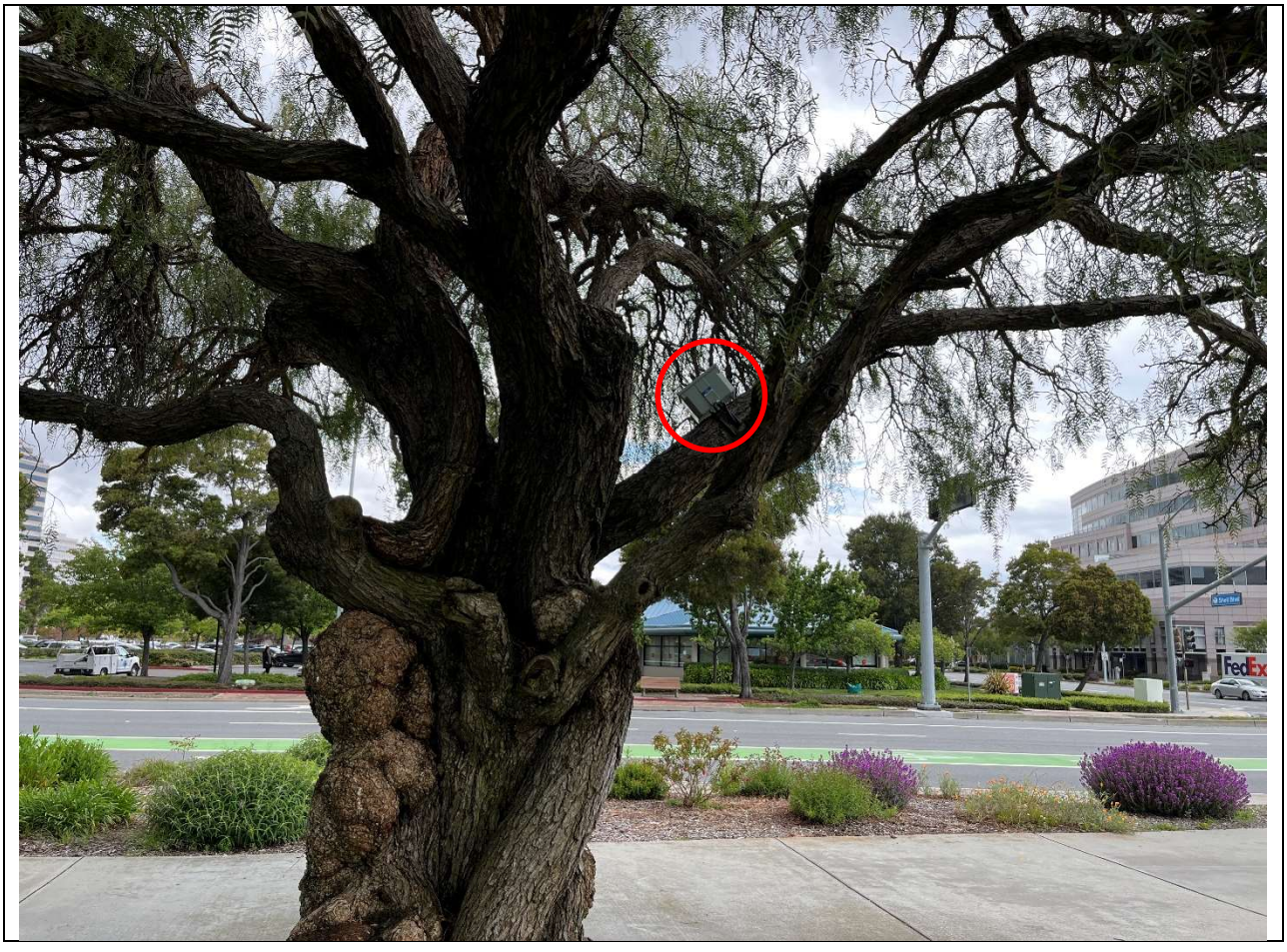
Time: From 2:00 p.m. To 2:00 p.m.

Site Location: Near northwest corner of project site, on a tree, approximately 90 feet away from Hillsdale Boulevard centerline and approximately 160 feet away from Shell Boulevard centerline.

Primary Noise Sources: Traffic noise from Hillsdale Boulevard and Shell Boulevard
Occasional aircraft noise.

Comments:

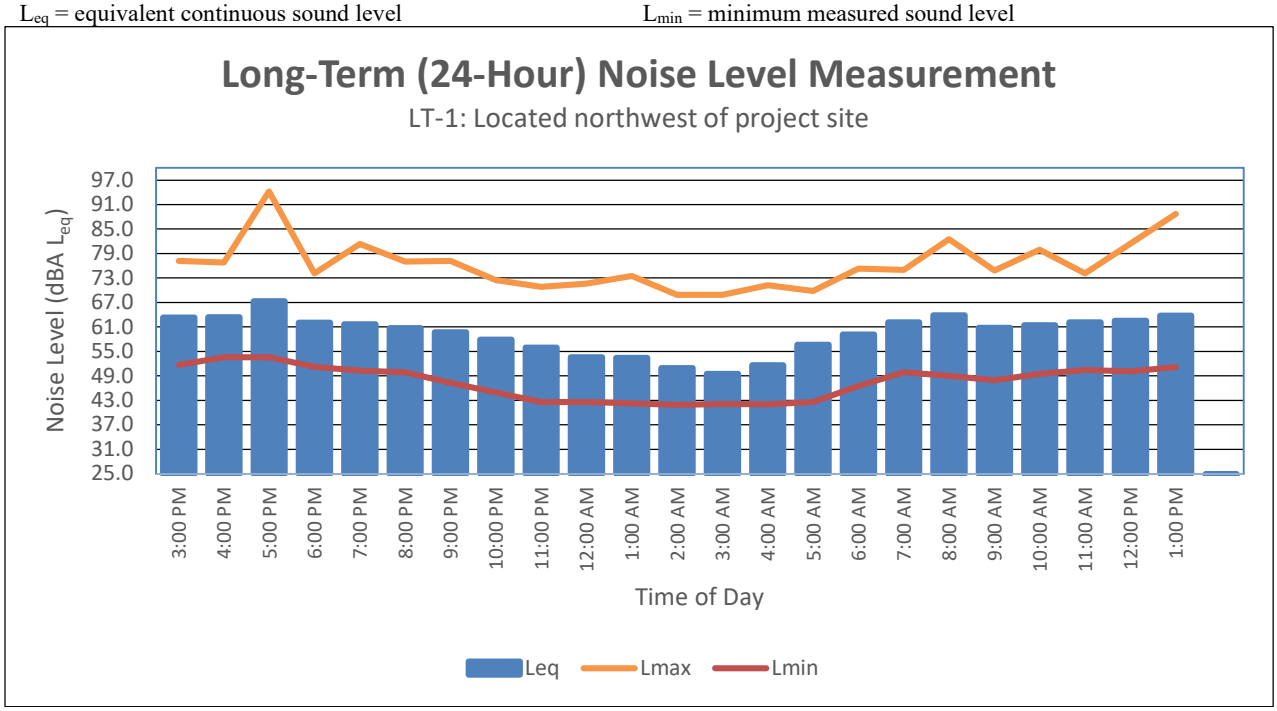
Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
2:00 PM	5/4/23	68.8	92.0	52.7
3:00 PM	5/4/23	63.4	77.2	51.7
4:00 PM	5/4/23	63.3	76.8	53.6
5:00 PM	5/4/23	67.3	94.2	53.6
6:00 PM	5/4/23	62.0	74.1	51.2
7:00 PM	5/4/23	61.6	81.3	50.3
8:00 PM	5/4/23	60.7	77.0	49.9
9:00 PM	5/4/23	59.7	77.2	47.3
10:00 PM	5/4/23	57.9	72.5	44.9
11:00 PM	5/4/23	55.9	70.8	42.6
12:00 AM	5/5/23	53.6	71.6	42.6
1:00 AM	5/5/23	53.4	73.5	42.3
2:00 AM	5/5/23	50.9	68.9	41.9
3:00 AM	5/5/23	49.5	68.9	42.1
4:00 AM	5/5/23	51.6	71.2	42.0
5:00 AM	5/5/23	56.6	69.8	42.6
6:00 AM	5/5/23	59.1	75.3	46.5
7:00 AM	5/5/23	62.1	75.0	49.9
8:00 AM	5/5/23	63.9	82.5	49.0
9:00 AM	5/5/23	60.8	74.8	47.9
10:00 AM	5/5/23	61.4	79.9	49.5
11:00 AM	5/5/23	62.1	74.1	50.4
12:00 PM	5/5/23	62.5	81.4	50.1
1:00 PM	5/5/23	63.8	88.7	51.1

Source: Compiled by LSA Associates, Inc. (2023).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20231009
Project Name: FCRC Project

Test Personnel: Moe Abushanab
Equipment: Spark 706RC (SN:18572)

Site Number: LT-2 Date: 5/4/23

Time: From 2:00 p.m. To 2:00 p.m.

Site Location: Near southeast corner of project site, on a tree near parking lot, approximately 290 feet away from Shell Boulevard centerline.

Primary Noise Sources: Traffic noise from Hillsdale Boulevard and Shell Boulevard
Parking lot activities
Noise from tennis court and skate park. Occasional aircraft noise.

Comments:

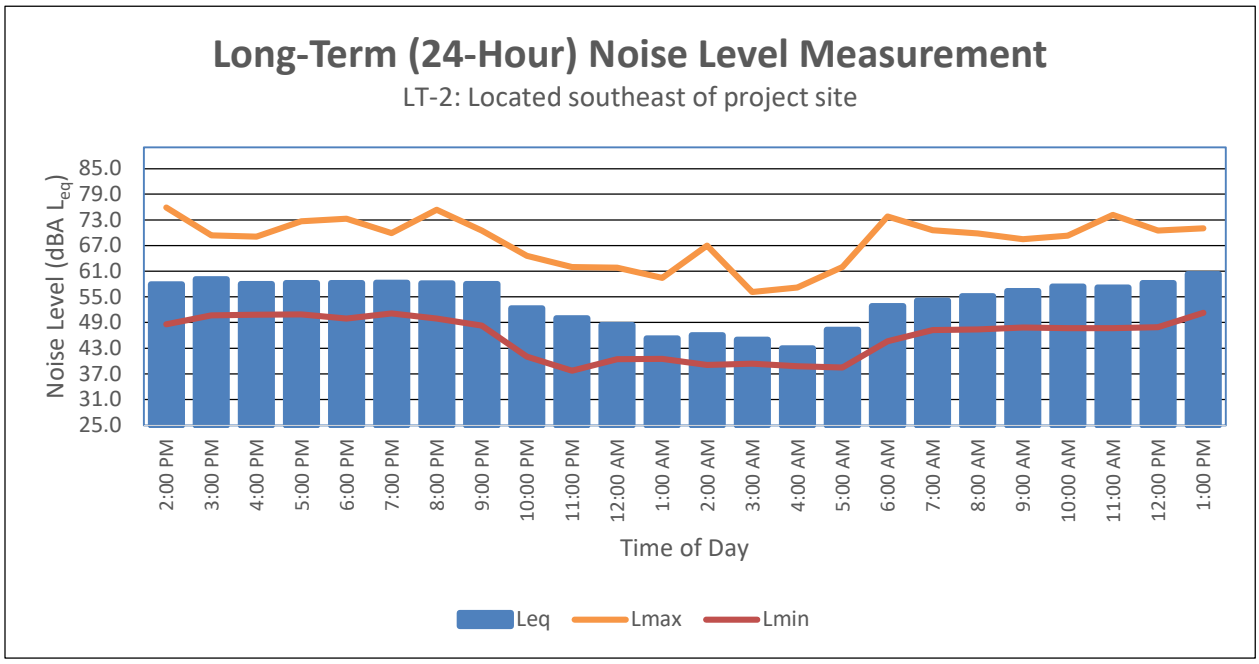
Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
2:00 PM	5/4/23	58.0	75.9	48.6
3:00 PM	5/4/23	59.1	69.4	50.7
4:00 PM	5/4/23	58.0	69.1	50.8
5:00 PM	5/4/23	58.2	72.7	50.9
6:00 PM	5/4/23	58.2	73.3	49.9
7:00 PM	5/4/23	58.3	69.9	51.1
8:00 PM	5/4/23	58.2	75.4	49.9
9:00 PM	5/4/23	58.0	70.5	48.3
10:00 PM	5/4/23	52.3	64.6	41.0
11:00 PM	5/4/23	50.0	62.0	37.8
12:00 AM	5/5/23	48.4	61.8	40.4
1:00 AM	5/5/23	45.3	59.4	40.5
2:00 AM	5/5/23	46.0	67.0	39.1
3:00 AM	5/5/23	45.0	56.2	39.4
4:00 AM	5/5/23	43.0	57.2	38.8
5:00 AM	5/5/23	47.3	62.0	38.5
6:00 AM	5/5/23	52.8	73.8	44.6
7:00 AM	5/5/23	54.1	70.6	47.2
8:00 AM	5/5/23	55.2	69.8	47.4
9:00 AM	5/5/23	56.4	68.5	47.8
10:00 AM	5/5/23	57.4	69.3	47.7
11:00 AM	5/5/23	57.2	74.2	47.7
12:00 PM	5/5/23	58.3	70.5	47.9
1:00 PM	5/5/23	60.4	71.0	51.3

Source: Compiled by LSA Associates, Inc. (2023).

dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



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APPENDIX E

CONSTRUCTION EQUIPMENT CALCULATIONS

Construction Calculations

Phase: Demolition

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Concrete Saw	1	90	20	50	0.5	90	83
Dozer	2	82	40	50	0.5	82	81
Excavator	3	81	40	50	0.5	81	82
					Combined at 50 feet	**91**	**87**
					Combined at Receptor 340 feet	**74**	**70**

Phase: Site Preparation

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Dozer	3	82	40	50	0.5	82	83
Tractor	4	84	40	50	0.5	84	86
					Combined at 50 feet	**86**	**88**
					Combined at Receptor 340 feet	**69**	**71**

Phase: Grading

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Excavator	1	81	40	50	0.5	81	77
Grader	1	85	40	50	0.5	85	81
Dozer	1	82	40	50	0.5	82	78
Tractor	3	84	40	50	0.5	84	85
					Combined at 50 feet	**89**	**87**
					Combined at Receptor 340 feet	**73**	**71**

Phase: Building Construction

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Crane	1	81	16	50	0.5	81	73
Man Lift	3	75	20	50	0.5	75	73
Generator	1	81	50	50	0.5	81	78
Tractor	3	84	40	50	0.5	84	85
Welder / Torch	1	74	40	50	0.5	74	70
					Combined at 50 feet	**87**	**86**
					Combined at Receptor 340 feet	**71**	**70**

Phase: Paving

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Drum Mixer	1	80	50	50	0.5	80	77
Paver	1	77	50	50	0.5	77	74
All Other Equipment > 5 HP	2	85	50	50	0.5	85	85
Roller	2	80	20	50	0.5	80	76
Tractor	1	84	40	50	0.5	84	80
					Combined at 50 feet	**89**	**87**
					Combined at Receptor 340 feet	**72**	**71**

Phase: Architectural Coating

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Compressor (air)	1	78	40	50	0.5	78	74
					Combined at 50 feet	**78**	**74**
					Combined at Receptor 340 feet	**61**	**57**

Sources: RCNM

[1]- Percentage of time that a piece of equipment is operating at full power.
dBA – A-weighted Decibels
Lmax- Maximum Level
Leq- Equivalent Level