Jacobs

Outer Harbor Terminal Redevelopment Project
Building Resiliency Now and For the Future

Draft Initial Study and Proposed Negative Declaration

August 2024

Prepared for
Port of Oakland

PORT OF OAKLAND

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
2022 Scoping Plan	2022 Scoping Plan for Achieving Carbon Neutrality
$\mu g/m^3$	microgram(s) per cubic meter
AB	Assembly Bill
AC	Asphalt Concrete
ACTC	Alameda County Transportation Commission
AMS	Ancillary Maritime Services
APE	area of potential effects
ARPA	Archaeological Resources Protection Act
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BCDC	San Francisco Bay Conservation and Development Commission
BESS	Battery Energy Storage System
bgs	Below Ground Surface
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standard
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGP	Construction General Permit

Acronym	Definition
CH_4	methane
CHRIS	California Historical Resources Information System
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
CRHR	California Register of Historical Resources
CTP	Alameda Countywide Transportation Plan
CY	Cubic Yards
dBA	A-weighted decibels
DPM	diesel particulate matter
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
EV	electric vehicle
FONSI	Finding of No Significant Impact
GHG	greenhouse gas
HDD	Horizontal Direction Drilling
I-	Interstate
IBC	International Building Code
IEPR	Integrated Energy Policy Report
IS	Initial Study
lb/day	pound(s) per day
lcfs	Low carbon fuel standard
LED	light-emitting diode
LF	Linear Feet
MARAD	Maritime Administration
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MTC	Metropolitan Transportation Commission
Mobil	Mobil Oil Corporation

Acronym	Definition
mph	mile(s) per hour
MS4	Municipal Separate Storm Sewer System
N/A	not applicable
NAAQS	National Ambient Air Quality Standard
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
ND	Negative Declaration
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
N_2O	nitrous oxide
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O_3	Ozone
OGV	ocean-going vessel
OHT	Outer Harbor Terminal
OPR	Office of Planning and Research
OSCAR	Open Space Conservation and Recreation
PIDP	Port Infrastructure Development Program
PM	particulate matter
$PM_{2.5}$	particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers
PM_{10}	particulate matter with aerodynamic diameter equal to or less than 10 micrometers
Port	Port of Oakland
ppm	parts per million
Proposed Project	Outer Harbor Terminal Redevelopment Project – Building Resiliency Now and For the Future
REC	Recognized Environmental Conditions

Acronym	Definition
RMP	Risk Management Plan
RPS	Renewables Portfolio Standard
ROG	reactive organic gas
ROW	right-of-way
RTG	rubber tire gantry
SB	Senate Bill
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SIP	state implementation plan
SO_2	sulfur dioxide
SO_x	sulfur oxide
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	tribal cultural resources
UFC	Uniform Fire Code
U.S.C.	*United States Code*
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
VOC	volatile organic compound
WOCAP	West Oakland Community Action Plan
YBM	Young Bay Mud
ZE	Zero Emission

1 INTRODUCTION

The Port of Oakland (Port) has prepared this Draft Initial Study (IS)/Proposed Negative Declaration (ND), which examines the potential environmental effects of the proposed Outer Harbor Terminal (OHT) Redevelopment Project – Building Resiliency Now and For the Future (Proposed Project). The Proposed Project would be located within the Proposed Project site in the Port's Seaport Facility, within the City of Oakland in Alameda County in the state of California (refer to Figure 1-1 at the end of this section). The Proposed Project site is currently used for ancillary maritime services (AMS), including overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. Key roads serving the Proposed Project site include Maritime Street, 7th Street, West Grand Avenue, and Navy Roadway. The primary construction and operation entrance and exit from the Proposed Project site would be from 14th Street and Maritime Street, respectively.

The Proposed Project would include the following key project elements:

- Upgraded onsite substations, installed battery energy storage system (BESS), and installed electric vehicle (EV) chargers
- Constructed Reefer Storage area with installed reefer racks and plug-ins
- Removed, replaced, and feathered pavement [1]
- Constructed bioretention swale (bioswale)
- Removed and installed perimeter fencing
- Replaced high mast lighting with light-emitting diode (LED) bulbs.

Upgrading onsite substations would support modernizing container storage areas and handling higher electrical loads. Installing a BESS would supply power during peak demand or emergency periods. Installing EV chargers would support charging EVs such as cars, trucks, or yard equipment. Constructing a Reefer Storage area would improve the Port's ability to accommodate the refrigerated export market and improve operational efficiencies. Removing, replacing, and/or feathering pavement would support stacking containers and reefers and operating rubber tire gantry (RTG) cranes. Constructing a bioswale would receive, retain, and infiltrate stormwater runoff. Removing existing fencing and installing new fencing would prevent unauthorized access and enhance security. Removing and replacing high mast light bulbs with LED bulbs would support improving operational efficiencies in electricity use.

Therefore, the Proposed Project would: improve the Port's ability to accommodate near-term uncertainty and surges in imports, exports, and refrigerated cargo; reduce congestion and improve operational efficiencies at the Port; increase power resiliency and advance the Port's and state's goal of a zero emission (ZE) freight transportation system.

The Port is the lead agency for the Proposed Project under the California Environmental Quality Act (CEQA). This Draft IS/Proposed ND describes the Proposed Project, provides its purpose and objectives, and discusses its potential impacts.

[1] Feathered pavement provides a smooth transition between paved areas with minor differences in elevation.

1.1 PURPOSE OF AN INITIAL STUDY

CEQA was enacted in 1970 for the purpose of providing decision makers and the public with information regarding environmental effects of proposed projects, identifying means of avoiding environmental damage, and disclosing to the public the reasons behind a project's approval even if it leads to environmental damage. The Port has determined that the Proposed Project is subject to CEQA, and no exemptions apply. Therefore, the Port has prepared an IS, which is a preliminary analysis conducted by the lead agency to determine whether there is substantial evidence that a project may have a significant effect on the environment. During preparation of an IS, the lead agency consults informally with responsible and trustee agencies. If the IS concludes that the project, with mitigation, may have a significant effect on the environment, an Environmental Impact Report (EIR) is prepared; otherwise, the lead agency may adopt an ND or mitigated ND.

1.2 DOCUMENT ORGANIZATION

This Draft IS/Proposed ND is organized into the following five sections:

- **Section 1, Introduction:** Provides the purpose and organization of this Draft IS/Proposed ND, an overview of the CEQA process, and a summary of the Proposed Project.
- **Section 2, Project Description:** Provides a background of the Proposed Project, the objectives, purpose, and need of the Proposed Project, and a description of the Proposed Project including construction methodology, procurement, phasing, and staging and equipment.
- **Section 3, Environmental Checklist and Analysis:** Provides the lead agency determination and a detailed discussion of the environmental resource categories that would be potentially affected by the Proposed Project as evaluated in part on the environmental impact questions contained in Appendix G of the CEQA Guidelines.
- **Section 4, List of Preparers and Reviewers:** Provides the names and roles of the individuals who contributed to the development of this Draft IS/Proposed ND.
- **Section 5, Distribution:** Describes how this Draft IS will be submitted to the California State Clearinghouse and distributed to interested parties.
- **Section 6, References:** Provides information regarding the documents and other reference materials used during the preparation of this Draft IS/Proposed ND.

1.3 CALIFORNIA ENVIRONMENTAL QUALITY ACT REVIEW PROCESS

This Draft IS/Proposed ND has been prepared in accordance with CEQA provisions to analyze the possible environmental effects and impacts of the Proposed Project so that the public can take these impacts into account when considering action on the Proposed Project.

In accordance with CEQA Section 15105, the Port will circulate this Draft IS/Proposed ND for a 30-day public review period from August 12 to September 11, 2024. This Draft IS/Proposed ND will be made electronically available on the Port website (https://www.portofoakland.com/business/bids-rfp-center/environmental-stewardship-publications-documents/). In addition, this Draft IS/Proposed ND will be made physically available at the following Port office and public library locations:

Port of Oakland
530 Water Street
Oakland, CA 94607

Oakland Public Library, West Oakland Branch
1801 Adeline Street
Oakland, CA 94607

Oakland Public Library, Asian Branch
388 9th Street #190
Oakland, CA 94607

Oakland Public Library, Central Library
125 14th Street
Oakland, CA 94612

Oakland Public Library, César E. Chávez Branch
3301 E. 12th Street #271
Oakland, CA 94601

Oakland African American Museum and Library
659 14th Street
Oakland, CA 94612

Oakland Public Library, Golden Gate Branch
5606 San Pablo Avenue
Oakland, CA 94608

Alameda Public Library, West End Branch
788 Santa Clara Avenue
Alameda, CA 94501

This Draft IS/Proposed ND will be submitted to the California State Clearinghouse. The Port will also distribute this Draft IS/Proposed ND to interested parties that have requested a copy. In addition, email notification of this Draft IS/Proposed ND has been distributed to the Port's Community Electrification Committee Stakeholder List.

During the public review period, the general public and responsible and trustee agencies can submit comments on this Draft IS/Proposed ND to the Port. Comments can be submitted the following ways:

By email: Email comments to: kchuop@portoakland.com

By mail: Mail comments to:
Port of Oakland
Attn: Ms. Khamly Chuop
Environmental Programs and Planning
530 Water Street
Oakland, CA 94607

Comments on this Draft IS/Proposed ND must be received by September 11, 2024, at 5:00 p.m. Pacific Standard Time. The Port will consider the comments and will respond to the comments after the public review period.

After comments have been received from the general public and responsible and trustee agencies, the Port may adopt an ND for the Proposed Project. If the Port adopts the ND and funding is obtained, the Port could design and construct all or part of the Proposed Project.

Within 5 days of the Board of Port Commissioner's adoption of the ND and approval of the Proposed Project, the Port will file a Notice of Determination with the County Clerk. The Notice of Determination will be posted by the County Clerk within 24 hours of receipt.

Proposed Project Information Summary

Proposed Project Title:

Outer Harbor Terminal Redevelopment Project – Building Resiliency Now and For the Future

Lead Agency Name and Address:

Port of Oakland
530 Water Street
Oakland, CA 94607

Contact Person and Phone Number:

Khamly Chuop
Environmental Programs and Planning
Port of Oakland
530 Water Street
Oakland, CA 94607
Office number: (510) 627-1758
Email: kchuop@portoakland.com

Proposed Project Location:

The Proposed Project would be located within the Proposed Project site in the Port's Seaport Facility, within the City of Oakland in Alameda County in the state of California (refer to Figure 1-1 at the end of this section).

General Plan Designations:

General Plan: General Industry and Transportation (City of Oakland 2023a).

Surrounding Land Uses and Setting:

The regional setting is characterized by the Port, regional transportation, railroad facilities, and the shoreline of the OHT. The Proposed Project site's immediate vicinity is characterized by industrial purposes associated with Port maritime activities that include truck and vehicle parking, buildings and other industrial facilities, and container storage. Commercial and light industrial facilities and Interstate (I)-880 are located east of the Proposed Project site.

Legend

Proposed Project Site Boundary

Seaport Facility
(Howard Terminal not shown)

Imagery Source:
Alameda County 2023

Data Source:
Port of Oakland
Caltrans

0 500 1000 1500 2000
Feet

Figure 1-1
Proposed Project Location
Port of Oakland
Outer Harbor Terminal Redevelopment Project
Building Resiliency Now and For the Future
Alameda County, California

\\DCTVS01\GIS\PROJ\P\PORT_OF_OAKLAND\OUTER_HARBOR_TERMINAL\MAP\FILES\IMPROVEMENT_PROJECT\IMPROVEMENT_PROJECT.APRX - POO_OHTRP_FIGURE_1-1_PROPOSED_PROJECT_LOCATION - PRIESTAF - 7/24/2024

2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

The Port is proposing the Proposed Project to modernize a portion of the OHT to accommodate the Port's refrigerated export market and improve operational efficiencies. The Proposed Project was one of 41 projects in 22 states awarded grant funding from the U.S. Department of Transportation MARAD Port Infrastructure Development Program (PIDP) in 2022.

The Port is ranked one of the top 10 ports in the U.S. and is among the three principal Pacific Coast gateways in the U.S. for containerized cargo, along with San Pedro Bay in Southern California and Puget Sound in the Pacific Northwest. It is the only deep draft container port in Northern California and services more than 99 percent of the containerized goods for Northern California.

The Port's Seaport complex is located within the City of Oakland in Alameda County in the state of California. The Seaport includes approximately 1,300 acres of Port-owned waterfront and inland lands, of which approximately 770 acres are marine terminals or transload/warehouse companies. The Port's Seaport complex includes four active maritime terminals that are served by more than 20 major ocean carriers. [2] Approximately 200 acres of intermodal (or rail) facilities operated by Union Pacific Railroad and Burlington Northern Santa Fe are located near docks and serve the Port. The OHT has been used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities.

The Port is primarily a container port. In addition to the maritime terminals and intermodal facilities noted in the preceding paragraphs, the Seaport includes: general-purpose berths; a break bulk cargo terminal for goods that do not fit in standard shipping containers; cargo transloading, either to unload goods from one container to another or from one container into a warehouse facility, or to transfer cargo from one mode of transportation to another; and storage facilities such as warehouses and yards for container storage and truck parking. Once a vessel is at berth (or dock), vessel-to-shore cranes move import containers from the vessel to land and export containers from land to the vessel. Once on land, equipment is used to move a container onto a truck, or to a location to be stored until later moved onto a truck, for transport to its next destination. A container's destination can be within or outside the Seaport and can include an off-dock container storage yard, distribution warehouse, transloading facility, or railyard. The Port is a landlord port and leases land to companies, often referred to as marine terminal operators, that directly manage transferring containers between transportation modes, including water, land, and rail.

For some terminal operations, containers have historically been staged and mounted on an over-the-road chassis in dedicated parking stalls (which are referred to herein as "wheeled storage") that does not support stacking containers. In addition, truck appointment systems assist in managing container pickup and delivery by trucks. Individual terminal operations maintain and manage transactions (that is, hourly truck arrivals to a terminal) in accordance with available equipment and staffing.

[2] These include the TraPac Terminal, Ben E. Nutter Terminal, Oakland International Container Terminal, and Matson Terminal. Howard Terminal is currently not used as a marine terminal and thus is considered inactive.

2.2 PROJECT OBJECTIVES/PURPOSE AND NEED

COVID-19 revealed vulnerabilities and challenges within the supply chain. The need to improve container management efficiency became apparent during this time as the Port experienced supply chain issues. Farm exports, which rely heavily on the Port and require the use of refrigerated containers (referred to herein as "reefers"), were particularly impacted by transportation challenges and storage and handling fees. In addition, the Port approved its initiative to create a ZE Seaport in 2019 within its *Seaport Air Quality 2020 and Beyond Plan – The Pathway to Zero Emissions* (2020 and Beyond Plan) (Port of Oakland 2019a) through implementation of specific equipment, energy systems, and operational strategies.

The purpose of the Proposed Project is to support a more efficient operation and continue progress toward meeting the Port's ZE goals and build resiliency to the Port's electrical infrastructure. The Proposed Project would provide the infrastructure needed for stacked and reefer storages, including upgrades to electrical infrastructure and removing, replacing, and feathering of pavement. Converting the existing wheeled storage to "grounded storage" or "stacked storage," in which a container is placed on the ground and containers are stacked on top of it, provides for more containers to be temporarily stored within the same footprint as wheeled storage. The Proposed Project would: improve the Port's ability to accommodate near-term uncertainty and surges in imports and exports including refrigerated cargo; reduce congestion and improve operational efficiencies; make it easier to accommodate shipping containers with agricultural commodities to support farmers throughout California and the Midwest; advance the Port's goal of a ZE seaport and state of California's goal of ZE freight transportation systems; and support the Port's power reliability and resiliency.

The Proposed Project's objectives include the following:

- Modernize and maintain Port infrastructure.
- Improve the Port's ability to accommodate exports (including refrigerated cargo) and improve operational efficiencies.
- Improve the Port's resiliency and advance the Port's goal of becoming a ZE seaport.

The Proposed Project would enhance reliability and resiliency by bolstering the Port's ability to handle disruptions in the supply chain. The Proposed Project includes stacked container and reefer storage, increasing the Port's ability to handle fluctuations in both imports and exports in a more reliable and efficient manner, and most notably with agricultural shippers. The Proposed Project would allow for containers to be stored and reefers to be stored and plugged in until needed for loading onto ships or until picked up by trucks.

The Proposed Project adds battery storage capabilities and improves existing electrical infrastructure, providing energy reliability and resiliency during power outages or other energy disruptions. It would improve the Port's ability to accommodate increased electricity demands and allow the electrical grid to be more resilient. It would also provide backup power storage and climate resiliency to help insulate and protect the Port from energy disruptions such as rolling blackouts during heat waves and public safety power shutoffs. The Proposed Project would also support electrification of equipment with specific electrical infrastructure improvements that include substation upgrades, battery storage, and electric charging stations.

The Proposed Project is located within the boundary of the Port in a designated Historically Disadvantaged Community and Opportunity Zone. The Proposed Project supports the Port's goals to improve the safety, efficiency, and reliability of transloading goods at the Port; improve the movement of goods into, out of,

around, and within the Port; improve the Port's resiliency; and reduce environmental (including air emissions) impacts.

2.3 PROJECT DESCRIPTION

The Proposed Project generally consists of removing, replacing, and feathering pavement in approximately 27.6, 26.5, and 4.0 acres, respectively, of the OHT to support stacking containers (including reefers). The Proposed Project would provide storage for containers stacked up to four (loaded) or five (empty) high and for reefers stacked up to four (empty or loaded) high. This portion of the OHT may be reintegrated into a marine terminal operation in the future, given that terminal areas directly adjacent to the Proposed Project site are already being used in a similar stacking operation.

Once constructed, the Proposed Project would include the following key project elements:

- Upgraded onsite substations
- An installed BESS
- Two installed EV chargers
- Constructed Reefer Storage area and installed reefer racks and plug-ins
- Removed, replaced, and feathered pavement
- Constructed bioswale
- Removed and installed perimeter fencing
- Replaced high mast lighting with LED bulbs

Key Proposed Project elements are summarized in the following sections and are shown on Figure 2-1.

2.3.1 Upgrade Onsite Substations, Install Battery Energy Storage System, and Install Electric Vehicle Chargers

Modernizing container storage areas would be supported by several upgrades to the onsite substations. Two existing substations (SS-C-36 and SS-C-48) in the northwestern portion of the Proposed Project site would be upgraded to handle higher electrical loads. Upgrades would include installing cabinets or breakers, as needed. To deliver the increased power capacity, the Proposed Project would construct electrical utility lines from the existing main substation to SS-C-48, and from SS-C-48 to SS-C-36.

To improve the Port's resiliency and improve operational efficiencies, for example, in-use of electricity, one BESS would be installed adjacent to SS-C-36. The BESS would be approximately 40 feet long, 8 feet wide, and 9.5 feet tall, and would be charged during off-peak demands and would supply power during peak demand or emergency periods.

Two EV chargers would be installed along the southeastern boundary of the primary Proposed Project site to support charging EVs, including cars, trucks, or yard equipment. The two EV chargers would share one pedestal, the metal column that holds the EV chargers.

In addition, a substation may be constructed along the southeastern boundary of the Proposed Project site, adjacent to the installed EV chargers, to support handling higher electrical loads. The substation would contain a small switchgear and small stepdown transformer. The small switchgear would be approximately 15 feet long and 25 feet wide, and the small stepdown transformer would be approximately 10 feet long and 10 feet wide.

2.3.2 Construct Reefer Storage Area and Install Reefer Racks and Plug-Ins

The approximately 25,000-square-foot Reefer Storage area would be constructed in the northern portion of the Proposed Project site. The Reefer Storage area replacement pavement would be asphalt concrete (AC) pavement and would be level with the surrounding replacement AC pavement. The reefer racks would be installed on a concrete foundation. To deliver the increased power capacity, the Proposed Project would construct an electrical utility line from SS-C-48 along the northwestern boundary of the Reefer Storage area. Reefer racks would be six ground slots wide, and therefore, up to eight reefer racks would be installed. To accommodate stacking reefers up to four high, each reefer rack would require installation of 24 reefer plug-ins, and therefore, up to 192 reefer plug-ins would be installed.

2.3.3 Remove, Replace, and Feather Pavement

The existing pavement is AC, which is an engineering term for what is commonly referred to as asphalt pavement. It is a composite of gravel, sand, and asphalt binder, commonly used to surface roads and parking lots.

Approximately 27.6 acres of the existing AC pavement within the Proposed Project site, as well as its existing aggregate base material, would be removed. Approximately 1.5 acres would be replaced with concrete pavement (for the RTG runways and foundations for the reefer racks in the Reefer Storage area, as discussed further in this section) and approximately 25.0 acres would be replaced with AC pavement (that is, for the Stacked, Grounded, or Wheeled storage areas [which are discussed further in this section]). A bioswale (which is discussed further in Section 2.3.2) would be constructed in the remaining 1.1 acres. All removed AC pavement is anticipated to be taken to an offsite recycle and all removed aggregate base material is anticipated to be stockpiled and reused onsite.

Approximately 4.0 acres of the existing AC pavement within the Proposed Project site (beyond the approximately 27.6 acres of the existing AC pavement to be removed) would be feathered. Feathered pavement would soften the transitions between the replacement AC pavement and the existing pavement outside of the Proposed Project site and would improve drainage within the Proposed Project site.

The existing AC pavement within the Proposed Project site consists of approximately 5 inches of AC over approximately 13.5 inches of aggregate base material. The replacement AC pavement would consist of approximately 9 inches of AC over approximately 18 inches of aggregate base material. The replacement concrete pavement would consist of approximately 18 inches (for the RTG runways) of concrete over approximately 12 inches of aggregate base material. The replacement AC pavement would have a design service life of 20 years, and the replacement concrete pavement would have a design service life of 20 years.

The replacement AC or concrete pavement would support the following storage areas, as shown on Figure 2-2:

- The RTG Grounded Storage area would be AC pavement and would provide grounded storage. The Proposed Project would allow stacking containers up to five high at approximately 1,032 ground slots. RTG runways would be concrete pavement, approximately 5 feet wide and 1,000 feet long, located on either side of the RTG Grounded Storage areas, and designed to carry the weight of the RTG's wheels.
- The Reefer Storage area would be approximately 60 feet wide and approximately 400 feet long and would provide reefer storage. The Proposed Project would allow stacking reefers up to four high at approximately 48 ground slots, for a total capacity of up to 192 reefers. Reefer racks and plug-ins would be installed and are discussed further in Section 2.3.4.

- The remaining areas would provide storage for grounded or wheeled containers. The Proposed Project would allow stacking of containers four high (loaded) or five (empty) high.

The replacement AC or concrete pavement would be striped and marked.

2.3.4 Construct Bioswale

Based on the surface area to be redeveloped, an approximate 1.1-acre bioswale would be constructed along the southeastern boundary of the primary Proposed Project site. The bioswale would receive, retain, and infiltrate stormwater runoff from the Proposed Project site. A bioswale is considered a low-impact design stormwater control measure and would consist of a vegetated shallow depression or trench that would allow for a shallow ponding zone above the vegetated surface to provide temporary storage of stormwater runoff. During rain events, stormwater runoff would accumulate in the ponding zone and gradually infiltrate and filter through the engineered planting media. The vegetation would also hold water in the root zone that can be returned to the atmosphere by transpiration. The bioswale would be planted with climate-appropriate vegetation that would not require fertilization and would be able to withstand periodic wet soils.

After stormwater runoff infiltrated and filters through the engineered planting media, it would infiltrate an 8-inch-diameter perforated pipe located at the bottom of the bioswale that would be connected to the existing storm drain system for discharge. In addition, the bioswale would be constructed with an overflow catchment system to capture and direct stormwater runoff to the perforated pipe located at the bottom of the bioswale. The bioswale would allow ponding between 0.5 and 1.5 feet and is anticipated to be approximately 1,100 feet long and approximately 45 feet wide.

2.3.5 Remove and Install Perimeter Fencing and Replace High Mast Light Bulbs

Approximately 2,075 linear feet (LF) of existing perimeter fencing that includes K-rail along the southwestern and northwestern boundaries of the Proposed Project site would be removed. Approximately 1,200 LF of 8-foot-tall chain link fencing would be installed along the northeastern boundary of the Proposed Project site. To accommodate installing perimeter fencing, fence post footings would be installed every 10 feet and would be approximately 1 foot wide and approximately 2 feet deep.

Light bulbs from approximately 16 existing 80-foot-tall high mast light poles throughout the Proposed Project site would be removed and replaced. The existing light bulbs emit high-intensity discharge lighting, and the proposed light bulbs would emit LED lighting.

In addition, the existing 16 fire hydrants located at each of the high mast light poles may be removed and replaced, as needed. The replacement fire hydrants would be spaced approximately 200 feet apart to provide adequate coverage for the Proposed Project site, and therefore, approximately 3,200 LF of existing fire water pipeline would be removed and replaced.

2.4 CONSTRUCTION METHODOLOGY

Construction-related activities for each of the key Project elements described in Section 2.3 are summarized in the following subsections. Construction materials and equipment would be delivered to the Proposed Project site by trucks via 14th Street off Maritime Street.

Excavated soils from all construction-related activities other than trenching would be stockpiled for testing before reuse in accordance with the Port-Wide Soil Management Protocol (Port of Oakland 2010). Soils that do not meet reuse criteria or that are not needed to be reused would be appropriately

characterized and hauled offsite for proper disposal to a Port-approved landfill. Contaminated soils would be hauled offsite for proper disposal to a Port-approved landfill, in accordance with applicable regulations. While available information indicates that it is unlikely that contaminated soils would be encountered during construction-related activities, the environmental analysis in Section 3 assumes that 5 percent of the excavated soils would require hauling offsite to a Class I (hazardous) landfill because of historical industrial uses within the Proposed Project site.

Excavated soils from trenching for utilities would be reused without being tested in accordance with the Port-Wide Soil Management Protocol (Port of Oakland 2010). Trenches would be needed to connect the proposed 8-inch-diameter perforated pipe (in the proposed bioswale to be constructed) to the existing storm drain system (which would require installation of approximately 2,000 LF of new connections) and construct electrical utility lines (a total of approximately 2,350 approximately: 1,850 LF for the upgraded substations and 500 LF for the Reefer Storage area). Trenching would also be needed to remove and replace fire water pipeline, which would require installation of approximately 3,200 LF of new connections. Trenches would be shored with trench boxes or plates and hydraulic pistons or other supports, as needed, to allow for vertical sides. Electrical infrastructure (such as duct arrays and conduits containing cables) or piping would be installed on a base of aggregate base material over soil, which would be compacted by a vibratory compactor and sheepsfoot roller, and in some locations may pass underneath existing utilities. In some locations (for example, between Army Base Drive and Maritime Street), horizontal direction drilling (HDD) (which would not require excavations except for the HDD entry and exit pits) may be used to allow the direct installation of duct arrays, conduits containing cables, or storm drain systems. HDD pits would be approximately 10 feet long, 15 feet wide, and 8 feet deep and up to three pits may be required for the Proposed Project. Excavated soils from trenching for utilities would be reused to fill the trenches. Pavement removed for trenching would be replaced and feathered to match grades.

2.4.1 Upgrade Onsite Substations, Install Battery Energy Storage System, and Install Electric Vehicle Chargers

As discussed in Sections 2.3.3 and 2.4, upgrading the onsite substations would require trenching approximately 1,850 LF (from the existing main substation in the southeast portion of the Proposed Project site to the onsite substations in the northwestern portion of the Proposed Project site) and installing conduits containing cables. The trench would be approximately 3 feet wide and 5 feet deep and would be used to install duct arrays and conduits containing cables between the onsite substations to be upgraded, the BESS to be installed, and the substation that may be constructed adjacent to the installed EV chargers which would be installed. While most of the electrical conduit would be located underground, the final connection to the existing main substation would entail the installation of about 100 LF of overhead transmission line in order to property connect to the existing main substation.

As discussed in Section 2.4, constructing the Reefer Storage area would require trenching approximately 500 LF from SS-C-48 to the eastern boundary of the Reefer Storage area and installing conduits containing cables. The trench would also be approximately 3 feet wide and 5 feet deep and would be used to install duct arrays and conduits containing cables.

To support the concrete foundations for the BESS that would be installed, EV chargers that would be installed, and the substation that may be constructed adjacent to the EV chargers (following removal of the existing pavement as discussed in Sections 2.4.1), the footprint of the concrete foundations, as well as a buffer, would be excavated using an excavator or skid steer. The BESS would be approximately 40 feet long and 8 feet wide and its buffer of horizontal clearance would be approximately 10 feet. The concrete

foundation for the BESS would be approximately 1,700 square feet and would be excavated to a depth of approximately 2.5 feet below the surface of the replacement pavement. The pedestal (on which the EV chargers would be mounted) would be (including its buffer of horizontal clearance) approximately 3 feet long and 3 feet wide. The concrete foundation for the pedestal would be approximately 10 square feet. The substation that may be constructed would be approximately 15 feet long and 25 feet wide and its buffer of horizontal clearance would be approximately 1.5 feet. The concrete foundation for the substation would be approximately 500 square feet. The small switchgear would be approximately 15 feet long and 25 feet wide and its buffer of horizontal clearance would be approximately 1.5 feet. The small stepdown transformer would be approximately 10 feet long and 10 feet wide and its buffer of horizontal clearance would be approximately 1.5 feet. The concrete foundation for the pedestal and substation would be excavated to a depth of approximately 1.5 feet below the surface of the replacement pavement.

A 1-foot layer of aggregate base material would be placed into the bottom of the foundations, spread in lifts using bulldozers, excavators, or graders, and compacted using vibratory compactors and sheepsfoot rollers. Rebar grids would be installed within the foundations using battery-powered hand tools or air compressors. Battery-powered hand tools would be recharged using generators. Collars would be installed around the edge of excavations to enable foundations to extend approximately 0.5 foot above the surface of the replacement pavement. Concrete foundations would be poured using a concrete truck to set.

The BESS and pedestal, as well as the small transformer and small switchgear that would be installed within the substation that may be constructed, would be placed onto their foundations using a crane and bolted to the foundations using battery-powered hand tools or air compressors. The EV chargers would be mounted on the pedestal using battery-powered hand tools or air compressors too. Battery-powered hand tools would be recharged using generators. Approximately 1,200 LF of perimeter fencing and bollards would be installed around the BESS and substation to prevent damage from future anticipated terminal equipment and other vehicles. The bollards would be approximately 1-foot diameter steel pipes filled with concrete. Perimeter fencing posts would be drilled every 10 feet and footings would be approximately 1 foot wide and 2 feet deep. Bollards would be spaced every 5 feet on center and footings would be approximately 4-feet in diameter and 10 feet tall (5 feet below ground surface [bgs] and 5 feet above the surface of the replacement pavement). All footings would be installed using a soil auger attached to a skid steer. Bollards would be painted yellow with a reflective strip.

2.4.2 Construct Reefer Storage Area and Install Reefer Racks and Plug-Ins

The pavement for the Reefer Storage area, as well as the electrical utility lines, would be constructed as discussed in Sections 2.4.1 and 2.4.3, respectively. The concrete foundation for the reefer racks would be approximately 55 feet long by 7 feet wide. The concrete foundation would be excavated to a depth of approximately 4 feet below the new pavement surface. The unassembled reefer rack components would be delivered to the Proposed Project site by trucks and moved within the Proposed Project site using a telehandler. A boom lift would be used to lift personnel. A crane would be used to lift and hold the main reefer rack in place while another crane is used to hold other reefer rack components and access platforms in place while welding and installing nuts and bolts. Bolts would be required for each footing and an access platform with a stairwell would be constructed for each level of the reefer rack to allow for each individual reefer to be manually plugged in. Plug-ins would be installed using air compressors, cranes, compactors, concrete trucks, dump trucks, skid steers, and sweepers. Bollards would be installed around the reefer racks similarly as discussed in Section 2.4.3.

2.4.3 Remove, Replace, and Feather Pavement

There is no existing vegetation within the Proposed Project site; therefore, no vegetation or tree removal is required.

Approximately 19,000 cubic yards (CY) of existing AC pavement (approximately 17,000 CY for the Stacked, Grounded, or Wheeled storage areas, approximately 1,000 CY for the RTG runways and the foundations for the reefer racks in the Reefer Storage area, and approximately 1,000 CY for the bioswale), as well as approximately 50,000 CY of existing aggregate base material (approximately 46,000 CY for the Stacked, Grounded, or Wheeled storage areas, approximately 3,000 CY for the RTG runways and the foundations for the reefer racks in the Reefer Storage area, and approximately 2,000 for the bioswale), would be removed using an excavator or skid steer. In some locations, the existing AC pavement would be cut using a diamond wheel cutter powered by a generator prior to being removed. All removed AC pavement is anticipated to be taken to an offsite recycler using dump trucks and all removed aggregate base material is anticipated to be stockpiled and reused onsite.

Between approximately 5.5 inches and approximately 11.5 inches of additional soil would be removed to accommodate the thicker replacement AC (for the Stacked, Grounded, or Wheeled storage areas) or concrete (for the RTG runways and the foundations for the reefer racks in the Reefer Storage area) pavement. Therefore, approximately 37,000 CY of additional soil (approximately 29,000 CY for the Stacked, Grounded, or Wheeled storage areas, approximately 500 CY for the foundations for the reefer racks in the Reefer Storage area, approximately 1,500 CY for the RTG runways, and approximately 6,000 CY for the bioswale) would be removed. All exposed soils would be compacted in place using vibratory compactors and sheepsfoot rollers.

All replaced aggregate base material would be spread in lifts above the exposed soils using bulldozers, excavators, or graders and compacted using vibratory compactors and sheepsfoot rollers. Rebar grids would be installed within the concrete foundations using battery-powered hand tools or air compressors. Battery-powered hand tools would be recharged using portable generators. The replacement AC pavement would be applied using an asphalt paver and the replacement concrete pavement would be poured using a concrete truck to set, and all replacement pavement would be striped and marked using a striping machine.

2.4.4 Construct Bioswale

Minor grading may be required throughout the Proposed Project site to ensure that the replaced and feathered pavement drains toward the bioswale. The native soil across the Proposed Project site would be contoured to direct stormwater runoff into the bioswale. The minor grading throughout the Proposed Project site, as well as the design of the bioswale, would be in accordance with the Port's Post-Construction Stormwater Design Manual.

Construction of the bioswale is anticipated to require excavating approximately 5 feet bgs using an excavator or skid steer. A 6-inch concrete curb with cuts would be installed along the northern boundary of the bioswale using a concrete truck.

The bioswale would be lined with a permeable liner and a layer a coarse gravel would be placed into the bottom of the bioswale. An 8-inch perforated pipe would be laid and connected to the existing storm drain system and covered with more coarse gravel. The bioswale would be equipped with overflow catchment systems to allow ponded water above 0.5 to 1.5 feet to flow directly into the perforated pipe located at the bottom of the bioswale, which connect to the existing stormwater system.

Additional coarse gravel, class II permeable soil material, bioswale material, and mulch would be layered on top of the base layer of coarse gravel in the bottom of the bioswale and the bioswale would be planted with climate-appropriate vegetation. The finished elevation of the bioswale would be between approximately 0.5 and 1 foot below the replacement pavement.

2.4.5 Remove and Install Perimeter Fencing and Replace High Mast Light Bulbs

The existing perimeter fencing that includes K-rail would be removed using a telescopic forklift or telehandler, as the Proposed Project site may be reintegrated into a marine terminal operation in the future (given that terminal areas directly adjacent to the Proposed Project site area already being used in a similar stacking operation). Installing perimeter fencing would prevent unauthorized access and enhance security using a dispenser attached to a skid steer and an air compressor. Perimeter fencing and posts would be installed as discussed in Section 2.4.3.

The existing high-intensity discharge lighting would be removed and replaced with LED lighting by personnel using a powerlift with reticulating arm. As needed, existing fire hydrants may be removed and replaced using battery-powered hand tools to remove and replace bolts for the fire hydrants. As discussed in Section 2.4, replacing fire water pipeline between the fire hydrant locations would require trenching approximately 3,200 LF. The trench would be approximately 4 feet wide and 5 feet deep. Existing fire water pipeline would be removed following trenching using battery-powered hand tools or air compressors and a pickup truck equipped with a lift boom, as needed. Battery-powered hand tools would be recharged using portable generators.

2.5 CONSTRUCTION PROCUREMENT

Some of the key Project elements have long procurement lead times. Procurement would occur prior to construction of the Proposed Project, as needed, to allow for construction to proceed on an expeditious schedule. The number of months anticipated to be required for procurement of key Project elements is listed in Table 2-1.

Table 2-1. Number of Months Anticipated to be Required for Procurement of Key Project Elements

Key Project Element	Number of Months Anticipated to be Required for Procurement
Battery Energy Storage System	18
Electric Vehicle Chargers	9
Transformer and Switchgear	24 to 36
Reefer Racks and Plug-Ins	12
Duct Arrays, Conduits, and Cables	6
Perimeter Fencing and High Mast Light Bulbs	6 to 9

Other construction materials, such as replacement pavement and bollards, are anticipated to be readily available in the needed quantities. Excavating, trenching, and pouring foundations would occur prior to delivery of key Project elements requiring longer lead times.

2.6 CONSTRUCTION STAGING AND EQUIPMENT

Temporary construction staging areas to be used for construction worker parking, construction trailers, and staging and storing of construction materials and equipment would be located on portions of the existing paved areas within the Proposed Project site. Security, such as temporary fencing and lighting, would be provided, as needed.

As discussed in Section 2.4., construction equipment used to complete the Proposed Project may include, but is not limited to, the following: air compressors, cranes, compactors, concrete trucks, dump trucks, skids teers, sweepers, telescopic forklift, telehandler, powerlift with reticulating arm, battery-powered hand tools, and a pickup truck equipped with a lift boom.

2.7 CONSTRUCTION PHASING

Construction is anticipated to begin in January 2027 (provided design and procurement occur as anticipated) and end in February 2028 (provided construction occurs as anticipated). The construction schedule depends on the ability to procure key Project elements. Pavement removal would occur first, followed by trenching, replacement AC and concrete pavements (including concrete foundations), and reefer rack installation.

2.8 PROPOSED PROJECT OPERATIONS AND MAINTENANCE

Once construction is completed, the Proposed Project would be used for stacked container and reefer storage. Cargo-handling equipment including RTGs and yard tractors would move import containers from where they are placed from the ships to the stacks for later pickup and delivery by truck to another location. Trucks would bring export containers and reefers to the site for storage in the stacks until they are loaded onto ships. RTGs would move containers within the RTG storage areas and between the RTG storage areas and trucks. Cargo-handling equipment such as top picks and side picks would move containers as needed around the site and between trucks and reefer stacks. Reefers would plug into the reefer racks to keep their contents chilled. The EV chargers would be used by electric cars, trucks, or cargo-handling equipment. Overall, the Proposed Project would make for more efficient Port operations and increase the reliability and resiliency of the Port's electrical infrastructure, resulting in an increased ability to handle potential supply chain and energy power disruptions.

The number of truck trips within the Port is not expected to change with the Proposed Project compared to current levels. As noted in San Francisco Bay Conservation and Development Commission's (BCDC) *2020 Bay Area Seaport Forecast*, volume of cargo throughput at the Port is determined by economic activity in the Bay Area itself and in the broader Central and Northern California market (BCDC 2020). The Port's throughput is limited primarily by the amount of existing terminal acreage and berths for ships. The Proposed Project does not expand terminal acreage and does not affect the number of berths or berth length. Rather, the Proposed Project is expected to provide greater reliability to handle fluctuations in both imports and exports in a more reliable and efficient matter. Containers and reefers that may have been stored in other locations within the Port or outside the Port can now be stored at the Proposed Project site. The storage within a marine terminal provides flexibility for trucks to deliver and pick up containers and reefers when optimal such as when roadway traffic is less congested and not only when a ship is at dock.

Proposed Project maintenance activities would be similar to existing maintenance activities at the Port and would include maintenance and repair of the bioswale, fencing, high mast lights, and pavement as needed. Maintenance activities would also be conducted periodically for the new electrical infrastructure, including

the reefer racks, BESS, EV chargers, and substations. These maintenance activities would be conducted utilizing existing Port vehicles and equipment. Security would be provided by staff or contractors of the Port tenant(s) using the site.

2.9 BEST MANAGEMENT PRACTICES

This section summarizes best management practices (BMPs), organized by resource area, that would be implemented as part of the Proposed Project. This list is not exhaustive of all Proposed Project features, commitments, regulatory requirements, and permit conditions that would be implemented during construction and operation.

2.9.1 Aesthetics

- The Project will comply with the Port's Exterior Lighting Policy and incorporate lighting measures to minimize lighting impacts from development and operations and to conserve energy.
- The Project will also incorporate outdoor lighting controls so that it is turned off during daytime hours and during times when it is not needed.

2.9.2 Air Quality

The Port will implement the BMPs recommended by BAAQMD in Table 5-2 of its CEQA Guidelines to minimize and reduce fugitive dust from the Proposed Project (BAAQMD 2022). Other BMPs will also be implemented to minimize equipment and vehicle exhaust emissions. These BMPs include the following:

- Limitations on vehicles idling when unnecessary, minimizing unnecessary construction vehicle trips and properly maintaining equipment.
- All exposed surfaces (such as parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite will be covered.
- All visible mud or dirt trackout onto adjacent public roads will 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 will be limited to 15 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities will be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, will be washed or other suitable dirt removal from tire mechanisms to minimize occurrences of track out before leaving the Proposed Project site.
- Unpaved roads providing access to sites located 100 feet or farther from a paved road will be treated with a 0.5- to 1-foot layer of compacted layer of wood chips, mulch, or gravel.
- A publicly visible sign will be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The air district's phone number will also be visible to ensure compliance with applicable regulations.
- Maintain equipment according to manufacturers' specifications.

- Vehicle idling times will be minimized either by shutting off equipment 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]).
- Minimize unnecessary construction vehicle trips.
- Use construction equipment with Tier 4 engines or better where commercially available and economically feasible, unless there is a unique and specific piece of equipment required for the Proposed Project construction that is not available as a Tier 4 engine.

2.9.3 Cultural Resources

- In the unlikely event that archaeological resources, or human remains are uncovered during excavation, the Proposed Project would follow the requirements detailed in the Port's Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resources (Port of Oakland n.d.).

2.9.4 Greenhouse Gas Emissions

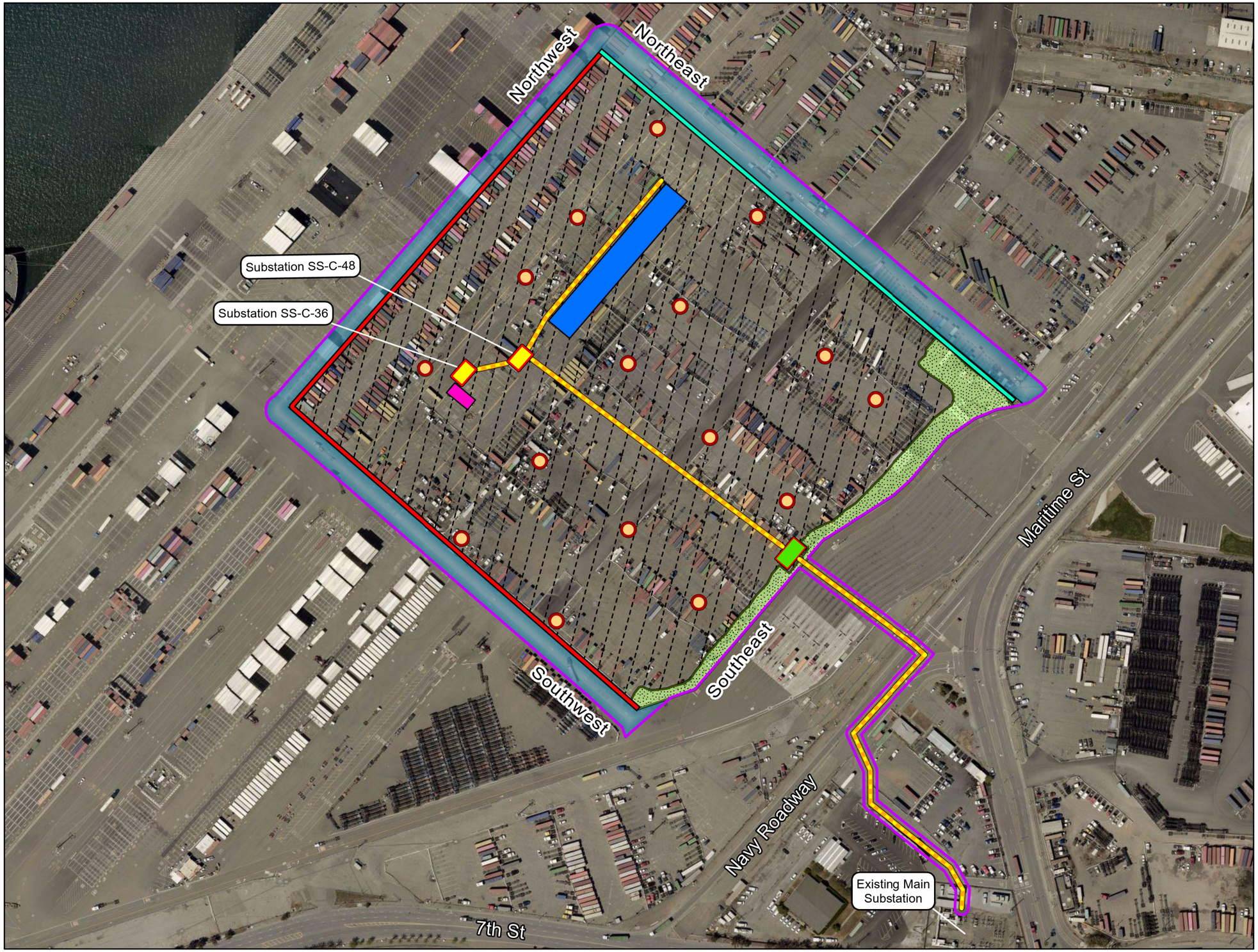
- The Proposed Project will implement BMPs during construction, such as limitations on vehicles idling when unnecessary, minimizing unnecessary construction vehicle trips and properly maintaining equipment, which would reduce GHG emissions.

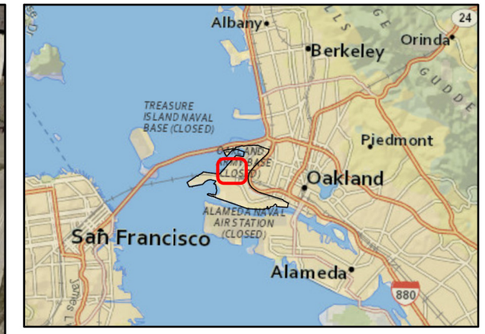
2.9.5 Hazards and Hazardous Materials

- Soil and groundwater generated from the Proposed Project construction would be managed in accordance with the Revised RMP for the former Mobil and Ashland Bulk Fuel Terminal (Stantec 2023), Port-Wide Soil Management Protocol (Port of Oakland 2010), and Port's Hazardous Materials Management Guide.
- Control measures will be incorporated into the Proposed Project operations to comply with the existing Revised RMP for the Former Mobil and Ashland Bulk Fuel Terminal.

2.9.6 Hydrology and Water Quality

- The Proposed Project will develop and implement a Stormwater Pollution Prevention Plan (SWPPP). At a minimum, the SWPPP will include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; BMPs; and an inspection and monitoring program.
- The Proposed Project will comply with the Port's Post-Construction Design Manual to reduce offsite stormwater runoff and include the preparation and implementation of a post-construction stormwater management plan.





Legend

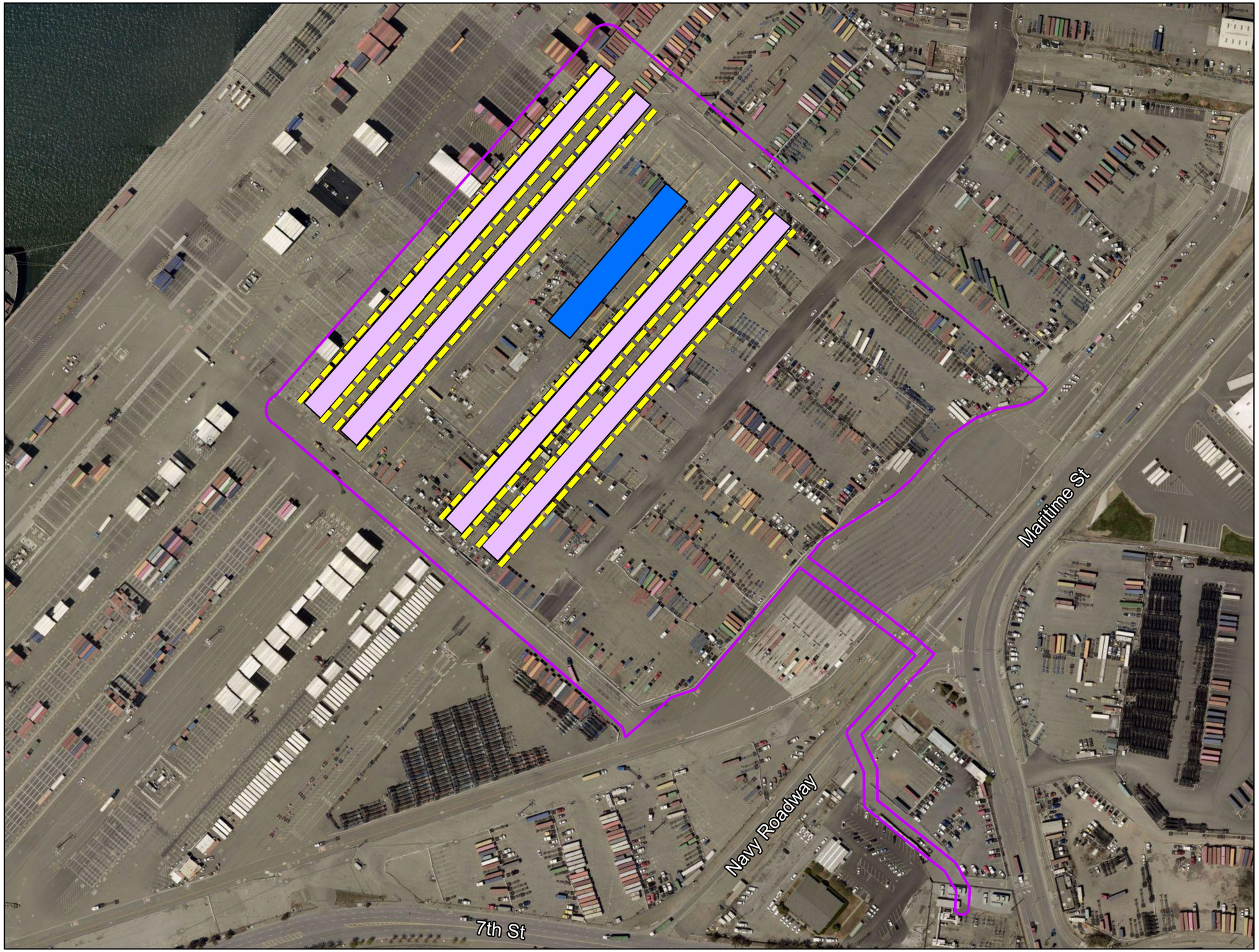
- Proposed Project Site Boundary
- Remove and Replace Pavement
- Feather Pavement
- Construct Bioswale
- Upgrade Onsite Substations
- Install Battery Energy Storage System
- Install Electric Vehicle Chargers
- Construct Reefer Storage Area and Install Reefer Racks and Plug-Ins
- Remove Perimeter Fencing
- Install Perimeter Fencing
- Upgrade Electrical Infrastructure
- Remove and Replace High Mast Light Bulbs

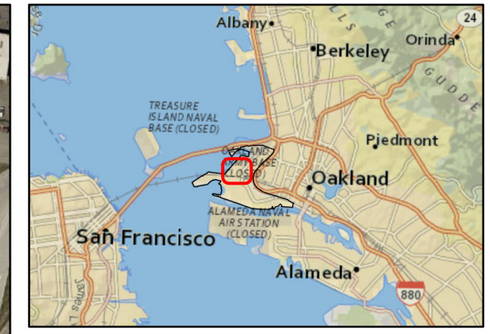
Imagery Source:
Alameda County 2023

Data Source:
Port of Oakland
Caltrans

0 100 200 300 400
Feet

Figure 2-1
Key Project Elements
Port of Oakland
Outer Harbor Terminal Redevelopment Project
Building Resiliency Now and For the Future
Alameda County, California





Legend

- Proposed Action Site Boundary
- RTG Runways
- RTG Grounded Storage
- Reefer Storage
- All Other Pavement Areas Would be Available for Grounded Storage

Imagery Source:
Alameda County 2023

Data Source:
Port of Oakland
Caltrans

N

0 100 200 300 400
Feet

Figure 2-2
Storage Areas
Port of Oakland
Outer Harbor Terminal Redevelopment Project
Building Resiliency Now and For the Future
Alameda County, California

3 ENVIRONMENTAL CHECKLIST AND ANALYSIS

This section presents the Draft IS/Proposed ND that was completed for the Proposed Project in accordance with the requirements of CEQA. This Draft IS/Proposed ND identifies site-specific conditions and impacts, evaluates their potential significance, and, where applicable, discusses ways to avoid or lessen impacts that may be potentially significant. The information, analysis, and conclusions included in this Draft IS/Proposed ND provide the basis for determining the appropriate document needed to comply with CEQA, as discussed in Section 1 of this Draft IS/Proposed ND.

The evaluation of environmental impacts provided in this section is based in part on the environmental impact questions contained in Appendix G of the CEQA Guidelines. For the CEQA analysis, each question is followed by four categories of impact assessment that can be selected based on the analysis, as follows:

- **Potentially Significant Impact.** This determination is made if there is substantial evidence that a Project-related environmental effect may be significant. If there are one or more "Potentially Significant Impacts," an EIR and EIS would be prepared for the Proposed Project.
- **Less than Significant with Mitigation.** This determination is made when the Proposed Project may result in a significant environmental impact, but the incorporation of identified mitigation measures would reduce the identified effect(s) to a less than significant level.
- **Less than Significant Impact.** This determination is made when the Proposed Project would not result in any significant effects. The Proposed Project's impact would be less than significant even without the incorporation of identified mitigation measures.
- **No Impact.** This determination is made when the Proposed Project would not result in any impact in the category, or the category does not apply.

Detailed descriptions and analyses of impacts from the Proposed Project activities and the basis for their significance determinations are provided for each environmental factor on the following pages, beginning with Section 3.1, Aesthetics. Relevant local laws, regulations, and policies potentially applicable to the Proposed Project are listed in the Regulatory Setting subsection for each environmental factor analyzed in this Draft IS/Proposed ND.

AGENCY DETERMINATION

Based on the environmental impact analysis provided by this Draft IS/Proposed ND:

Finding	Yes or No
I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	**Yes**
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.	**No**
I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	**No**
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.	**No**
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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.	**No**

Signature: **Date:**

_____ _____

Printed Name: Colleen Liang, Director of Environmental Programs and Planning, Port of Oakland

DRAFT

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the Proposed Project:

Question	CEQA Determination
a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
c) In nonurbanized 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?	Less Than Significant Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less Than Significant Impact

3.1.1 Environmental Setting

The Proposed Project occupies approximately 32.2 acres of Port property in the City of Oakland, California. The Proposed Project is located between Maritime Street and Oakland Outer Harbor. The existing conditions of the Proposed Project site consist of AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. Terminal areas directly adjacent to the Proposed Project site are already being used in a similar stacking capacity to what is proposed for the Proposed Project.

The Proposed Project site's immediate vicinity is characterized by maritime industrial uses associated with the Port. In general, the OHT in which the Proposed Project site is located contains flat expansive asphalt-paved areas notable for stacked shipping containers, facilities associated with Port maritime activities trucks, and the presence of nearby railroad tracks, resulting in the heavily and distinctive maritime industrial visual character of the Proposed Project site. Floodlighting on high mast structures and cranes is present in the Port area for nighttime operations and security. The Proposed Project site contains sparse vegetation limited to grasses that have pushed through cracks in the concrete. The overall visual quality of the Proposed Project site is considered low because of the visual dominance of features associated with heavy industrial uses in the area, and lack of native surface or environmental setting. Given the flat topography of this part of Oakland, the majority of the Proposed Project site is visible only from locations in its immediate vicinity. Areas of the city that are higher in elevation are a relatively long distance away. Therefore, from those higher elevations, the Proposed Project site is not easily discernible when viewed within the context of the larger landscape.

Primary public views of the Proposed Project site occur along 7th Street and Maritime Street in Oakland. Port View Park and Middle Harbor Shoreline Park are the nearest parks and are located on Port property approximately 0.5 mile southwest of the Proposed Project site. However, the parks are immediately adjacent to active terminals with structures and containers that would obstruct the view of the Proposed Project site. Similarly, views of the Proposed Project site from the multi-use recreation path on the east side of Maritime Street would be obstructed by trucks traveling on Maritime Street in addition to the privacy screen of the existing perimeter fence. The Proposed Project site is not visible from any other parks.

The nearest designated scenic highway is I-580, approximately 2 miles northeast of the Proposed Project site. The Proposed Project site would not be distinguishable from other Port areas at this distance.

3.1.2 Regulatory Setting

The Port is a department of the City with the exclusive authority to control and manage certain lands of the City, referred to as the Port Area, in conformity with the Charter and the General Plan. The City of Oakland General Plan Open Space Conservation and Recreation (OSCAR) Element (City of Oakland 1996) outlines various goals and policies intended to preserve and protect areas of the city that are potentially scenic, or that would promote access to scenic areas. Some of these policies would under conventional circumstances apply to a project like the one evaluated in this environmental document. However, the Proposed Project would be implemented on Port property, which is currently not publicly accessible and would remain so after Proposed Project implementation because of safety and security considerations. In addition, the visual quality of the Proposed Project sites is currently low and is not designated as scenic. Policies in the OSCAR Element potentially relevant to the Proposed Project include Policy OS-10.2, which states that new development should minimize "adverse visual impacts" and encourage "opportunities for new vistas and scenic enhancement," and Policy OS-10.3, which promotes enhancement to the city's underused visual resources, including waterfronts (City of Oakland 1996).

The Port has an Exterior Lighting Policy to reduce the impacts of exterior lighting on the surrounding community and to conserve energy. Under this policy, the Port's tenants comply with established lighting measures to minimize lighting impacts from development and operations and to conserve energy. The Port's policy also includes the Senate Bill 5X standards. The standards require that outdoor lighting be automatically controlled so that it is turned off during daytime hours and during times when it is not needed.

3.1.3 Impact Analysis

a, b) No Impact: The Proposed Project site is not a part of any officially designated scenic vista and would not damage any scenic resources, including trees, rock outcroppings or historic buildings within a state scenic highway. No impacts would occur.

c) Less Than Significant Impact: The Proposed Project site and its vicinity are part of an urbanized area of City of Oakland that is characterized by heavy maritime industrial uses. As a result, the level of visual quality in the area is low. The Proposed Project would slightly change the visual character of the Proposed Project site. The proposed new pavement, concrete runways, battery storage systems, EV chargers, reefer plug-ins, upgraded substations, 100 LF of overhead transmission line, perimeter fencing, high mast light poles and hydrants, and bioretention swale would be consistent with existing industrial use and development in the vicinity in terms of scale, design, and use, and therefore would not result in a significant impact on the visual quality of the Proposed Project site. The changes to the Proposed Project site would be consistent with the uses of the terminal areas directly adjacent to the site, which are already being used in a similar stacking capacity to what is proposed for the Proposed Project. The Proposed Project is consistent with the General Plan land use designation of General Industry and Transportation. As discussed in Section 3.1.1, the Proposed Project site is not visible from parks or scenic highways.

Existing conditions at the Proposed Project site currently includes light sources from high mast light poles that range in height between 80 to 100 feet and the container loading/off-loading cranes, which are 380 feet tall feet tall and are also equipped with multiple light fixtures, headlights from vehicles on Port roads, and temporary light sources from equipment being operated. The Proposed Project would not be

substantially different in character from existing maritime industrial uses currently at the Proposed Project site. The lighting design for the Proposed Project would comply with BMPs in the Port's Exterior Lighting Policy.

Because the Proposed Project's changes in scenic quality would not conflict with regulations governing scenic quality, impacts would be less than significant.

d) Less Than Significant Impact: Implementation of the Proposed Project would result in construction of potentially new light sources, primarily minor task lighting for the reefer racks and BESS. The Proposed Project site and the rest of the Port facility is already a 24-hour per day facility that uses artificial lighting. Additionally, the Proposed Project consists of removing, replacing, and/or feathering pavement, constructing a bioretention swale, upgrading onsite substations, installing a BESS, and installing EV chargers, constructing a Reefer Storage area and installing reefer racks and plug-ins, removing or installing fencing, and removing and replacing high mast light bulbs. Proposed Project elements would have similar non-reflective finishes as existing infrastructure and equipment and would not constitute a substantial new source of glare. The impact would be considered less than significant.

3.1.4 Mitigation Summary

No mitigation measures would be necessary.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the Proposed Project:

Question	CEQA Determination
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?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
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))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
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?	No Impact

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 Department 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 to the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

3.2.1 Environmental Setting

The Proposed Project is located within an urban industrial setting and would generally consist of improving pavement to allow for container stacking. The Proposed Project site is paved and surrounded by industrial land use. It is currently used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. There are no lands designated as farmland or forested or timberlands in the Port, including the Proposed Project site (California Department of Conservation 2023).

3.2.2 Regulatory Setting

No federal or state laws or regulations pertaining to agriculture and forest resources were identified that are relevant to the Proposed Project. Goals, policies, and regulations in the City of Oakland General Plan related to agriculture are not applicable to the Proposed Project site.

3.2.3 Impact Analysis

a, b, c, d, e) No Impact: The Proposed Project would have no impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance because no current or planned agricultural uses are at the Proposed Project site. The Proposed Project would not conflict with land use designations for agriculture because the Proposed Project site is designated as General Industrial and Transportation. The Proposed Project site is not operated under a Williamson Act contract with any local governments for the purpose of restricting specific parcels of land to agricultural or related open space use. Similarly, there are no forest lands or timberlands located on or in the vicinity of the Proposed Project site, and no impact to forest lands or timberlands would occur.

3.2.4 Mitigation Summary

The Proposed Project would not result in any impacts to agriculture or forestry resources; therefore, no mitigation is required.

3.3 AIR QUALITY

Would the Proposed Project:

Question	CEQA Determination
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less Than Significant Impact
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?	Less Than Significant Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact

This section evaluates the potential air quality impacts that may result from construction and operation of the Proposed Project.

3.3.1 Environmental Setting

The Proposed Project is located in the Port's Seaport facility in the City of Oakland within the San Francisco Bay Area Air Basin (SFBAAB). SFBAAB includes Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Santa Clara counties; the western portion of Solano County; and the southern portion of Sonoma County. The existing site uses consist of AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities.

3.3.1.1 Climate, Meteorology, and Topography

Meteorology and terrain can influence air quality. Certain weather parameters are highly correlated to air quality, including temperature, the amount of sunlight, and the type of winds at the surface and above the surface. Winds can transport ozone (O_3) and O_3 precursors from one region to another, contributing to air quality problems downwind of source regions. Furthermore, mountains can function as a barrier that prevents O_3 from dispersing.

SFBAAB is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits, resulting in a western coast gap (the Golden Gate) and an eastern coast gap (the Carquinez Strait), both of which allow air to flow in and out of the SFBAAB and the Central Valley (BAAQMD 2017a). The climate in the SFBAAB is dominated by the strength and location of a semipermanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below to the surface, because of the northwesterly flow, produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential (BAAQMD 2017a).

The SFBAAB has moderately wet winters and dry summers. Winter rains account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the

SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains but is often less than 16 inches in sheltered valleys (BAAQMD 2017a).

3.3.1.2 Criteria Pollutants and Attainment Status

O_3, particulate matter (PM) with aerodynamic diameter equal to or less than 10 micrometers and 2.5 micrometers (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead are criteria air pollutants that are regulated at federal, state, and regional levels. Non-methane (CH_4) volatile organic compounds (VOCs), also referred to as reactive organic gases (ROGs), are regulated as precursors of O_3. These criteria air pollutants and their effects on humans are discussed in the following sections, with the exception of lead. Lead is not expected to be emitted by Proposed Project activities and is not further discussed in this section.

Ozone: O_3 is a colorless gas that is not directly emitted as a pollutant but is formed when ROGs and nitrogen oxides (NO_x) react in the presence of sunlight. Low wind speeds or stagnant air mixed with warm temperatures typically provide optimum conditions for the formation of O_3. Because O_3 formation does not occur quickly, O_3 concentrations often peak downwind of the emission source. As a result, O_3 is of regional concern as it impacts a larger area. When inhaled, O_3 irritates and damages the respiratory system.

Particulate Matter: PM, which is defined as particles suspended in a gas, is often a mixture of substances, including metals, nitrates, organic compounds, and complex mixtures (such as diesel exhaust and soil). The most common sources of natural PM are dust and fires, while the most common man-made source is the combustion of fossil fuels. PM causes irritation to the human respiratory system when inhaled. The extent of health risks as a result of PM exposure is related to the size of the particles. The smaller the particles, the deeper they can be deposited in the lungs. PM is often grouped into two categories—PM_{10} and $PM_{2.5}$.

Carbon Monoxide: CO is a colorless, odorless, and tasteless gas that is directly emitted as a byproduct of combustion. CO concentrations tend to be localized to the source, and the highest concentrations are associated with cold, stagnant weather conditions. CO is readily absorbed through the lungs into the blood, where it reduces the ability of the blood to carry oxygen.

Nitrogen Oxides: NO_x is a generic name for the group of highly reactive gases that contain nitrogen and oxygen in varying amounts. Many types of NO_x molecules are colorless and odorless. However, when combined with particles in the air, NO_2—a common pollutant—can often be seen as a reddish-brown layer over many urban areas. NO_x forms when fuel is burned at high temperatures. Typical man-made sources of NO_x include motor vehicles; fossil-fueled electricity generation utilities; and other industrial, commercial, and residential sources that burn fuels. NO_x can harm humans by affecting the respiratory system. Small particles can penetrate the sensitive parts of the lungs, cause or worsen respiratory disease, and aggravate existing heart conditions. As discussed previously, O_3 is formed when NO_x and hydrocarbons react with sunlight.

Sulfur Oxides: Sulfur oxide (SO_x) is formed when sulfur-containing materials are processed or burned. SO_x sources include industrial facilities (such as petroleum refineries and cement manufacturing and metal-processing facilities), locomotives, large ships, and some non-road diesel equipment. A wide variety of health and environmental impacts is associated with SO_x because of the way it reacts with other substances in the air. Particular groups of people who are sensitive to SO_x emissions include children, the elderly, people with asthma, and people with heart or lung disease. When inhaled, the SO_x particles gather

in the lungs and contribute to increased respiratory symptoms and disease, difficulty breathing, and premature death.

Volatile Organic Compounds: VOCs (or ROGs) are a group of chemicals that react with NO_x and hydrocarbons in the presence of heat and sunlight to form O_3. Examples of VOCs include gasoline fumes and oil-based paints. This group of chemicals does not include CH_4 or other compounds determined by the U.S. Environmental Protection Agency (EPA) to have negligible photochemical reactivity.

EPA and CARB designate areas in California as being in attainment or nonattainment for the National Ambient Air Quality Standard (NAAQS) and California Ambient Air Quality Standards (CAAQS), respectively. Details of the NAAQS and CAAQS are discussed in Section 3.3.2. One of the following air quality designations is given to an area for a particular pollutant:

- Nonattainment – This designation applies when NAAQS or CAAQS have not been consistently achieved.
- Attainment – This designation applies when NAAQS or CAAQS have been achieved.
- Maintenance – This designation applies to an area that was previously designated as a nonattainment area but has met the standard and has been reclassified by EPA as attainment with a maintenance plan.
- Unclassified – This designation applies when insufficient monitoring data exist to determine a nonattainment or attainment designation. Unclassified areas are typically considered to be in attainment.

The Proposed Project area is in Alameda County, currently designated as nonattainment for O_3 (federal and state standards), PM_{10} (state standard), and $PM_{2.5}$ (federal and state standard) [3]. The area is in attainment for all other pollutants (CARB 2022a).

3.3.1.3 Port of Oakland Seaport Emissions

The Port develops a detailed emission inventory of Seaport operations every few years. The most recent inventory is the 2020 Seaport Emission Inventory (Port of Oakland 2021). In 2023, the emissions of the commercial harbor craft in the 2020 inventory were updated to use CARB's updated emission methodologies (Ramboll 2023). The emissions inventory from 2020 (as updated for harbor craft emissions in 2023) are summarized in Table 3.3-1.

Seaport emissions have gone down significantly with CARB regulations, including implementation of the cargo-handling regulation, drayage truck regulation, at-berth regulation, and harbor craft regulation. Other changes helping to reduce emissions include improvements in engines for ocean-going vessels (OGVs) and implementation of the Port's Maritime Air Quality Improvement Plan along with numerous grants to improve infrastructure for shore power and RTG cranes. These reductions are expected to continue with ongoing implementation of the Seaport Air Quality 2020 and Beyond Plan, as well as updated CARB regulations for trucks, harbor craft, and at-berth. Emissions of NO_X show substantial reductions for cargo-handling equipment and trucks due to implementation of newer engines with lower

[3] On January 9, 2013, EPA issued a final rule, determining that SFBAAB has attained the 24-hour $PM_{2.5}$ national standard. This rule suspends key State Implementation Plan requirements as long as monitoring data continue to show that SFBAAB attains the standard. Despite this USEPA action, SFBAAB will continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until Bay Area Air Quality Management District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.

NO_x emissions, and to a lesser extent, harbor craft reflecting the portion of harbor craft fleets that have implemented newer engines. The use of diesel particulate filters and other diesel emission reductions such as using shore power at berth have decreased diesel particulate matter (DPM) emissions of cargo-handling equipment, trucks, locomotives, and OGVs. The Port exceeded its goal of reducing DPM emissions by 85 percent from 2005 to 2020 with a reduction of 86 percent, and its goal for NO_x emissions on and near shore of 34 percent with a reduction of 54 percent.

Table 3.3-1. Port of Oakland 2020 Seaport Emissions Summary: Criteria Pollutants (tons)

Source Category	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$	DPM	SO_x
Ocean Going Vessels	63.5	119.3	1,461.9	18.8	17.3	12.6	56.1
Harbor Craft[a]: Dredge and OGV Assist	3.33	14.93	100.10	1.84	1.79	1.84	0.11
Harbor Craft[a]: Bunkering	0.31	1.39	11.25	0.25	0.24	0.25	0.01
Cargo Handling Equipment	39.7	116.2	195.9	2.8	2.5	2.5	0.4
Trucks	4.7	30.0	89.3	1.7	0.7	0.2	0.2
Locomotives	0.6	1.2	6.5	0.1	0.1	0.1	<0.1
Other	1.4	40.1	3.0	0.1	0.1	<0.1	<0.1
Subtotal	113.5	323.1	1,868	25.6	22.7	17.49	56.8
Cruise Ship Lay Berth[b]	9.5	19.8	223.5	3.7	3.4	3.2	9.1
Total	123	342.9	2,091	29.3	26.1	20.7	65.9

Source: Port of Oakland 2021, Ramboll 2023
Notes:
[a] Harbor Craft emissions have been updated to reflect changes in methods by CARB for harbor craft as used in their Harbor Craft Regulation update (CARB 2021).
[b] As a result of disruptions to cruise ship operations caused by the world-wide COVID-19 pandemic, the Port allowed several cruise ships to lay over at the Port for extended periods of time during the year. Emissions from these unprecedented cruise ship visits, which are not representative of normal Port operations, are included as a separate line.

Figure 3.3-1 and Figure 3.3-2 show the changes in emissions from the 2005 to 2020 emissions inventory for NO_x and DPM. These graphs show substantial reductions in emissions since 2005.

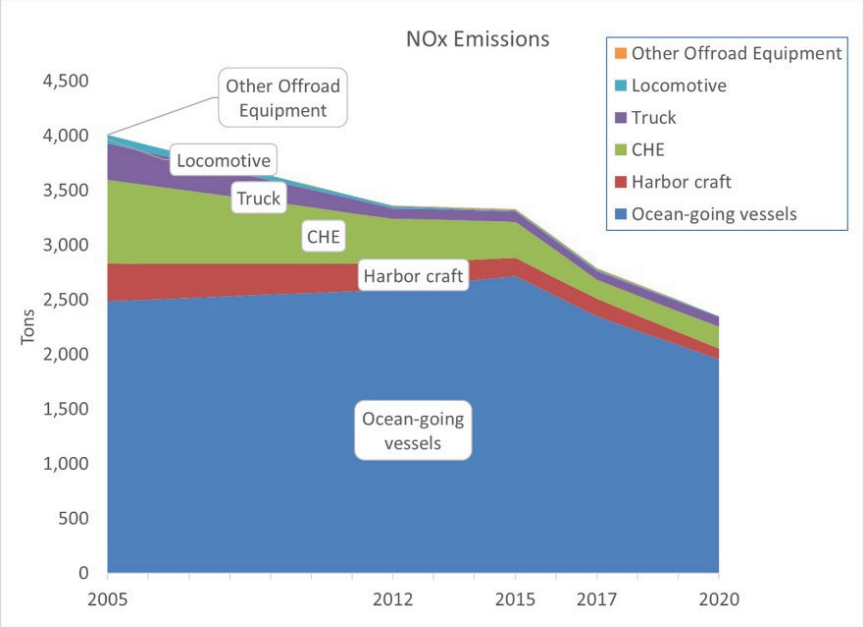


Figure 3.3-1. NO_x Emissions from 2005 to 2020

Notes:
CHE = Cargo Handling Equipment such as RTG cranes, yard tractors, and top picks.
Other Off-road Equipment = non-CHE equipment operation at terminals and Oakland International Gateway (BNSF) railyard
Source: Port of Oakland 2023b

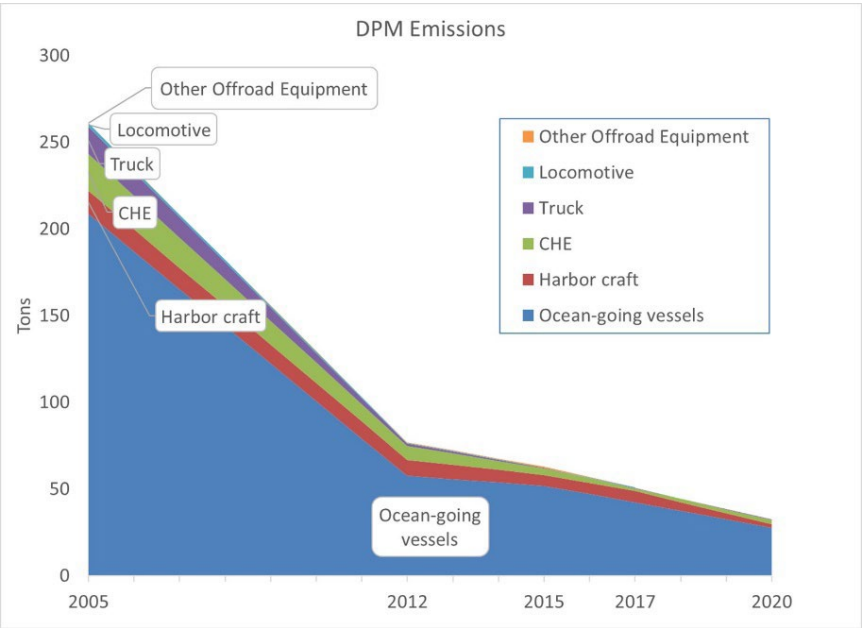


Figure 3.3-2. DPM Emissions from 2005 to 2020

Notes:
CHE = Cargo Handling Equipment such as RTG cranes, yard tractors, and top picks.
Other Off-road Equipment = non-CHE equipment operation at terminals and Oakland International Gateway (BNSF) railyard
Source: Port of Oakland 2023b

3.3.1.4 Port of Oakland 2020 and Beyond Plan

In 2019, the Port released its 2020 and Beyond Plan, which serves as the Port's master plan for achieving its vision of a ZE Seaport (Port of Oakland 2019a). The 2020 and Beyond Plan seeks to minimize emissions of criteria air pollutants and toxic air contaminants (TACs), including DPM, as well as GHG emissions. The 2020 and Beyond Plan goals and strategies are designed to complement current and future plans and studies by federal, state, regional, and local regulatory agencies and organizations to address air quality, community health risk, and climate change.

The Year 3 progress report on the 2020 and Beyond Plan (Port of Oakland 2022) notes that the following actions have been completed:

- All 13 RTG cranes at Oakland International Container Terminal converted to hybrid-electric engines. Other tenants are in the process of evaluating grant applications to assist with upgrades to their RTG cranes.
- The Port completed construction of 10 truck chargers at the Shipper's Transport Express facility. Battery-electric trucks are in active operation moving containers within the Seaport between the Shipper's Transport Express facility and the terminals.
- Charging infrastructure has been installed at several locations.
- GSC Logistics operates three BYD electric drayage trucks and one electric yard tractor.
- Sea Logix operates four BYD electric road trucks.
- The Port completed the maritime Power Capacity Study for Terminal Electrification.
- The Port completed a guide for tenants for EV Charging Station Permit Applications.
- The Port completed several feasibility studies regarding ZE trucks and cargo-handling equipment.
- The Port completed a report on seaport electrical system capacity, incentive programs for vessels and locomotives, and financing and costs of the 2020 and Beyond Plan.

The Port continues to make progress toward its goal of becoming a ZE Seaport. The Port has coordinated with tenants, community members, and agency partners to install chargers and infrastructure to support battery-electric top picks and electric yard tractors, begin design or obtain funding for updates to substations, and upgrade power generation resiliency components such as the Proposed Project. The Port has switched to renewable diesel for its fleet, and regulations already require harbor craft to use renewable diesel. The Port has registered its shore power equipment and electric car charging stations in the low carbon fuel standard (LCFS) program and purchased renewable energy certificates to cover the electricity demand in the LCFS program. Recently completed ZE projects include the on-boarding of five electric yard tractors at the Matson Terminal, the construction of truck chargers at Roundhouse, an electric circuit replacement at Maritime and 14th Street, and the completion of a hydrogen fueling station to support 30 hydrogen trucks located near the Seaport. The Port is also purchasing hybrid-electric equipment and trucks for its fleet to replace those that are at the end of their life.

3.3.1.5 Toxic Air Contaminants

TACs are a regulatory designation that includes a diverse group of air pollutants that adversely affect human health. They are not fundamentally different from the criteria pollutants, but they have not had ambient air quality standards established for them for a variety of reasons (for example, insufficient dose-response data or association with particular workplace exposures rather than general environmental

exposure). The health effects of TACs can result from either acute or chronic exposure. Many types of cancer are associated with chronic TAC exposures, but TAC exposures can also cause other adverse health effects. Consequently, the Bay Area Air Quality Management District (BAAQMD) has established both a cancer and a noncancer health risk threshold for TAC emissions.

Significant sources of TACs in the environment include industrial processes, such as petroleum refining, chemical manufacturing, electric utilities, metal mining/refining and chrome plating; and commercial operations, such as gasoline stations, dry cleaners, and buildings with boilers and/or emergency generators. Mobile sources are gasoline and diesel-powered vehicles of all types. CARB listed 10 compounds that pose the greatest known health risk in California. Based primarily on ambient air quality data, these are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and DPM (CARB 2013). Of these pollutants, DPM could potentially be emitted from the Proposed Project from equipment and vehicle use. Information on DPM is included in the following paragraphs.

Diesel Particulate Matter

DPM is found in engine exhaust and consists of a mixture of gases and fine particles (smoke or soot) that can penetrate deeply into the lungs where it can contribute to a range of health problems. In 1998, CARB identified PM from diesel-powered engines as a TAC based on its potential to cause cancer and other adverse health effects (CalEPA 1998a). Diesel exhaust is a complex mixture that includes hundreds of individual constituents and is identified by the State of California as a known carcinogen (CalEPA 1998b). However, under California regulatory guidelines, DPM is used as a surrogate measure of exposure for the mixture of chemicals that comprise diesel exhaust (CalEPA 1998b).

It is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM. Based on 2012 estimates of statewide exposure, DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over a lifetime (CARB 2024). In 2000, CARB approved a new regulation for existing heavy-duty diesel vehicles that requires retrofitting and replacement of vehicles or their engines over time, such that by 2023 all vehicles must have a 2010 model year engine or equivalent. This regulation is anticipated to result in an 85 percent decrease in statewide diesel health risk in 2020 from the 2000 risk levels (CARB 2000).

Bay Area Air Quality Management District Community Air Risk Evaluation Program

Under the Community Air Risk Evaluation (CARE) program, BAAQMD began identifying areas with high TAC emissions and sensitive populations that could be affected by such emissions and using this information to establish policies and programs to reduce TAC emissions and exposures. During Phase I of CARE, BAAQMD developed a preliminary Bay-Area-wide TAC emissions inventory (for the year 2000) and compiled demographic and health-statistics data to identify sensitive populations. Five TACs (DPM, 1,3-butadiene, benzene, hexavalent chromium, and formaldehyde) were estimated to be responsible for about 97 percent of SFBAAB's cumulative cancer risk, and DPM alone accounts for about 80 percent of this cancer risk. Major sources of DPM include on-road and off-road heavy-duty diesel trucks and construction equipment. The highest DPM emissions occur in the urban core areas of eastern San Francisco, western Alameda, and northwestern Santa Clara counties.

West Oakland Community Action Plan

In response to the requirements of Assembly Bill (AB) 617, CARB established the Community Air Protection Program, which is designed to reduce exposures in communities most impacted by air pollution. BAAQMD, working in conjunction with local community groups, identified several communities, including the West Oakland community, for participation in the Community Air Protection Program. This

community-lead process resulted in the development of the West Oakland Community Action Plan (WOCAP) (BAAQMD 2019), which focuses on reducing exposures in West Oakland to fine PM ($PM_{2.5}$), DPM, and TACs and sets emission reduction targets. The overarching goal of the WOCAP is "[t]o protect and improve community health by eliminating disparities in exposure to local air pollution." The WOCAP included an updated health risk assessment that showed a lower cancer risk for West Oakland than the CARB 2008 study. Based on the WOCAP analysis, Port trucks contribute about 2 percent of the DPM-related health risk to West Oakland. The WOCAP includes 89 strategies to achieve its goals, several of which are identified as Port-related and are relevant to the Proposed Project. These including the following:

- Strategy 5: The City of Oakland and Port amend existing Ordinances, Resolutions, or Administrative policies to accelerate relocation of truck yards and truck repair, service, and fueling businesses in West Oakland currently located within the freeway boundaries that do not conform with the zoning designations adopted in the West Oakland Specific Plan.
- Strategy 19: The Port adopts an Electrical Infrastructure Plan for the maritime waterfront areas of Oakland. This Plan seeks to remove barriers to adoption of ZE trucks, such as cost, land, and ownership of charging equipment.
- Strategy 26: The City and Port will work to establish permanent locations for parking and staging of Port-related trucks and cargo equipment, i.e., tractors, chassis, and containers. Such facilities will provide long-term leases to parking operators and truck owner-operators at competitive rates. Such facilities will be at the City or Port logistics center or otherwise not adjacent to West Oakland residents.
- Strategy 37: The Port, as part of the 2020 and Beyond Seaport Air Quality Plan, supports the transition to ZE drayage truck operations, including … developing an investment plan for needed upgrades to the Port's electrical infrastructure.

3.3.2 Regulatory Setting

This section discusses federal, state, and regional laws and regulations pertaining to air quality and relevant to the Proposed Project.

3.3.2.1 Clean Air Act and National Ambient Air Quality Standards

The federal Clean Air Act (CAA) establishes the statutory framework for regulation of air quality in the United States. Pursuant to this act, EPA has established various regulations to achieve and maintain acceptable air quality, including the adoption of NAAQS, mandatory state implementation plan (SIP) or maintenance plan requirements to achieve and maintain NAAQS, and emission standards for both stationary and mobile sources of air pollution. NAAQS includes primary standards that provide public health protection and secondary standards that protect public welfare. Table 3.3-2 presents a summary of NAAQS and CAAQS.

Table 3.3-2. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS[a]	NAAQS Primary[b], [c]	NAAQS Secondary[b], [d]
Ozone	8 hours	0.070 ppm	0.070 ppm	0.070 ppm
Ozone	1 hour	0.09 ppm	N/A	N/A
PM_{10}	Annual arithmetic mean	20 µg/m^3	N/A	N/A
PM_{10}	24 hours	50 µg/m^3	150 µg/m^3	150 µg/m^3
$PM_{2.5}$	Annual arithmetic mean	12 µg/m^3	9 µg/m^3	15 µg/m^3
$PM_{2.5}$	24 hours [e]	N/A	35 µg/m^3	35 µg/m^3
CO	8 hours	9.0 ppm	9 ppm	N/A
CO	1 hour	20 ppm	35 ppm	N/A
NO_2	Annual arithmetic mean	0.03 ppm	0.053 ppm	0.053 ppm
NO_2	1 hour	0.18 ppm	0.100 ppm	N/A
SO_2	24 hours	0.04 ppm	N/A	N/A
SO_2	3 hours	N/A	N/A	0.5 ppm
SO_2	1 hour	0.25 ppm	0.075 ppm[f]	N/A
Lead[g]	Calendar quarter	N/A	1.5 µg/m^3 (certain areas)	1.5 µg/m^3
Lead[g]	Rolling 3-month average	N/A	0.15 µg/m^3	N/A
Lead[g]	30-day average	1.5 µg/m^3	N/A	N/A
Visibility-reducing particles	8 hours	See notes [h]	N/A	N/A
Sulfates	24 hours	25 µg/m^3	N/A	N/A
Hydrogen sulfide	1 hour	0.03 ppm	N/A	N/A
Vinyl chloride[g]	24 hours	0.01 ppm	N/A	N/A

Source: CARB 2016, EPA 2024a.

Notes:

[a] CAAQS for O_3, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, and suspended PM (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are not to be exceeded. All others are not to be equaled or exceeded.

[b] NAAQS other than O_3, PM, and those based on annual averages or annual arithmetic means are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, is equal to or less than the standard.

[c] NAAQS Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[d] NAAQS Secondary Standards: The levels of air quality necessary to protect the public welfare from known or anticipated adverse effects of a pollutant.

[e] On January 9, 2013, EPA issued a final rule, determining that SFBAAB has attained the 24-hour $PM_{2.5}$ national standard. This rule suspends key SIP requirements as long as monitoring data continue to show that SFBAAB attains the standard. Despite this EPA action, SFBAAB will continue to be designated as "nonattainment" for the national 24-hour PM2.5 standard until BAAQMD submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation. [f] Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 parts per billion.

[g] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. CARB made this determination following the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

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

µg/m^3 = microgram(s) per cubic meter

N/A = not applicable

ppm = parts per million

EPA uses ambient air quality monitoring data to classify areas as being in attainment or nonattainment with the NAAQS for each criteria pollutant. Attainment status of the Proposed Project area is discussed in Section 3.3.1. The 1977 CAA amendment requires each state to develop and maintain an SIP for each nonattainment area. The SIP serves as a tool to help avoid and minimize emissions of nonattainment criteria pollutants and their precursor pollutants and achieve compliance with NAAQS. In 1990, the CAA was amended to strengthen the regulation of both stationary and mobile emission sources.

3.3.2.2 Hazardous Air Pollutants

In addition to the criteria pollutants, EPA also regulates emissions of hazardous air pollutants, or TACs. TACs include airborne inorganic and organic compounds that can have both short-term (acute) and long-term (carcinogenic, chronic, and mutagenic) impacts on human health.

Controlling air toxic emissions became a national priority with the passage of the CAA amendments in 1990, when Congress mandated that EPA regulate 188 air toxics. Before the 1990 CAA amendments, national emission standards were established for benzene, vinyl chloride, radionuclides, mercury, asbestos, beryllium, inorganic arsenic, radon 222, and coke oven emissions. The 1990 CAA amendments require EPA to set standards for categories and subcategories of sources that emit hazardous air pollutants, rather than for the pollutants themselves. EPA began issuing the new standards in November 1994. National emission standards set before 1991 remain applicable.

3.3.2.3 California Clean Air Act and Air Quality Standards

CARB is the state agency responsible for California air quality management, including establishment of CAAQS, mobile source emission standards, and greenhouse gas (GHG) regulations, as well as oversight of regional air quality districts and preparation of implementation plans, such as regulations for stationary sources of air pollution. CAAQS are generally more stringent, except for the 1-hour NO_2 and SO_2 standards, and include more pollutants than NAAQS (Table 3.3-1). California specifies four additional criteria pollutants: visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Similar to EPA, CARB designates counties in California as being in attainment or nonattainment for CAAQS.

The California CAA, which was approved in 1988, requires each local air district, where ambient concentrations violate CAAQS, to prepare an air quality management plan to achieve compliance with CAAQS as a part of the SIP. CARB has primary responsibility for the SIP for nonattainment pollutants but relies on each local air district to adopt mandatory statewide programs and provide additional strategies for sources under their jurisdiction.

3.3.2.4 California Air Toxic

California's Air Toxic "Hot Spots" Information and Assessment Act (AB 2588) identifies TAC hot spots where emissions from specific sources may expose individuals to an elevated risk of adverse health effects, particularly cancer or reproductive harm. TACs are also referred to as hazardous air pollutants. The act requires that a business or other establishment identified as a significant source of toxic emissions provide the affected population with information about health risks the emissions pose.

CARB has adopted the *Diesel Risk Reduction Plan* (CARB 2000) and a series of Airborne Toxic Control Measures (ATCMs) for mobile and stationary sources, which are intended to reduce overall diesel exhaust emissions in California. CARB also adopted ATCMs for controlling naturally occurring asbestos, and CARB and local air districts have authority to enforce the federal National Emission Standards for Hazardous Air Pollutants regulations for asbestos.

3.3.2.5 Regional Regulations

BAAQMD is the primary regional agency responsible for attaining and maintaining air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, and enforcement. BAAQMD has adopted Air Quality Guidelines for compliance with CEQA (BAAQMD 2022), including thresholds that lead agencies can use to determine the significance of emissions from a project's short-term construction and long-term operations.

BAAQMD works in cooperation with the Association of Bay Area Governments and the Metropolitan Transportation Commission (MTC) to develop air quality plans. BAAQMD prepares O_3 attainment demonstrations for the federal O_3 standard and clean air plans for the California O_3 standard. The *2001 Ozone Attainment Plan* is BAAQMD's contribution to the SIP for demonstrating attainment of the federal 1-hour O_3 standard (BAAQMD 2001). The *2017 Bay Area Clean Air Plan* (BAAQMD 2017b) is the latest district-approved O_3 clean air plan, which shows how BAAQMD would make progress toward meeting the state 1-hour O_3 standard. The plan includes 85 distinct control measures to decrease fossil fuel combustion, improve energy efficiency, and decrease emissions of GHGs and other pollutants.

The Proposed Project would be subject to BAAQMD's Regulation 6-6, which pertains to the management of trackout at construction sites larger than 1 acre. Specifically, this regulation prohibits trackout exceeding 25 LF onto public roadways, and also prohibits a project from causing or allowing fugitive dust or visible emissions during cleanup of trackout that exceed 20 percent opacity for a period or aggregate periods of more than 3 minutes in any 1 hour.

3.3.2.6 Local Regulations

The Port adopted an amendment to its environmental ordinance in March 2023, requiring Port tenants that operate cargo-handling equipment to create a plan for converting cargo-handling equipment to ZE (Port of Oakland Administrative Code Chapter 9.01). Port tenants are required to submit their conversion plan by December 31, 2023.

3.3.3 Impact Analysis

a) Less Than Significant Impact: The most recent air quality plan adopted by BAAQMD, the *Bay Area 2017 Clean Air Plan: Spare the Air, Cool the Climate*, is the applicable air quality plan for projects in Alameda County (BAAQMD 2017b). The Clean Air Plan provides an integrated, multi-pollutant control strategy to reduce emissions of O_3, particulates, air toxics, and GHGs. The Proposed Project construction, operation, and maintenance would be consistent with the applicable air quality plan if it would comply with all applicable air quality regulations and if it would not obstruct or delay implementation of control measures in the air quality plan.

Specific rules and regulations adopted by BAAQMD limit the emissions that can be generated by various activities and in some cases, identify specific pollution reduction measures that must be implemented. The Proposed Project construction would comply with applicable BAAQMD rules and regulations, such as general provisions in Regulation I, and PM/dust control requirements in Regulation 6. Haul truck, vendor truck, and worker vehicle trips would be generated during the proposed construction activities but would cease after construction is completed.

Emissions during construction would not exceed BAAQMD significance thresholds (BAAQMD 2022) as shown in Table 3.3-2.

Proposed Project, emissions from operation, routine inspection, and maintenance activities would be similar to existing conditions. The existing site is currently used for AMS including overnight truck parking

and shipping container/chassis storage and staging to support Port maritime activities; this serves as the baseline for impact analysis. The Proposed Project will continue using the site for shipping container storage and staging with the addition of providing reefer storage and staging. The purpose of the Proposed Project is to support a more efficient operation and continue progress to ZE. As discussed in Section 2 Project Description, the Proposed Project is not expected to increase the number of truck trips in the Port compared to current conditions, but instead would provide greater reliability to handle fluctuations in both imports and exports in a more reliable and efficient matter. The ability to stack containers will allow more efficient picking up and dropping off of the containers when roadways are less congested, potentially reducing operational air emissions compared to current emissions. The Proposed Project also will enable increased EV charging and use during operations. Proposed Project maintenance activities would be similar to existing maintenance activities at the Port and would include maintenance and repair of the bioswale, fencing, high mast lights, and pavement as needed. In addition, occasional maintenance activities would be conducted for the new electrical infrastructure, including the reefer racks, BESS, EV chargers, and substations using similar vehicles and equipment used by the Port for existing electrical infrastructure. Therefore, emissions from operations of the Proposed Project following construction are not anticipated to increase compared to the exiting conditions.

As such, the construction, operation, and maintenance emissions from the Proposed Project would not exceed BAAQMD CEQA significance thresholds or violate any BAAQMD rule or regulation developed to ensure the implementation of the air quality plans and regulations.

The Clean Air Plan identifies control measures and actions to be taken by BAAQMD and the regulated community to reduce emissions of criteria pollutants, O_3 precursors, TACs, and GHGs from stationary and mobile sources in the SFBAAB. With updates to the substations, installation of the BESS, addition of EV chargers, and the new Reefer Storage area, the Proposed Project would modernize and maintain the infrastructure, improve the Port's operation efficiency, and improve the resiliency and advance the Port's goal of a ZE seaport. The addition of the reefer chargers would replace the power source from fuel-burning generators to plugs using electricity. As a result, the Proposed Project would be beneficial to air quality, and it would not conflict with or obstruct implementation of the 2017 Clean Air Plan.

The Proposed Project would be consistent with and support implementation of the WOCAP and its applicable strategies, as summarized in Table 3.3-3.

Table 3.3-3. Consistency with West Oakland Community Action Plan Strategies

WOCAP Strategy Number	Description of Applicable Strategy Components	Proposed Project Implementation
5	Accelerate relocation of truck yards and truck repair, service, and fueling businesses in West Oakland currently located within the freeway boundaries that do not conform with the zoning designations adopted in the West Oakland Specific Plan.	Proposed Project would provide new reefer racks and BESS, which could result in fewer reefers powered with diesel generators stored in West Oakland yards.
19	Remove barriers to adoption of ZE trucks, such as cost, land, and ownership of charging equipment.	Proposed Project would provide new EV chargers and reefer racks, creating new opportunities for ZE equipment. The BESS would make the use of the equipment more reliable.

WOCAP Strategy Number	Description of Applicable Strategy Components	Proposed Project Implementation
26	Establish permanent locations for parking and staging of Port related trucks and cargo equipment, i.e., tractors, chassis, and containers… at the City or Port logistics center or otherwise not adjacent to West Oakland residents.	Proposed Project creates a long-term location not adjacent to West Oakland residents for storage of containers and reefers.
37	Support the transition to ZE drayage truck operations, including … developing an investment plan for needed upgrades to the Port's electrical infrastructure.	Proposed Project includes several upgrades to the Port's electrical infrastructure, including substation improvements, a BESS, and EV chargers, that support the transition to ZE operations.

As discussed earlier, the Proposed Project would have emissions below BAAQMD thresholds, and it would be consistent with the applicable air quality plans. The impact would be less than significant.

b) Less Than Significant Impact: The Proposed Project area is currently designated as nonattainment for O_3, PM_{10}, and $PM_{2.5}$.[4]The emissions associated with the Proposed Project are exhaust emissions from operation of construction equipment and vehicles, and fugitive dust emissions from grading, truck dumping/loading, and material haul trips. These emissions would only occur during construction and would not persist during regular operation of charging stations and reefer plug-ins. The Proposed Project construction activities would be temporary.

Construction emissions from the Proposed Project were estimated using CalEEMod (CAPCOA 2022) based on project-specific schedule and equipment usage for the Proposed Project. Detailed CalEEMod modeling information and emission calculations are provided in Appendix A. A summary of the Proposed Project construction emissions and the comparisons with BAAQMD CEQA significance thresholds are presented in Table 3.3-4.

Table 3.3-4. Average Daily Construction Emissions

Criteria Pollutants	ROG lb/day	NO_x lb/day	CO lb/day	SO_x lb/day	Exhaust PM_{10} lb/day	Fugitive PM_{10} lb/day	Exhaust $PM_{2.5}$ lb/day	Fugitive $PM_{2.5}$ lb/day
2027	1.22	14.24	13.26	0.06	0.40	142.24	0.34	14.53
BAAQMD thresholds	54	54	None	None	82	BMPs	54	BMPs
Exceed threshold?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**	**No**	**N/A**

Notes:
lb/day = pound(s) per day
N/A = not applicable

[4] On January 9, 2013, EPA issued a final rule, determining that SFBAAB has attained the 24-hour PM2.5 national standard. This rule suspends key State Implementation Plan requirements as long as monitoring data continue to show that SFBAAB attains the standard. Despite this USEPA action, SFBAAB will continue to be designated as "nonattainment" for the national 24-hour PM2.5 standard until Bay Area Air Quality Management District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.

As shown in Table 3.3-2, construction emissions of criteria pollutants from the Proposed Project would be well below the applicable BAAQMD emissions thresholds. BAAQMD does not have a quantitative emission threshold for fugitive PM_{10} and $PM_{2.5}$ emissions. Rather, it requires a project to implement BMPs to minimize the emissions. The Proposed Project would comply with the state and BAAQMD regulations such as those for dust control and limiting vehicle idling to avoid or minimize the construction emissions, as further discussed in Section 3.3.4.

Because the Proposed Project construction emissions would be below BAAQMD thresholds and BMPs would be implemented for fugitive dust control, the Proposed Project would not result in a cumulatively considerable net increase of criteria pollutants that would violate any NAAQS or CAAQS or contribute substantially to an existing or projected air quality violation. The construction-related emissions impact would be less than significant.

As discussed in Section 2.8, the number of truck trips within the Port is not expected to change with Proposed Project operation compared to current levels. Rather, the Proposed Project operation is expected to provide greater reliability to handle fluctuations in both imports and exports in a more reliable and efficient matter. Containers and reefers that may have been stored in other locations within the Port or outside the Port can now be stored at the Proposed Project site. The storage within a marine terminal provides flexibility for trucks to deliver and pick up containers and reefers when optimal such as when roadway traffic is less congested and not only when a ship is at dock. Any change in emissions would be negligible. The efficiencies gained from the Proposed Project are not expected to contribute to additional emissions.

Proposed Project maintenance activities would be similar to existing maintenance activities occurring at the site and at other areas of the Port and would include maintenance and repair of the fencing, high mast lights, and pavement as needed. In addition, occasional maintenance activities would be conducted for the new electrical infrastructure, including the reefer racks, BESS, EV chargers, and substations using similar vehicles and equipment used by the Port for existing electrical infrastructure. Therefore, emissions from Proposed Project maintenance would be similar to existing maintenance activities, and any change in emissions would be negligible.

Accordingly, operation and maintenance emissions would not result in a cumulatively considerable net increase of any criteria air pollutant, would have less than significant impact on air quality, and would not violate any air quality standard.

c) Less Than Significant Impact: Sensitive receptors are defined as facilities or land uses that include people who are particularly susceptible to the effects of air pollution (such as children, the elderly, and people with illnesses). Schools, hospitals, and residential areas are all examples of sensitive receptors. There are no residences, schools, or hospitals located within 0.5 mile of the Proposed Project site. The nearest sensitive receptors (residences) are located approximately 0.5 mile east of the Proposed Project construction site. The construction activities will occur within the highly industrialized areas of the Port. Construction will be short-term and BMPs will be implemented to reduce emissions.

Exhaust emissions from construction equipment would contain TACs, such as DPM, with potential to cause cancer and noncancer chronic health effects in exposed populations. However, health risks from DPM are associated with long-term exposure and are typically evaluated based on a 70-year lifetime exposure. The construction site is within the Port surrounded by industrial facilities. Therefore, the Proposed Project's temporary construction emissions are not expected to result in long-term exposure of the closest sensitive receptors to substantial DPM concentrations.

As described, exposure to TAC emissions from construction activities would be short term in nature, with minimal effects on the closest sensitive receptors; long-term exposure to DPM from construction would not occur. In addition, the Port would implement BMPs during construction, including limits on idling times and maintaining equipment in good condition. These measures would minimize emissions and exposure of sensitive receptors to construction-related pollutants.

As discussed in Impact b), the number of truck trips within the Port is not expected to change with Proposed Project operation compared to current levels. Rather, the Proposed Project operation is expected to provide greater reliability to handle fluctuations in both imports and exports in a more reliable and efficient matter. Any change in emissions would be negligible. The efficiencies gained from the Proposed Project are not expected to contribute to additional emissions and would not increase exposure of sensitive receptors to operations emissions.

Proposed Project maintenance activities would be similar to existing maintenance activities occurring at the site and at other areas of the Port and would include maintenance and repair of the fencing, high mast lights, and pavement as needed. In addition, occasional maintenance activities would be conducted for the new electrical infrastructure, including the reefer racks, BESS, EV chargers, and substations using similar vehicles and equipment used by the Port for existing electrical infrastructure. Therefore, emissions from Proposed Project maintenance would be similar to existing maintenance activities, and any change in emissions would be negligible.

Therefore, the Proposed Project is not expected to expose sensitive receptors to substantial pollutant concentrations. Therefore, the Proposed Project would have less than significant impacts on potential sensitive receptors.

d) Less Than Significant Impact: The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; distance from the odor source; and the sensitivity of the affected receptor. Offensive odors do not typically result in physical harm, but they can create a nuisance and may result in complaints from the affected public.

Construction could potentially result in odorous exhaust emissions from use of gasoline- and diesel-fueled vehicles and equipment. However, these emissions would be intermittent and temporary and would dissipate with an increase in distance from the construction location. Given the temporary and intermittent nature of odor-generating construction activities, and the dispersion of emissions compared with the limited proximity and low number of potential receptors, construction of the Proposed Project would not expose people to objectionable odors for an extended period or lead to odorous emissions that would adversely affect substantial numbers of people. Impacts associated with odors during construction would be less than significant.

The Proposed Project operation is not expected to result in objectionable odors. The Proposed Project would not cause changes to the overall level of activities of the container handling equipment or vehicles in the Port from the existing conditions. The maintenance activities would also remain similar to the existing conditions. The bioswale would be maintained so that it functions properly and does not generate odors. Therefore, operation of the Proposed Project would not result in increased emissions leading to odors that would adversely affect substantial numbers of people, and the impact would be less than significant.

3.3.4 Mitigation Summary

The Proposed Project would not result in any impacts to air quality; therefore, no mitigation is required.

3.4 BIOLOGICAL RESOURCES

This section presents the analysis of possible impacts on plants and wildlife in the Proposed Project area, including federal Endangered Species Act (ESA)-listed species and designated critical habitat, Migratory Bird Treaty Act species, and other special-status species as a result of the Proposed Project followed by measures to mitigate, minimize, or avoid any such impacts.

Would the Proposed Project:

Question	CEQA Determination
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 Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), or National Oceanic and Atmospheric Administration National Marine Fisheries Service?	No Impact
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 CDFW or USFWS?	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, or similar) through direct removal, filling, hydrological interruption, or other means?	No Impact
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?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
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?	No Impact

3.4.1 Environmental Setting

The Proposed Project site in the OHT area is paved and used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. The site contains sparse vegetation limited to grasses that have pushed through cracks in the concrete. There are no natural habitats, plant communities, trees, or wetlands in the Proposed Project site. Any use of the Proposed Project site by avian species or other animal species would be incidental and temporary.

The Proposed Project site is near the Port Harbor Channel, which is connected to the San Francisco Bay. The surrounding setting includes marine terminals, Union Pacific Railway, Port View Park, and Middle Harbor Shoreline Park. The nearest residences are located in West Oakland approximately 0.5 mile east. The surrounding setting includes landscaped grass and trees at Port View Park and Middle Harbor Shoreline Park as well as landscaped trees, primarily California palm (*Washingtonia filifera*), along the roadways within the Port.

3.4.2 Regulatory Setting

This section discusses federal and state laws and regulations pertaining to biological resources and relevant to the Proposed Project.

The ESA of 1973 (*United States Code* [U.S.C.] Title16, Sections 1531–1544) is a program for the conservation of federally threatened and endangered species, including plants and animals and the habitats in which they are found. The law requires federal agencies, in consultation with USFWS or the National Marine Fisheries Service, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes take of any listed species including endangered fish or wildlife. Likewise, import, export, interstate, and foreign commerce of listed species are all generally prohibited.

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703–712) protects migratory birds by prohibiting the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior USFWS.

The California Endangered Species Act (CESA) (Fish and Game Code, Sections 2050 through 2115.5) is a California environmental law that conserves and protects plant and animal species at risk of extinction. Originally enacted in 1970, CESA was repealed and replaced by an updated version in 1984 and amended in 1997. Pursuant to the requirements of CESA, an agency reviewing a project within CESA jurisdiction must determine whether any state-listed endangered or threatened species may be present in the Proposed Project site and determine whether the Proposed Project would have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any project that may affect a candidate species. CESA prohibits the take of California-listed animals and plants in most cases; however, CDFW may issue incidental take permits under special conditions.

The California Native Plant Protection Act (NPPA) (Fish and Game Code, Section 1900 et seq.) was enacted in 1977 and allows CDFW to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under NPPA. NPPA prohibits take of endangered or rare native plants but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

Alameda County does not have a Habitat Conservation Plan or a Natural Community Conservation Plan for the Port Area. The City of Oakland General Plan Open Space, Conservation and Recreation Element contains policies relevant to the protection of biological resources, native plant communities, and wetlands (City of Oakland 1996). The City of Oakland also has a creek protection ordinance (City of Oakland 1997).

3.4.3 Impact Analysis

a, b, c, d) No Impact: The Proposed Project would not have an impact on any species identified as endangered, threatened, candidate, sensitive, or special-status species because the Proposed Project site is paved and does not contain any terrestrial or aquatic habitat and does not contain any critical habitat designated under the ESA. The Proposed Project site does not have any riparian habitat, sensitive natural communities, wetlands, or other wildlife habitat. The Proposed Project would not have an impact on any native resident or migratory fish or wildlife species with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites because of the lack of wildlife habitat.

No construction or operations would occur in or immediately adjacent to the water, and construction activities would not be allowed to affect the open water. As discussed in Section 3-10, runoff will be managed on site during construction in accordance with the SWPPP. The bioswale would receive, retain, and infiltrate stormwater runoff before discharge into San Francisco Bay. No impact is expected.

e, f) No Impact: The Proposed Project would not conflict with any local policies or ordinances protecting biological resources because it does not support any wildlife habitat including trees. Additionally, there are no Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans for the Proposed Project site; therefore, no impact would occur.

3.4.4 Mitigation Summary

The Proposed Project would not result in any potentially significant impacts to biological resources; therefore, no mitigation is required.

3.5 CULTURAL RESOURCES

Would the Proposed Project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	Less Than Significant Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Less Than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less Than Significant Impact

A *Cultural Resources Inventory and Evaluation Report* was prepared for the Proposed Project (Montrose Environmental 2023). This section presents a summary of the findings.

3.5.1 Environmental Setting

Cultural resources are sites, buildings, structures, objects, and districts that have value for their traditional, cultural, or historical significance. Cultural resources include a broad range of types, including archaeological sites, either precontact or historic, built features, such as historic roadways, railroad tracks, or water conveyances, and buildings. Generally, for a cultural resource to be considered a historical resource under CEQA, it must be 50 years or older (California Office of Historic Preservation 2011) or formally recognized by a lead agency as a historical resource.

In 1874, the U.S. Army Corps of Engineers (USACE) constructed the first stone jetties in Oakland Harbor at the terminus of the transcontinental railroad. The amount of commerce at the Port increased annually between 1874 and 1900, when the City of Oakland successfully claimed all land beyond the 1852 low tide line. Beginning in the early 1900s, the City constructed a 2-mile-long breakwater structure with railroad tracks, a levee, a freight shed, a ferry building, ferry slips, and two piers, and a 70-acre island. The Port became independent of the city in 1929. In the mid-twentieth century, the Port began the commercial handling of shipping containers. Older facilities were demolished and replaced with container facilities.

The area of potential effects (APE) for both archaeological and architectural resources is the approximately 32.2-acre footprint of the Proposed Project site and the associated electrical utility corridors (refer to Figure 2-1 Key Project Elements). The vertical APE includes the anticipated depth below ground surface of all construction impacts in the above 32.2-acre footprint. The proposed level of vertical disturbance for the Proposed Project is approximately 3 to 5 feet bgs for the installation of Proposed Project infrastructure.

A cultural resources assessment was completed for the APE, consisting primarily of a review of archival information. A literature search was requested of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) on January 20, 2023 (NWIC File No. 22-1107). A 0.25-mile buffer was included in this search. The NWIC literature search included a review of all archaeological sites, historic-era features, and buildings, as well as all known cultural resource survey and excavation reports. The literature search of the following inventories was also conducted: National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Points of Historical Interest, California Historical Landmarks, Built Environment Resources Directory for Alameda County, and the City of Oakland locally listed properties. Historic aerials and construction drawings for the OHT area were reviewed.

The literature search results showed that eight previous studies intersect the APE. These previous studies, completed between 1990 and 2002, did not identify any precontact resources within the APE or within the one-quarter mile buffer. Six historic-era resources were identified from previous studies. The APE, specifically, the electrical alignments, intersects the boundary of the Naval Supply Center, Oakland (P-01-005892). However, no contributing elements of the Naval Supply Center District are located within the APE. The five remaining resources that are located outside the APE in the one-quarter mile buffer area include the Oakland Army Base Historic District, the Southern Pacific Railroad West Oakland Shops Historic District, the Southern Pacific Telephone Exchange, the Oakland Alameda & Berkley Railway Substation No. 2, and the Bay Area Rapid Transit (BART) Transbay Tube (Montrose Environmental 2023).

The APE is flat asphalt-paved area constructed over graded fill, and no new archaeological survey was completed for the APE for the Proposed Project. The depth of fill at the Port is estimated to range from 5 to 8 feet deep. Additional information (Byrd et al. 2017, Whittier et al. 2006) was reviewed to determine the potential for the APE to contain buried archaeological resources. The APE is located within the historic margins of the San Francisco Bay, historically submerged and now overlain with artificial fill, and is underlain by Late Pleistocene to Holocene dune sands, which are landforms that would not have supported substantial human activity.

The cultural resources review completed for the Port identified two historic-era resources within the APE. Both are electrical substations, named SS-C-36 and SS-C-48. These substations are located within the existing, present-day OHT area, about 1,300 feet west of W. Maritime Street. An evaluation of each electrical substations (SS-C-36 and SS-C-48) was completed (Montrose Environmental 2023). The date of construction for these substations is not known, but they both appear on aerials prior to 1968, thus meeting the 50-year threshold for historic-era resources.

Substation SS-C-36 (Photo 3.5-1) is a large metal utilitarian structure with a flat roof and five access doors, located in an approximately 60-foot by 40-foot hardscaped yard and surrounded by a concrete mason block wall topped with a chain link and barbed wire fence. Associated features outside the yard include a series of cabinet structures and wooden utility poles. Substation SS-C-48 (Photo 3.5-2) is a utilitarian metal structure with a flat roof and 10 access doors on its east and west sides that is located in a hardscaped yard, surrounded by a low concrete mason block wall with a chain link and barbed wire fence. Three wooden utility poles are also in the yard. Additional features outside the fence include small cabinet structures and more utility poles. Both substations were modified and upgraded in 1989 and 1997.

Both substations were originally developed as a part of the routine upgrades to the existing electrical infrastructure at the Port and research did not discover any significant associations with the military history of the Port or its technological shift to containerization. Thus, neither substation is recommended as eligible to the NRHP or the CRHR under Criterion A/1. Research did not link either substation to persons important to local, state, or national history or to persons important to the history of the Oakland Army Base or the Port and neither substation is recommended as eligible to the NRHP or the CRHR under Criterion B/2. Both substations are ordinary utilitarian structures and do not exhibit any notable engineering or other important design features and neither is recommended as eligible for the NRHP or the CRHR under Criterion C/3. Buildings are only rarely eligible for the NRHP or the CRHR under Criterion D/4, and neither substation is able to provide important information about historic construction materials or methods, and thus neither is recommended eligible under this criterion.

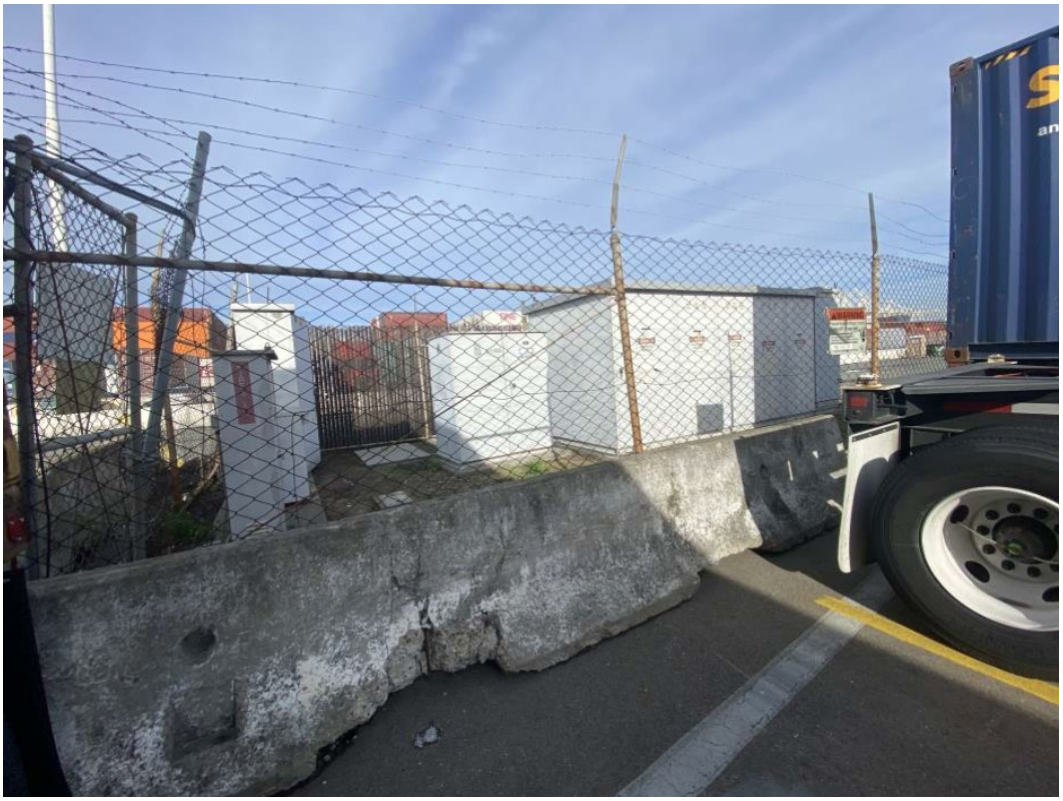


Photo 3.5-1. SS-C-36 Looking West (Montrose Environmental 2023)

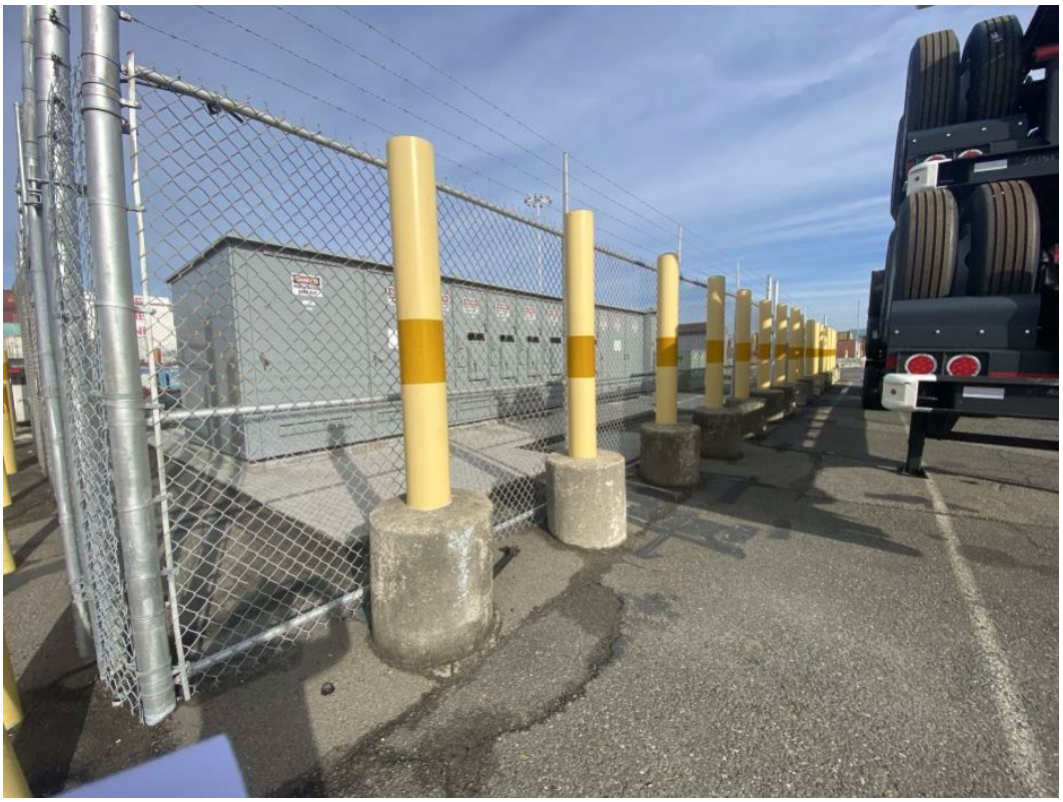


Photo 3.5-2. SS-C-48 Looking West (Montrose Environmental 2023)

3.5.2 Regulatory Setting

State laws and regulations pertaining to this issue area and relevant to the Proposed Project are as follows:

CEQA Appendix G, states impacts to cultural resources would be considered significant if a project causes a substantial adverse change in the significance of a historical resource or an archaeological resource as defined in Section 15064.5, cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, or disturb any human remains, including those interred outside of formal cemeteries.

Local goals, policies, or regulations applicable to this issue area include the City of Oakland's General Plan Historic Preservation Element, which contains policies related to historic preservation (City of Oakland 1993), including the following:

Goal 2 – to preserve, protect, enhance, perpetuate, use, and prevent the unnecessary destruction or impairment of properties or physical features of special character or special historic, cultural, educational, architectural, or aesthetics interest or value.

3.5.3 Impact Analysis

a) Less Than Significant Impact: The Naval Supply Center Historic District's (P-01-005892) boundaries are within the APE; however, no contributing elements of this district are located within the APE and many of the features previously identified have since been destroyed (Montrose 2023). Within the boundary of the district, electrical alignments would be connected to existing substation components. This work would be conducted primarily underground; the only alteration to the aboveground setting would be the 100 LF of new overhead transmission line, similar to existing transmission lines.

No substantial adverse change in significance to this resource is anticipated. No district features or elements were identified within the APE and no disturbance to these types of resources is anticipated.

b, c) Less Than Significant Impact: No archaeological resources or human remains were identified in the APE. The cultural resources assessment also showed that the entire APE encompasses non-native substrate, comprised of artificial fill extending 5 to 8 feet bgs and proposed excavations will not extend below 5 feet deep. A review of the geomorphology of the APE concluded that the discovery of archaeological resources, either precontact or historic era, is low, as native soils below fill are comprised of soils not likely to have supported substantial human activity (Montrose Environmental 2023).

In the unlikely event that archaeological resources, or human remains are uncovered during excavation, the Proposed Project would follow the requirements detailed in the Port's Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resources (Port of Oakland n.d.).

No archaeological resources were identified within the APE, and thus, no substantial adverse changes in significance to these types of resources are anticipated. No burials or human remains were identified within the APE and no disturbance to these types of resources is anticipated.

3.5.4 Mitigation Summary

The Proposed Project would not result in any potentially significant impacts to historical resources, archaeological resources or human remains; therefore, no mitigation is required.

3.6 ENERGY

Would the Proposed Project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	Less Than Significant Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

3.6.1 Environmental Setting

The Proposed Project site is located on approximately 32.2 acres within the Port. The site is paved and used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. Energy currently used in the Port includes electricity and transportation fuels.

The Port is a municipal utility and provides electrical power to its tenants. The Port's Utilities Department purchases and manages the delivery of electricity to Port tenants. The Port provides utility services (electrical and gas) that serve San Francisco Bay Oakland International Airport (Airport or OAK), the majority of the Oakland Seaport, and some areas of land along the shoreline in between the Airport and the Oakland Seaport. According to the 2021 Port Utility Green Power Portfolio, the Port Utility supplied 49.9 percent of its power from eligible renewable resources. An additional 8.7 percent of power came from large hydroelectric sources and an additional 8.3 percent came from solar, bringing the total to 66.9 percent green power (Port of Oakland 2023a). In 2022, the Port Utility supplied 17.3 percent of its power from eligible renewable resources compared to 35.8 percent for the state of California (CEC 2022). Over 70 percent of the power purchased by the Port in 2022 was considered "unspecified power," which is electricity that has been purchased through open market transactions and is not traceable to a specific generation source (CEC 2022). Most petroleum fuel refined in California is for use in on-road motor vehicles and is refined within California to meet state-specific formulations required by CARB. The major categories of petroleum fuels are gasoline and diesel for passenger vehicles, transit vehicles, rail, and aircraft; and fuel oil for industry and emergency electrical power generation. Other liquid fuels include kerosene, jet fuel, and residual fuel oil for marine vessels.

Transportation fuel sources also include electricity. Conventional gasoline and diesel vehicles consume gasoline or diesel fuel, whereas EVs consume electricity that can be sourced by fossil fuels or renewables. EVs, including battery EVs and plug-in hybrid EVs, comprise a growing fraction of the passenger vehicles on the roads in California, and EV adoption is expected to increase over the upcoming decades due in part to improvements in battery technology and public initiatives and goals.

Other transportation fuel sources are alternative fuels, such as methanol and denatured ethanol (alcohol mixtures that contain no less than 70 percent alcohol), natural gas (compressed or liquefied), liquefied petroleum gas, hydrogen, and fuels derived from biomass. Gasoline and diesel fuel are by far the largest transportation fuels used by volume in Alameda County. The total estimated 2022 retail gasoline sales in California were 11,495 million gallons. Of this total, 473 million gallons were Alameda County retail gasoline sales. The total estimated 2022 retail diesel fuel sales in California were 1,846 million gallons. Of this total, Alameda County had 57 million gallons.

3.6.2 Regulatory Setting

This section discusses federal and state laws and regulations pertaining to energy and relevant to the Proposed Project.

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources (EPA 2007). For example, under the Energy Policy Act, consumers and businesses can attain federal tax credits for purchasing fuel-efficient appliances and products. Because driving fuel-efficient vehicles and installing energy-efficient appliances can provide many benefits, such as lower energy bills, increased indoor comfort, and reduced air pollution, businesses are eligible for tax credits for buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are given for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

The American Recovery and Reinvestment Act of 2009 was passed in response to the economic crisis of the late 2000s, with the primary purpose of maintaining existing jobs and creating new jobs. Among the secondary objectives of the American Recovery and Reinvestment Act was investment in "green" energy programs, including funding the following through grants, loans, or other funding: private companies developing renewable energy technologies; local and state governments implementing energy efficiency and clean energy programs; research in renewable energy, biofuels, and carbon capture; and development of high-efficiency vehicles or EVs.

California Public Resources Code Section 21100(b) directs all state agencies, boards, and commissions to assess the environmental impacts of projects for which they are a lead agency under CEQA to determine whether a project would result in significant effects on the environment, including effects from the wasteful, inefficient, and unnecessary consumption of energy, and to identify mitigation measures to minimize any such effects.

The 2021 Integrated Energy Policy Report (IEPR) Update provides an assessment of major energy trends and issues for a variety of energy sectors, as well as policy recommendations to address these concerns as required by Senate Bill (SB) 1389. Prepared by the California Energy Commission (CEC), this report details the key energy issues and develops potential strategies to address these issues. The 2021 IEPR Update includes a discussion of several strategies to reduce climate change impacts and address 2021 challenges, including the COVID-19 pandemic, electricity outages, and statewide wildfires. Examples include a discussion of ZE vehicle deployment, an analysis of plug-in EVs, fuel cells, and hydrogen fueling for medium- and heavy-duty applications, and a discussion of microgrids. CEC will use the assessments and forecasted energy demand within the 2021 IEPR to develop future energy policies. As of April 2023, CEC is developing the 2023 IEPR, which will continue to expand on efforts to decarbonize California's energy system and address topics such as energy reliability over the next 5 years, natural gas outlook, building decarbonization, and energy efficiency and demand.

On July 22, 2004, CARB initially adopted an ATCM to limit idling of diesel-fueled commercial motor vehicles (idling ATCM) and subsequently amended it on October 20, 2005, October 19, 2009, and December 12, 2013. This ATCM is set forth in CCR Title 13, Section 2485, and requires, among other things, that drivers of diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds, including buses and sleeper berth equipped trucks, not idle the vehicle's primary diesel engine longer than 5 minutes at any location. This anti-idling regulation helps to reduce fuel consumption by reducing engine usage. The ATCM also requires owners and motor carriers that own or dispatch these vehicles to ensure compliance with the ATCM requirements. The regulation consists of new

engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. Under the new engine requirements, 2008 and newer model year heavy-duty diesel engines need to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after 5 minutes of idling or optionally meet a stringent oxide of nitrogen idling emission standard.

On May 16, 2008, CARB approved the In-Use Off-Road Diesel Fueled Fleets Regulation (Off-Road Regulation), which was later amended on December 31, 2009, July 16, 2010, and December 14, 2011. The overall purpose of the Off-Road Regulation is to reduce emissions of NO_x and PM from off-road diesel vehicles operating within California. The regulation applies to all self-propelled off-road diesel vehicles 25 horsepower or greater used in California and most two-engine vehicles. The Off-Road Regulation includes the following:

- Imposes limits on idling (that is, fleets must limit unnecessary idling to 5 minutes), requires a written idling policy, and requires a disclosure when selling vehicles.
- Requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System and labeled.
- Restricts the adding of older vehicles into fleets starting on January 1, 2014.
- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (that is, exhaust retrofits).

The anti-idling component of this Off-Road Regulation helps to reduce fuel consumption by reducing engine usage.

California adopted standards to increase the percentage of energy from renewable resources that retail sellers of electricity, including investor-owned utilities and community choice aggregators, must provide in their portfolio. The Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill (SB) 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2. Recently, SB 350, SB 100, and SB 1020 added to renewables requirements. The most recent of these, SB 1020, revises state policy requiring eligible renewable resources and zero carbon resources to supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040; 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045; and 100 percent of electricity procured to serve all state agencies by December 31, 2035. The standards are referred to as the RPS. Qualifying renewables under the RPS include bioenergy such as biogas and biomass, small hydroelectric facilities (30 megawatts or less), wind, solar, and geothermal energy. The California Public Utilities Commission and the CEC jointly implement the RPS program.

The Port adopted its 2020 and Beyond Plan in 2019 to achieve its vision of a ZE Seaport. Reducing DPM, GHGs, and other TACs will reduce health risks for people living and working nearby and reduce emissions contributing to climate change. The plan includes implementing actions to upgrade and add new electrical substations and to improve Port operating efficiency (Port of Oakland 2019a).

3.6.3 Impact Analysis

a) Less Than Significant Impact: The proposed construction schedule is approximately 13 months. Construction energy consumption would result primarily from transportation fuels (such as diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to

and from the Proposed Project site. This analysis provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Heavy-duty construction equipment associated with asphalt removal, paving, trenching, and installation would include excavators, pavers, and compactors. The majority of the equipment would likely be diesel-fueled. However, smaller equipment, such as air compressors, may be electric-, gasoline-, or natural gas-fueled. For the purposes of this analysis, it is assumed equipment would be diesel-fueled, because of the speculative nature of specifying the amounts and types of non-diesel equipment that might be used, and the difficulties in calculating the energy which would be consumed by this non-diesel equipment. This also represents a conservative worst-case scenario intended to represent the maximum potential energy use during construction. Based on the number and type of equipment that would be used during construction, and based on the estimated duration of construction activities, the Proposed Project would use approximately 796,650 gallons of diesel fuel for heavy-duty construction equipment. This would represent approximately 0.04 percent of diesel sold in California, which represents a small fraction of the state's annual fuel usage. Construction energy consumption is short-term and relatively minor compared with long-term regional energy use.

Electricity used during construction to provide temporary power for lighting and electronic equipment (such as computers), and to power certain construction equipment, would generally not result in a substantial increase in onsite electricity use. Certain heavy-duty construction could be electric or alternatively fueled based on commercial availability. Electricity use during construction would be variable depending on lighting needs and the use of electric-powered equipment and would be temporary for the duration of construction activities. Therefore, construction electricity use would generally be considered as temporary and negligible over the long term with a less than significant impact.

Additionally, BMPs described in Section 2.9 will be implemented during construction to minimize the use of energy resources and reduce GHG emissions. BMPs will include limitations on vehicles idling when unnecessary and properly maintaining equipment to reduce potential fuel waste.

The primary purpose of the Proposed Project is to modernize a portion of the OHT to accommodate the Port's refrigerated export market and maintain operational efficiencies. The implementation of this Proposed Project would allow the Port to continue progress to ZE by providing the infrastructure needed for stacked storage and reefer storage, including replacement of the existing weathered asphalt, concrete runways for RTG crane operations, and upgraded electrical infrastructure. As such, the Proposed Project would ultimately help with energy conservation for subsequent use. The Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation, and impacts would be less than significant.

b) No Impact: The primary purpose of the Proposed Project is to modernize a portion of the OHT to accommodate the Port's refrigerated export market and maintain operational efficiencies. Constructing the Proposed Project would allow the Port to continue progress to ZE by providing the infrastructure needed for stacked storage and reefer storage, including replacement of the existing weathered asphalt, concrete runways for RTG crane operations, and upgraded electrical infrastructure The Proposed Project is consistent with the implementing actions related to energy use in the 2020 and Beyond Plan (Port of Oakland 2019a); therefore, the Proposed Project has no impact.

3.6.4 Mitigation Summary

The Proposed Project would not result in any potentially significant impacts to energy; therefore, no mitigation is required.

3.7 GEOLOGY AND SOILS

Would the Proposed Project:

Question	CEQA Determination
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.	Less Than Significant Impact
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact
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?	Less Than Significant Impact
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?	Less Than Significant Impact
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?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

3.7.1 Environmental Setting

The Proposed Project site lies within the Coast Ranges geomorphic region. The Coast Ranges region lies between the Pacific Ocean and the Great Valley (Sacramento and San Joaquin Valleys) geomorphic region and stretches from the Oregon border to the Santa Ynez Mountains near Santa Barbara (City of Oakland 2021). Much of the Coast Ranges are composed of marine sedimentary deposits and volcanic rocks that form northwest-trending mountain ridges and valleys, running subparallel to the San Andreas Fault Zone. In the San Francisco Bay area, movement along this plate boundary is distributed across a complex system of strike-slip, right-lateral, parallel, and subparallel faults. These faults include the San Andreas, Hayward, Rodgers Creek-Healdsburg, Concord-Green Valley, Greenville-Marsh Creek, Calaveras, and West Napa faults (City of Oakland 2021).

The Coast Ranges can be further divided into the northern and southern ranges, which are separated by the San Francisco Bay. The San Francisco Bay lies within a broad depression created from an east-west expansion between the San Andreas and the Hayward fault systems (City of Oakland 2021). The San Francisco and San Pablo Bays, including shoreline areas, are generally comprised of soft compressible sediments known as Bay Mud, which can be very thick in areas (California State Lands Commission 2009).

The Proposed Project site is located within a seismically active region; it is located less than 12 miles from the San Andreas Fault and approximately 5 miles from the Hayward Fault. It is not within an Alquist-Priolo

earthquake fault zone. While the Proposed Project site will likely be subject to future strong ground shaking because of its proximity to the Hayward and San Andreas faults, the likelihood of a fault rupture is very low (CH2M HILL 2016). The Proposed Project site consists of AC, as well as its existing aggregate base material. The AC is approximately 5 inches thick throughout the Proposed Project site, underlain by an approximately 13.5-inch-thick layer of artificial fill consisting primarily of sand, gravel, or asphalt. The fill typically is generally underlain by dark gray clay and water-bearing silts and fine- to medium-grained sand to depths of 8 to 10 feet bgs, which may be Young Bay Mud (YBM) or similar dredged material from the bay (U.S. Department of Interior 1978). These units reportedly are underlain by YBM (clay and silty clay rich in organic material) to a depth of 10 to 14 feet bgs. The YBM is underlain by the Merritt Sand, which can generally reach a maximum thickness of 65 feet. The City of Oakland's zoning map indicates that the Proposed Project site is within a very high Liquefaction Hazard Zone but is not within a Flood Zone (City of Oakland 2023b). The site and surrounding areas are flat and do not present landslide risk. The site is currently used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities.

3.7.2 Regulatory Setting

State and local goals, policies, and regulations applicable to this resource are described in this section.

The most recent version of the California Building Code (CBC) was published by the California Building Standards Commission on July 1, 2022. The CBC requires that all structures and permanently attached nonstructural components be designed and built to resist the effects of earthquakes. The CBC is included in Title 24 of the CCR and sets minimum requirements for building design and construction. Relevant provisions of the CBC require the preparation of foundation and soils reports and other geotechnical reports that address site-specific conditions, potential hazards, and required methods and design parameters for remediating and protecting against potential seismic hazards.

In the Oakland Municipal Code, Title 15 is known as the Oakland Amendments of the 2019 Editions of The California Building Standards Code, or the 2019 Oakland Building Construction Code. This chapter of the Municipal Code adopts the standards and requirements of the CBC and requires that they be applied to any new developments within the city.

The Safety Element of the City of Oakland General Plan policies (City of Oakland 2023c) include the following:

- **Policy SAF-1.1 Seismic Hazards**: Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena. Prioritize programs in areas of highest seismic risk and seismic vulnerability.
- **Policy SAF-1.2 Structural Hazards**: Continue, enhance, or develop regulations and programs designed to minimize seismically related structural hazards from new and existing buildings.
- **Policy SAF-1.3 Limit Development in Hazardous Areas and Minimize Erosion**: Minimize threat to structures and humans by limiting development in areas subject to landslides or other geologic threat and undertake efforts to limit erosion from new development.
- **Policy SAF-1.4 Seismic Hazard Coordination**: Work with other public agencies to reduce potential damage from earthquakes to "lifeline" utility, economic, and transportation systems, including Caltrans; BART; Pacific Gas and Electric Company, East Bay Municipal Utility District, and other utilities providers; the Port; and others.

3.7.3 Impact Analysis

a i, ii, iii) Less Than Significant Impact: The Proposed Project site does not lie within or near an Alquist-Priolo earthquake fault zone and would have a very low potential for fault rupture to occur. The Proposed Project site is in an area that has the potential to be subject to strong ground shaking from an earthquake along any of the active faults located in the region including the Hayward Fault, which is the closest fault to the Proposed Project site. Foundations for Proposed Project elements would require building permits from the City of Oakland and would be designed and constructed in compliance with the CBC, as required by the City of Oakland. Impacts from fault rupture, seismic ground shaking, and seismic-related ground failure would be less than significant.

Loose-to-medium soils exist in the subsurface at the Proposed Project site. During a liquefaction event, lateral spreading and seismically induced settlement could take place at the Proposed Project site. Liquefaction and subsequent settlement of soils were experienced in the Seaport area during the 1989 Loma Prieta earthquake. Structures, utilities, and other key Project elements would meet IBC seismic zone design standards or better to withstand expected earthquake ground shaking, liquefaction, or other ground failures. Appropriate construction practices would be implemented during construction to ensure safety of workers and equipment during strong seismic shaking. Impacts would be less than significant.

a iv) No Impact: The Proposed Project site is a level paved maritime industrial area with the only slopes in the vicinity of the Proposed Project being the edge of the wharf along the Outer Harbor, and no changes to the shoreline or channel are proposed. No impacts would occur.

b) Less Than Significant Impact: The Proposed Project site currently is level and paved. As part of construction, asphalt paving would be removed from portions of the Proposed Project site, and excavations would be conducted. All excavation and soil management activities would be conducted in accordance with applicable permits, including stormwater management permits, and the requirement to cover contaminated soil stockpiles. A SWPPP would be developed and implemented during construction. The SWPPP would include erosion and sedimentation controls such as silt fences, fiber rolls, wind erosion controls, and stabilized construction entrances/exits. Construction of the Proposed Project would not result in substantial soil erosion with implementation of proper erosion control measures. Further, because the soils underlying the site consist of artificial fill, the Proposed Project would not impact topsoil and there would be no erosion or loss of topsoil as a result of construction. There are no exposed slopes in the vicinity of the Proposed Project. No changes to the shoreline are proposed. Following construction, the site would be paved and the bioswale would have an impervious liner and no erosion would occur. Impacts would be less than significant.

c) Less Than Significant Impact: The City of Oakland's zoning map indicates that the Proposed Project site is within a very high Liquefaction Hazard Zone. During a liquefaction event, lateral spreading and seismically induced settlement could take place at the Proposed Project site. As discussed above, buildings, utilities, and other Proposed key Project elements would meet IBC seismic zone design standards or better, and appropriate construction practices would be implemented during construction. The Proposed Project site is generally underlain by an approximately 13.5-inch-thick layer of artificial fill consisting primarily of sand, gravel, or asphalt. The fill typically is generally underlain by dark gray clay and water-bearing silts and fine- to medium-grained sand to depths of 8 to 10 feet bgs, which may be susceptible to subsidence. No significant changes in soil moisture would occur during operations because the Proposed Project sites are generally paved. Impacts would be less than significant.

d) Less Than Significant Impact: Expansive soils are soils that expand when water is added and shrink when they dry out. This continuous change in soil volume can cause structures built on this type of soil to move unevenly and crack when the moisture content in the soil changes. Bay Muds, which are typical of the fill underlaying the Proposed Project site, may be considered expansive soils. No significant changes in soil moisture would occur during operations because the Proposed Project site is generally paved. During construction, soil moisture in soils used to backfill trenches and other excavation would be controlled and the soil appropriately compacted to avoid future settlement. Impacts would be less than significant.

e) No Impact: The Proposed Project would not include septic systems or sewers. A minor amount of wastewater would be generated during construction from the use of portable toilets that would be transported to the East Bay Municipal Utility District wastewater treatment plant for treatment and disposal No wastewater would be generated during operations and therefore would not require a septic system or sewers. No impacts would occur.

f) No Impact: The Proposed Project site is underlain by fill and native Bay Mud. Fill would not contain any paleontological resources. Bay Mud is geologic material of recent origin (less than 10,000 years old), and the Proposed Project site has been heavily disturbed by prior construction and industrial activities. Although it is not expected to occur, if a unique paleontological resource or site were encountered, the Port of Oakland Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resources (Port of Oakland n.d.) for such cases would be implemented. Work would be stopped within 50 yards of the find, and work would not resume until the finds were properly assessed and the Port gave permission to resume work. No impact to paleontological resources would occur.

3.7.4 Mitigation Summary

The Proposed Project would not result in any potentially significant impacts; therefore, no mitigation is required.

3.8 GREENHOUSE GAS EMISSIONS

Would the Proposed Project:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less Than Significant Impact

3.8.1 Environmental Setting

Greenhouse gases (GHGs) include both naturally occurring and artificial or anthropogenic gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF_6). The accumulation of GHGs in the atmosphere influences the long-term range of average atmospheric temperatures. These gases trap the energy from the sun and help maintain the temperature of the earth's surface, creating a process known as the greenhouse effect. The largest anthropogenic source of GHGs is the combustion of fossil fuels, which results primarily in CO_2 emissions.

In the United States, the main source of GHG emissions is transportation, followed by electricity production (EPA 2024b). In California, emissions from GHG-emitting activities in 2021 were 381.3 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) (CARB 2023). The transportation sector accounts for about 39 percent of the statewide GHG emissions inventory. Industrial and the electric power sectors account for 22 percent and 11 percent, respectively, of the total statewide GHG emissions inventory (CARB 2023). The dominant GHG emitted is CO_2, primarily from fossil fuel combustion.

The total GHG emissions for the Bay Area region for the Year 2022 were approximately 60 $MMTCO_2e$. The transportation sector accounts for 21 $MMTCO_2e$ (approximately 35 percent), followed by industrial (19.7 $MMTCO_2e$; 33 percent), commercial and residential sector (9 $MMTCO_2e$; 15 percent), electricity generation (7.1 $MMTCO_2e$; 12 percent), waste management, and agriculture (BAAQMD 2024).

Since 2012, the Port has published GHG emissions for the activities within the geographic area defined in its periodic Seaport Air Emissions Inventories. On the waterside, the geographic area extends to the outer ring of buoys west of the Golden Gate Bridge, approximately 30 nautical miles from the Port. On the landside, the geographic area is defined approximately by the boundaries of I-80, I-880, and Howard Terminal (excluding the City-owned portion of the former Oakland Army Base and the privately owned facilities of Union Pacific Rail Yard and Schnitzer/Radius Recycling). The Port Seaport GHG emissions for 2020 are summarized in the 2020 Seaport Air Emissions Inventory (Port of Oakland 2021). The estimated 2020 emissions of GHG from the Seaport are 192,321 short tons of CO_2e or 174,474 MT CO_2e [5]. OGVs make up the largest category at 48 percent of all GHG emissions at the Seaport, followed by cargo handling equipment (23 percent) and trucks (13 percent).

The existing Proposed Project site uses include AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. These activities currently generate GHG emissions.

[5] GHG emissions from the Port of Oakland 2020 Seaport Emissions Inventory (Port of Oakland 2021) were adjusted with the 2020 Seaport Emissions Inventory: Update of Commercial Harbor Craft Emissions (Ramboll 2023)

3.8.2 Regulatory Setting

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency. The Supreme Court decision in *Massachusetts et al. v. Environmental Protection Agency et al.* found that EPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the federal CAA. On April 17, 2009, EPA found that CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6 may contribute to air pollution and may endanger public health and welfare. Based on the endangerment finding, EPA and the National Highway Traffic Safety Administration issued a series of GHG emission standards for new vehicles (EPA 2023). EPA also established reporting regulations that require specific facilities and industries to report their GHG emissions annually.

State Executive Order S-3-05 issued in 2005 established GHG reduction targets for the State of California. The targets called for a reduction of GHG emissions to 2000 levels by 2010, a reduction of GHG emissions to 1990 levels by 2020, and a reduction of GHG emissions to 80 percent below 1990 levels by 2050. The California Environmental Protection Agency secretary is required to coordinate development and implementation of strategies to achieve the GHG reduction targets.

California has approved several executive orders and legislation that address GHG emissions and climate change.

- In 2006, the California State Legislature signed the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32), which provides the framework for regulating GHG emissions in California. This law requires CARB to design and implement emission limits, regulations, and other measures such that statewide GHG emissions are reduced in a technologically feasible and cost-effective manner to 1990 levels by 2020.
- In April 2015, Governor Jerry Brown signed Executive Order B-30-15, which added the intermediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030.
- Executive Order B-55-18, which was issued in 2018, established a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter.
- On September 8, 2016, Governor Brown signed Senate Bill (SB) 32 and AB 197, which codified the 2030 GHG emissions reduction target of 40 percent below 1990 levels and provided additional direction for updating the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) (CARB 2022b).
- AB 1279, the California Climate Crisis Act, signed into law on September 16, 2022, requires the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. It also requires the state to reduce statewide GHG emission by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant state agencies to achieve these goals.
- Part of CARB's direction under AB 32 was to develop a scoping plan for the main strategies California will use to reduce GHG emissions that cause climate change. The scoping plan includes a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and nonmonetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program. CARB first approved the AB 32 Scoping Plan in 2008, and its latest adopted plan is the 2022 Scoping

Plan (CARB 2022b). The 2022 Scoping Plan identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030, and a technologically feasible, cost-effective path lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045.

The project area is under the jurisdiction of the BAAQMD. BAAQMD has adopted Air Quality Guidelines for compliance with CEQA (BAAQMD 2022), including qualitative GHG thresholds that lead agencies can use to determine the significance of GHG impacts from a project.

The Port adopted the 2020 and Beyond Plan in 2019 (Port of Oakland 2019a) to achieve its vision of a ZE seaport. Reducing DPM, GHGs, and other TACs will reduce health risks for people living and working nearby and reduce emissions contributing to climate change.

3.8.3 Impact Analysis

a) Less Than Significant Impact: GHG emissions would occur during Proposed Project construction and would include emissions from construction equipment, haul trucks, and worker commute vehicles. The Proposed Project's temporary construction emissions for GHGs were estimated using CalEEMod and are summarized in Table 3.8-1. Details of the CalEEMod modeling and emission calculations are included in Appendix A. Because BAAQMD has not adopted a construction-related GHG emission threshold to determine the significance of a project's impacts on GHGs, the data are presented for informational purposes. The Proposed Project would implement BMPs, refer to Section 2.9 during construction, such as minimizing unnecessary construction vehicle trips and idling time, which would reduce GHG emissions.

In responses to frequently asked questions on CEQA Thresholds for Climate, BAAQMD states "Greenhouse gas (GHG) emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions" (BAAQMD 2022).

Table 3.8-1. Proposed Project Construction GHG Emissions

Construction GHG	Emissions (MT CO_2e/year)
2027	1,357

As discussed in Section 3.3.3, the number of truck trips within the Port is not expected to change with Proposed Project operation compared to current levels. Rather, the Proposed Project operation is expected to provide greater reliability to handle fluctuations in both imports and exports in a more reliable and efficient matter. Proposed Project maintenance activities would include occasional vehicle use and would be similar to existing maintenance activities occurring at the site and at other areas of the Port and would include maintenance and repair of the fencing, high mast lights, and pavement as needed. In addition, occasional maintenance activities would be conducted for the new electrical infrastructure, including the reefer racks, BESS, EV chargers, and substations using similar vehicles and equipment used by the Port for existing electrical infrastructure. Any change in emissions would be negligible. In addition, the Port does not use SF6 in new electrical equipment. Therefore, direct GHG emissions increases are not expected.

Indirect emissions of GHG would be from the electricity use by the reefer racks during Proposed Project operation. The indirect GHG emissions from electricity use were calculated by using the anticipated electric usage per year by the reefers and the Port's GHG emissions intensity data of 2022 (CEC 2022). A

summary of indirect GHG emissions from operation is presented in Table 3.8-2. The GHG emissions in Table 3.8-2 are conservative estimates of the indirect GHG emissions increases from the Proposed Project operation, because the emissions were estimated without taking into account the potential GHG emissions offset by using the electric power instead of using fossil fuel-powered generators.

Table 3.8-2. Proposed Project Indirect Operation GHG Emissions

Operation GHG	Emissions (MT CO_2e/year)
2028 and beyond	1,792

BAAQMD does not have quantitative GHG emission thresholds for project operation. Global climate change caused by GHG emissions is the quintessential cumulative environmental impact. The GHG emissions from an individual project are not likely to have any detectable impact on the global climate, but they will contribute to what is a significant cumulative problem—a problem caused by millions of projects all around the world emitting GHGs that together create a significant cumulative climate impact. Projects are therefore significant for purposes of CEQA if they will be making a cumulatively considerable contribution to the significant cumulative climate impact resulting from GHG emissions globally (BAAQMD 2022). According to BAAQMD CEQA Guidelines, BAAQMD recommends that lead agencies use a "fair share" approach for determining whether an individual project's GHG emissions would be cumulatively considerable. If the project is doing its "fair share" to implement California's plans to address the cumulative problem, its contribution can be treated as less than cumulatively considerable. BAAQMD's Operation Thresholds for Land Use Projects indicate that a project needs to comply with either A or B requirements, as follows:

- A: The project must include the project design elements for buildings and transportation, as listed in Table 3-2 of BAAQMD's CEQA Guidelines, or
- B: The project must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

As discussed previously, during construction, the Proposed Project would implement BMPs such as limitations on vehicles idling when unnecessary and properly maintaining equipment to reduce GHG emissions construction emissions. Any change in direct GHG emissions from Proposed Project operations would be negligible. Indirect GHG emissions from Proposed Project operations would be small because of the electricity use by the reefer chargers. By providing infrastructure for EV charging and reefer racks, the Proposed Project supports implementation of the Port's 2020 and Beyond Plan, which also serves as the Port's GHG emissions reduction strategy. These results would provide support for the conclusion that the Proposed Project would have less than significant impacts, in conjunction with the finding in Impact b) that the Proposed Project would be consistent with a local GHG reduction strategy that meets criteria in CEQA Guidelines Section 15183.5(b), qualifying it as less than significant Requirement B of BAAQMD's CEQA Significance Thresholds (BAAQMD 2022).

b) Less Than Significant Impact: The purpose of the Proposed Project is to support a more efficient operation, build resiliency, and continue progress toward meeting the Port's goal of a ZE seaport. The Proposed Project's added electric charging, battery storage infrastructure, and substation upgrades would improve the reliability of the electrical grid and provide backup power storage and climate resilience to help insulate and protect the Port from the impacts of electric power reliability, including rolling blackouts during heat waves and public safety power shutoffs. The improved operational efficiency would have the

potential to reduce air pollutants and GHG emissions from the Port operation. The addition of the electric-powered Reefer Storage area would eliminate some of the GHG emissions from running fossil fuel-powered generators for the refrigerant units. All these Proposed Project components are consistent with the state and regional GHG reduction goals. By providing infrastructure for EV charging, the Proposed Project would support achieving the GHG reduction goal of a ZE Seaport in the 2020 and Beyond Plan (Port of Oakland 2019a). The Proposed Project is also consistent with BAAQMD's *2017 Clean Air Plan* that promotes ZE vehicles (BAAQMD 2017b). As such, the Proposed Project is consistent with local GHG reduction strategies that meet criteria in CEQA Guidelines Section 15183.5(b), qualifying its impact as less than significant under Requirement B of BAAQMD's Climate Impact Thresholds of Significance (BAAQMD 2022).

3.8.4 Mitigation Summary

The Proposed Project would not result in any potentially significant impacts; therefore, no mitigation is required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the Proposed Project:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
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?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
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?	Less Than Significant Impact
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 Proposed Project result in a safety hazard or excessive noise for people residing or working in the Proposed Project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	No Impact

3.9.1 Environmental Setting

The Proposed Project site contains subsurface contaminants as a result of historical use of the site. This section describes site history of known contamination.

3.9.1.1 Former Mobil and Ashland Bulk Fuel Terminals

A majority of the Proposed Project site is located within the former Mobil and Ashland Bulk Fuels Terminal site. General Petroleum Corporation operated a bulk terminal for petroleum product storage and distribution onsite starting in 1928 until acquired by Mobil, who ended operations in approximately 1979. Southern Pacific Pipe Lines, Inc. supplied the refined petroleum to the site via aboveground and underground pipes. Refined petroleum was mixed and stored onsite in aboveground storage tanks and underground storage tanks. Petroleum products that were stored onsite included leaded and unleaded gasoline, gasoline additives, diesel fuel, heating oil, and various heavy oil products. Environmental investigations and remediation were conducted at the Former Mobil site from 1979 to 2020 because of the presence of constituents of potential concern in soil vapor, soil, and groundwater. Remedial investigations concluded that primary pollutants found in the subsurface are total petroleum hydrocarbons as gasoline (TPH-g) and their related constituents as well as CH_4 in soil vapor. Total petroleum as diesel (TPH-d) was also discovered onsite but in smaller quantities (CRWQCB-SFB 1999).

Both Mobil and the Port were ordered, pursuant to the California Regional Water Quality Control Board, San Francisco Region, Order Number 99-063, to clean up and abate the effects of the pollutants found

from the remedial investigations. The dischargers were ordered to submit a Workplan for Remedial Investigation, complete the Remedial Investigation and Risk Assessment, and submit the Remediate/Risk Management Plan (RMP).

Any owner, lessee or their designee authorized to undertake construction or trench work that involves disturbing soil or contact with soil vapor or groundwater within the Former Mobil and Ashland Bulk Fuels Terminal Revised RMP area will be required to comply with the measures identified in the RMP. Risk management measures in the RMP include the following: Stormwater Runoff Control, Access Control, Soil Management, Dust Control and Monitoring, Methane and Petroleum Hydrocarbon Vapor Monitoring and Mitigation, Procedures for Unforeseen Subsurface Conditions, Dewatering Control Measure Planning, Contingency Procedures for NAPL, and Worker Safety Management (Stantec 2023).

3.9.1.2 Berths 20 to 26 Lease Area

The Proposed Project site was included in the subject area of a Phase I Environmental Site Assessment Report dated November 2008 for a Berths 20 to 26 lease area. In addition, the former Mobil and Ashland Bulk Fuel Terminals described above, several Recognized Environmental Conditions (RECs) were noted within the Proposed Project site. These include municipal garbage fill areas; possible fuel releases from several historic and regulated underground storage tanks and aboveground storage tanks, historic pipelines, vehicle maintenance activities from various freight companies, and gas stations; possible fuel, sulfur, asbestos, and solvent releases from the former Western Sulphur Company, Western Vegetable Oil Company, and Asbestos Paneling Manufacturer facilities; and releases of petroleum bases solvents to soil and groundwater at the former McGuire leasehold (Baseline 2008).

A portion of the Proposed Project site is located within the former Mobil Terminal, which is listed as a Cleanup Program site on the State Water Boards Geotracker database pursuant to Government Code section 65962.5. Additionally, the Ashland Oil site located at Ferry Street and Petroleum is listed as a leaking underground storage tank site on Geotracker and has a status of Completed – Case Closed as of May 19, 1993 (CalEPA 2023)

3.9.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the Proposed Project are as follows:

- Clean Water Act (33 U.S.C. 1251 et seq.), a comprehensive piece of legislation to protect the nation's water from pollution by setting water quality standards for surface water by limiting the discharge of effluents into waters of the United States.
- Oil Pollution Act (33 U.S.C. 2712) requires owners and operators of facilities that could cause substantial harm to the environment to prepare and submit plans for responding to worst-case discharges of oil and hazardous substances.
- California Toxics Rule (*Code of Federal Regulations* [CFR] Title 40, Part 131), established by EPA, promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California.
- Hazardous Materials Transportation Act (49 U.S.C. 5901) delegates authority to the U.S. Department of Transportation to develop and implement regulations pertaining to the transport of hazardous materials.

- National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) outlines the requirements for responding to both oil spills and releases of hazardous substances.
- Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.) authorizes EPA to control hazardous waste from "cradle to grave," which encompasses its generation, transportation, treatment, storage, and disposal.
- Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (California Government Code Section 8750 et seq.) seeks to protect state waters from oil pollution and to plan for the effective and immediate response, removal, abatement, and cleanup in the event of an oil spill.

Local goals, policies, or regulations applicable to this issue area include the following goals and policies in the Safety Element of the City of Oakland's General Plan (City of Oakland 2023a):

- **Goal SAF-5:** Minimize the potential risks to human and environmental health and safety associated with the past and present use, handling, storage, and disposal of hazardous materials.
- **Policy SAF-5.2 Hazardous Materials:** Through partnerships, programs, and regulations, minimize the potential risks to human and environmental health and safety associated with the past and present use, handling, storage and disposal of hazardous materials. Toxic materials removed as part of cleanup efforts should be disposed of in the least harmful manner so that the impact is not shifted from one vulnerable community to another.
- **Policy SAF-5.3 Site Contamination:** Through enforcement of standard conditions of approval, ensure buildings and sites are or have been investigated for the presence of hazardous materials and/or waste contamination prior to development or if there is reason to believe an existing building or site may contain hazardous materials that pose a threat to possible users. Continue to require remediation and construction techniques for adequate protection of construction workers, future occupants, adjacent residents, and the environment are adequately protected from hazards associated with contamination.
- **Policy SAF-5.4 Hazardous Materials Accidents:** Seek to prevent industrial and transportation accidents involving hazardous materials and enhance the city's capacity to respond to such incidents.

3.9.3 Impact Analysis

a) Less Than Significant Impact: The Proposed Project involves routine, but minor, transport or disposal of hazardous materials as part of the construction and ongoing operations of the facility's equipment.

Construction of the Proposed Project would be expected to use or generate hazardous materials, including diesel fuel, maintenance chemicals, asphalt mixtures, cement and concrete, welding gases, and potentially contaminated soil and groundwater. Fuel and maintenance chemicals would be transported, stored, used, and disposed of in accordance with all applicable laws and regulations. If encountered, contaminated soil and groundwater would be managed in accordance with the Revised RMP for the former Mobil and Ashland Bulk Fuel Terminal (Stantec 2023), Port-Wide Soil Management Protocol (Port of Oakland 2010), and the Port's *Hazardous Materials Management Guide* (Port of Oakland 2019b). Impacts would be less than significant.

Operations of the Proposed Project would include routine use of maintenance chemicals such as lubricating oils, diesel fuel, and other potentially hazardous materials. These types of materials are routinely used in the transportation and maritime industry and are similar to what are currently used by during Port and Port tenant activities on and adjacent to the site, and would be transported, stored, used,

and disposed of in accordance with all applicable laws and regulations. Stormwater treatment may generate small quantities of waste oil or oily water; this material would be transported under manifest to a licensed recycling or disposal facility. This is a routine waste and along with other routine wastes, would be stored, transported, and recycled or disposed of in accordance with all applicable laws and regulations. Because of the nature of the historic subsurface conditions, continued control measures will be incorporated into the Proposed Project operations because of compliance with the existing Revised RMP for the Former Mobil and Ashland Bulk Fuel Terminal. Impacts would be less than significant.

b) Less Than Significant Impact: As discussed previously, the Proposed Project would generate potentially contaminated soil and groundwater during construction and may require the use and transport of hazardous materials during operations, similar to current conditions. Although use or transport of these materials could result in a spill, all hazardous materials would be transported by a licensed transporter, and onsite use and management of these materials would be in conformance with all applicable laws and regulations as well as existing Port requirements and the Revised RMP for the former Mobil and Ashland Bulk Fuel Terminal (Stantec 2023). The Port also retains an on-call Emergency Response contractor to minimize the impact of any potential spills should they occur. This impact is less than significant.

c) No Impact: There are no existing or proposed K-12 schools within 0.25 mile of the Proposed Project site. The Oakland Unified School District's Prescott Elementary school is located approximately 0.8 mile east of the Proposed Project site. Therefore, the Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school and no impact would occur.

d) Less Than Significant Impact: The Proposed Project site is located within the area subject to the requirements of the Former Mobil and Ashland Bulk Fuel Terminal Revised RMP. Subsurface activities within the RMP area are required to comply with risk management measures described in the RMP. These are: Stormwater Runoff Control, Access Control, Soil Management, Dust Control and Monitoring, Methane and Petroleum Hydrocarbon Vapor Monitoring and Mitigation, Procedures for Unforeseen Subsurface Conditions, Dewatering Control Measure Planning, Contingency Procedures for NAPL, and Worker Safety Management (Stantec 2023).

Excavated soils would be stockpiled in accordance with the Port-Wide Soil Management Protocol, in consultation with the Port and other applicable requirements, and tested. To minimize the amount of soil excavated, trenches would be shored with trench boxes or plates, and hydraulic pistons or other supports, to allow for vertical sides. Because of the scope of work including soil excavation and trenching as part of the key elements, soil sampling and proper contaminated soil stockpile and offsite hauling will be incorporated as part of the Proposed Project. The impact is less than significant.

e, f, g) No Impact: There are no public airports within 2 miles of the Proposed Project. The nearest airport, San Francisco Bay Oakland International Airport, is more than 2 miles from the Proposed Project site, which is not within the airport's land use plan. The Proposed Project would not physically interfere with an emergency response plan or affect the implementation of an emergency response plan because it does not affect existing roadways that may be used in an emergency evacuation. The Proposed Project is an urban area is not located within or adjacent to wildlands and does not pose a risk associated with wildland fire (City of Oakland 2023d) (CALFIRE 2008); therefore, no impact would occur.

3.9.4 Mitigation Summary

The Proposed Project would not result in any significant impacts to hazards or hazardous materials; no mitigation is required.

3.10 HYDROLOGY AND WATER QUALITY

Would the Proposed Project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less Than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	No Impact
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:	Less Than Significant Impact
i) result in substantial erosion or siltation on- or off-site;	Less Than Significant Impact
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	Less Than Significant Impact
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	Less Than Significant Impact
iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	Less Than Significant Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

3.10.1 Environmental Setting

The Proposed Project site is located within the OHT, within an area formerly used as a marine terminal, in an industrialized urban setting. The Proposed Project site is entirely covered with AC graded to drain to the storm drains. The site currently is used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. The Proposed Project site is located within a tsunami hazard area according to the California Geological Survey. The Proposed Project site is located within an Area of Minimal Flood Hazard (Zone X) and is located near the San Francisco Bay which is designated Zone VE (Open Water) Special Flood Hazard Area (City of Oakland 2023d). Seiches are usually caused by unusual tides, winds or currents but could also be triggered by earthquake induced ground shaking. The occurrence of devastating seiches in Oakland is highly unlikely (City of Oakland 2023c). There are no natural wetlands, streams, channels, or ponds on the Proposed Project site.

The San Francisco Bay region contains the largest estuary on the west coast of the United States, where fresh waters from California's Central Valley mix with the saline waters of the Pacific Ocean. The Bay system supports a diverse and productive ecosystem. Salinity levels range from hypersaline to freshwater, and water temperature varies throughout the Bay system. The San Francisco Regional Water Quality Control Board Basin Plan (2017) has qualitative and quantitative water quality objectives for the region's surface water for the following parameters: bacteria, bioaccumulation, biostimulatory substances, color, dissolved oxygen, floating material, oil and grease, population and community ecology, pH, radioactivity,

salinity, sediment, settleable material, suspended material, sulfide, tastes and odors, temperature, toxicity, turbidity, and un-ionized ammonia.

The Proposed Project site's receiving waterbody includes Oakland Inner Harbor and San Francisco Bay, Lower, are listed in the Basin Plan as having beneficial uses. Flows in the region are seasonal with more than 90 percent of the annual runoff occurring during the rainy season between October and April. All existing storm drains on the Proposed Project site empty to the Central Bay portion of the San Francisco Bay. The Central Bay is characterized by Pacific Ocean waters that are cold, saline, and low in total suspended sediment (Port of Oakland 2023b).

3.10.2 Regulatory Setting

Federal and state laws and regulations pertaining to hydrology and water quality that are relevant to the Proposed Project are as follows:

- The Clean Water Act (33 U.S.C. 1251 et seq.); a comprehensive piece of legislation to protect the nation's water from pollution by setting water quality standards for surface water by limiting the discharge of effluents into waters of the United States. Section 404 or National Pollutant Discharge Elimination System (NPDES) permits are not needed for the Proposed Project.
- State Water Resources Control Board (SWRCB) regulates stormwater discharges from municipal separate storm sewer systems (MS4s) through the Municipal Storm Water Program. The Small MS4 permit (MS4 NPDES Permit No. CAS000004 and Order No. 2013-0001-DWQ) issued by the SWRCB designates the Port as a Non-Traditional Small MS4. The SWRCB and the Bay Area Regional Water Quality Control Board implement and enforce the Municipal Storm Water Program in the Bay Area.
- SWRCB General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit [CGP], Order No. 2009-0006-DWQ). The California CGP regulates construction activity resulting in soil disturbance of 1 acre or more of total land area. The CGP authorizes the discharge of stormwater to surface waters from permitted construction activities.
- SWRCB Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities (Industrial General Permit, Order No. 2014-0057-DWQ). The Industrial General permit regulates industrial stormwater discharges and authorized non-stormwater discharges from industrial facilities. The Industrial General permit requires dischargers to eliminate unauthorized non-stormwater discharges, develop and implement a site-specific SWPPP, conduct visual inspections, and perform the appropriate stormwater sampling as needed.
- The Oil Pollution Act (33 U.S.C. 2712) requires owners and operators of facilities that could cause substantial harm to the environment to prepare and submit plans for responding to worst-case discharges of oil and hazardous substances.
- The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq) is the principal law governing water quality in California. Section 401 permits and Regional Water Quality Board involvement is not needed for the Proposed Project.
- The San Francisco Bay Plan outlines the responsibilities of San Francisco BCDC and administration of the federal Coastal Zone Management Act within the Bay segment.

The following local goals, policies, and regulations are applicable to hydrology and water quality:

- The Port's Post-Construction Design Manual requires all new developments and redevelopments meeting the impervious threshold (that is, greater than or equal to 5,000 square feet) to comply with the State's Low Impact Development design standards. The purpose of these standards is to reduce offsite stormwater runoff.
- The Port's Stormwater Ordinance No. 4311 provides authority to control discharges to the storm drain system in the Port Area. The purpose of the ordinance is to protect and enhance the water quality of water bodies by reducing pollutants in stormwater discharges to the maximum extent practicable and eliminating unauthorized non-stormwater discharges to the Port storm drains.
- The City of Oakland's General Plan Safety Element contains policies related to flooding, tsunami and seiche (City of Oakland 2023c), including the following:
    - **Policy FL-SAF-3.1:** Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.
    - **Policy SAF-3.2:** Enforce and update local ordinances and comply with regional orders that would reduce the risk of storm-induced flooding.
    - **Policy SAF-3.4:** Seek the cooperation and assistance of other government agencies in managing the risk of storm-induced flooding.
- The City of Oakland's Open Space, Conservation, and Recreation Element of the Oakland General Plan (City of Oakland 1996) includes the following policies adopted for the purpose of protecting water resources.
    - **Policy CO 5.1:** Encourage groundwater recharge by protecting large open space areas, maintaining setbacks along creeks and other recharge features, limiting impervious surfaces where appropriate, and retaining natural drainage patterns within newly developing areas.
    - **Policy CO 5.3:** Employ a broad range of strategies, compatible with Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards"; and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational, and ecological functions.
    - **Policy CO 6.5:** Protect the surface waters of the San Francisco Estuary system, including San Francisco Bay, San Leandro Bay, and the Oakland Estuary. Discourage shoreline activities which negatively impact marine life in the water and marshland areas.

3.10.3 Impact Analysis

a) Less Than Significant Impact: The existing stormwater system would be modified to accommodate the bioswale to be constructed as part of the Proposed Project, which would provide treatment as necessary to comply with SWRCB Water Quality Order No. 2013-0001-DWQ NPDES General Permit No. CAS000004, WDR for Storm Water Discharges from the Port's MS4 permit. The bioswale would provide post-construction stormwater treatment, reducing pollutant runoff from applicable impervious surfaces. The bioswale would be approximately 1.1-acre in size and would be designed to receive, retain, and infiltrate stormwater runoff from the Proposed Project's impervious areas in accordance with Port

Post-Construction Stormwater Design Manual requirements. During storm events, stormwater runoff that accumulates in the ponding zone would gradually infiltrate and filter through the engineered media before discharging into the storm drain system. There would be no significant increase in stormwater runoff as the Proposed Project would not increase the area of what is currently impervious surface area, and no changes in the constituents contained in the stormwater runoff are anticipated as uses of the Proposed Project would be similar to current uses.

The Proposed Project would be required, both during construction and operation of the stormwater system, to meet the requirements set forth in the Former Mobil and Ashland Bulk Fuel Terminals RMP (Stantec 2023), as well as to comply with the MS4 permit requirements.

Potential short-term impacts on water quality as a result of construction could occur because of non-stormwater discharges from construction activities, such as increases in sediments, trash, oil, or grease from construction equipment and sanitary waste. However, as the area of disturbance of the Proposed Project would be greater than 1 acre, the Proposed Project would be required to prepare and implement a General Construction SWPPP during construction. The SWPPP identifies specific BMPs that would be implemented during construction.

Thus, construction and operation of the Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

b) No Impact: Water required during construction, such as for concrete and dust control, would be provided from municipal water supplies including the potential use of recycled water. The Proposed Project operations would not require water other than for emergency use, consistent with current site use therefore the Proposed Project would not substantially decrease groundwater supplies. The Proposed Project site is currently covered with impervious surfaces and the Proposed Project would not increase impervious surfaces such that groundwater recharge would be decreased. Therefore, the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge.

c i, ii, iii, iv) Less Than Significant Impact: The Proposed Project site currently is entirely covered with impermeable surfaces. However, the Proposed Project would decrease the impervious area by constructing an approximate 1.1-acre onsite bioswale. The existing drainage pattern of the Proposed Project site which is generally flat is not anticipated to significantly change, therefore the Proposed Project would not substantially increase the rate or amount of surface runoff from the site in a manner which would result in flooding onsite or offsite. The Proposed Project would contour the ground to direct drainage toward the bioswale. Because this slight change in drainage pattern of the site would be to direct storm water toward the proposed bioswale, it would not result in increased stormwater runoff from the site. The bioswale would be designed to receive, retain, and infiltrate stormwater runoff from the Proposed Project's impervious areas. During storm events, stormwater runoff that accumulates in the ponding zone would gradually infiltrate and filter through the engineered media before discharging into the storm drain system. Therefore, the bioswale would reduce stormwater runoff from the site from current conditions which do not include features to allow stormwater to be retained rather than runoff immediately. During construction, activities involving soil disturbance such as trenching and stockpiling of soil, could temporarily result in increased erosion and siltation. BMPs required by the project SWPPP would be implemented during these activities to reduce the potential for erosion and siltation. Therefore, the Proposed Project would not result in substantial erosion or siltation onsite or offsite and would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage

systems. The Proposed Project would not place new structures in floodplains and is not anticipated to impede or redirect flood flows. The impacts would be less than significant.

d) Less Than Significant Impact: Tsunamis are caused by underwater earthquakes, landslides, or volcanic eruption (NOAA 2023). San Francisco Bay is an enclosed body of water, and severe impacts to Oakland are unlikely. The narrow opening of the Golden Gate attenuates tsunamis that may reach the San Francisco Bay area. These waves would be substantially muted as they near the Inner Harbor at the Port. Seiches are waves in enclosed bodies of water including harbors. Because of the large size of the San Francisco Bay, the hazard from seiche waves is low. Although the Proposed Project site is located within a tsunami hazard area (CGS 2021), the frequency and risk of tsunamis during the construction stage is relatively small. According to the City of Oakland Tsunami Hazard Specific Index, the Tsunami Threat Analysis has categorized the Frequency as Low (less than every 25 years) with only 80 tsunamis being recorded or observed in the 12-County Bay Area region since 1850 (City of Oakland 2023e). There would be measures in place such as tsunami early warning systems that would limit the potential for impacts. The National Oceanic and Atmospheric Administration operates the National Tsunami Warning Center and the Pacific Tsunami Warning Center, which alert local authorities ahead of tsunamis. Proposed Project activities would use small quantities of materials that are routinely used for Port operations such as lubricating oils and welding gases, similar to what are currently used on and adjacent to the site. In the unlikely event of inundation as a result of flood, tsunami, or seiche, the Proposed Project would not substantially change the risk from release of pollutants from current conditions. Impacts would be less than significant.

e) No Impact: The Proposed Project would not use groundwater. Installation of the bioswale would reduce stormwater runoff from the site, supporting implementation of the Port's Stormwater Ordinance and its MS4 permit. The Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; therefore, no impact would occur.

3.10.4 Mitigation Summary

The Proposed Project would not result in significant impacts to hydrology and water quality; therefore, no mitigation is required.

3.11 LAND USE AND PLANNING

Would the Proposed Project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
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?	No Impact

3.11.1 Environmental Setting

The Proposed Project occupies approximately 32.2 acres in the Port in California. Land uses in the vicinity of the Proposed Project site consists of other industrial and commercial development, including maritime terminals, ancillary trucking services, and warehousing. Nearby land uses include public parks (Middle Harbor Shoreline Park and Port View Park) on the western edge of the Port adjacent to San Francisco Bay, approximately one-half mile from the Proposed Project site. Commercial and light industrial facilities and I-880 are located to the north and east of the Proposed Project site. Residential areas are east of I-880, with the nearest residences approximately 0.5 mile from the Proposed Project site.

The Proposed Project site is developed and is currently used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities.

The Proposed Project site is located within the general plan designation General Industry and Transportation. This designation is intended to create, preserve, and enhance areas of the city that are appropriate for a wide variety of businesses and related commercial and industrial establishments that may have the potential to generate offsite impacts such as noise, light/glare, odor, and traffic. This land use designation allows heavy industrial and manufacturing uses, transportation facilities, warehousing and distribution, and similar and related supporting uses. (City of Oakland 2023a).

3.11.2 Regulatory Setting

There are no federal or state laws or regulations pertaining to land use. This section describes local goals, policies, and regulations applicable land use.

The City of Oakland in the Land Use and Transportation Element of the General Plan (City of Oakland 1998) has land use policies relevant to this area, including the following.

- Policy I/C4.1, Protecting Existing Activities: Existing industrial, residential, and commercial activities and areas that are consistent with long-term land use plans for the city, should be protected from the intrusion of potentially incompatible land uses.
- Policy I/C4.2, Minimizing Nuisances: The potential for new or existing industrial or commercial uses, including seaport and airport activities, to create nuisance impacts on surrounding residential land uses should be minimized through appropriate siting and efficient implementation and enforcement of environmental and development controls.
- Policy T1.5, Locating Truck Services: Truck services should be concentrated in areas adjacent to freeways and near the seaport and airport, ensuring the attractiveness of the environment for visitors, local business, and nearby neighborhoods.

- Policy W1.3, Reducing Land Use Conflicts: Land uses and impacts generated from Port or neighborhood activities should be buffered, protecting adjacent residential areas from the impacts of seaport, airport, or other industrial uses. Appropriate siting of industrial activities, buffering (such as landscaping, fencing, transitional uses), truck traffic management efforts, and other mitigation efforts should be used to minimize the impact of incompatible uses.
- Policy W2.2, Buffering of Heavy Industrial Uses: Appropriate buffering measures for heavy industrial uses and transportation uses on adjacent residential neighborhoods should be developed and implemented.
- Policy W3.1, Requiring Consistency with Conservation Objectives and Policies: Waterfront objectives, policies, and actions regarding geology, land stability, erosion, soils, water quality, flood hazards, wetland plant and animal habitats, and air quality and pollutants, will be consistent and in compliance with the 1996 Open Space, Conservation, and Recreation Element of the City's General Plan.
- Policy W6.1, Maintaining a Competitive Edge: To maintain international stature and competitiveness, the Port should continue to develop, expand, or otherwise modernize facilities or support infrastructure to enhance its overall efficiency and capabilities to handle increasing amounts of cargo and passengers.

The land within the Port jurisdiction is subject, like the rest of the City, to the Oakland General Plan and is included within the City's General Plan Area. Development permits approved by the Port must comply with the City of Oakland General Plan. Any development or construction in the Port Area must be approved by the Port before start of work, and before submittal for a City of Oakland building permit (Jacobs 2023).

BCDC approved the *2023 San Francisco Bay Area Seaport Plan* in November 2023 (2023 Seaport Plan, BCDC 2023). The plan must be reviewed and approved by the Office of Administrative Law before it takes effect and replaces the existing plan. The 2023 Seaport Plan includes five goals related to management of port facilities in the San Francisco Bay:

1. Designate and reserve shoreline areas along San Francisco Bay for existing and future growth in maritime cargo, thereby reducing the need for new Bay fill for port development.
2. Minimize pressure for Bay fill by ensuring that marine terminal development is consistent with the McAteer-Petris Act and San Francisco Bay Plan.
3. Minimize any adverse economic, environmental, and social impacts caused by port development, particularly in disadvantaged and vulnerable communities, within the scope of the Commission's authority.
4. Coordinate the planning and development of Bay port terminals with regional transportation and freight mobility plans.
5. Ensure the continuation of the San Francisco Bay port system as a major world port and contributor to the economic vitality of the San Francisco Bay region in light of climate change and rising sea level.

In 2000, the city adopted the Oakland Army Base Redevelopment Area Plan and amended it in 2012 (City of Oakland 2012). This plan included improvements to the seaport that would enable the Port to meet the capacity designated in the BCDC Seaport Plan.

3.11.3 Impact Analysis

a, b) No Impact: The Proposed Project is located in an industrial area bordered by other industrial facilities and is consistent with the City of Oakland's General Plan and General Industry and Transportation land use designation. The Proposed Project is consistent with and supports the 2023 Seaport Plan. The Proposed Project is consistent with surrounding land uses and would not divide an established community or otherwise interfere with land uses in the area. Additionally, the Proposed Project meets the Port PIDP's grant eligibility requirements, as the Proposed Project is located within the boundary of a port and in a designated Historically Disadvantaged Community and Opportunity Zone. The Proposed Project supports the PIDP's goals to improve the safety, efficiency, and reliability of loading and unloading of goods at the Port; improve the movement of goods into, out of, around, and within the Port; improve the Port's resiliency; and reduce environmental and emissions impacts. No impact would occur.

3.11.4 Mitigation Summary

The Proposed Project would not result in any impacts to land use and planning; therefore, no mitigation is required.

3.12 MINERAL RESOURCES

Would the Proposed Project:

Question	CEQA Determination
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?	No Impact
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?	No Impact

3.12.1 Environmental Setting

The Proposed Project site's immediate vicinity is characterized by maritime industrial uses associated with the Port. In general, the OHT in which the Proposed Project site is located contains flat expansive asphalt-paved areas with stacked and wheeled shipping containers, facilities associated with Port maritime activities, trucks, and nearby railroad tracks.

The existing conditions of the Proposed Project site consist of AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. Terminal areas directly adjacent to the Proposed Project site are already being used in a similar stacking capacity to what is proposed for the Proposed Project. There are no known mineral resources that occur on or in the immediate vicinity of the Proposed Project site and the site is not delineated as a mineral resource recovery site.

3.12.2 Regulatory Setting

There are no federal or state laws or regulations pertaining to mineral resources. This section describes local goals, policies, and regulations applicable mineral resources.

The City of Oakland's General Plan Open Space, Conservation and Recreation Element contains the following applicable policy related to mineral resources at the Proposed Project site:

- Objective CO-3—Mineral Resources: To conserve mineral resources and minimize environmental impacts from extraction (City of Oakland 1996).

3.12.3 Impact Analysis

a, b) No Impact: There are no known mineral resources that occur on the Proposed Project site. The Proposed Project site does not contain known mineral resources, is developed for industry and transportation use, and is not available for mineral resource extraction. This condition would not change with development of the Proposed Project. The Proposed Project would not result in the loss of availability of known mineral resources and would not 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 would occur.

3.12.4 Mitigation Summary

The Proposed Project would not result in any impacts to mineral resources; no mitigation is required.

3.13 NOISE

Would the Proposed Project result in:

Question	CEQA Determination
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?	Less Than Significant Impact
b) Generation of excessive ground borne vibration or ground borne noise levels?	No Impact
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 two 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?	No Impact

3.13.1 Environmental Setting

The Proposed Project occupies approximately 32.2 acres in the City of Oakland, California. The Proposed Project is located on Port property, between Maritime Street and Oakland Outer Harbor. The existing conditions of the Proposed Project site consist of AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. Terminal areas directly adjacent to the Proposed Project site are already being used in a similar stacking capacity to what is proposed for the Proposed Project.

This section describes the noise sensitive land uses in the vicinity of the Proposed Project site and the existing ambient noise within the Proposed Project site.

Noise Sensitive Land Uses

The closest noise sensitive receivers to the Proposed Project site are residences located in West Oakland, just east of I-880. These residences are located approximately 0.5 mile) east of the Proposed Project site. Middle Harbor Shoreline Park is approximately 0.5 mile southwest of the Proposed Project site. All other noise sensitive land uses are located beyond the distance of these residential land uses.

3.13.2 Regulatory Setting

No federal or state laws relevant to noise are applicable to the Proposed Project. This section describes local goals, policies, and regulations that are applicable to noise.

Chapter 17 of the Oakland Municipal Code contains noise performance and vibration standards (City of Oakland 2022a). Section 17.120.050 of the Municipal Code includes limits on the hours of noise-generating construction activities and limits on maximum noise at receiving properties. Refer to Table 3.13-1 for the City of Oakland's temporary construction or demolition noise level standards.

Table 3.13-1. City of Oakland Maximum Allowable Receiving Noise Level Standards, dBA

Operation	Land Use Type	Maximum Allowable Receiving Noise Level – Daily 7:00 a.m. to 7:00 p.m.[a]	Maximum Allowable Receiving Noise Level – Weekends 9:00 a.m. to 8:00 p.m.[b]
Short-Term Operation	Residential	80	65
Short-Term Operation	Commercial, Industrial	85	70
Long-Term Operation	Residential	65	55
Long-Term Operation	Commercial, Industrial	70	60

Source: City of Oakland 2022b.
Notes:
[a] The daytime noise level received by any Residential, Commercial, or Industrial land use which is produced by any nonscheduled, intermittent, short-term construction or demolition operation (less than 10 days) or by any repetitively scheduled and relatively long-term construction or demolition operation (10 days or more) will not exceed the maximum allowable receiving noise levels described in this table.
[b] The nighttime noise level received by any land use and produced by any construction or demolition activity between weekday hours of 7:00 p.m. and 7:00 a.m. or between 8:00 p.m. and 9:00 a.m. on weekends and federal holidays will not exceed the applicable nighttime noise level standards outlined in this table.
dBA = A-weighted decibels

Section 17.120.060 of the Municipal Code provides perceptible vibration standards for activities within the City. Exempt from this requirement are ground vibrations caused by motor vehicles, trains, and temporary construction or demolition work.

3.13.3 Impact Analysis

a) Less Than Significant Impact: The Proposed Project is located in an industrial area where noise generation from large freight vehicles, heavy equipment, and containerized and bulk cargo transloading activities currently occur. During construction, a temporary noise increase from the use of heavy construction equipment is expected. Construction of the Proposed Project would take approximately 13 months to complete. No nightwork is expected to occur.

Construction noise generated by construction activity for the Proposed Project would be intermittent, and its intensity would vary. The degree of construction noise impacts may vary for different areas of the Proposed Project site and also vary depending on the construction activities. Table 3.13-2 summarizes noise levels produced by equipment expected to be used for Proposed Project construction. The nearest noise sensitive land uses to the Proposed Project site are residential land uses located approximately 0.5 mile to the east and a park located approximately 0.5 mile to the southwest. The distance of 3,200 feet shown in Table 3.13-2 represents noise levels at Pine Street, the nearest residential street to the Proposed Project site. Construction equipment is expected to generate noise levels ranging from 74 to 85 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

Table 3.13-2. Construction Noise Levels

Type of Equipment	L_{max}, dBA (50 feet)	L_{max}, dBA (100 feet) [a]	L_{max}, dBA (200 feet)[a]	L_{max}, dBA (2,640 feet/ 0.5 mile)[a]	L_{max}, dBA (3,200 feet)[a]
Air Compressor	78	72	66	44	42
Cement/Mortar Mixer	79	73	67	45	43
Cranes	81	75	69	47	45
Compactor	83	77	71	49	47
Dump/Haul Trucks	76	70	64	42	40
Excavator	81	75	69	47	45
Generator Sets	81	75	69	47	45
Graders	85	79	73	51	49
Paving Equipment	85	79	73	51	49
Pickup Truck	75	69	63	41	39
Scraper	84	78	72	50	48
Tractor/Loader/Backhoe	80	74	68	46	44
Water Trucks	80	74	68	46	44
Welders	74	68	62	40	38

Note:
[a] Noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

Assuming two of the loudest types of construction equipment were operating at the same time and place (for example, graders and paving equipment), the residential land uses would be exposed to a maximum noise level of approximately 54 dBA L_{max} during construction of the Proposed Project, which does not exceed the city's noise ordinance of 65 dBA at residential land uses on weekdays between the hours of 7:00 a.m. and 7:00 p.m. or of 55 dBA at residential land uses on weekends from 9:00 a.m. to 8:00 p.m. In addition, although nighttime construction or demolition work is not expected, other than a power shutdown would be necessary for the new connectivity, construction would not exceed the applicable nighttime noise level as shown in Table 3.13-1. Construction noise impacts would be less than significant.

Operation of the Proposed Project would involve similar noise-generating activities as currently occurring on the site, including trucks and other cargo handling equipment. Therefore, operation of the Proposed Project would not result in noise impacts.

b) No Impact: Construction of the Proposed Project will generate temporary vibrations at land uses surrounding the Project site. However, ground vibration caused by temporary construction or demolition is exempt from the city's Municipal Code Section 17.120.060 – Vibration.

Once construction activities have been completed, no substantial sources of vibration activities would be generated from the Project site. The primary sources of vibration would be transient in nature, heavy transport trucks, maintenance vehicles, and worker vehicles, which produce limited levels of vibration. These sources are similar in nature to the existing activities occurring at the Proposed Project site. Therefore, no vibration impacts would occur.

c) No Impact: The Proposed Project is not located in the vicinity of a private airstrip or within 2 miles of a public airport. The nearest airport is San Francisco Bay Oakland International Airport, approximately 10 miles to the southeast. Therefore, the Proposed Project would not expose people residing or working in the Proposed Project area to excessive noise levels or ground borne vibration or noise levels during construction. No impact would occur.

3.13.4 Mitigation Summary

The Proposed Project would not result in any potentially significant impacts from noise; therefore, no mitigation is required.

3.14 POPULATION AND HOUSING

Would the Proposed Project:

Question	CEQA Determination
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)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

3.14.1 Environmental Setting

The Proposed Project occupies approximately 32.2 acres in the City of Oakland, California. The Proposed Project is located on Port property, between Maritime Street and Oakland Outer Harbor. The existing conditions of the Proposed Project site consist of AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. Terminal areas directly adjacent to the Proposed Project site are already being used in a similar stacking capacity to what is proposed for the Proposed Project.

The closest residential properties are located approximately 0.5 mile east of the Proposed Project site.

3.14.2 Regulatory Setting

No federal or state laws relevant to population and housing are applicable to the Proposed Project. The following local goals, policies, and regulations are applicable to this issue area:

- The City of Oakland's General Plan Land Use and Transportation Element (City of Oakland 1998) contains the following policy applicable to population and housing at the Proposed Project site:
    - Policy 1/C4.1: Existing industrial, residential, and commercial activities and areas which are consistent with long-term land use plans for the city should be protected from the intrusion of potentially incompatible land uses.

3.14.3 Impact Analysis

a, b) No Impact: During construction, the Proposed Project would require up to 15 workers per day. Operation of the Proposed Project would generate a minimal number of new jobs. The Proposed Project is located in a metropolitan area where regional labor is sufficient to support construction and operation of the Proposed Project. The Proposed Project would not induce substantial unplanned population growth either directly or indirectly because it does not increase population or housing growth (or demand for new housing, or public services). The Proposed Project site does not contain any housing and therefore it would not displace existing people or housing, nor necessitate the construction of replacement housing elsewhere. No impact would occur.

3.14.4 Mitigation Summary

The Proposed Project would not result in any impacts to population and housing; no mitigation is required.

3.15 PUBLIC SERVICES

Question	CEQA Determination
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	N/A
Fire protection?	Less Than Significant Impact
Police protection?	Less Than Significant Impact
Schools?	No Impact
Parks?	No Impact
Other public facilities?	No Impact

3.15.1 Environmental Setting

The Proposed Project occupies approximately 32.2 acres in the City of Oakland, California. The Proposed Project is located on Port property, between Maritime Street and Oakland Outer Harbor. The existing conditions of the Proposed Project site consist of AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. Terminal areas directly adjacent to the Proposed Project site are already being used in a similar stacking capacity to what is proposed for the Proposed Project.

The nearest City of Oakland fire station is Fire Station No. 3, located at 1445 14th Street, in Oakland, California. The Oakland Fire Department responds to fire and emergency response calls at the Port area.

Police protection services are provided by the City of Oakland Police Department, which is responsible for the enhancement and maintenance of public safety. Additional services are provided by the U.S. Department of Homeland Security (U.S. Customs Service and U.S. Coast Guard).

The Proposed Project is within the Oakland Unified School District. There are no schools within 0.5 mile of the Proposed Project site.

The City of Oakland has over 2,500 acres of open space, including 100 parks. There are no recreational facilities or use onsite, and the closest parks to the Proposed Project site are Middle Harbor Shoreline Park (approximately 0.5 mile to the southwest), Port View Park (approximately 0.9 mile to the southwest), Judge John Sutter Regional Shoreline (approximately 0.5 mile to the north), Toll Plaza Beach (approximately 0.75 mile to the northeast), and Mclaughlin Eastshore State Park (approximately 1 mile to the northeast). All other parks in the vicinity of the Proposed Project are located either north or east of I-880 or south of the Oakland Inner Harbor (on Alameda Island).

There are no other public facilities in the vicinity of or that provide services to the Proposed Project site.

3.15.2 Regulatory Setting

No federal or state laws relevant to public services are applicable to the Proposed Project. The following local goals, policies, and regulations are applicable to this issue area:

The City of Oakland's General Plan Safety Element contains the following policy related to public services (City of Oakland 2023c):

- Policy SAF-8.1-1: Maintain and enhance the city's capacity for emergency response, fire prevention, and firefighting.

3.15.3 Impact Analysis

a) No Impact: The Proposed Project site would be equipped with modern fire suppression technology, and the construction and operation of the Proposed Project would not be expected to increase the need for fire protection services; consequently, there would be no need for changes to existing fire protection facilities or development of new facilities. The Proposed Project site would be fenced and have controlled access. It would not be expected to increase the need for police protection beyond the current level; consequently, there would be no need for changes to existing police protection facilities or development new facilities. Additionally, personnel required for construction of the Proposed Project would be expected to be provided by the local labor pool and operation of the Proposed Project would require minimal additional staffing; therefore, the Proposed Project would not increase the local population so there would not be a need for additional schools, parks, or other public facilities. No impact would occur.

3.15.4 Mitigation Summary

The Proposed Project would not result in significant impacts to public services; therefore, no mitigation is required.

3.16 RECREATION

Question	CEQA Determination
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?	No Impact
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?	No Impact

3.16.1 Environmental Setting

The Proposed Project is located in the Port Seaport area, which is predominantly an industrial area. There are no recreational facilities or use onsite or adjacent to the Proposed Project site; however, there are 10 recreational facilities within 1.5 miles of the Proposed Project site. Those nearest to the Proposed Project site are the San Francisco Bay Trail, Middle Harbor Shoreline Park, Port View Park, Judge John Sutter Regional Shoreline, Toll Plaza Beach, and Mclaughlin Eastshore State Park.

The San Francisco Bay Trail is a series of connected walking and cycling paths that ring the San Francisco and San Pablo bays, currently with more than 350 miles of trails (MTC 2024). The multi-use path east of Maritime Street, approximately 300 feet east of the Proposed Project site, and the multi-use path along 7th Street, approximately 600 feet south of the Proposed Project site, are part of the Bay Trail system.

Middle Harbor Shoreline Park is located approximately 0.5 mile southwest of the Proposed Project site. The park features views of the bay, both pedestrian and bicycle trails, picnic sites, BBQ pits, public restrooms, and drinking fountains (Port of Oakland 2024).

Port View Park is located approximately 0.9 mile southwest of the Proposed Project site. The park features walkways, views of the bay, benches, picnic tables, a playground, and a fishing pier (Waterfront Action 2024).

Judge John Sutter Regional Shoreline is located approximately 0.5 mile north of the Proposed Project site. The park features views of the bay, both pedestrian and bicycle trails, public restrooms, drinking fountains, and an event space (East Bay Regional Park District 2024).

Toll Plaza Beach is located approximately 0.75 mile northeast of the Proposed Project site. The beach features access to the bay.

Mclaughlin Eastshore State Park is located approximately 1 mile northeast of the Proposed Project site. The park features boating opportunities, both pedestrian and bicycle trails, swimming, fishing, windsurfing, exhibits and programs, restrooms, drinking fountains, and showers (California Department of Parks and Recreation 2024).

3.16.2 Regulatory Setting

No federal laws are applicable to the Proposed Project. Federal Highway Administration Section 4f does not apply to the Proposed Project. The following state laws, local goals, policies, and regulations are relevant to recreational resources:

- The City of Oakland General Plan Open Space, Conservation and Recreation Element (City of Oakland 1996) contains the following goals relevant to recreation:

- Goal REC-1: A parks system which meets a diverse range of recreational needs without compromising the value of parks as open space.
- Goal REC-2: Safe, clean, accessible, efficiently run parks that complement the quality of life in Oakland.
- Goal REC-3: Recreational facilities which fully utilize human resources and promote personal growth, celebrate Oakland's cultural diversity, and serve all community equitably.

3.16.3 Impact Analysis

a, b) No Impact: The Proposed Project would not include recreational facilities and would not modify any existing parks or recreation facilities. Construction workers are expected to come from the existing labor force in the area and would not increase demand for parks or recreational facilities. Similarly, operation of the Proposed Project is not expected to require new employees from outside the area that result in increased use of neighborhood and regional parks or other recreational facilities. Therefore, the Proposed Project would not increase use of existing parks or recreational facilities, would not accelerate deterioration of existing parks and recreation facilities, and would not require the construction or expansion of recreational facilities. No impact would occur.

3.16.4 Mitigation Summary

The Proposed Project would not result in any impacts to recreation; therefore, no mitigation is required.

3.17 TRANSPORTATION AND TRAFFIC

Would the Proposed Project:

Question	CEQA Determination
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less Than Significant Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Less Than Significant Impact
c) 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
d) Result in inadequate emergency access?	Less Than Significant Impact

3.17.1 Environmental Setting

The Proposed Project site would be located within the OHT, within an area that was previously used as a marine terminal, in an industrialized urban setting. The existing conditions of the Proposed Project site consist of AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. The Proposed Project site is served regionally by I-880, I-80/I-580, and I-980/State Route 24, and is served locally by Maritime Street, Maritime Street, Navy Roadway, 7th Street, and West Grand Avenue. The direct local roadway access for the Proposed Project site is on Maritime Street via the TraPac Terminal Entrance or from 14th Street off Maritime Street. Maritime Street and 7th Street are two of the three major access points to the Port's Seaport area (Figure 2-1).[6] No vehicles with a gross weight over 9,000 pounds, which includes trucks hauling containers, are allowed on I-580 east of Grand Avenue.

Local bus service in the City of Oakland and Alameda County is provided by the Alameda-Contra Costa Transit District. No existing transit services are in the Proposed Project site's immediate vicinity. Alameda County Transit provides bus service in Oakland. The nearest bus stop to the Proposed Project site is at 7th Street and Campbell Street on the 800 Line, approximately 0.9 mile to the east. BART provides high-frequency local and regional service; the West Oakland station is the closest to the Proposed Project site approximately 1 mile to the east. The Amtrak Capitol Corridor and San Joaquin routes serve the West Oakland area; the Jack London Square Station is the closest to the Proposed Project site, approximately 3 miles to the east.

There are multiple existing and proposed bikeway facilities within the Proposed Project site's vicinity, including an existing multi-use paths on the east side of Maritime Street and along 7th Street that are part of the San Francisco Bay Trail. The nearest bike-share station is at the West Oakland BART station. Because of the Proposed Project site's heavy industrial nature, pedestrian activity in the vicinity is low.

The existing roadway network provides emergency access in the Port. There are no emergency service facilities within 0.5 mile of the Proposed Project site. The nearest emergency services are described in Section 3.15 Public Services.

[6] The third major access point is Adeline Street at the southeastern end of the Port's Seaport.

3.17.2 Regulatory Setting

Federal, state, regional, and local laws and regulations pertaining to transportation and applicable to the Proposed Project are described in this section.

The Infrastructure Investment and Jobs Act was signed by President Biden in November 2021. This bill authorizes $1.2 trillion for transportation and infrastructure spending with approximately $550 billion in funding for new infrastructure investments and programs. Funding can be applied to energy and power infrastructure, access to broadband internet, and water infrastructure, among others. The Infrastructure Investment and Jobs Act effectively replaces the Fixing America's Surface Transportation Act, which provided long-term funding certainty for planning and investment in surface transportation infrastructure through authorization of $305 billion over fiscal years 2016 through 2020.

The Ports and Waterways Safety Act provides authority for the United States Coast Guard's program to increase vessel safety and protect the marine environment in ports, harbors, waterfront areas, and navigable waters. This includes authorizing the Vessel Traffic Service, controlling vessel movement, and establishing requirements for vessel operation.

The CFR includes the following regulations pertaining to transportation:

- Title 49 CFR 171–177 governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- Title 49 CFR 350-399 and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
- Title 49 CFR 397.9, the Hazardous Materials Transportation Act, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

In 2013, SB 743 was signed into law in California. SB 743 required the Governor's Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within CEQA. SB 743 effectively replaced level of service as a performance metric, moving the state to using a vehicle miles traveled (VMT) approach. The intent of SB 743 was to better align transportation impact analyses and mitigation outcomes with the state's goals to reduce GHG emissions, encourage infill development, and improve public health through the development of multimodal transportation networks. OPR produced the Technical Advisory on Evaluating Transportation Impacts in CEQA in December 2018 to provide guidance for assessing VMT, thresholds of significance, and mitigation measures (OPR 2018). According to the technical advisory, the VMT thresholds apply to residential, office, and retail projects; no thresholds were identified for industrial projects.

The California Department of Transportation has developed guidelines for VMT analysis. These documents include the Vehicle Miles Traveled–Focused Transportation Impact Study Guide (Caltrans 2020a), Transportation Analysis Under CEQA (Caltrans 2020b), and Transportation Analysis Framework Under CEQA (Caltrans 2020c). Specifically, Section 5.3.3 of the Transportation Analysis Under CEQA states, "Generally, a qualitative analysis of VMT impacts associated from the construction of the Proposed Project would be appropriate… Vehicle trips used for construction purposes would be temporary, and any generated VMT would generally be minor and limited to construction equipment and personnel and would not result in long-term trip generation."

The MTC and the Alameda County Transportation Commission (ACTC) jointly developed the San Francisco Bay Area Goods Movement Plan (MTC 2016) and the Alameda Countywide Goods Movement Plan (ACTC 2016), published in February 2016. The goals of the Goods Movements Plan include the following:

- Reduce and mitigate impacts from goods movement operations to create a healthy and clean environment, and support improved quality of life for people most impacted by goods movement.
- Provide safe, reliable, efficient, resilient, and well-maintained goods movement facilities and corridors.
- Promote innovative technology and policy strategies to improve the efficiency of the goods movement system.
- Preserve and strengthen an integrated and connected, multimodal goods movement system that supports freight mobility and access, and is coordinated with passenger transportation systems and local land use decisions.
- Increase jobs and economic opportunities that support residents and businesses.

In July 2017, MTC adopted Plan Bay Area 2040, Regional Transportation Plan and Sustainable Communities Strategy for the Bay Area, 2017-2040 (Plan Bay Area 2040) (MTC 2017). This plan provides a long-range regional transportation plan and Sustainable Communities Strategy for the nine-county Bay Area with an updated integrated transportation and land use plan. Plan Bay Area 2040 builds on earlier work to develop an efficient transportation network, provide more housing choices, and grow in a financially and environmentally responsible way.

In November 2020, ACTC adopted the 2020 Alameda Countywide Transportation Plan (CTP) (ACTC 2020). The 2020 CTP is a long-range policy document that establishes the vision for Alameda County's transportation system over a 30-year planning horizon. The 2020 CTP includes a New Mobility Roadmap which provides a foundation for agency policy, advocacy, and funding decisions to advance new mobility technologies and services for the ACTC and partner agencies, as well as the private sector.

The City of Oakland and the Port adopted the West Oakland Truck Management Plan (TMP) (Port of Oakland and City of Oakland 2019), an action-based plan designed to reduce the effects of haul trucks on local streets in West Oakland. Implementation of the TMP is underway to refine designated truck routes and update the City of Oakland's municipal code. In 2022, the City of Oakland approved an update to the City of Oakland's municipal code regarding truck parking restrictions in the West Oakland community (City of Oakland 2022).

The City of Oakland General Plan contains policies relevant to transportation resources in the Land Use and Transportation Element (City of Oakland 1998). The city's Bicycle Master Plan and Pedestrian Master Plan are also incorporated into the General Plan. The following policies pertain to truck routes:

- Policy T1.6: Designating Truck Routes. An adequate system of roads connecting port terminals, warehouses, freeways and regional arterials, and other important truck destinations should be designated. This system should rely on arterial streets away from residential neighborhoods.
- Policy T1.8: Re-Routing and Enforcing Truck Routes. The city should make efforts to re-route truck traffic away from neighborhoods, wherever possible, and enforce truck route controls.

3.17.3 Impact Analysis

a) Less Than Significant Impact: Construction of the Proposed Project would take place within the Port's OHT and would not affect public ROW, including transit, roadway, bicycle, or pedestrian facilities. No long-term closures of travel lanes or roadway segments, permanent alteration of public access roadways, or creation of new public roadways would occur. Temporary construction staging areas to be used for construction worker parking, construction trailers, and staging and storing construction materials and

equipment would be located within the Proposed Project site. Construction equipment and worker vehicles entering the Proposed Project site would not need to cross the existing multi-use path on the east side of Maritime Street. Improvements to electrical lines from the existing offsite Davis main substation to the existing onsite substations would take place; however, this would also avoid the Maritime Street multi-use path.

The primary construction entrance and existing from the Proposed Project site would be from 14th Street. Traffic volumes on this segment of Maritime Street average 4,600 vehicles per day, compared to a daily capacity of 36,000 vehicles (Port of Oakland 2023b). Up to 30 daily construction worker trips and 179 haul trips are expected during construction. The number of construction vehicle trips would be small, compared to the existing traffic volumes and available capacity. The construction equipment would be similar to the heavy-duty trucks currently in the Port. Effects of construction traffic on the existing circulation system would be minimal.

Operation of the Proposed Project would include cargo handling equipment and heavy-duty trucks moving containers from terminals to the Proposed Project site and from the Proposed Project site to locations outside the Port. Traffic volumes would be similar to the type of vehicle trips currently occurring at the site. The Proposed Project would enable containers to be held in the Port until traffic volumes are reduced on local roadways and highways, allowing for more efficient movement of trucks. Maintenance activities would be similar to current maintenance activities.

Based on this assessment, construction activities and operations and maintenance effects on transportation would not cause substantive conflicts with programs, plans, ordinances, and policies regarding the circulation system, public transit, bicycle, or pedestrian facilities in the Seaport area. Therefore, any impact would be less than significant.

b) Less Than Significant Impact: CEQA Guidelines Section 15064.3(b) provides guidance on determining the significance of transportation impacts based on VMT, pursuant to SB 743 as discussed in Section 3.17.2, Regulatory Setting. VMT analysis focuses on automobile and light-duty truck trips and excludes heavy truck trips.

Although quantification of VMT is not required by CEQA because of the nature of the Proposed Project, a qualitative discussion of VMT impacts is provided. Construction of the Proposed Project would result in a temporary increase in VMT during the 13-month construction phase, with existing Port conditions, which include current Port operations-related vehicle trips on existing roadways. This temporary increase in VMT during construction would be a result of trips made by construction workers and transportation of construction material and equipment. Up to 30 daily construction worker trips and 179 haul trips are expected during construction. This increase in VMT would be temporary in nature and localized.

Once the Proposed Project is constructed and in operation, the temporary construction-related increase in VMT would no longer occur. Operation of the Proposed Project is not anticipated to result in long-term, permanent changes to the surrounding vehicle transportation system. The Proposed Project will increase efficiencies in the Port and is expected to affect the timing of truck trips. As noted in Section 3.17.2, the VMT thresholds do not apply to industrial projects. Therefore, construction and operation of the Proposed Project would not conflict or be inconsistent with Section 15064.3(b) of the CEQA Guidelines and would result in less than significant impacts related to VMT.

c) Less Than Significant Impact: The Proposed Project would not include changes to existing roadways during construction, operations, or maintenance. Construction of the Proposed Project would take place within an area currently used for AMS. The Proposed Project would not temporarily or permanently alter

any roadways that would result in a design feature that could substantially increase hazards. Use of the Proposed Project site would not substantially change, compared to current operations, but instead would modernize and maintain the existing Port infrastructure at this location. Therefore, any impacts of the Proposed Project related to increased hazards as a result of design features or incompatible uses would be minimal, and less than significant.

d) Less Than Significant Impact: The Proposed Project would not temporarily or permanently alter any roadways or create any traffic conditions that would permanently impede emergency access. No closures of roadways or lanes would be required during construction or operation. The existing roadway network would continue to provide emergency access in the Port. As discussed above, construction would add a temporary and minor amount of vehicle traffic to existing roadways. Therefore, the Proposed Project would result in less than significant impacts related to emergency access.

3.17.4 Mitigation Summary

The Proposed Project would not result in any potentially significant impacts to transportation; therefore, no mitigation is required.

3.18 TRIBAL CULTURAL RESOURCES

This section describes existing conditions and analyzes potential impacts on tribal cultural resources (TCR) that could result from implementation of the Proposed Project. The Proposed Project's potential impacts on TCRs were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines (Table 4.19 1). Cultural resources are addressed in Section 3.5, Cultural Resources.

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:

Question	CEQA Determination
a) 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	Less Than Significant Impact
b) 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 I of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision I of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Less Than Significant Impact

TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - Included or determined to be eligible for inclusion in the CRHR.
  - Included in a local register of historical resources as defined in subdivision (k) of 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency will consider the significance of the resource to a California Native American tribe.
- A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a) (CEQA Statute Section 21074).

A Cultural Resources Inventory and Evaluation Report was prepared for the Proposed Project (Montrose Environmental 2023). A summary of the findings is presented in this section.

3.18.1 Environmental Setting

The Proposed Project site is located in an industrial setting. located entirely upon historic fill, it is within an urban setting and has been subject to development in the form of industrial, commercial, utilities, and the associated activities as a port. There are no known tribal resources that occur on or in the immediate vicinity of the Proposed Project site.

The APE for both archaeological and tribal resources is the approximate 32.2-acre footprint of the Proposed Project site and the associated electrical utility corridors (refer to Figure 2-1 Key Project Elements). The vertical APE includes the anticipated depth of construction impacts throughout the APE. The proposed level of vertical disturbance for the Proposed Project is approximately 3 to 5 feet in depth for the installation of Proposed Project infrastructure.

3.18.2 Regulatory Setting

The following contains an overview of regulations related to TCRs.

Section 106 of the National Historic Preservation Act of 1966

Section 106 of the NHPA requires that every federal agency "take into account" how each of its undertakings could affect historic properties. Historic properties are districts, sites, buildings, structures, TCPs, and objects significant in American history, architecture, engineering, and culture that are eligible for or listed in the NRHP. Historic properties are resources listed on or eligible for listing in the NRHP (36 CFR Section 800.16(l)(1)).

Native American Graves Protection and Repatriation Act

NAGPRA provides a process for federal agencies to return certain Native American cultural items to lineal descendants and culturally affiliated Native American tribes. NAGPRA defines the ownership of Native American human remains and funerary materials excavated on lands owned or controlled by the federal government. NAGPRA establishes a hierarchy of ownership rights for Native American remains and objects identified on these lands (25 U.S.C. 3002).

Archaeological Resources Protection Act

ARPA requires a permit for intentional excavation of archaeological materials on federal lands (16 U.S.C. 470ee (a)). The federal agency that owns or controls the land may dispense permits for excavation as provided in the ARPA regulations (43 CFR 7.5). The permit may require notice to affected Native American tribes (43 CFR 7.7) and compliance with the terms and conditions provided in the ARPA regulations (43 CFR 7.9).

California Environmental Quality Act

CEQA Appendix G, provides specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or a unique resource.

Assembly Bill 52

AB 52 established a formal consultation process with California Native American tribes to identify potential significant impacts on TCRs, as defined by CEQA (California Public Resources Code Section 21074).

Native American Heritage Commission and Tribal Consultation

The Port, as lead agency, is conducting tribal consultation for the Project. The Port contacted the Native American Heritage Commission (NAHC) on January 20, 2023, requesting a literature search of the Sacred Land Files and provide a list of culturally, traditionally or geographically associated parties or individuals for consultation. The NAHC responded on February 7, 2023, noting that the Sacred Lands File search was positive for TCRs, indicating that significant Native American Resources are in the vicinity of the Proposed Project.

To comply with Section 106 and AB 52, the Port contacted representatives of the Amah Mutsun Tribal Band of Mission San Juan Bautista, the North Valley Yokuts Tribe, the Coastanoan Rumsen Carmel Tribe, the Indian Canyon Matsun Ban of Costanoan, the Muwekma Ohlone Indian Tribe of the San Francisco Bay area, the Confederated Villages of Lisjan, the Ihlone Indian Tribe, and the Wuksache Indian Tribe/Eshom Valley Band on March 13 and 20, 2023, for Section 106 compliance and on April 29, 2024, for AB 52 compliance.

Chairperson Corrina Gould, of the Confederated Villages of Lisjan responded by email on March 21, 2023 and April 30, 2024, indicating that the Tribe wished to be further informed of the results of the NAHC and CHRIS search and the report once completed. The Amah Mutsun Tribal Band of Mission San Juan Bautista, responded on April 29, 2024, with a stock response request that additional monitoring and/or cultural training for all projects be conducted. The Muwekma Ohlone Tribe of the San Francisco Bay Area responded that they would provide cultural information to the Port in a phone call on April 29, 2024, and the Port requested follow-up in an email on May 16, 2024. On May 22, 2024, the Muwekma Ohlone Tribe responded and sent copies of tribal reports. On May 30, 2024, the Port met with the Muwekma Ohlone Tribe in a virtual meeting that included the Port providing an overview of the Proposed Project. On May 31, 2024, the Port sent the Muwekma Ohlone Tribe the final copy of the *Cultural Resources Inventory and Evaluation Report* dated May 2024. On May 31, 2024, MARAD submitted a request for consultation to the State Historic Preservation Offices. On July 8, 2024, SPHO responded concurring with MARAD that the two substations SS-C-36 and SS-C-4 are ineligible for listing on NRHP and concurred with MARAD's finding of no historic properties affected.

3.18.3 Impact Analysis

a, b) Less Than Significant Impact: As described in Section 3.05, no known cultural resources are present within the Proposed Project's APE. As requested by the Chairperson of the Confederated Villages of Lisjan, the Port will continue with coordination and consultation. The Amah Mutsun Tribal Band of Mission San Juan Bautista, responded with a stock response request that additional monitoring and/or cultural training for all projects be conducted. Muwekma Ohlone Tribe of the San Francisco Bay Area responded that they would provide cultural information to the Port, but as of the date of this environmental document is published, additional information has not been received.

If any cultural resources or human remains are discovered during Project construction of the Proposed Project, the requirements detailed in the Port's Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resources (Port of Oakland n.d.) would be followed. Work would be stopped within 100 yards of the find, and work would not resume until the finds were properly assessed and the Port provides permission to resume work. Therefore, the impact would be less than significant.

3.18.4 Mitigation Summary

The Proposed Project would not result in significant impacts to TCR; therefore, no mitigation is required.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the Proposed Project:

Question	CEQA Determination
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?	Less Than Significant Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	No Impact
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?	No Impact
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?	Less Than Significant Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less Than Significant Impact

3.19.1 Environmental Setting

Utilities and service systems supporting the OHT area in which the Proposed Project site is located include the following:

- Electricity is supplied by the Port's municipal utility.
- Potable water is supplied by the East Bay Municipal Utility District through Port-provided water infrastructure.
- Sewage (wastewater) is collected in Port sewer infrastructure and is treated by the East Bay Municipal Utility District.
- The Port and its tenants, where applicable, are responsible for the operation and maintenance of the local stormwater drainage system.
- Municipal solid waste in the City of Oakland is collected by Waste Management of Alameda County, typically transported to the Waste Management Davis Street Transfer Station in the City of San Leandro, and then disposed in the Altamont Landfill and Resource Facility near the City of Livermore or Keller Canyon Landfill in Contra Costa County (Port of Oakland 2023).

Existing utility infrastructure on the Proposed Project site includes lighting, fire hydrants, and two existing substations (SS-C-36 and SS-C-48). Underground electrical, fire water pipelines, and storm drain lines are present at the Proposed Project site.

3.19.2 Regulatory Setting

No federal or state laws or regulations pertaining to this issue area were identified. The following local goals, policies, and regulations are applicable to this issue:

The City of Oakland General Plan Open Space, Conservation, and Recreation Element (City of Oakland 1996) contains the following goals relevant to utilities and services systems:

- Policy CO-4.1: Emphasize water conservation and recycling strategies in efforts to meet future demand.
- Policy CO-4.3: Promote the use of reclaimed wastewater for irrigating landscape medians, cemeteries, parks, golf courses, and other areas requiring large volumes of non-potable water.
- Policy CO-13.3: Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency.

The city also has The City of Oakland Zero Waste Strategic Plan, developed in 2006 to reduce waste disposal, includes mandatory recycling of construction and demolition debris. On January 15, 2015, the Port adopted a stormwater ordinance to comply with the provisions of the SWRCB's Phase II Permit. The purpose of the Ordinance is to protect and enhance the water quality of San Francisco Bay and its tributaries by reducing pollutants in stormwater discharge to the maximum extent practicable, and eliminating unauthorized non-stormwater discharges to the Port's storm drains (Port of Oakland 2015).

Port policies regarding stormwater are discussed in Section 3-10 Hydrology and Water Quality.

3.19.3 Impact Analysis

a) Less Than Significant Impact: The Proposed Project would include construction to upgrade electric power facilities to support Proposed Project operations. In addition, the Proposed Project would include construction of an onsite stormwater retention basin to manage stormwater in compliance with the Port's Post-Construction Stormwater Design Manual. These facilities are incorporated in the project description and impacts of their construction and operation are included in this Draft IS/Proposed ND. As discussed throughout the IS, no significant impacts would occur as a result of the Proposed Project. The impact is less than significant.

b, c) No Impact: The Proposed Project would not require water to serve the Proposed Project site other than for emergency use, consistent with current site use. Existing fire hydrants located at each of the high mast light poles may be removed and replaced as needed. Water usage for the Proposed Project is not expected to increase over current usage and the Proposed Project would not require new or expanded entitlements to the water supply. No additional demands on fire suppression water are anticipated. Minimal amounts of wastewater generated during construction from use of portable toilets would be transported to the for East Bay Municipal Utility District wastewater treatment plant for treatment and disposal. During operations, the Proposed Project would not generate wastewater and would not affect the capacity of the existing wastewater treatment system. No impact would occur.

d, e) Less Than Significant Impact: Solid waste generated from construction would consist of a small amount of construction debris and recyclable material; approximately 19,000 CY of existing AC pavement, as well as approximately 50,000 CY of existing aggregate base material and approximately 37,000 CY of additional soil, would be removed and/excavated. The existing AC and the majority of the additional soil are anticipated to be taken to an offsite recycler and Port-approved landfill, respectively. All removed aggregate base material is anticipated to be stockpiled and reused onsite. Excavated soils from trenching for utilities would be reused to fill the trenches. During operations, solid waste generation would be limited to small quantities of debris and wastes generated by onsite operations and maintenance activities. Landfills that would provide non-hazardous disposal have sufficient capacity; for example, Keller Canyon Landfill has remaining disposal capacity of approximately 60,000,000 CY, sufficient for the small amount

of waste expected to be generated by the Proposed Project (Port of Oakland 2015). The impact would be less than significant.

3.19.4 Mitigation Summary

The Proposed Project would not result in significant impacts to utilities and service systems; therefore, no mitigation is required.

3.20 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Proposed Project:

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
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?	No Impact
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?	No Impact
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?	No Impact

3.20.1 Environmental Setting

The Proposed Project is located in a developed industrial area. The California Department of Forestry and Fire Protection identifies fire hazards based on factors such as fuels, terrain, and weather. The Proposed Project site is not located within a designated State Responsibility Area or Federal Responsibility Area fire hazard severity zone (CALFIRE 2024). The Proposed Project site is located within a Local Responsibility Area Non-Very High Fire Hazard Severity Zone (CALFIRE 2008).

3.20.2 Regulatory Setting

There are no federal laws or regulations pertaining to this issue area that are relevant to the Proposed Project. The following state laws, local goals, policies, and regulations are applicable to this issue area:

CCR Title 24 ("California Building Standards Code") sets forth the fire, life-safety, and other building-related regulations applicable to any structure fit for occupancy statewide for which a building permit is sought. The 2022 triennial edition of Title 24 contains 11 parts, including the following (with brief descriptions):

- Part 2, CBC: general standards for the design and construction of buildings, including provisions related to fire, life safety, and structural safety.
- Part 3, California Electrical Code: electrical building standards.
- Part 9, California Fire Code (CFC): building standards related to fire safety that are referenced in other parts of Title 24. Topics addressed in the code include automatic sprinkler systems, fire alarm systems, access by firefighting equipment, fire hydrants, explosion-hazards safety, hazardous-materials storage and use, protection for first responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises. The CFC is based on the Uniform Fire Code (UFC), a "model" code adopted through national-level consensus, and which does not carry the weight of law (unlike the CFC). The CFC incorporates by reference the text of the latest published UFC, and reflects additions and deletions made to the UFC by the state.

The City of Oakland General Plan Safety Element includes the following policies relevant to the Proposed Project, and wildfire risk (City of Oakland 2023c):

- Policy SAF-2.1: Continue, enhance, or implement programs that seek to reduce the risk of structural fires. Prioritize programs in areas with greatest risk and greatest social vulnerability.
- Policy SAF-2.2: Manage vegetation and the urban forest to reduce combustible load, erosion, and other risks exacerbated by climate change.
- Policy SAF-2.3: Prioritize development in areas with existing adequate road networks, evacuation routes, and water infrastructure. Require any new development in the Very High Fire Hazard Severity Zone to prepare a Fire Protection Plan that minimizes risks.

3.20.3 Impact Analysis

a) No Impact: The Proposed Project site, as well as areas adjacent to the Proposed Project site, is located within a Local Responsibility Area Non-Very High Fire Hazard Severity Zone. The Proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Emergency response times are not anticipated to change during construction. In addition, the Proposed Project would not conflict with any other emergency response or evacuation plan. Therefore, no impact would occur.

b, d) No Impact: The Proposed Project site is located in a developed industrial area that is not subject to high wildfire risk. Following construction, the Proposed Project site would be paved and would not exacerbate wildfire risks or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. The Proposed Project does not involve the occupation of habitable structures.

c) No Impact: Key Project components include newly installed pavement, concrete runways, a BESS, new EV chargers, reefer plug-ins, upgraded substations, replacement perimeter fencing, high mast light poles outfitted with more energy-efficient LED bulbs, replaced fire hydrants, and a potential new substation. These components are further addressed in Sections 2 and 3.19. Although the Proposed Project requires the installation and maintenance of infrastructure, it is consistent with use currently present and in the vicinity of the Proposed Project and not anticipated to exacerbate wildfire risk. Therefore, no impact would occur.

3.20.4 Mitigation Summary

The Proposed Project would not result in significant impacts related to wildfire; therefore, no mitigation is required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

Question	CEQA Determination
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
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
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

a) Less Than Significant Impact. The Proposed Project site is located in an industrialized setting within the OHT, within an area formerly used as a marine terminal. The Proposed Project site currently is used for AMS that include overnight truck parking and shipping container/chassis storage and staging to support Port maritime activities. As described in Sections 3.4 and 3.5 of this Draft IS/Proposed ND, construction and operation of the Proposed Project would not result in significant impacts to biological or cultural resources. Construction of the Proposed Project would replace existing pavement and infrastructure with new pavement and infrastructure. Operation and maintenance of the Proposed Project would entail activities similar to existing Port operations, including movement of containers and reefers by trucks, RTGs, and other cargo-handling equipment and maintenance of the new electrical infrastructure. Therefore, the Proposed Project would not change the use of the area in a way that could substantially degrade the quality of the environment from existing conditions. The Proposed Project area does not contain fish or wildlife habitat nor contain plant or animal communities or rare or endangered plant or animal species. It would have no impact to biological resources because none are present on or adjacent to the Proposed Project site to be affected. There are also no known cultural resources present. Therefore, the Proposed Project would not 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, 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) Less Than Significant Impact. Cumulative impacts are discussed in Section 4.5. As noted in Section 4.5, no impacts would occur to agriculture and forest resources; biological resources; land use and planning; mineral resources; population and housing; public services; recreation; and wildfire. Therefore, the Proposed Project would not contribute to cumulative impacts for these resources.

As discussed in Section 4.5, most impacts from the Proposed Project would occur primarily during construction. These impacts would be temporary, short-term, and less than significant. Cumulative impacts could result if other project construction activities occur at the same time as and in the same general area as the Proposed Project construction activities. Construction-related impacts to aesthetics; cultural resources; energy; geology and soils; hazards and hazardous materials; hydrology and water

quality; TCR; and utilities and service systems would occur only on or adjacent to the Proposed Project site. Potential cumulative impacts to these resources from the Proposed Project when combined with impacts from construction of other projects would be confined to the OHT. All projects in the OHT would be consistent with and support the Port's maritime operations and would implement the same or similar BMPs as described in Section 2.9 to minimize impacts to these resource areas. Upon completion of construction, the Proposed Project would have no impact or minimal impacts to these resources. While construction activities would require energy use, the Proposed Project would help with energy conservation once in operation. Cumulative impacts to these resources would be less than significant.

Construction-related impacts to air quality, GHG, noise, and transportation could occur beyond the immediate area of the Proposed Project site and adjacent areas. As described in Section 4.5, the Proposed Project would not contribute to significant cumulative impacts. Therefore, the Proposed Project would not have impacts that are individually limited but cumulatively considerable.

c) Less Than Significant impact. As indicated throughout Section 3 of this Draft IS/Proposed ND, the Proposed Project would not result in substantial environmental impacts during construction and operations. All impacts would be less than significant. The Proposed Project would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

4 LIST OF PREPARERS AND REVIEWERS

The Port's Environmental Programs and Planning staff, with the assistance of Jacobs, prepared this Draft IS/Proposed ND. The analysis in this Draft IS/Proposed ND is based on information identified, acquired, reviewed, and synthesized based on the Port's guidance and recommendations. The primary people responsible for contributing to, preparing, and reviewing this report are listed in Table 4-1.

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5 DISTRIBUTION

This Draft IS/Proposed ND will be submitted to the California State Clearinghouse. The Port will also distribute this Draft IS/Proposed ND to interested parties that have requested a copy. In addition, email notification of this Draft IS/Proposed ND has been distributed to the Port's Community Electrification Committee Stakeholder List, including the following recipients:

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APPENDIX A EMISSION SUMMARIES AND CALEEMOD OUTPUTS

Port of Oakland - OHTRP
Construction Emissions

Annual Construction Emissions

	ROG	NO_x	CO	SO_x	Exhaust PM10	Fugitive PM10	Exhaust PM2.5	Fugitive PM2.5	CO_2e
Year	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**	**metric ton/year**
2027	0.22	2.60	2.42	0.01	0.07	25.96	0.06	2.65	1357.32

Notes:

1. Emissions of criteria pollutants were modeled using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.20
2. GHG emissions (CO2e) were calculated using the Port of Oakland GHG emission intensity of 2022.

https://www.energy.ca.gov/filebrowser/download/6056

Average Daily Construction Emissions

	ROG	NO_x	CO	SO_x	Exhaust PM10	Fugitive PM10	Exhaust PM2.5	Fugitive PM2.5
Project	**lb/day**	**lb/day**	**lb/day**	**lb/day**	**lb/day**	**lb/day**	**lb/day**	**lb/day**
2027	1.22	14.24	13.26	0.06	0.40	142.24	0.34	14.53
BAAQMD CEQA Thresholds	54	54	None	None	82	BMP	54	BMP

Notes:

1. Emissions were modeled using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.20

Port of Oakland - OHTRP Custom Report

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4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Port of Oakland - OHTRP
Construction Start Date	1/1/2027
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	41.0
Location	37.79587235356402, -122.27967858016842
County	Alameda
City	Oakland
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1406
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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

General Light Industry	0.00	1000sqft	28.6	1,000	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.39	1.91	18.0	21.4	0.05	0.65	205	205	0.59	20.7	21.1	—	6,767	6,767	0.28	0.66	11.2	6,981
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.62	4.86	64.8	44.5	0.30	1.48	412	414	1.17	43.1	44.3	—	42,918	42,918	2.14	6.24	2.14	44,834
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.50	1.22	14.2	13.3	0.06	0.40	142	143	0.34	14.5	14.9	—	7,889	7,889	0.37	0.99	6.00	8,198
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.27	0.22	2.60	2.42	0.01	0.07	26.0	26.0	0.06	2.65	2.71	—	1,306	1,306	0.06	0.16	0.99	1,357

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.39	1.91	18.0	21.4	0.05	0.65	205	205	0.59	20.7	21.1	—	6,767	6,767	0.28	0.66	11.2	6,981
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	5.62	4.86	64.8	44.5	0.30	1.48	412	414	1.17	43.1	44.3	—	42,918	42,918	2.14	6.24	2.14	44,834
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.50	1.22	14.2	13.3	0.06	0.40	142	143	0.34	14.5	14.9	—	7,889	7,889	0.37	0.99	6.00	8,198
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.27	0.22	2.60	2.42	0.01	0.07	26.0	26.0	0.06	2.65	2.71	—	1,306	1,306	0.06	0.16	0.99	1,357

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.	0.01	0.03	< 0.005	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.18	0.18	< 0.005	< 0.005	0.00	0.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.02	0.00	0.00	0.00	0.00	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 (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.02	< 0.005	0.02	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.01	0.01	< 0.005	< 0.005	0.00	0.01

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.01	0.03	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.03	< 0.005	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.18	0.18	< 0.005	< 0.005	0.00	0.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.02	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	< 0.005	0.02	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.02	< 0.005	0.02	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
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	0.01	0.01	< 0.005	< 0.005	0.00	0.01

3. Construction Emissions Details

3.1. Asphalt Removal and Recycling (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08	0.90	7.07	8.96	0.01	0.23	—	0.23	0.21	—	0.21	—	1,235	1,235	0.05	0.01	—	1,239
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.08	0.01	1.46	0.49	0.01	0.03	147	148	0.02	14.8	14.8	—	1,322	1,322	0.06	0.21	0.07	1,387
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.01	< 0.005	0.03	—	0.03	0.02	—	0.02	—	139	139	0.01	< 0.005	—	139
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.16	0.05	< 0.005	< 0.005	14.7	14.7	< 0.005	1.47	1.48	—	149	149	0.01	0.02	0.13	156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.0	23.0	< 0.005	< 0.005	—	23.0

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	2.68	2.68	< 0.005	0.27	0.27	—	24.6	24.6	< 0.005	< 0.005	0.02	25.8
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.11	1.33	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	393	393	0.01	0.02	0.04	398
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	1.10	0.21	19.9	7.28	0.11	0.33	41.7	42.1	0.22	4.98	5.20	—	16,835	16,835	0.88	2.71	0.89	17,666
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	44.5	44.5	< 0.005	< 0.005	0.07	45.1
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	0.12	0.02	2.21	0.81	0.01	0.04	4.21	4.25	0.02	0.51	0.53	—	1,891	1,891	0.10	0.30	1.67	1,986
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.36	7.36	< 0.005	< 0.005	0.01	7.46
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	0.02	< 0.005	0.40	0.15	< 0.005	0.01	0.77	0.78	< 0.005	0.09	0.10	—	313	313	0.02	0.05	0.28	329

3.3. Concrete Paving (2027) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	0.33	3.11	4.27	0.01	0.09	—	0.09	0.08	—	0.08	—	651	651	0.03	0.01	—	654
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.03	< 0.005	0.55	0.19	< 0.005	0.01	23.7	23.7	0.01	2.39	2.39	—	529	529	0.03	0.09	1.09	556
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.75	1.03	< 0.005	0.02	—	0.02	0.02	—	0.02	—	157	157	0.01	< 0.005	—	158
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	5.07	5.07	< 0.005	0.51	0.51	—	127	127	0.01	0.02	0.11	134
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.1
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.93	0.93	< 0.005	0.09	0.09	—	21.1	21.1	< 0.005	< 0.005	0.02	22.2
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.08	1.60	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	424	424	< 0.005	0.02	1.45	430
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	0.07	0.01	1.24	0.47	0.01	0.02	2.73	2.76	0.01	0.33	0.34	—	1,102	1,102	0.06	0.18	2.26	1,158
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.32	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	95.4	95.4	< 0.005	< 0.005	0.15	96.7
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	0.02	< 0.005	0.31	0.11	< 0.005	0.01	0.59	0.60	< 0.005	0.07	0.08	—	266	266	0.01	0.04	0.23	279
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.02	16.0
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	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	44.0	44.0	< 0.005	0.01	0.04	46.2

3.5. Reefer Rack Installation (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.75	1.46	12.6	14.1	0.03	0.45	—	0.45	0.41	—	0.41	—	3,092	3,092	0.13	0.03	—	3,103
Onsite truck	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.1	36.1	< 0.005	0.01	0.07	38.0

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.18	1.52	1.70	< 0.005	0.05	—	0.05	0.05	—	0.05	—	373	373	0.02	< 0.005	—	374
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.36	4.36	< 0.005	< 0.005	< 0.005	4.58
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	61.7	61.7	< 0.005	< 0.005	—	61.9
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.76
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.08	1.60	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	424	424	< 0.005	0.02	1.45	430
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	0.01	0.56	0.22	< 0.005	0.01	0.14	0.15	0.01	0.04	0.04	—	501	501	0.03	0.08	1.03	527
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.7	47.7	< 0.005	< 0.005	0.08	48.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.4	60.4	< 0.005	0.01	0.05	63.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.90	7.90	< 0.005	< 0.005	0.01	8.01
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	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.00	10.00	< 0.005	< 0.005	0.01	10.5

3.7. Misc Activities (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	3.04	4.23	0.01	0.16	—	0.16	0.15	—	0.15	—	641	641	0.03	0.01	—	643
Onsite truck	0.09	0.01	1.66	0.58	0.01	0.03	177	177	0.02	17.7	17.7	—	1,586	1,586	0.08	0.26	3.28	1,668
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	3.04	4.23	0.01	0.16	—	0.16	0.15	—	0.15	—	641	641	0.03	0.01	—	643
Onsite truck	0.09	0.01	1.75	0.58	0.01	0.03	177	177	0.02	17.7	17.7	—	1,587	1,587	0.08	0.26	0.09	1,665
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	2.17	3.03	< 0.005	0.12	—	0.12	0.11	—	0.11	—	458	458	0.02	< 0.005	—	460
Onsite truck	0.07	0.01	1.23	0.42	0.01	0.02	112	112	0.02	11.3	11.3	—	1,134	1,134	0.06	0.18	1.01	1,191
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	75.9	75.9	< 0.005	< 0.005	—	76.1
Onsite truck	0.01	< 0.005	0.23	0.08	< 0.005	< 0.005	20.5	20.5	< 0.005	2.05	2.06	—	188	188	0.01	0.03	0.17	197
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.64	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	170	170	< 0.005	0.01	0.58	172
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.05	0.53	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	157	157	< 0.005	0.01	0.02	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.38	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	113	113	< 0.005	< 0.005	0.18	115
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	0.01	< 0.005	0.01	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.7	18.7	< 0.005	< 0.005	0.03	19.0
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

3.9. Asphalt Paving (2027) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	5.09	6.07	0.01	0.20	—	0.20	0.18	—	0.18	—	881	881	0.04	0.01	—	884
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Paving	—	1.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.60	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	—	104	104	< 0.005	< 0.005	—	104
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Paving	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.01	0.11	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.2	17.2	< 0.005	< 0.005	—	17.2
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.04	0.06	0.67	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	197	197	< 0.005	0.01	0.02	199
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	1.18	0.23	21.4	7.80	0.12	0.36	44.7	45.1	0.24	5.33	5.57	—	18,037	18,037	0.94	2.90	0.96	18,928
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.3	23.3	< 0.005	< 0.005	0.04	23.6
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	0.14	0.03	2.48	0.92	0.01	0.04	4.73	4.77	0.03	0.57	0.60	—	2,125	2,125	0.11	0.34	1.88	2,231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.86	3.86	< 0.005	< 0.005	0.01	3.91
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	0.01	0.45	0.17	< 0.005	0.01	0.86	0.87	0.01	0.10	0.11	—	352	352	0.02	0.06	0.31	369

3.11. Trenching (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	4.18	5.02	0.01	0.13	—	0.13	0.12	—	0.12	—	712	712	0.03	0.01	—	714
Onsite truck	0.03	< 0.005	0.55	0.19	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	529	529	0.03	0.09	1.09	556

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	4.18	5.02	0.01	0.13	—	0.13	0.12	—	0.12	—	712	712	0.03	0.01	—	714
Onsite truck	0.03	< 0.005	0.58	0.19	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	529	529	0.03	0.09	0.03	555
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.48	1.77	< 0.005	0.05	—	0.05	0.04	—	0.04	—	252	252	0.01	< 0.005	—	252
Onsite truck	0.01	< 0.005	0.20	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	187	187	0.01	0.03	0.17	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.27	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.8
Onsite truck	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.9	30.9	< 0.005	< 0.005	0.03	32.5
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.08	1.60	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	424	424	< 0.005	0.02	1.45	430
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	0.10	0.09	0.11	1.33	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	393	393	0.01	0.02	0.04	398
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	0.04	0.03	0.03	0.46	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	140	140	< 0.005	0.01	0.22	142
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	0.01	0.01	0.01	0.08	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.2	23.2	< 0.005	< 0.005	0.04	23.5
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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

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

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

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.01	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Total	0.01	0.03	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consum er Products	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consum er Products	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipme nt	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

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

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

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

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

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipme 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)

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Asphalt Removal and Recycling	Site Preparation	1/1/2027	2/28/2027	5.00	41.0	—

Concrete Paving	Grading	4/1/2027	6/30/2027	5.00	88.0	—
Reefer Rack Installation	Building Construction	7/1/2027	8/31/2027	5.00	44.0	—
Misc Activities	Building Construction	1/1/2027	12/31/2027	5.00	261	—
Asphalt Paving	Paving	2/1/2027	3/31/2027	5.00	43.0	—
Trenching	Trenching	1/1/2027	6/30/2027	5.00	129	—

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
Asphalt Removal and Recycling	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Asphalt Removal and Recycling	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Asphalt Removal and Recycling	Air Compressors	Diesel	Average	2.00	8.00	37.0	0.48
Asphalt Removal and Recycling	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Asphalt Removal and Recycling	Other Construction Equipment	Diesel	Average	2.00	8.00	35.0	0.34
Concrete Paving	Excavators	Diesel	Average	1.00	3.20	36.0	0.38
Concrete Paving	Plate Compactors	Diesel	Average	1.00	5.90	8.00	0.43
Concrete Paving	Skid Steer Loaders	Diesel	Average	2.00	5.90	71.0	0.37
Concrete Paving	Air Compressors	Diesel	Average	1.00	5.90	37.0	0.48
Concrete Paving	Generator Sets	Diesel	Average	1.00	5.90	14.0	0.74
Reefer Rack Installation	Skid Steer Loaders	Diesel	Average	1.00	3.60	71.0	0.37
Reefer Rack Installation	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Reefer Rack Installation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Reefer Rack Installation	Welders	Diesel	Average	2.00	8.00	46.0	0.45

Reefer Rack Installation	Cranes	Diesel	Average	2.00	8.00	367	0.29
Reefer Rack Installation	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Misc Activities	Other Construction Equipment	Diesel	Average	2.00	8.00	82.0	0.42
Asphalt Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Asphalt Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Asphalt Paving	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Asphalt Paving	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Trenching	Excavators	Diesel	Average	2.00	6.20	36.0	0.38
Trenching	Plate Compactors	Diesel	Average	1.00	3.70	8.00	0.43
Trenching	Skid Steer Loaders	Diesel	Average	1.00	3.70	71.0	0.37
Trenching	Air Compressors	Diesel	Average	1.00	7.80	37.0	0.48
Trenching	Generator Sets	Diesel	Average	1.00	7.80	14.0	0.74
Trenching	Other Construction Equipment	Diesel	Average	3.00	1.90	35.0	0.34

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Asphalt Removal and Recycling	—	—	—	—
Asphalt Removal and Recycling	Worker	30.0	20.0	LDA,LDT1,LDT2
Asphalt Removal and Recycling	Vendor	—	0.00	HHDT,MHDT
Asphalt Removal and Recycling	Hauling	168	30.0	HHDT
Asphalt Removal and Recycling	Onsite truck	5.00	80.0	HHDT
Concrete Paving	—	—	—	—
Concrete Paving	Worker	30.0	20.0	LDA,LDT1,LDT2
Concrete Paving	Vendor	—	0.00	HHDT,MHDT

Concrete Paving	Hauling	11.0	30.0	HHDT
Concrete Paving	Onsite truck	2.00	80.0	HHDT
Asphalt Paving	—	—	—	—
Asphalt Paving	Worker	15.0	20.0	LDA,LDT1,LDT2
Asphalt Paving	Vendor	—	0.00	HHDT,MHDT
Asphalt Paving	Hauling	180	30.0	HHDT
Asphalt Paving	Onsite truck	—	—	HHDT
Reefer Rack Installation	—	—	—	—
Reefer Rack Installation	Worker	30.0	20.0	LDA,LDT1,LDT2
Reefer Rack Installation	Vendor	0.00	0.00	HHDT,MHDT
Reefer Rack Installation	Hauling	5.00	30.0	HHDT
Reefer Rack Installation	Onsite truck	2.00	5.00	HHDT
Misc Activities	—	—	—	—
Misc Activities	Worker	12.0	20.0	LDA,LDT1,LDT2
Misc Activities	Vendor	0.00	0.00	HHDT,MHDT
Misc Activities	Hauling	0.00	0.00	HHDT
Misc Activities	Onsite truck	6.00	80.0	HHDT
Trenching	—	—	—	—
Trenching	Worker	30.0	20.0	LDA,LDT1,LDT2
Trenching	Vendor	—	0.00	HHDT,MHDT
Trenching	Hauling	0.00	0.00	HHDT
Trenching	Onsite truck	2.00	80.0	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

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

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Asphalt Removal and Recycling	—	55,063	27.6	0.00	—
Concrete Paving	3,314	0.00	0.00	0.00	—
Asphalt Paving	62,041	—	0.00	0.00	28.9

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	28.9	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	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
Total all Land Uses	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

5.10.2. 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	0.00	0.00	—

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

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

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	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

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	Project specific information.

Construction: Construction Phases	Project specific information.
Construction: Off-Road Equipment	Project specific information.
Construction: Dust From Material Movement	Project specific information.
Construction: Trips and VMT	Project specific information.
Construction: On-Road Fugitive Dust	Project specific information.
Construction: Paving	Project specific information.
Operations: Energy Use	Project specific information.
Operations: Architectural Coatings	Project specific information.
Operations: Water and Waste Water	Project specific information.
Operations: Refrigerants	Project specific information.