

DRAFT

**INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION**

**RICHMOND TERMINAL RAIL EXPANSION AND
TRUCK RACK IMPROVEMENTS PROJECT
488 WRIGHT AVENUE, RICHMOND, CALIFORNIA 94804**



October 2025

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TRUCK RACK IMPROVEMENTS PROJECT
488 WRIGHT AVENUE, RICHMOND, CALIFORNIA 94804**

Submitted to:

City of Richmond
Community Development Department
450 Civic Center Plaza
Richmond, California 94804

Prepared by:

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Project No. 20241849.01



October 2025

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LIST OF ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
APNs	Assessor's Parcel Numbers
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Water Quality Control Plan
Bay Plan	San Francisco Bay Plan
bgs	below ground surface
BMPs	best management practices
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
California Register	California Register of Historical Resources
Caltrans	California Department of Transportation
CAO	Cleanup and Abatement Order
CARB	California Air Resources Board
CBC	California Building Code
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGP	Construction General Permit
CH ₄	methane

City	City of Richmond
Clean Air Plan	Bay Area Air Quality Management District 2017 Clean Air Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalents
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DDT	dichlorodiphenyltrichloroethane
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
EBMUD	East Bay Municipal Utility District
EDR	Environmental Data Resources
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FRP	Facility Response Plan
GHG	greenhouse gas
g/kWh	grams per kilowatt-hour
GSPs	Groundwater Sustainability Plans
GWP	global warming potential
HFCs	hydrofluorocarbons

HRE	Historical Resources Evaluation
HSC	Health and Safety Code
I-580	Interstate 580
I-80	Interstate 80
in/sec	inches per second
IW	Industrial, Water-Related
kWh	kilowatt-hour
L _{dn}	day-night average noise level
L _{eq}	equivalent continuous sound level
L _{max}	maximum instantaneous noise level
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MMI	Modified Mercalli Intensity
MRZs	Mineral Resource Zones
MT	metric tons
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
NO ₂	nitrogen dioxide
NO _x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
Pb	lead
PCBS	polychlorinated biphenyls

PFAS	per-and polyfluoroalkyl substances
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM ₁₀	particulate matter less than 10 microns in size
PM _{2.5}	particulate matter less than 2.5 microns in size
POTWs	publicly owned treatment works
PPV	peak particle velocity
PRC	Public Resources Code
project	Richmond Terminal Rail Expansion and Truck Rack Improvements Project
RFD	Richmond Fire Department
RH	Single-Family Hillside Residential
RL	Single-Family Residential
RM1	Medium Density Multi-Family Residential
ROG	reactive organic gases
RPD	Richmond Police Department
RSSD	City of Richmond Sanitary Sewer District No. 1
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SD-1	Special District No. 1
Seaport Plan	Bay Conservation and Development Commission San Francisco Bay Area Seaport Plan
SF ₆	sulfur hexafluoride
SGMA	California Sustainable Groundwater Management Act
SO ₂	sulfur dioxide

SPCC	Spill Prevention Control and Countermeasure
SRA	State Responsibility Area
Stege	Stege Sanitary Sewer District
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TA Guidelines	Contra Costa County Transportation Analysis Guidelines
TACs	toxic air contaminants
TMDLs	Total Maximum Daily Loads
TransMontaigne	Trans Montaigne Operating Company
Ub	Urban Land
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VdB	vibration velocity decibels
VHFHSZ	Very High Fire Hazard Severity Zone
WCCIWMA	West Contra Costa Integrated Waste Management Authority
WCCUSD	West Contra Costa Unified School District
WCWD	West County Wastewater District

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1.0 PROJECT INFORMATION

1. Project Title:

Richmond Terminal Rail Expansion and Truck Rack Improvements Project

2. Lead Agency Name and Address:

City of Richmond
Community Development Department
450 Civic Center Plaza
Richmond, CA 94804

3. Contact Person and Phone Number:

Dana Ayers, AICP
Contract Planner, MIG
(510) 845-7549, ext. 1550
dayers@migcom.com

4. Project Location:

The project site comprises approximately 10 acres of the TransMontaigne Operating Company's (TransMontaigne or project sponsor) existing Richmond Terminal site (Assessor's Parcel Numbers 560-280-012 and 560-280-008). The existing Richmond Terminal is located at 488 Wright Avenue in Richmond, Contra Costa County, California, along the Santa Fe Channel of the Richmond Inner Harbor, west of the Parr Canal, east of the Richmond Pacific Railroad Corporation and the Lauritzen Canal, and south of Cutting Boulevard.

5. Project Sponsor's Name and Address:

TransMontaigne Operating Company, LP
488 Wright Avenue
Richmond, CA 94804

6. General Plan Designation:

Port Priority

7. Zoning:

Industrial, Water-Related (IW)

8. Description of Project:

TransMontaigne proposes the expansion of the existing Richmond Terminal to allow for the construction of new track and associated rail infrastructure and relocation and consolidation of the existing truck racks at the existing Richmond Terminal. A full project description is provided in Section 2.0.

9. Surrounding Land Uses and Setting:

The project site is located in a heavily industrialized area surrounded by industrial uses, including Sim's Metal on South 4th Street and Wright Avenue and Eagle Rock Aggregates/Orca Sand & Gravel at 700 Wright Avenue. A more detailed description of the project site and existing site conditions is provided in Section 2.0.

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

See Section 2.3, Project Approvals.

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

Native American consultation was conducted pursuant to Public Resources Code section 21080.3.1. On October 22, 2024, the City's representative sent invitations to Native American tribes who had been identified as traditionally or culturally affiliated with the project area and subsequently corresponded with representatives of tribes that were responsive to the invitation. Details regarding the tribal consultation process are provided in Section 4.18, Tribal Cultural Resources.

2.0 PROJECT DESCRIPTION

The following describes the proposed Richmond Terminal Rail Expansion and Truck Rack Improvements Project (project) that is the subject of this Initial Study prepared pursuant to the California Environmental Quality Act (CEQA, Public Resources Code Section 21000 *et seq.*). The TransMontaigne Operating Company (TransMontaigne or project sponsor) proposes the expansion of the existing Richmond Terminal to allow for the construction of new rail track and associated rail infrastructure, and relocation and consolidation of the existing truck racks at the existing Richmond Terminal (terminal). The City of Richmond (City) is the Lead Agency for review of the proposed project under CEQA.

2.1 PROJECT SITE

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

2.1.1 Project Location

The project site comprises approximately 10 acres of TransMontaigne's existing Richmond Terminal site (Assessor's Parcel Numbers [APNs] 560-280-012 and 560-280-008). The existing terminal is located at 488 Wright Avenue in Richmond, Contra Costa County, California, along the Santa Fe Channel of the Richmond Inner Harbor, west of the Parr Canal, east of the Richmond Pacific Railroad Corporation and the Lauritzen Canal, and south of Cutting Boulevard. The project site is in a highly industrialized area surrounded by industrial uses including the Richmond Pacific Railroad Corporation and several construction, lumber, metal, and roofing companies.

Regional access to the project site is provided by Interstate 580 (I-580), which extends between the Richmond-San Rafael Bridge and Interstate 80 (I-80) in the vicinity of the project site. The primary entry point to the existing terminal facility is via Wright Avenue, which is adjacent to the facility's northern boundary. Figure 2-1 shows the regional and local context of the project site. Figure 2-2 depicts an aerial photograph of the project site and surrounding land uses (see Section 2.1.3, below, for a description of surrounding uses).

2.1.2 Existing Conditions

TransMontaigne provides terminal, storage, transportation, and related services to the energy industry via a network of terminals located in various markets throughout the United States. The existing terminal is a privately-owned, 11.5-acre onshore bulk liquids storage and distribution facility. The terminal currently provides storage and transfer services for petroleum products (e.g., oil, marine fuel, diesel), denatured ethanol, renewable diesel, diesel additives, and renewable feed stocks (new and used vegetable and animal oils). The terminal receives petroleum and renewable products from another party's pipeline, barge/ship, rail, and truck, and stores and distributes them to customers. The terminal does not ship out petroleum products via pipeline. In addition, the terminal does not handle crude oil.

The terminal facility is almost completely paved, with limited areas of gravel surface.

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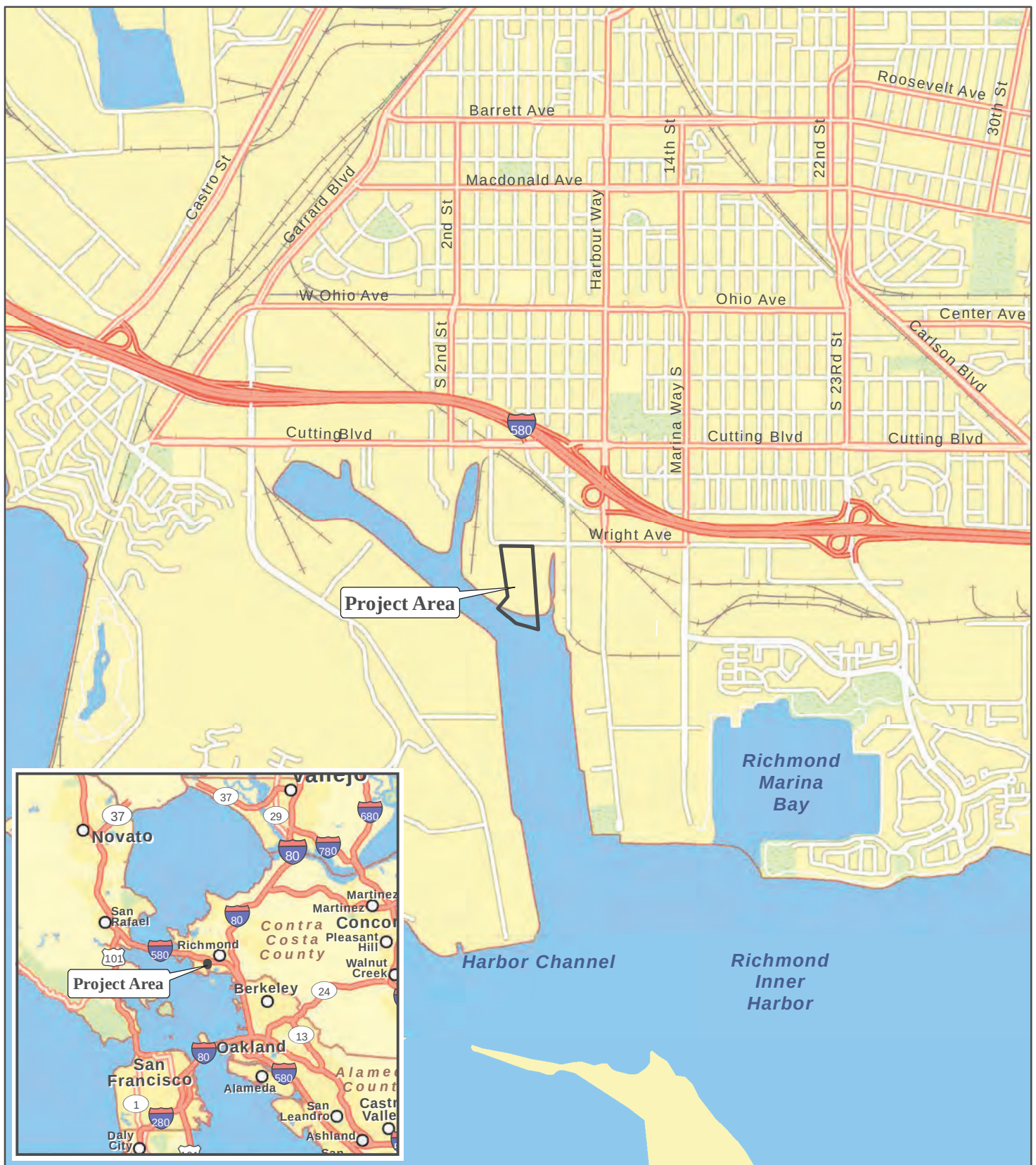
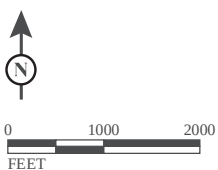


FIGURE 2-1

Richmond Terminal Rail Expansion and Truck Rack Improvements Project

Regional Location and Project Area



SOURCE: ESRI StreetMap North America (2012).

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LEGEND

Project Area



0 150 300
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SOURCE: Nearmap Aerial Imagery (09/2022).

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FIGURE 2-2

*Richmond Terminal Rail Expansion and
Truck Rack Improvements Project*

Project Area

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2.1.2.1 Existing Facilities

The existing terminal has an operating rail spur with six railcar positions that service various renewable and petroleum-based products and feed stocks. Other facilities at the project site include a marine terminal, rail car offloading rack, tank storage farm, and truck loading rack. Associated equipment on-site also includes vapor control systems, a water treatment system, maintenance shop, and office.

The tank storage farm consists of 29 aboveground tanks, ranging in size, all of which are used for storing bulk liquid products, including petroleum products (e.g., oil, marine fuel, and diesel), denatured ethanol, renewable diesel, diesel additives, and renewable feed stocks (new and used vegetable and animal oils). The existing tanks are between 10 and 56 feet in height. As described above, the terminal's truck rack loads denatured ethanol, renewable diesel, and diesel additives. Vapors from the truck loading operations are processed through a vapor recovery system subject to and in compliance with United States Environmental Protection Agency (USEPA) and Bay Area Air Quality Management District (BAAQMD) regulations. Figure 2-3 provides representative photographs of existing facilities at the project site.

2.1.2.2 Existing Utilities and Infrastructure

The project site is located in an urban area that is currently served by existing utilities, including water, sanitary sewer, storm drainage, electricity, gas, and telecommunications infrastructure.

- **Water Service.** East Bay Municipal Utility District (EBMUD) has jurisdiction over the water service lines in Richmond. The project site currently receives water service via the existing 8-inch water main in Wright Avenue. The project site has a metered fire water system and metered "domestic" water system that serves the existing office (e.g., restrooms, kitchen, etc.). The fire water system is not routinely used other than during preventative maintenance testing. The office water is routinely used by facility staff.
- **Wastewater Treatment.** The City of Richmond Sanitary Sewer District No. 1 (RSSD) provides wastewater collection service to a majority of Richmond, including the project site. Wastewater at the existing terminal is differentiated into two categories – water which has the potential to be impacted by petroleum (petroleum contact water) and non-contact stormwater, which is discussed below. Petroleum contact water is generated in areas where the likelihood of contamination exists, including pump pads, drip pans, and the existing truck loading rack. Petroleum contact water is managed as wastewater that can be discharged into the municipal sewage infrastructure to a treatment plant operated by the RSSD. The treatment plant is a public facility and is therefore subject to the State's wastewater treatment requirements. Domestic wastewater associated with the existing terminal office is also conveyed to the municipal sewer system.

Equipment used for the on-site pre-treatment of petroleum contact water shares some equipment functionality with the terminal's existing stormwater pre-treatment system. This pre-treatment system is described further below. The segregation of petroleum contact water and stormwater is controlled through valves, which provide operational control over the destination of the pre-treated water.

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Existing Dock



Existing Rail Lines

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FIGURE 2-3
Page 1 of 3

*Richmond Terminal Rail Expansion
and Truck Rack Improvements Project*
Existing Site Photos

Figure 2-3: Existing Site Photos

(Sheet 2 of 3)



Existing Truck Rack



Existing Truck Rack

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FIGURE 2-3
Page 2 of 3

*Richmond Terminal Rail Expansion
and Truck Rack Improvements Project*
Existing Site Photos

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Existing Truck Scale

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- **Stormwater.** Non-contact stormwater, which includes precipitation that has fallen in areas less likely to be impacted by regulated pollutants (e.g., secondary containment of the bermed tank farm) is discharged into San Francisco Bay in compliance with the terminal's existing Waste Discharge Permit through the Regional Water Quality Control Board (RWQCB). The stormwater system is designed to collect stormwater from the bermed area of the terminal and convey the water to a sand separator unit and then to an oil-water separator, which then flows into a pair of filters. The first filter is a 25-micron bag filter, which then flows to a 5-micron bag filter. The filters flow into a series of four carbon and clay canister filters for additional treatment. Once treated, the water flows into a catch basin. The treated stormwater in the catch basin is visually inspected. If the treated stormwater is free of sheen and contaminants, then it is discharged through the terminal's existing outfall into the channel. If the water shows signs of fouling, it is either reprocessed through the treatment system or removed via vacuum truck and off-hauled for disposal. The existing storm water conveyance and treatment system is designed to handle volumes and flow rates in excess of current flows in compliance with the requirements of the General Industrial Stormwater Permit.
- **Electricity.** Electricity and gas service is provided to the project site by Pacific Gas & Electric. The project site currently receives electricity service via an existing electric line on Wright Avenue. The proposed project would not include the use of natural gas appliances or plumbing.

2.1.2.3 Existing Operations

The marine terminal loads and offloads marine fuel oils, diesel fuel, renewable diesel fuel, ethanol, and renewable feedstocks to and from vessels. The marine terminal is subject to and in compliance with United States Coast Guard and California State Lands Commission safety and security regulations. The rail offloading rack offloads denatured ethanol and renewable feedstocks (new and used vegetable and animal oils).

The existing terminal currently operates as a 24 hour/day, continuously staffed operation. Eighteen full-time employees work at the terminal, with a minimum of three employees on duty at all times. Maintenance and other support personnel (employees and contractors) are on-site as needed.

2.1.3 Surrounding Land Uses

Predominantly an industrial center, the project area is characterized by a mix of light and heavy industrial activities, as well as maritime operations. The existing terminal site is bounded to the north by Sim's Metal on South 4th Street and Wright Avenue, specializing in metal recycling services. To the east of the facility is Eagle Rock Aggregates/Orca Sand & Gravel at 700 Wright Avenue, specializing in aggregate product distribution services. Southwest of the site, across the Santa Fe Channel, the Richmond Shipyards District is home to several properties including the National Gypsum Company at 1040 Canal Boulevard, operating as a drywall plant for gypsum products manufacturing, and the Conoco Phillips Richmond Terminal at 1300 Canal Boulevard, functioning as a petroleum bulk storage and distribution facility. The property to the west is the Richmond Pacific Railroad Corporation at 402 Wright Avenue, engaged in transportation and warehousing operations. Brooks Island Regional Preserve, the closest area of environmental concern, is located approximately 1.5 miles from the project site

2.1.4 Regulatory Setting

The City of Richmond General Plan Land Use Map designates the project site as Port Priority Area. This area is defined by port and water-related uses including warehouses, storage tanks, shipbuilding slips, marine terminals for ship loading and unloading, truck loading and unloading areas, industrial businesses, auto uploading, ship repair and private and public port areas. The area is traversed by numerous railroad spurs. This land use includes working waterfront uses such as private and publicly-owned port terminals, warehousing, commercial fishing, ship repair and related office uses. The allowable floor area ratio (FAR) ranges from 0.25 to 1.0, with a maximum building height of 100 feet.

The City of Richmond Zoning Map identifies the project site as Industrial, Water-Related (IW). The IW zoning district is intended for waterfront-related industrial development that includes manufacturing, warehousing and distribution, marine services, supporting office uses and other large-scale uses that support the Port of Richmond. Permitted uses include incubator-research facilities for marine-related activities, prototype manufacturing, testing, repairing, packaging, and storage as well as offices and support facilities. Accessory or secondary small-scale retail uses that serve local employees, Port users, and visitors are also permitted.

2.2 PROJECT BACKGROUND

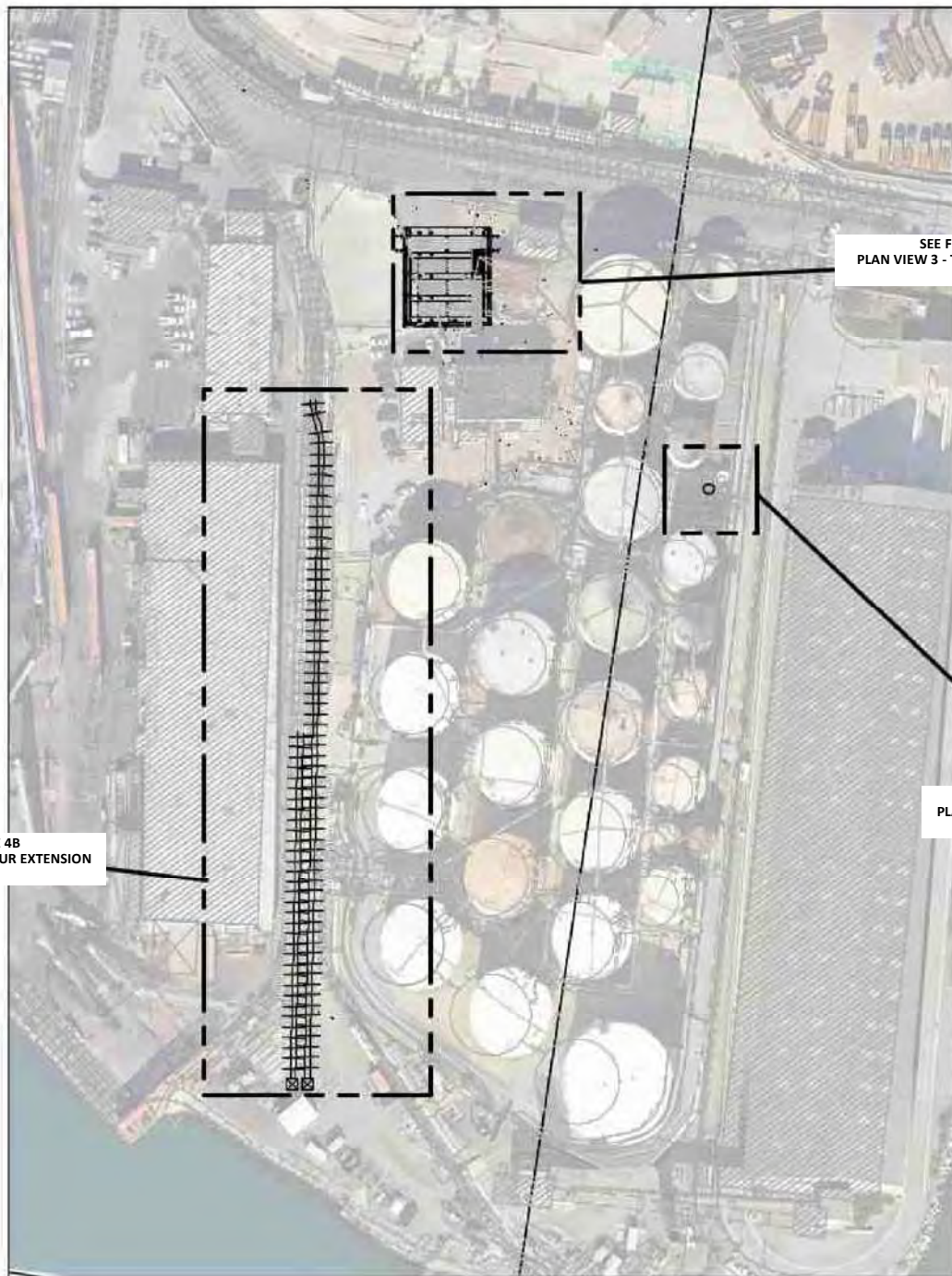
In 1968, the project site was developed with 25 storage tanks, a ship dock into the Santa Fe channel, two buildings and railroad spur tracks west of and adjacent to the tanks, suggesting the facilities were used to transfer materials. In 2017, the City of Richmond approved a Conditional Use Permit for replacement of four existing aboveground petroleum storage tanks on-site. These tanks consisted of one tank with a 50,000-barrel capacity, two tanks with a 30,000-barrel capacity, and one tank with a 15,000-barrel capacity, designated for the storage of renewable diesel or a diesel/renewable mixture. The project expanded the floor area of the structures on the lot by approximately 1,500 square feet.

2.3 PROPOSED PROJECT

The Richmond Terminal Rail Expansion and Truck Rack Improvements Project (project) includes expansion of rail service at the terminal in the location of the existing rail line, requiring construction of new track and associated rail infrastructure, and relocation and consolidation of the existing truck racks (each rack is currently two bays) into one combined four-bay truck rack. The proposed project would not significantly change the existing uses on-site but would allow the terminal to offload, store, and ship out (via marine vessel) more renewable feedstocks by providing increased rail capacity and a new truck rack built to the most current standards.

2.3.1 Project Elements

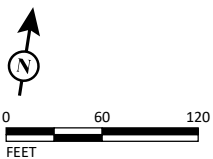
Each of the proposed project elements is described below and shown on Figures 2-4a through 2-4c.



Plan View 1 - Overall Key Plan

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FIGURE 2-4a

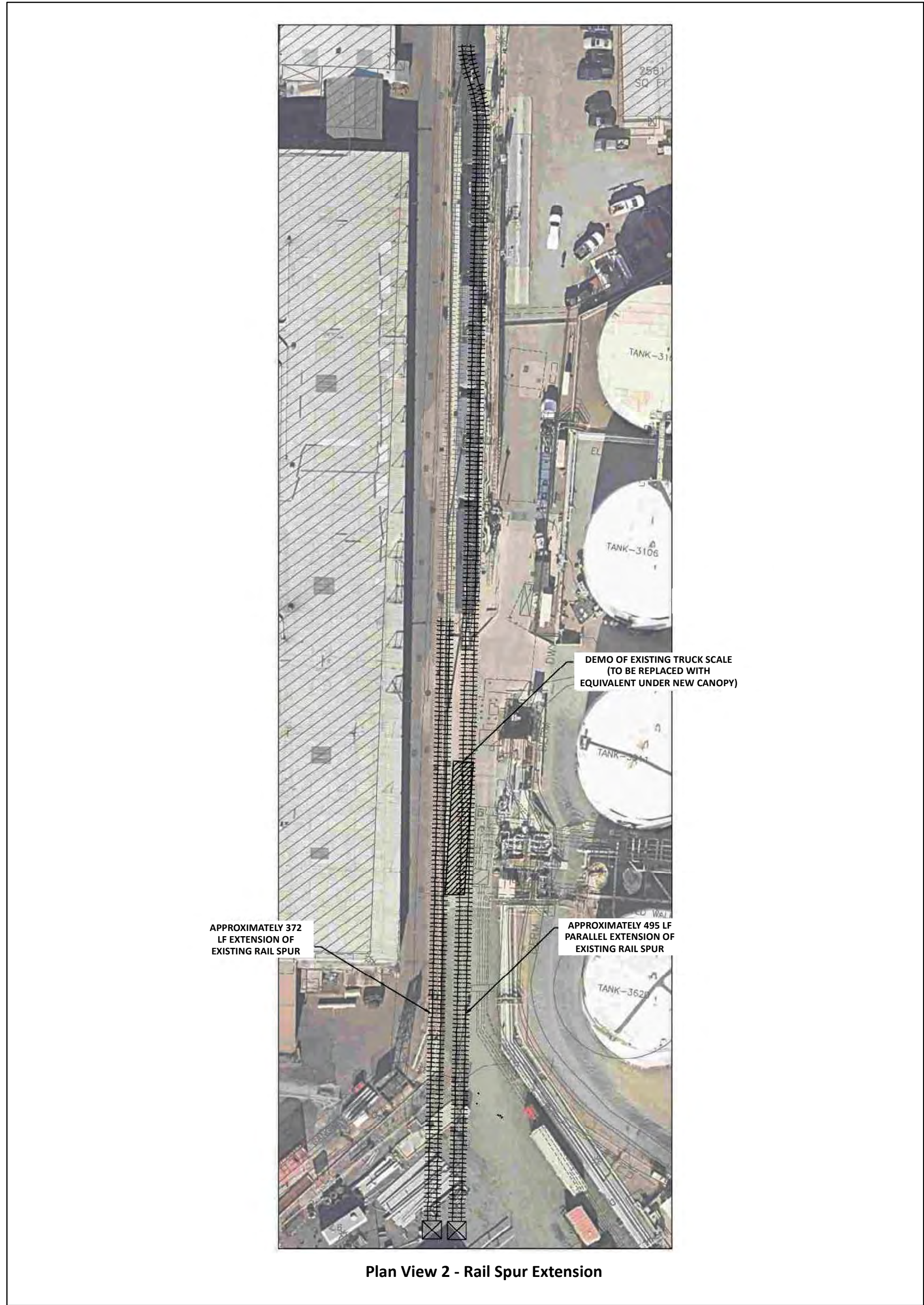


SOURCE: Prime Engineering (07/2023).

*Richmond Terminal Rail Expansion
and Truck Rack Improvements Project*
Proposed Project Elements - Plan View 1 (Overall Key Plan)

I:\T\TMO1901.01\GIS\MXD\Figure 4A_Proposed Project Elements - Plan View 1 (Overall Key Plan).mxd (1/25/2025)

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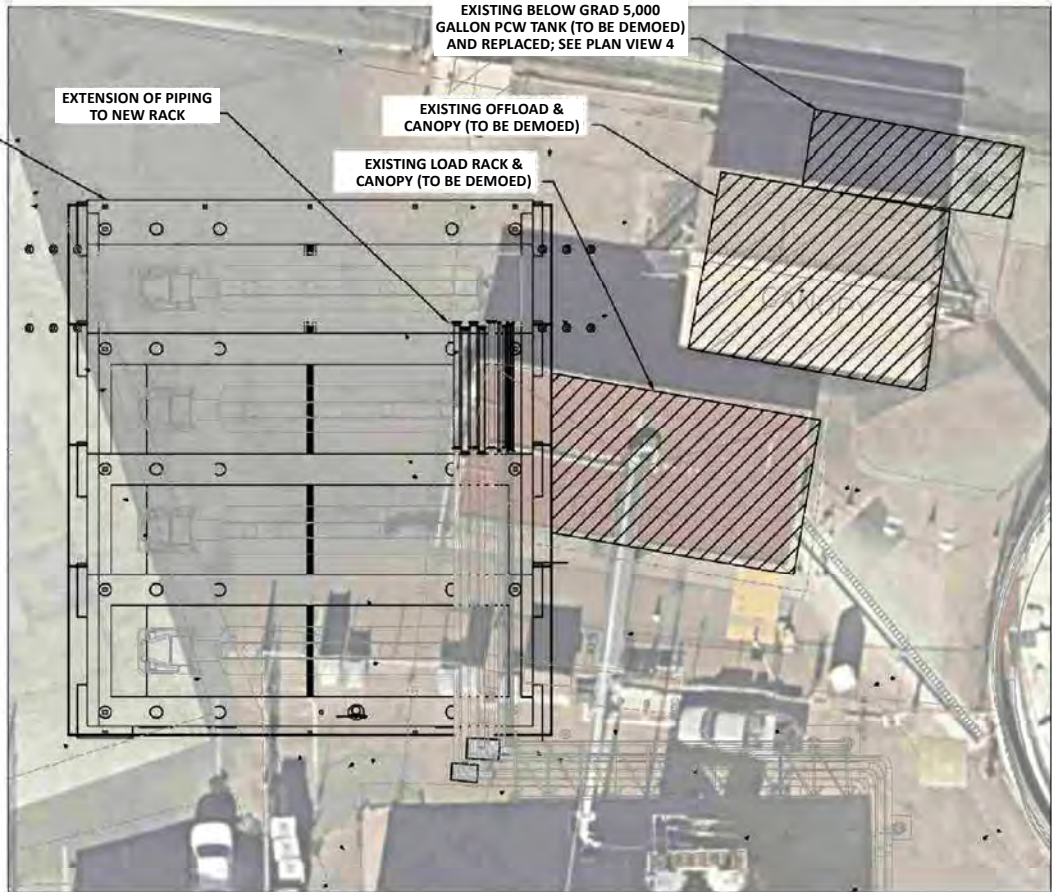
PROPOSED LOAD RACK & CANOPY (TO BE DEMOED)

EXTENSION OF PIPING
TO NEW RACK

EXISTING BELOW GRAD 5,000
GALLON PCW TANK (TO BE DEMOED)
AND REPLACED; SEE PLAN VIEW 4

EXISTING OFFLOAD &
CANOPY (TO BE DEMOED)

EXISTING LOAD RACK &
CANOPY (TO BE DEMOED)



Plan View 3 - Truck Rack Scope

REPLACED 5,000 GALLON PCW TANK (BELOW
GRADE) TANK REPLACED WITH ABOVE GRADE
5,000 GALLON OR LESS PCW TANK



Plan View 4 - Truck Rack Scope

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FIGURE 2-4c



0 15 30
FEET

SOURCE: Prime Engineering (07/2023).

I:\T\TMO1901.01\GIS\MXD\Figure 4C_Proposed Project Elements - Plan Views 3 and 4.mxd (1/25/2025)

*Richmond Terminal Rail Expansion
and Truck Rack Improvements Project*
Proposed Project Elements - Plan Views 3 and 4

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2.3.1.1 Rail Expansion

The proposed expansion would include construction of approximately 900 linear feet of new track, consisting of extension of the existing track by approximately 400 feet, and construction of approximately 500 feet of new parallel track. These tracks would accommodate six to 12 additional railcar positions to hold train cars for transportation of a range of petroleum-based and renewable products. The additional rail car positions would improve operational efficiency by increasing offloading capacity. Trains would deliver materials to the terminal for distribution. The unloaded material would be transferred from the railcars into storage tanks within the terminal, where it is aggregated for shipment by marine dock via barge/ship or truck loading rack. The existing steam heating system would be extended to cover the new tracks so that the material in the railcars can be heated to a pumpable temperature prior to transfer. Figure 2-5 shows the proposed rail expansion.

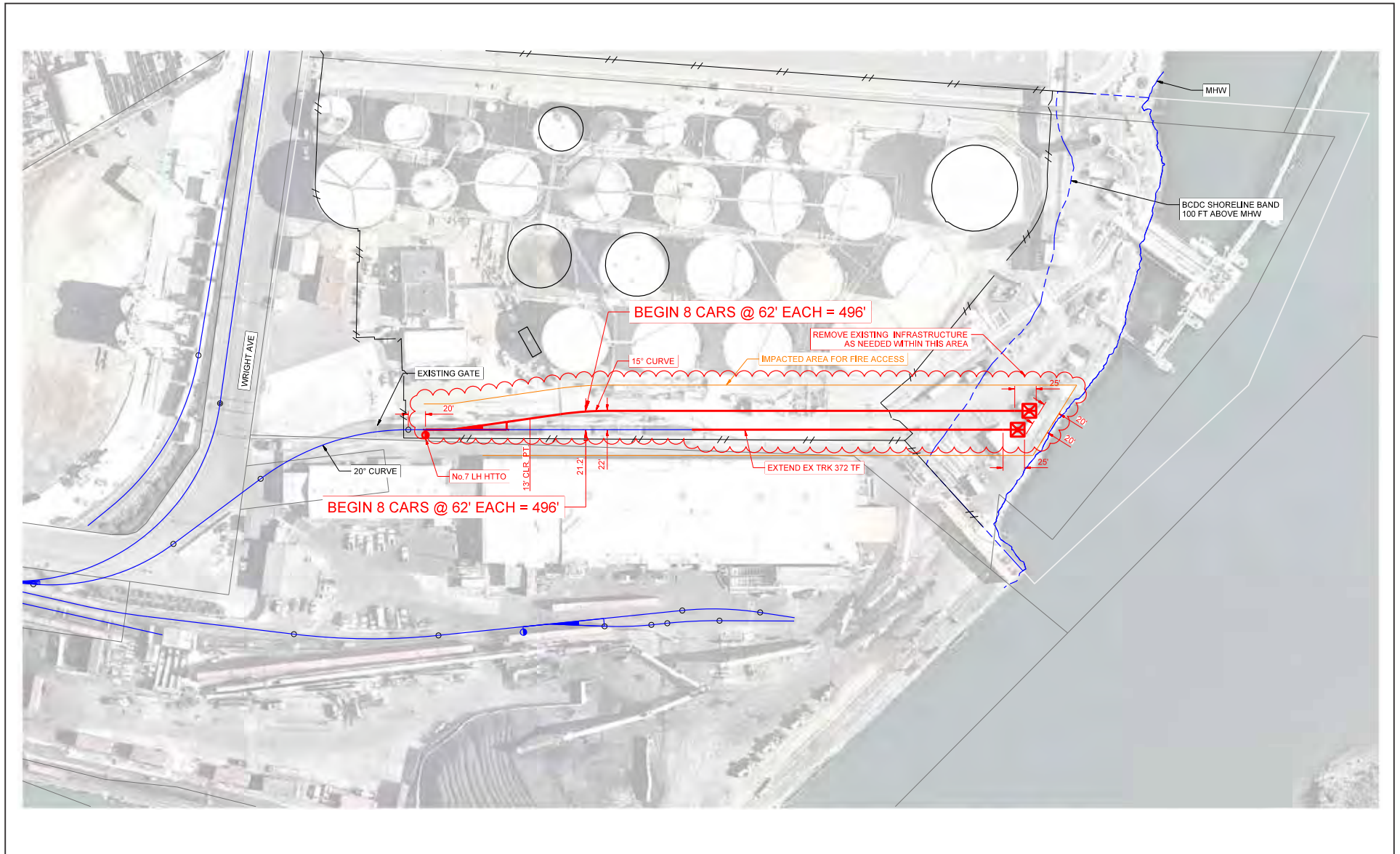
The proposed project would also require installation of product piping headers and hose connections at the rail rack, a pumping system, and modification/relocation of existing piping infrastructure to make room for the proposed new rail. Although unanticipated, the extension of the existing rail steam piping may require a new steaming system. Additionally, minor modification to the existing closed loop stormwater treatment system may be required to capture stormwater associated with the proposed project; however, all stormwater would tie into the existing system. No new stormwater systems would be required.

2.3.1.2 Truck Rack Improvements

The proposed project would also include relocation and consolidation of the existing truck rack facilities from two two-bay racks to one four-bay rack. The new four-bay rack would be approximately 3,968 square feet (992 square feet per truck bay). Modifications would include demolition and removal of the existing truck canopies, installation of a new pump pad, installation of a new truck rack canopy and extension of pipelines to the new truck rack canopy. The truck rack canopy would be approximately 70 feet wide and 24 feet high at the center point, tapering down to approximately 20 feet high on both sides. Structural supports for this new infrastructure would be designed and engineered to meet all applicable regulatory and building code requirements. The existing vapor recovery system would remain in place; however, the vapor line would be re-routed to connect to the new loading rack. In addition, the existing truck scale and pumps, currently located within the footprint of the proposed rail expansion, would be moved to the new truck rack facility. Implementation of the proposed project would increase the efficiency of the truck loading/unloading operations at the existing terminal. The proposed truck rack improvements are shown on Figure 2-6. An elevation of the proposed canopy is provided on Figure 2-7.

Petroleum contact water from the existing truck racks drains to an underground storage tank and is managed as wastewater that can be discharged into the municipal sewage infrastructure to a treatment plant operated by the RSSD. Equipment used for the on-site pre-treatment of petroleum contact water shares some equipment functionality with the terminal's existing stormwater pre-treatment system, which is described in Section 2.1.2.2 above. As part of the proposed project, the existing 5,000 gallon (14 feet long by 8 feet in diameter) underground storage tank would be demolished and replaced with an equivalent (or smaller) above-ground storage tank within the existing terminal facility. Replacement of the underground tank with an above ground tank would facilitate ongoing maintenance and inspection.

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FIGURE 2-5

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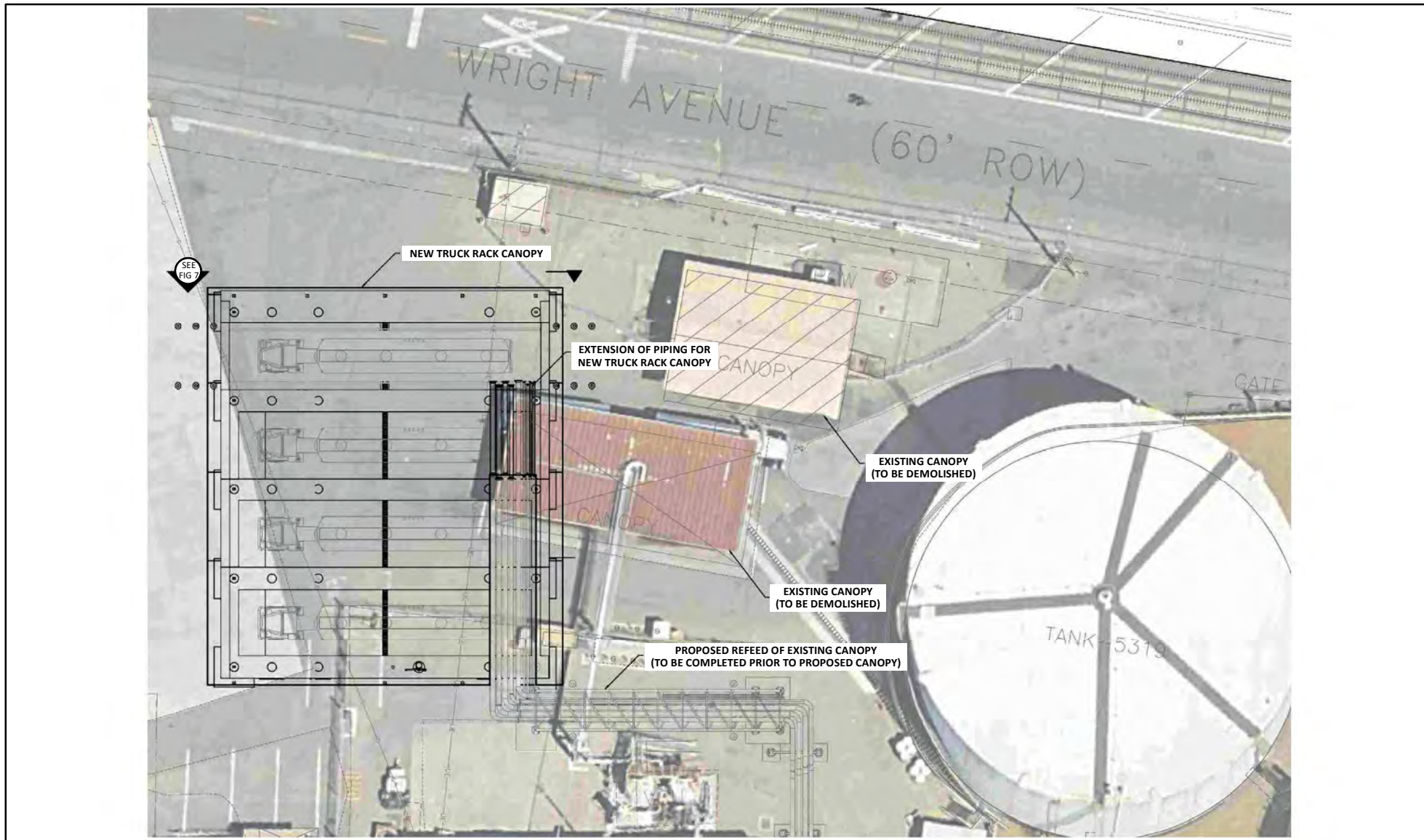


FIGURE 2-6

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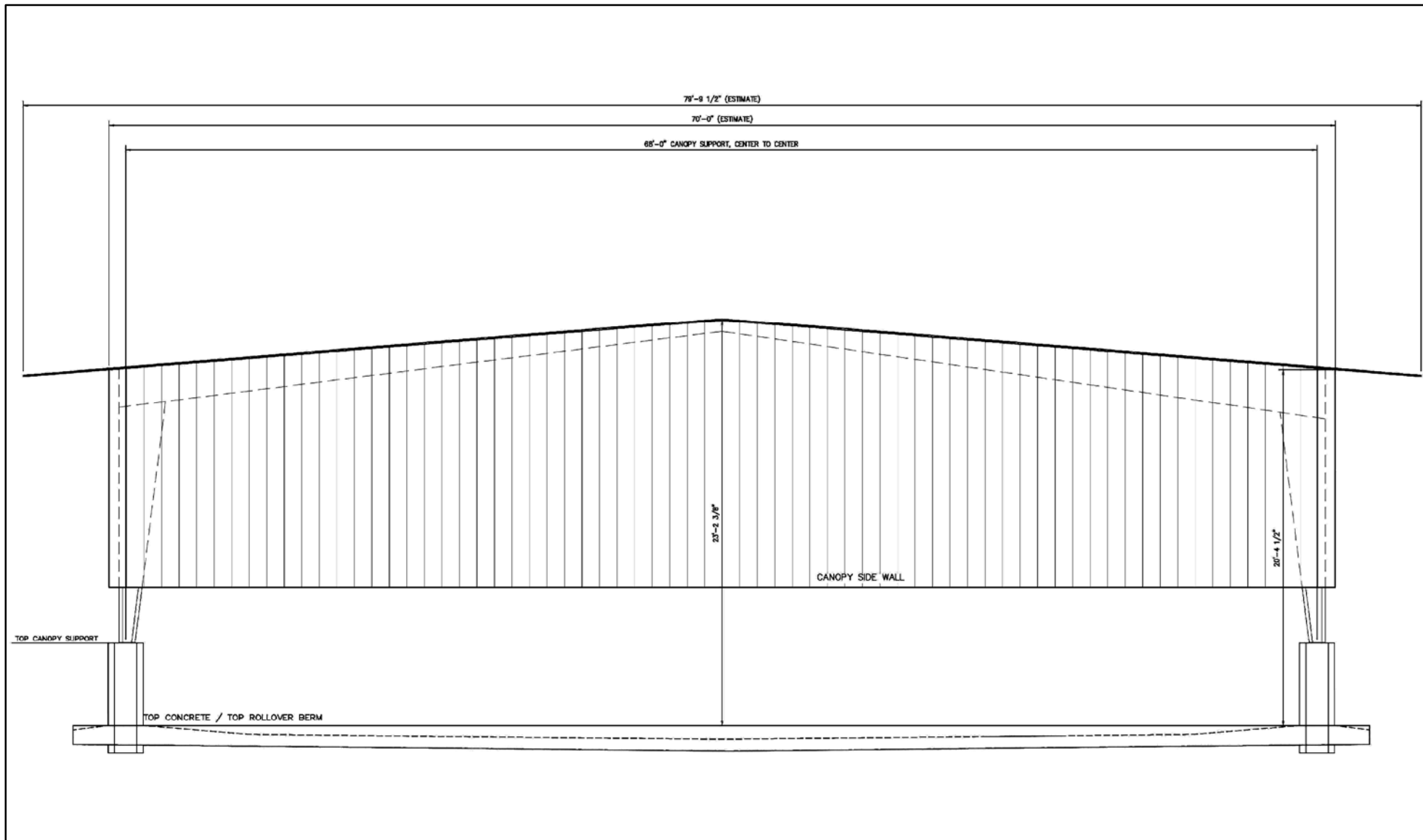
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SOURCE: Prime Engineering (07/2023).

I:\T\TMO1901.01\GIS\MXD\Figure 6_Proposed Truck Rack Improvements.mxd (1/25/2025)

*Richmond Terminal Rail Expansion
and Truck Rack Improvements Project*
Proposed Truck Rack Improvements

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FIGURE 2-7



SOURCE: Prime Engineering (07/2023).

I:\T\TMO1901.01\GIS\MXD\Figure 7_Proposed Truck Rack Elevation.mxd (1/21/2025)

Richmond Terminal Rail Expansion
and Truck Rack Improvements Project
Proposed Truck Rack Elevations

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With implementation of the proposed project, drains on the truck lanes under the canopy would collect the stormwater, which would then be piped to the above ground storage tank and then pumped through the closed loop water treatment system and discharged in compliance with the terminal's existing Waste Discharge Permit through the Regional Water Quality Control Board (RWQCB).

2.3.2 Proposed Operations

Under existing conditions, the terminal handles approximately six rail cars with three rail switches per day. With the additional rail capacity, the terminal would be able to handle 12 to 16 cars per rail switch, resulting in approximately 18 to 30 additional railcars per day. As described above, both ethanol and renewable feedstocks come into the terminal by rail; ethanol is distributed by truck and renewable feedstocks are distributed by ship. With the increased rail capacity, TransMontaigne anticipates an increase in ethanol inputs of approximately 25 percent and in renewable feedstocks input of approximately 100 percent. There are a number of different operational scenarios associated with market conditions and customer product demand that could result in different mixes of product type inputs to the terminal over time, which in turn would result in a range of the number of outbound truck trips for a given period. As described above, ethanol is distributed by truck, whereas renewable feedstocks are distributed by ship. So, to the extent that ethanol inputs may represent a greater percentage of product inputs to the terminal over a period of time, greater numbers of outbound truck trips would occur during that period. Conversely, greater percentages of renewable feedstock inputs to the terminal would result in fewer outbound truck trips for that period.

As shown in Table 2.A, TransMontaigne currently operates six rail bays for ethanol and renewable feedstock offloading at its facility. The theoretical maximum¹ possible truck traffic from these existing six rail bays would be 57 trucks per day; however, actual operational data over the past 3.5 years show an average of 26.25 trucks per day, or approximately 46.1 percent of the theoretical maximum. The year with the highest average truck per day count associated with the six existing rail bays was 2024, with an average of 29 trucks per day or approximately 50.9 percent of the theoretical maximum. Under the proposed project, TransMontaigne has determined that the theoretical maximum associated with the ten new rail bays is 95 new trucks per day. However, because the proposed ten rail bays would serve similar customers and commodities as the existing bays, it is reasonable to expect comparable operational patterns. Applying the 50.9 percent factor to the 95 truck per day maximum, yields an expected average of approximately 48.33 new trucks per day, resulting in a total of 98 additional truck trips per day,²

¹ The theoretical maximum is based on the maximum capacity of each rail car and the corresponding maximum capacity of each truck. It represents the potential maximum ethanol distribution.

² A project-related increase of up to 49 trucks visiting the site per day (i.e., an empty truck arrives at the facility, fills up with ethanol, and then leaves the facility) is a realistic estimate based on existing operational conditions observed at the terminal.

with approximately 10 truck trips occurring during the morning peak hour of traffic and approximately 10 truck trips occurring during the evening peak hour of traffic. Marine vessel trips would increase from two ships per month to approximately four ships per month.³

Table 2.A: Relationship of Rail Car Capacity to Existing and Projected Truck Trips

	# Rail Spots	Gallons per Week ¹	Gallons per Truck	# Trucks per Week	Average Trucks per Day (Maximum)	Average Truck Trips per Day (Maximum)	Average Trucks per Day (Actual)	Average Truck Trips per Day (Actual)	Percentage of Maximum
Existing	6	3,110,400	7,800	399	57	114	29.00	58	50.9%
Proposed	10	5,184,000	7,800	665	95	190	48.33	97	50.9%

Source: TransMontaigne (2025)

¹ Based on 3 switches per day, 28,800 gallons per rail car and rail operation 6 days per week.

The existing terminal would continue to operate during its normal business hours, which is a 24-hour/day, continuously staffed operation. With implementation of the proposed project, potentially two to three additional employees may be needed for the increased rail operations, resulting in an additional six daily vehicle trips, including three morning peak-hour trips and three evening peak-hour trips. The three additional employees would result in a small increase in water demand and wastewater generation at the terminal facility; however, no new infrastructure would be required. With the addition of three new employees to serve the proposed project, the proposed project is anticipated to generate additional domestic water demand of approximately 300 gallons per day.

The project site would continue to operate as a storage facility for bulk liquid products, similar to the existing use. The proposed project would increase the rail capacity for the terminal; however, the increased rail capacity would not change the overall storage capacity at the terminal, as the capacity of the existing tanks that store materials at the terminal would not change with implementation of the proposed project. The additional rail capacity would add functionality for the terminal's customers; however, it would not increase available on-site storage. The increased rail capacity would enable TransMontaigne to offload and store more renewable feedstocks. The proposed project would maintain (or decrease) the existing number of railcar "switches" - in and out movements of rail cars to the proposed project site - while accommodating increased offload of renewable feedstocks by providing increased railcar capacity at the existing terminal. Therefore, the proposed project would not significantly change the existing uses on-site but would allow the terminal to offload, store, and ship out (via marine vessel) more renewable feedstocks.

³ Four vessels per month when averaged annually is assumed to provide a conservative analysis for the project-related increase in vessels based on the worst-case scenario of ethanol being the only product delivered via the additional railcar offloading stations. It should be noted that current marine operations at the terminal vary; however, the terminal currently handles 25 to 30 vessels per month, the majority of which are not related to the current railcar offloading operation (i.e., they are not feedstock vessels). There is also the potential that the additional vessels to the facility may offset all or a portion of the anticipated increase to truck traffic.

2.3.3 Demolition and Construction

Construction of the proposed project is anticipated to occur over a 12-month period, starting in spring/summer 2025. Construction activities would be limited to daylight hours (i.e., weekday hours would be limited between 7:00 a.m. and 7:00 p.m. and weekends and legal holidays would be limited to between 9:00 a.m. and 9:00 p.m.), consistent with the City's Community Noise Ordinance.⁴ All construction equipment would be staged on-site for the duration of construction. No impact pile driving would occur as part of the proposed project.

Construction vehicles would access the site from I-580 from the Harbour Way South interchange and Wright Avenue to the project site. Delivery of construction materials would avoid peak traffic hours. Approximately 10 to 25 contractors would be working on-site each day during construction. Parking would be provided inside the terminal for contractors.

Track construction would include removal of existing paving and excavation to the depth of the sub ballast (approximately 3 feet from the proposed rail), stabilization of the existing grade, placement and compaction of fill and/or sub ballast, new piping, pipe supports, product pump, rail access platforms, and installation of rail, ties, and ballast to track profile grade and drainage improvements, as needed. Additionally, the existing steam piping would be extended to reach the new rail car positions, and installation of rail, ties, and ballast to track profile grade and drainage improvements, as needed. Additionally, the existing steam piping would be extended to reach the new rail car positions.

Truck rack construction would include removal of existing pavement, excavation to depth of footings (to be determined, but anticipated to be approximately 3 to 5 feet below existing grade), structural fill/compaction, and pouring of a new slab on grade concrete containment with rollover berms. An estimated 520 cubic yards of material would need to be removed.

The existing underground contact water tank would be disconnected from the drainage lines, removed, and clean fill material/dirt would be brought in and compacted. Removal of the existing underground tank would require excavation to approximately 10 feet below existing grade. A new shallow sump/pump would be set (estimated at approximately 50- to 75-gallon capacity) and would immediately receive the contact water drainage and pump to the new aboveground 5,000-gallon contact water tank. The "sump" is not a tank/storage vessel and would always be pumped dry at any receipt of water.

It is anticipated that operations would commence upon completion of project construction in spring/summer 2026.

⁴ City of Richmond. 2025a. City of Richmond Municipal Code Section 15.04.605.060(a). Website: https://library.municode.com/ca/richmond/codes/code_of_ordinances?nodeId=ARTXVZOSU_CH15.04ZOSURE_SERIES_600GEST_ART15.04.605NO_15.04.605.060ADRESPAC (accessed January 2025).

2.4 PERMITS AND REGULATIONS

While the City is the CEQA Lead Agency for the proposed project, other agencies also have discretionary authority related to the project or serve as a responsible and/or trustee agency in connection to the proposed project. A list of these agencies and potential permits and approvals that may be required is provided in Table 2.B.

Table 2.B: Potential Permits and Approvals

Lead Agency	Permits/Approvals
City of Richmond	• Environmental Review • Conditional Use Permit • Grading and Encroachment Permits
Other Agencies/Entities	
San Francisco Bay Conservation and Development Commission	• Administrative Permit
Bay Area Air Quality Management District	• Underground Storage Tank Removal Notification • Letter of Approval for Demolition • Extension of Steam Piping
Contra Costa County Health	• Spill Prevention, Control and Countermeasures Plan • Hazardous Materials Business Plan
San Francisco Bay Regional Water Quality Control Board	• National Pollutant Discharge Elimination System Wastewater Permit

Source: Compiled by LSA (2025).

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Less Than Significant with Mitigation Incorporated” as indicated by the checklist in Section 4.0.

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

3.1 DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “Potentially Significant Impact” or “Potentially Significant Unless Mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

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4.0 CEQA ENVIRONMENTAL CHECKLIST

4.1 AESTHETICS

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

The project site is located at 488 Wright Avenue in Richmond, Contra Costa County, along the Santa Fe Channel of the Richmond Inner Harbor, to the east of the Lauritzen Canal. The surrounding area is heavily industrialized and characterized by a mix of light and heavy industrial activities as well as maritime operations. In the area surrounding the project site, the existing viewsheds are characterized primarily by commercial, industrial, and maritime uses.

The existing terminal has an operating rail spur with six railcar positions, a marine terminal, rail car offloading rack, tank storage farm, and truck loading rack. Associated equipment on-site also includes vapor control systems, a water treatment system, maintenance shop, and office. The tank storage farm consists of 29 aboveground tanks, ranging in size from 10 to 56 feet in height. The existing tanks are painted white (some tanks are equipped with a light-grey-colored insulation), constituting the predominant visual feature of the site. The proposed project area is located near the waterfront, on an approximately 11.5-acre parcel.

The project site is visible from across the Santa Fe Channel at the end of Conoco Phillips Richmond Terminal near the waterfront. The project site is less visible from across the Santa Fe Channel, when traveling on Canal Boulevard, and from across the Lauritzen Channel, when traveling on South 4th Street, due to the obstruction of existing development. The existing terminal is also visible at ground level for motorists traveling on Wright Avenue and those traveling along I-580 (Knox Freeway Overpass/Interchange), which affords the driver an elevated view when passing by the industrial area. Views of the project site are also available from Tulu Point in the Miller-Knox Regional Shoreline Park, which provides a panoramic view of the terminal area.

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

A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Aesthetic components of a scenic vista generally include: (1) scenic quality, (2) sensitivity level, and (3) view access. No scenic vistas are identified in the City of Richmond's (City) General Plan to or from the project area. However, the General Plan does contain policies to protect the surrounding hills and the San Francisco and San Pablo bays, which are considered the prominent scenic areas in Richmond. The hills surrounding Richmond include the Berkeley hills to the southeast, San Pablo Ridge to the southwest, Sobrante Ridge to the east, and Point Richmond hills to the southwest. San Francisco and San Pablo bays are located to the south, west, and north of Richmond.⁵ The terminal is located approximately 1.0 mile east of San Francisco Bay and is located approximately 0.75 mile east of Point Richmond. Vistas at the terminal consist largely of urban uses, such as industrial buildings, roadways, and the existing industrial infrastructure.

The most prominent visual element of the proposed project would be the truck rack modification on-site. The modified truck rack would consolidate the existing two truck racks under one larger truck rack canopy located directly south of Wright Avenue. The modified truck rack canopy would be approximately 24 feet in height and 70 feet wide. Additionally, an above-ground storage tank would be constructed within the existing terminal facility. The above-ground storage tank would be no more than approximately 14 feet in height and 8 feet in diameter. Both the expanded truck rack and the above-ground storage tank would be constructed within the TransMontaigne property and would be consistent with the existing facilities on-site and the visual character of the surrounding area. Although the new rail spurs would be visible from Wright Avenue, they would be low-lying and therefore not a prominent visual element. The new rail spurs, modified truck rack, and associated infrastructure improvements (e.g., pump infrastructure and piping, utilities, and controls) would be largely at-grade or low-lying and screened from public views by existing terminal facilities.

The existing terminal is located in an urbanized area within Richmond and is surrounded by existing development. The existing visual quality of the facility and the area surrounding the project site are characterized primarily by commercial, industrial, and maritime uses. Due to existing surrounding development, scenic vistas of the surrounding hillsides and bays are very limited, and proposed improvements would not substantially change existing views. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista. This impact would be less than significant.

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

The California Department of Transportation (Caltrans) Landscape Architecture Program administers the Scenic Highway Program contained in Streets and Highways Code Sections 260–263. State highways are classified as either Officially Listed or Eligible. No Officially Listed or Eligible State

⁵ City of Richmond. 2012a. *Richmond General Plan 2030, Conservation and Natural Resources*. Section 7.4. Website: <https://www.ci.richmond.ca.us/DocumentCenter/View/8812/70-Conservation-Natural-Resources-and-Open-Space?bidId=> (accessed September 2024).

Scenic Highways designated under the Scenic Highway Act are in proximity to the project site, and there are no Officially Listed or Eligible State Scenic Highways from which the project site is visible.⁶ The project site is located in a relatively flat area that is developed with commercial, industrial, and maritime uses. There are no rock outcroppings, trees, historic buildings, or other scenic resources present on the project site. Furthermore, implementation of the proposed project would not result in the removal of or damage to scenic resources. Therefore, no impacts to scenic resources within a State scenic highway would occur.

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

The existing terminal is located in an urbanized area within Richmond and is surrounded by existing development. Therefore, the proposed project would have an impact under CEQA if it would conflict with applicable zoning or other regulations governing scenic quality.

The project site is zoned as Industrial, Water-Related (IW). The IW zoning district allows for a maximum floor area ratio (FAR) of 0.5 or up to 1.0 with approval of a Conditional Use Permit. The IW zoning district also allows for a maximum building height of 100 feet, except within 40 feet of a Single-Family Hillside Residential (RH) or Single-Family Residential (RL) zoning district, where the maximum height is limited to 35 feet. Within 50 feet of a RH, RL, or Medium Density Multi-Family Residential (RM1) zoning district, the maximum building height is limited to 40 feet, and the maximum building height is limited to 50 feet within 100 feet of any residential district.

New construction proposed with the project consists of a truck canopy, an above-ground storage tank, new rail spurs, modified truck rack, and associated infrastructure improvements such as pump equipment, piping utilities, and controls. The new rail spurs, modified truck rack, and associated infrastructure improvements would be largely at-grade or low-lying, while the modified truck rack canopy would be approximately 24 feet in height, and the proposed above-ground storage tank would be no more than approximately 14 feet in height. No structures proposed with the project would exceed the maximum building height for the IW zoning district. The floor areas of the proposed truck rack canopy and existing buildings to be retained on-site with the proposed project would total approximately 12,000 square feet and would not result in FAR greater than 0.5 on the approximately 11.5-acre site. The proposed project would be consistent with the development standards set forth by the City of Richmond Zoning Ordinance.⁷ Therefore, the proposed project would not conflict with applicable zoning or other regulations governing scenic quality.

⁶ California Department of Transportation (Caltrans). 2018. California State Scenic Highway System Map. Website: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca> (accessed August 2024).

⁷ City of Richmond. 2025b. City of Richmond Municipal Code Chapter 15.04 Zoning and Subdivision Regulations. Website: https://library.municode.com/ca/richmond/codes/code_of_ordinances?nodeId=ARTXVZOSU_CH15.04ZOSURE_SERIES_200BAZODIRE_ART15.04.204INDI (accessed January 2025).

The existing visual quality of the facility and the area surrounding the project site is characterized primarily by commercial, industrial, and maritime uses. The existing facility contains large aboveground storage tanks along with support facilities (aboveground and underground pipelines, a pumping station, a control station, truck bays, a waterfront dock). Implementation of the proposed project would result in the demolition of two existing truck bays and the installation of one larger truck bay, one aboveground tank, 900 feet of linear track, and associated infrastructure in the southern, western, and northern portions of the site. As described in Section 4.1.2.a above, all new proposed infrastructure would be consistent with existing facilities at the terminal facility. In addition, the proposed project would be required, under site-specific design review, to ensure the project is consistent with City design standards, property development regulations, and performance standards related to aesthetics.

Therefore, the proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. This impact would be less than significant.

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

Streetlights, vehicle headlights and taillights, and lighting associated with the existing terminal facility are the existing sources of light and glare in the project area. Daytime sources of glare include reflections off light-colored surfaces and windows.

The existing facility operates continuously, seven days per week, 365 days per year. The facility currently contains humanmade sources of light, which ensure nighttime safety and security. The existing tank area is currently illuminated by existing light fixtures that are appropriately rated for the designated area classification. Floodlights illuminate the existing containment perimeter, and the bottom and top tank stairways have safety lighting. No new light poles or floodlights would be installed with the proposed project. Implementation of the project would not introduce new sources of light to the project site and therefore would be visually compatible with the surrounding land uses.

Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on intensity and direction of sunlight. Glare can create hazards to motorists and can be a nuisance for pedestrians and other viewers. The proposed project elements would be constructed of non-reflective materials and would not result in glare impacts within the project site or surrounding areas.

Therefore, the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. This impact would be less than significant.

4.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation (DOC) 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 (CAL FIRE) regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

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

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

The project site is classified as Urban and Built-Up Land by the DOC⁸. Urban and Built-up Land is defined as land that is occupied by structures with a building density of at least one unit to 1.5 acres or approximately six structures to a 10-acre parcel. Examples of Urban and Built-Up Land include

⁸ California Department of Conservation (DOC). 2016. California Important Farmland Finder. Website: maps.conservation.ca.gov/dlrp/ciff (accessed August 2024).

residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment facilities, and water control structures.⁹

The project site is not used for agricultural production and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or any other type of farmland to non-agricultural uses. No impact would occur.

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

The project site is currently developed and is located within an urbanized area consisting of industrial and commercial uses. The project site is bordered by existing industrial, commercial, and maritime development; no agricultural uses are located within or adjacent to the project site. The project site is zoned Industrial, Water-Related (IW), which does not allow for agricultural uses. The project site is not currently used for agricultural purposes and is not protected by or eligible for a Williamson Act contract. Therefore, the proposed project would not conflict with existing zoning for agricultural use, or Williamson Act contracts. No impact would occur.

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

Neither the project site nor the surrounding area is zoned for forest land, timberland, or timberland production. Therefore, the proposed project would not conflict with existing zoning for forest land or cause rezoning of forest land. No impact would occur.

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

No forest or timberland exists on the project site or in the surrounding area. Therefore, the proposed project would not result in the loss of forest land or the conversion of forest land to non-forest use. No impact would occur.

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

The project site is currently developed for industrial uses. No portion of the site is currently used as farmland or forest land. The proposed project would not result in the conversion of farmland on or off the project site to non-agricultural uses because there are no agricultural uses on or in the immediate vicinity of the project site. Likewise, the proposed project would not result in impacts related to changes in the existing environment that could result in the conversion of agricultural land to non-agricultural uses. No impact would occur.

⁹ California Department of Conservation (DOC). 2016. California Important Farmland Finder. Website: maps.conservation.ca.gov/dlrp/ciff (accessed August 2024).

4.3 AIR QUALITY

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

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

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

Within the BAAQMD, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter less than 10 microns in size (PM₁₀), particulate matter less than 2.5 microns in size (PM_{2.5}), and lead (Pb) have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. The BAAQMD is under State non-attainment status for ozone and particulate matter standards. The BAAQMD is classified as non-attainment for the federal ozone 8-hour standard and non-attainment for the federal PM_{2.5} 24-hour standard.

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

The applicable air quality plan is the BAAQMD 2017 Clean Air Plan (Clean Air Plan),¹⁰ which was adopted by the Air District Board of Directors on April 19, 2017. The Clean Air Plan is a comprehensive plan to improve San Francisco Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest

¹⁰ Bay Area Air Quality Management District (BAAQMD). 2017. *Clean Air Plan*. April 19.

health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas (GHG) emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project: (1) supports the goals of the Clean Air Plan, (2) includes applicable control measures from the Clean Air Plan, and (3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan.

Clean Air Plan Goals. The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health in the San Francisco Bay Area, and reduce GHG emissions and protect climate.

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

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

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

Transportation Control Measures. The BAAQMD identifies Transportation Control Measures as part of the Clean Air Plan to decrease emissions of criteria pollutants, toxic air contaminants (TACs), and GHGs by reducing demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. The proposed project involves the construction of 900 linear feet of rail expansion and a four-bay truck rack of approximately 3,968 square feet to replace the existing truck racks. The proposed project does not include public or open space land uses that would facilitate the use of alternative forms of transportation. However, as described in Section 2.0, Project Description, implementation of the proposed project would improve operational efficiency by increasing offloading capacity at the terminal. Furthermore, the proposed project is not expected to result in a significant increase in the generation of vehicle trips or vehicle miles traveled (VMT). As such, the project would not conflict with BAAQMD initiatives to reduce vehicle trips and VMT.

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

Building Control Measures. The BAAQMD has authority to regulate emissions from certain sources in buildings (e.g., boilers and water heaters) but has limited authority to regulate buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that do have authority over local building codes to facilitate adoption of best GHG control practices and policies. The proposed project would construct 900 linear feet of rail and an unenclosed four-bay truck rack of approximately 3,968 square feet. Therefore, the Building Control Measures of the Clean Air Plan are not applicable to the project.

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

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

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

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

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

Clean Air Plan Implementation. As discussed above, the proposed project would generally implement the applicable measures outlined in the Clean Air Plan, including Transportation Control

Measures. Therefore, the project would not disrupt or hinder implementation of a control measure from the Clean Air Plan, and this impact would be less than significant.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Less Than Significant with Mitigation Incorporated)

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

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

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxide (NO_x), reactive organic gases (ROG), directly-emitted particulate matter (PM_{2.5} and PM₁₀), and TACs such as diesel exhaust particulate matter.

Construction would include grubbing and land clearing, grading and excavation, drainage, utilities, and sub-grade and paving activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, and fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The BAAQMD has established standard measures for reducing fugitive dust emissions (PM₁₀). With the implementation of these Basic Construction Mitigation Measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, ROG, and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2022.1, consistent with BAAQMD recommendations. Construction of the proposed project is anticipated to begin in the Spring of 2026 and occur for approximately 12 months, ending in 2027. Construction activities would include grubbing and land clearing, grading and excavation, drainage, utilities, and sub-grade and paving activities. This analysis assumes that construction of the proposed project would require the export of 520 cubic yards of soil, which was included in CalEEMod. The proposed project would also require the demolition of approximately 3,175 square feet of existing truck load canopies, which was also included in CalEEMod. In addition, this analysis assumes use of Tier 2 construction equipment. Other detailed construction information is currently unavailable; therefore, this analysis utilizes CalEEMod default assumptions. Construction-related emissions are presented in Table 4.3.A. CalEEMod output sheets are included in Appendix A.

Table 4.3.A: Project Construction Emissions in Pounds Per Day

Average Daily Emissions per Construction Year	ROG	NO _x	Exhaust PM ₁₀	Fugitive Dust PM ₁₀	Exhaust PM _{2.5}	Fugitive Dust PM _{2.5}
2025	0.7	21.4	0.7	0.7	0.6	0.1
2026	0.1	4.1	0.1	0.1	0.1	<0.1
Maximum Average Daily Emissions	0.7	21.4	0.7	0.7	0.6	0.1
BAAQMD Thresholds	54.0	54.0	54.0	BMP	82.0	BMP
Exceed Threshold?	No	No	No	No	No	No

Source: LSA (September 2025).

BAAQMD = Bay Area Air Quality Management District

BMP = best management practices

NO_x = nitrogen oxide

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = reactive organic gases

As shown in Table 4.3.A, construction emissions associated with the project would be less than significant for ROG, NO_x, PM_{2.5}, and PM₁₀ exhaust emissions. The BAAQMD requires the implementation of the BAAQMD Basic Best Management Practices for Construction to reduce construction fugitive dust impacts to a less than significant level as follows:

Mitigation Measure AIR-1

BAAQMD Basic Construction Measures. In order to meet the Bay Area Air Quality Management District (BAAQMD) fugitive dust threshold, the following BAAQMD Basic Best Management Practices for Construction-Related Fugitive Dust Emissions shall be

implemented by the project sponsor during the project construction period:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles/hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles/hour.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- A publicly-visible sign shall be posted with the telephone number and person to contact at City of Richmond regarding dust complaints. This person shall respond and take corrective action within 48 hours of receiving a complaint. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

As shown in Table 4.3.A, construction emissions associated with the proposed project would be less than significant with implementation of **Mitigation Measure AIR-1**. Therefore, construction of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable federal or State ambient air quality standards, and impacts would be less than significant with mitigation incorporated.

Long-Term (Operational) Emissions. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity), and area sources (e.g., landscape maintenance equipment use) related to the proposed project. The proposed project

would involve the construction of 900 linear feet of rail expansion and a four-bay truck rack of approximately 3,968 square feet. Once operational, it is anticipated that the additional rail capacity would be able to accommodate 12 to 16 cars per rail switch, resulting in approximately 18 to 30 additional railcars per day. However, the increased rail capacity would enable TransMontaigne to offload and store more renewable feedstocks, increasing operational efficiency. Furthermore, the project site would continue to operate as a storage facility for bulk liquid products, similar to the existing conditions. Therefore, the proposed project would not significantly change the existing uses on-site, and resulting area source emissions would be minimal and would be expected to be below BAAQMD significance thresholds as shown in Table 4.3.B below. In addition, the proposed project would result in energy source emissions associated with the improvements; however, these emissions are also expected to be minimal and below BAAQMD significance thresholds, as shown in Table 4.3.B.

Table 4.3.B: Project Operational Emissions

	ROG	NO _x	PM ₁₀	PM _{2.5}
Average Daily Emissions (Pounds Per Day)				
Mobile Source Emissions	0.2	16.4	3.8	1.2
Area Source Emissions	<0.1	<0.1	<0.1	<0.1
Energy Source Emissions	<0.1	<0.1	<0.1	<0.1
Marine Vessels	N/A	7.1	0.4	N/A
Total Emissions	0.2	23.5	4.2	1.2
BAAQMD Thresholds	54.0	54.0	82.0	54.0
Exceed Threshold?	No	No	No	No
Tons Per Year				
Mobile Source Emissions	<0.1	3.0	0.7	0.2
Area Source Emissions	<0.1	<0.1	<0.1	<0.1
Energy Source Emissions	<0.1	<0.1	<0.1	<0.1
Marine Vessels	N/A	1.3	0.1	N/A
Total Emissions	<0.1	4.3	0.8	0.2
BAAQMD Thresholds	10.0	10.0	15.0	10.0
Exceed Threshold?	No	No	No	No

Source: LSA (September 2025).

BAAQMD = Bay Area Air Quality Management District

NO_x = nitrogen oxide

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = reactive organic gases

Furthermore, as described in Section 2.3.2 of this Initial Study, TransMontaigne estimates an additional 98 new daily truck trips would result from the proposed project. In addition, with implementation of the proposed project, potentially two to three additional employees may be needed for the increased rail operations. As a result, the proposed project is anticipated to generate 104 new daily vehicle trips, including 13 trips during the morning peak hour of traffic and 13 trips during the evening peak hour of traffic.

Mobile emission estimates for operation of the project were calculated using CalEEMod. This analysis was conducted using land use codes *Other Non-Asphalt Surfaces* and *Other Asphalt*

Surfaces. The *Other Non-Asphalt Surfaces* land use was used to represent the proposed 900 linear feet of rail expansion, whereas the *Other Asphalt Surfaces* land use was used to represent the proposed 3,968 square feet associated with the four-bay rack area. Trip generation rates for the project were based on the project's trip generation of 104 new daily trips, as described in Section 2.3.2 of this Initial Study. To be conservative, all trucks were assumed to be heavy-duty trucks and would be traveling approximately 40 miles, which was included in CalEEMod. Where project-specific data were not available, default assumptions (e.g., energy usage, water usage, and solid waste generation) from CalEEMod were used to estimate project emissions. CalEEMod output sheets are included in Appendix A.

As described in Section 2.0, Project Description, marine vessel trips associated with the proposed project operational activities would increase from two ships per month to approximately four ships per month. The emissions associated with the two additional marine vessel trips were estimated using the USEPA's Port Emissions Inventory Guidance.¹¹ The criteria pollutants of concern associated with port-related emissions include NO_x and PM emissions emitted per unit of engine output, expressed in grams per kilowatt-hour (g/kWh). Marine vessels are generally assumed to be ocean-going vessels, which according to the USEPA, typically have category 3 propulsion engines. Therefore, this analysis assumes Tier 3 emission factors for category 3 marine engines operating on marine gas oil or marine diesel oil to comply with fuel sulfur regulations and operating within the North American Emissions Control Area. Consistent with the USEPA's default assumptions, each vessel was assumed to operate in two modes: Maneuvering for 2 hours at 3,000 kilowatt (kW) propulsion power, and hoteling for 24 hours at 500 kW auxiliary power. Emissions associated with transit were excluded from the analysis as those are anticipated to occur outside of the port's boundary. Emission factors used for NO_x and PM (in g/kWh) were derived using data from the USEPA's Port Emissions Inventory. Detailed emission calculations are included in Appendix B.

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project, emissions are released in other areas of the air basin. The daily and annual emissions associated with project operational trip generation, energy, and area sources are identified in Table 4.3.B for ROG, NO_x, PM₁₀, and PM_{2.5}.

The results shown in Table 4.3.B indicate the project would not exceed the significance criteria for daily or annual ROG, NO_x, PM₁₀ or PM_{2.5} emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under applicable federal or State ambient air quality standards, and impacts would be less than significant.

Localized CO Impacts. Emissions and ambient concentrations of CO have decreased dramatically in the San Francisco Bay Area with the introduction of the catalytic converter in 1975. No exceedances of the State or federal CO standards have been recorded at San Francisco Bay Area monitoring

¹¹ EPA. 2022. Ports Emissions Inventory Guidance: Methodologies for Estimating Port Related and Good Movement Mobile Source Emissions. April. EPA-420-B-22-011. Website: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1014J1S.pdf> (accessed September 2025)

stations since 1991. The BAAQMD 2022 CEQA Guidelines¹² include recommended methodologies for quantifying concentrations of localized CO levels for proposed transportation projects. A screening level analysis using guidance from the BAAQMD 2022 CEQA Guidelines was performed to determine the impacts of the project.

The screening methodology provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD 2022 CEQA Guidelines, a proposed project would result in a less than significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, and the regional transportation plan and local congestion management agency plans.
- Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway).

Implementation of the proposed project would not conflict with the policies or programs of the Contra Costa County Transportation Authority. As identified in Section 2.3.2 of this Initial Study, , the proposed project is anticipated to generate 104 daily vehicle trips, including 13 trips during the morning peak hour of traffic and 13 trips during the evening peak hour of traffic. Based on the operational trip generation, it is anticipated that the proposed project would not have any adverse impacts on the surrounding circulation system. Therefore, the project's contribution to peak hour traffic volumes at intersections in the vicinity of the project site would be well below 44,000 vehicles per hour. Therefore, the proposed project would not result in localized CO concentrations that exceed State or federal standards. Impacts would be less than significant.

c. Would the project expose sensitive receptors to substantial pollutant concentrations? (Less Than Significant Impact)

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The closest sensitive receptors include the single-family residential homes located northeast of the project site across Cutting Boulevard at approximately 1,750 feet from the project site northern boundary to the building façade.

Construction of the proposed project may expose these surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-

¹² Bay Area Air Quality Management District (BAAQMD). 2023. California Environmental Quality Act Air Quality Guidelines. April.

fueled vehicles and equipment). However, construction contractors would be required to implement BAAQMD Basic Construction mitigation measures, as required by **Mitigation Measure AIR-1** above. With implementation of **Mitigation Measure AIR-1**, project construction emissions would be below the BAAQMD's significance thresholds. Additionally, due to the linear nature of the project, construction activities at any one receptor location would occur for a limited duration.

Primary sources for TAC emissions during project operation include power plants, refineries, factories, gas stations, and consumer products. The proposed project would involve the construction of 900 linear feet of rail expansion and a four-bay truck rack of approximately 3,968 square feet. As identified in Table 4.3.B, project operational emissions of criteria pollutants would be below BAAQMD significance thresholds; thus, they are not likely to have a significant impact on sensitive receptors. Furthermore, there are no nearby sensitive receptors within a 1,000-foot radius from the project site. The closest sensitive receptors include single-family residential homes located northeast of the project site at approximately 1,750 feet. This distance would be sufficient for particulate matter to disperse prior to reaching sensitive receptors. Therefore, once the proposed project is constructed, it would not be a source of substantial emissions. Therefore, implementation of the proposed project would not result in new sources of TACs, and the project would not expose sensitive receptors to substantial levels of TACs. This impact would be less than significant.

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

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

4.4 BIOLOGICAL RESOURCES

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

The analysis provided in this section is based on the Biological Resources Memorandum¹³ provided in Appendix C.

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

Special-status species are defined as follows:

- Species that are listed, formally proposed for listing, or designated as candidates for listing as threatened or endangered under the federal Endangered Species Act;

¹³ LSA. 2023. *Biological Resources at TransMontaigne Project Site, 488 Wright Avenue Richmond, California*. August 30.

- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act;
- Plant species on California Rare Plant Rank Lists 1A, 1B, and 2 in the California Native Plant Society Inventory of Rare and Endangered Plants;
- Animal species designated as Species of Special Concern or Fully Protected by the California Department of Fish and Wildlife (CDFW);
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the *State CEQA Guidelines*; and
- Species considered being a taxon of special concern by the relevant local agencies.

The CDFW's California Natural Diversity Database (CNDDDB) was searched for records of special-status species. The harbor immediately south of the project site contains CNDDDB records for longfin smelt (*Spirinchus thaleichthys*) and green sturgeon (*Spirinchus thaleichthys*). Additionally, a burrowing owl (*Athene cunicularia*) CNDDDB record exists approximately 1.75 miles to the east.¹⁴ Peregrine falcon (*Falco peregrinus*) and osprey (*Pandion haliaetus*) are known to nest in the Richmond harbor area but have not nested at or immediately adjacent to the project site. The closest recorded osprey nest is approximately 0.50 mile to the west near Canal Boulevard, and peregrine falcons have nested approximately 1 mile from the site. Due to the project site's location within an active facility and urban setting with intervening urban development, these nesting birds, if active during construction, are not likely to be impacted by the proposed project.

A biologist conducted a reconnaissance-level field survey at the project site on August 18, 2023. During this survey, preliminary information on vegetation types, wildlife habitat, and potential jurisdictional features (e.g., wetlands) were collected. The disturbed condition of the project site is generally not suitable to support most special-status species. The rock riprap along the edge of the site provides potential habitat for burrowing owls, but no burrowing owls, California ground squirrels, or ground squirrel burrows were observed in the rip-rap during the site survey. The locations of the new proposed track and reconstruction of the existing truck rack were inspected, and no evidence of current or prior nesting or roosting activity was observed. No evidence of current or prior nesting by other birds was observed at or near the site during the survey. Western gulls (*Larus occidentalis*), double-crested cormorants (*Nannopterum auritum*), and rock pigeons (*Columba livia*) were observed flying nearby.

As described above, special-status fish species are known to occur within the San Francisco Bay and have potential to occur in the Port of Richmond. However, no in-water work would be required. In accordance with Section 12.22.090 of the City's Municipal Code, the project sponsor would be required to implement construction best management practices (BMPs) during construction activities. Construction BMPs would include, but are not limited to, Erosion Control and Sediment

¹⁴ California Department of Fish and Wildlife (CDFW). 2023. California Natural Diversity Database (CNDDDB), commercial version dated January 2023. Biogeographic Data Branch, California Department of Fish and Wildlife, Sacramento.

Control BMPs designed to minimize erosion and retain sediment on-site as well as Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. Implementation of these BMPs would ensure that no impacts to water quality would occur. Therefore, sensitive fish species are not likely to be affected by project activities.

Nesting birds, including raptors, are protected by the California Department of Fish and Game Code Section 3503, which states that, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Passerines and non-passerine land birds are further protected under the Migratory Bird Treaty Act (MBTA). Although suitable nesting habitat is present on the site and species such as killdeer (*Charadrius vociferus*), western gull, American crow (*Charadrius vociferus*), and house finch (*Haemorrhous mexicanus*) could nest on the structures or, in the case of killdeer, in the gravel areas, no evidence of nesting was observed. The project site appears to be used for operation activities continuously and therefore may provide limited nesting habitat due to the existing high level of disturbance. Further, birds that nest in this area are likely adapted to the existing noise and physical activity associated with existing operations at the terminal facility. Therefore, the potential for indirect impacts to nesting birds is very low. Implementation of **Mitigation Measure BIO-1**, which requires a preconstruction survey and establishment of buffers around identified nests, would ensure that no effect to nesting birds covered under the Fish and Game Code or the MBTA would occur during project construction. With incorporation of **Mitigation Measure BIO-1**, this impact would be less than significant.

Mitigation Measure BIO-1

Nesting Bird Surveys. Ground disturbance and vegetation removal shall take place outside of the active nesting bird season (i.e., February 1 to August 31), when feasible, to avoid impacts to nesting birds. Should project activities (e.g., vegetation removal, initial ground disturbance, or operation of heavy equipment) be initiated during the nesting bird season, a qualified biologist shall conduct a nesting bird survey no more than 7 days prior to any ground disturbance or vegetation removal to ensure that birds are not engaged in active nesting within or immediately adjacent to the project site. If nesting birds are discovered during preconstruction surveys, the qualified biologist shall identify and delineate an appropriate buffer (depending on the circumstances and specific bird species) where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting birds are allowed to take place until after the birds have fledged from the nest, or the qualified biologist has determined that the nest is no longer active. Typical nest buffers include 100 feet for passerine birds, 300 feet for raptors, and 500 feet for any threatened or endangered species. The size of the buffers is under the discretion of the qualified biologist, who shall determine what is appropriate for each nest, with coordination with wildlife agencies, if listed or sensitive species are identified. If a nesting bird survey is required, written results of the survey by the qualified biologist shall be

submitted to the City of Richmond Community Development Department prior to the start of ground-disturbing activities.

As described above, a burrowing owl CNDDDB record exists for a location approximately 1.75 miles to the east of the project site. Burrowing owls overwinter in the rock riprap along the San Francisco Bay Shoreline in Point Isabel Regional Shoreline, approximately 2.5 miles to the southwest, and could overwinter or briefly occupy the rock rip-rap at the project site. Burrowing owls may also nest in ground squirrel burrows, pipes, or similar features on the project site. Therefore, **Mitigation Measure BIO-2**, which requires a pre-construction burrowing owl survey, is prescribed to reduce potential impacts on burrowing owl to less than significant levels.

Mitigation Measure BIO-2

Pre-Construction Burrowing Owl Surveys. The following measures shall be implemented to reduce potential impacts to burrowing owl:

- Prior to initiating construction activities, a biologist approved by the California Department of Fish and Wildlife (CDFW) shall conduct surveys for burrowing owl within 500 feet of the project site. This measure incorporates avoidance and minimization guidelines from the CDFW 2012 Staff Report on Burrowing Owl Mitigation.
- Prior to any ground disturbance related to construction activities, a CDFW-approved biologist shall conduct a pre-construction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines.
- The biologist shall survey for burrowing owls and burrows on and within 500 feet of the proposed area of disturbance. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All suitable burrows or burrowing owls shall be identified and mapped. Surveys shall take place no more than 30 days prior to construction. During the breeding season (February 1 to August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 to January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.
- If burrowing owls are found during the breeding season (February 1 to August 31), the project sponsor shall avoid all nest sites that could be disturbed by project construction during the

remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the nest is inactive. During the nonbreeding season (September 1 to January 31), the project sponsor shall avoid the owls and the burrows they are using. Avoidance shall include the establishment of a buffer zone (described below).

- If occupied burrows for burrowing owls are not avoided, passive relocation may be implemented upon approval by CDFW. Owls should be excluded from burrows in the immediate impact zone and within an appropriate buffer zone as recommended by the biologist in coordination with CDFW by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

With incorporation of **Mitigation Measure BIO-2**, impacts to burrowing owl would be less than significant.

Several species of bats are considered Species of Concern by the State of California, including pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western red bat (*Lasiurus blossevillei*), and western mastiff bat (*Eumops perotis californicus*). In addition to bat species listed as sensitive by the resource agencies, State laws protect bats and their occupied roosts from harassment and destruction. Protection under California Law is found in Fish and Game Code Sections 2000, 2002, 2014 and 4150, and under California Code of Regulations Section 251.1. Although no evidence of bat roosting was observed during the field survey, bats could roost in structures and trees at and adjacent to the project site. Disturbance of roosting special-status bats would be a potentially significant impact. Implementation of **Mitigation Measure BIO-3** would reduce potential impacts to roosting bats to a less than significant level.

Mitigation Measure BIO-3

Roosting Bat Surveys. The project sponsor shall implement the following measures to avoid or minimize potential impacts to roosting bats:

- A qualified biologist shall conduct a pre-construction survey for roosting pallid bat, western red bat, and other bat species at all suitable bat roosting habitat, including the structures and trees proposed for removal and adjacent suitable habitat that would

be subject to noise disturbance. The survey shall be conducted within 30 days prior to the beginning of construction.

- If active bat roosts are discovered or if evidence of recent occupation is established, then the biologist needs to determine if activities occurring near the roost are likely to disturb the roost, considering the type of roost (day, night, maternity, hibernation), types of construction activities, and sensitivity of the bat species. If the roost is located within an adjacent tree or structure that can be avoided, a buffer to be determined by the biologist, based on the location and sensitivity of the roost, shall be established around the roost site and maintained until the roost site is no longer active. If an active maternity roost is found in a tree or structure slated for removal, active maternity roosts shall not be removed until the young have left the roost or until the roost is no longer active. If the roost is occupied by a special-status bat species and the roost needs to be removed, CDFW shall be contacted regarding removal of the roost. If the roost is not a maternity roost and is not occupied by a special-status bat species, the roost may be removed by excluding bats from the roost. Roosts may only be removed once the bats are no longer occupying the roost, at which time, a plan approved by CDFW may be implemented for removal of the roost. The plan shall describe appropriate methods for the removal of the roost. As part of CDFW's approval, a new roost site may be required to be created on the project site. Active day roosts of tree-foliage bats may be removed upon permission of CDFW.
- If feasible, trees planned for pruning or removal as a part of the project, shall be pruned or removed during the fall to avoid the maternity roosting period of resident bats (mid-April to August season). Because bats may be present at any time, a pre-construction survey by a qualified biologist shall be required as outlined above regardless of timing of tree or structure removal and a suitable buffer zone established around detected roosts.

If possible, pruned limbs or cut trees shall be left on the ground in place for at least 24 hours after cutting to allow any bats that may be roosting in the trees to leave the roosts prior to chipping the branches or removing the cut material from the site. Before any construction activities begin in the vicinity of the identified bat roosts on the project site, an approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the bats and their habitat, the specific measures

that are being implemented to conserve the bat roosts for the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. A qualified biologist shall conduct the training session.

Implementation of **Mitigation Measure BIO-3** would require a focused habitat assessment, preconstruction survey, tree and structure removal (as needed), and measures for bat exclusion (as needed). Incorporation of **Mitigation Measure BIO-3** would reduce potential construction-related impacts, both permanent and temporary in nature, on special-status bats to a less than significant level.

With incorporation of **Mitigation Measures BIO-1 through BIO-3**, impacts to special-status species that could be present in the project vicinity would be reduced to a less than significant level.

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (No Impact)*

The CDFW tracks the occurrences of natural plant communities that are of limited distribution Statewide or within a county or region and that are often vulnerable to environmental effects of projects. *A Manual of California Vegetation*, Second Edition,¹⁵ lists vegetation alliances with State rarity rankings of S1–S3 as considered “highly imperiled,” and project impacts to “high-quality occurrences” of these alliances could be considered significant under CEQA. Most types of wetlands, including alkali wetlands, and riparian communities are also considered sensitive natural communities due to their limited distribution in California. The CNDDDB does not identify any sensitive natural communities on the site,¹⁶ and no sensitive plant communities were observed during the reconnaissance-level survey. No riparian habitat or other sensitive natural communities occur at the project site. Therefore, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. No impact would occur.

- c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (No Impact)*

Although the project site is located adjacent to the Parr and Lauritzen Canals, the project site does not contain any wetlands or other potentially jurisdictional features. Therefore, the proposed project would not have a substantial adverse effect on State or federally protected wetlands. No impact would occur.

¹⁵ Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*. Second edition. California Native Plant Society Press, Sacramento.

¹⁶ CDFW. 2023. op. cit.

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

Wildlife movement includes migration (i.e., usually annual roundtrip), inter-population movement (i.e., long-term genetic flow), and small travel pathways (i.e., daily movement corridors within an animal's territory). Although small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations. In the San Francisco Bay Area, landscape elements that facilitate local and/or regional wildlife movement include stream drainages, canyons, ridges, or other prominent natural or human-made landscape features.

The proposed project would not substantially interfere with wildlife movement or corridors because the project site is already developed and is situated within an urban area. Wildlife species that currently move through or around the site would likely continue to move through or around the site during and after construction of the project because most of the species that likely occur in the area are generalists that are adept at moving through urban landscapes. Therefore, impacts to wildlife movement corridors would be less than significant.

The project site does not contain native wildlife nursery sites, such as heron rookeries or salmonid spawning areas. Any bird nests or bat roosts, if present, would be protected by implementing **Mitigation Measures BIO-1 through BIO-3**.

Given that the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, interfere substantially with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, related impacts would be less than significant.

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)*

The City does not have any local policies or ordinances protecting biological resources, with the exception of the City's tree ordinance (Chapter 10.08 of the Richmond, California Code of Ordinances). As described above, the project site consists of developed areas for heavy industrial use. The only vegetation occurring in the project area includes a few trees and shrubs in landscaped portions of the project site. No tree removal is anticipated as part of the proposed project. Therefore, the proposed project would not conflict with local policies or ordinances protecting biological resources. No impact would occur.

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

The proposed project does not fall in an area with an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan and therefore would not present a conflict with any such plan. No impact would occur.

4.5 CULTURAL RESOURCES

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

The analysis provided in this section is based on the Historic Resource Evaluation¹⁷ (HRE) and Constraints Analysis¹⁸ prepared for the project. These documents are provided in Appendix D and E, respectively.

Background research and a field survey were conducted to identify potential cultural resources at the project site. On August 28, 2024, staff of the Northwest Information Center (NWIC) conducted a records search of the project site and a 0.25-mile radius from the project site (NWIC File No. 24-0274). The NWIC, an affiliate of the California Historical Resources Information System, is the official State repository of cultural resource records and reports for Contra Costa County. As part of the background research, local and State inventories for cultural resources were also reviewed and the Native American Heritage Commission (NAHC) was contacted.

Data from the record search conducted at the NWIC indicate that there have been five previous studies within 0.25 mile of the project site; two of those studies included the project area. Although no resources are documented within the project area, one prehistoric resource was documented within 0.25 mile of the project site, the Ellis Island Shellmound (P-07-000173/CA-CCO-000295). This resource is a buried prehistoric shellmound located on the east side of Harbour Way South. Today, this site is underneath a modern industrial property and an active rail line.

In addition, a review of State and local inventories identified one historical resource within or adjacent to the project area, the Richmond Shipyards District. The boundaries of this landmark are not clearly provided, but the landmark is described as inclusive of the Kaiser Shipyards that were operational during World War II. The project area was included as part of Richmond Shipyard No. 1 and contained seven slips for constructing Liberty and Victory ships.

On August 20, 2024, LSA sent an email describing the project with maps depicting the study area to the NAHC requesting a review of the Sacred Lands File to determine the potential presence of Native American cultural resources that might be affected by the proposed project. On September

¹⁷ LSA. 2024a. *Historical Resource Evaluation of TransMontaigne Richmond Terminal, 488 Wright Avenue, Richmond, Contra Costa County, California* (LSA Project No. 202041849.01). October 18.

¹⁸ LSA. 2024b. *Constraints Analysis for the Richmond Terminal Rail Expansion and Truck Rack Improvements Project (project) in the City of Richmond, Contra Costa County* (LSA Project No. 20241849). November 19.

24, 2024, the NAHC responded with positive results of the Sacred Lands File search and provided a list of 19 individuals representing nine tribes recommended for contact.

A field review of the 11.5-acre terminal at 488 Wright Avenue was conducted on September 26, 2024. The purpose of the review was to characterize the architectural style, identify its respective character-defining features, and assess its condition with respect to potential alterations. The field review was recorded with field notes and photographs.

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

CEQA defines a “historical resource” as a resource which meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources (California Register);
- Listed in a local register of historical resources;
- Identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code (PRC); or
- Determined to be a historical resource by a project's lead agency.

A historical resource consists of “Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California . . . Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources” (California Code of Regulations Title 14(3) Section 15064.5(a)(3)). Archaeological resources may also be considered historical resources.

As described further in the HRE, the terminal does not appear individually eligible for inclusion in the California Register at the local, State, or national level of significance under any of the evaluative criteria of the California Register. Although the existing terminal facility is associated with the post-World War II land use evolution of Richmond’s Inner Harbor, this property is one of several similar examples of this phase of Richmond’s history, and background research did not indicate the project area is of higher associative value with this pattern of events. The built environment contains examples of a common industrial purpose-built buildings, structures, and infrastructure designed to store and transport liquid petroleum product. Background research did not indicate a potential association of the terminal with new or innovative ways to store or transport these products. Accordingly, the existing terminal facility does not appear to qualify as a historical resource for the purposes of CEQA (PRC Section 21084.1).

The absence of resources previously documented within the project area and severe disturbance suggest that sensitivity for in situ archaeological resources is low. However, the proximity of a

habitation site with burials indicates some potential for non-in situ resources that may be of local interest, particularly on the coast next to a watercourse such as the Santa Fe Channel. Should archaeological deposits be encountered during project ground disturbance, a substantial adverse change in the significance of a historical resource would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (*State CEQA Guidelines* Section 15064.5(b)(1)).

Given the potential for archaeological resources to be present within the project site, the following mitigation measures, in addition to the mitigation measures identified in Section 4.18, Tribal Cultural Resources, would be implemented to reduce potential impacts to these resources to a less than significant level.

- Mitigation Measure CUL-1a** **Archaeological Monitoring.** A qualified professional archaeologist (either an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archeology or an archaeologist supervised by such an archaeologist) shall monitor construction-related ground-disturbing activities, including (but not limited to) demolition work such as removal of existing foundations and underground storage tank; surface grading; and excavation for the new truck rack. Archaeological monitoring shall occur during these excavation activities until the Project Archaeologist, based on their observations, is satisfied that there is little likelihood of encountering intact archaeological deposits. The Project Archaeologist may also determine that it is appropriate to reduce monitoring to spot-checking on a part-time basis.
- Mitigation Measure CUL-1b** **Unanticipated Discovery of Archaeological Resources.** Should an archaeological deposit be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology contacted to assess the situation, determine if the deposit qualifies as a historical resource, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If the deposit is found to be significant (i.e., eligible for listing in the California Register of Historical Resources), the project sponsor shall be responsible for funding and implementing appropriate mitigation measures. Mitigation measures may include recording the archaeological deposit, data recovery and analysis, and public outreach regarding the scientific and cultural importance of the discovery. Upon completion of the selected mitigations, a report documenting methods, findings, and recommendations shall be prepared by the qualified archaeologist and submitted to the City of Richmond for review, and the final report shall be submitted to the Northwest Information Center at Sonoma State University.

Significant archaeological materials shall be submitted to an appropriate local curation facility and used for future research and public interpretive displays, as appropriate.

With incorporation of **Mitigation Measures CUL-1a and CUL-1b**, which requires archaeological monitoring of ground disturbing activities and work stoppage in the event of an archaeological discovery, potential impacts to archaeological historical resources would be reduced to less than significant.

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

According to the *State CEQA Guidelines*, “When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource” (*State CEQA Guidelines* Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if they qualify as “unique archaeological resources” (California PRC Section 21083.2).

Archaeological deposits identified during project construction would be treated by the City of Richmond and project sponsor—in consultation with a qualified archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology—in accordance with **Mitigation Measures CUL-1a and CUL-1b**. With incorporation of **Mitigation Measures CUL-1a and CUL-1b**, identified above, impacts to archaeological resources would be less than significant.

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

Based on previous archaeological investigation and analysis, there is a low potential for the disturbance of archaeological cultural resources or human remains. However, if human remains are encountered at any time during project implementation, State Health and Safety Code Section 7050.5, PRC Section 5097.98, and *State CEQA Guidelines* Section 15064.5(e)(1) state that no further disturbance shall take place in the area of the find until the County Coroner has made a determination of origin and disposition of the human bone pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately and shall make a determination within two working days of being notified. If the remains are determined to be Native American, the County Coroner shall notify the NAHC by phone within 24 hours, and the NAHC shall then immediately determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment of the remains within 48 hours of being granted access to the site. The MLD’s recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.

Compliance with Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98 regarding the treatment of human remains would ensure that potential impacts to human remains would be less than significant.

4.6 ENERGY

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

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

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

Construction-Period Energy Use. The proposed project would require grubbing and land clearing, grading and excavation, drainage, utilities, and sub-grade and paving activities during construction. Construction of the proposed project is anticipated to occur over a 12-month period. Construction of the proposed project would require energy for the manufacture and transportation of construction materials, preparation of the site for grading activities, and construction of the rail and terminal improvements. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. In addition, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant.

Operational Energy Use. Operation of the proposed project would require the consumption of electricity and fuel use associated with operational vehicle trips. The proposed project would involve the construction of 900 linear feet of rail expansion and a four-bay truck rack of approximately 3,968 square feet. The proposed project would have minimal to no effect on natural gas demand. As described in Section 2.0, Project Description, the proposed project would not significantly change the existing uses on-site but rather would allow the terminal to operate more efficiently. Electricity would be obtained from Pacific Gas and Electric Company (PG&E), which currently provides electricity to properties in the immediate vicinity of the project site. It is not anticipated that operation of this facility would significantly impact PG&E's ability to provide electricity in the region. Furthermore, as described in Section 2.3.2 of this Initial Study, the proposed project is anticipated to generate 104 new daily trips, including 98 truck trips and 6 vehicle trips associated with new employees. Using U.S. Department of Transportation fuel efficiency data and using the USEPA's fuel economy estimates for 2020 and the California diesel fuel economy estimates for 2021, the

proposed project is anticipated to consume a total of 4,120 gallons per year of gasoline and a total of 170,520 gallons per year of diesel fuel. Based on fuel consumption estimates obtained from CARB's California Emissions Factor Model, Version 2025 (EMFAC2025), approximately 296.2 million gallons of gasoline and approximately 67.9 million gallons of diesel will be consumed from vehicle trips in Contra Costa County in 2026. Therefore, vehicle and truck trips associated with the proposed project would increase the annual fuel use in Contra Costa County by less than 0.01 percent for gasoline fuel usage and by approximately 0.2 percent for diesel fuel usage. Furthermore, the proposed project is anticipated to increase marine vessel operations. The two additional marine vessels represent a conservative estimate for the project-related increase in vessels based on the worst-case scenario of ethanol being the only product delivered via the additional railcar offloading stations. It should be noted that current marine operations at the terminal vary; however, the terminal currently handles 25 to 30 vessels per month, the majority of which are not related to the current railcar offloading operation (i.e., they are not feedstock vessels). As such, the increase in marine vessel operations represents a small portion of the current operational conditions for the port and would not be considered inefficient, wasteful, or unnecessary in comparison to the port's current operations. There is also the potential that the additional vessels to the facility may offset all or a portion of the anticipated increase to truck traffic. Therefore, given the minimal trip generation, diesel fuel and gasoline consumption are expected to be minimal and would represent a small fraction of the overall Contra Costa County fuel consumption. Therefore, due to the small electricity demand associated with the proposed project, it would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy. Impacts would be less than significant.

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

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

The most recently adopted CEC energy report is the 2023 Integrated Energy Policy Report.¹⁹ The 2023 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2023 Integrated Energy Policy Report covers a broad range of topics, including implementation of SB 350 (2015), integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency barriers faced by disadvantaged communities, demand response, transmission and

¹⁹ CEC. 2023. *2023 Integrated Energy Policy Report*. California Energy Commission. Docket Number: 23-IEPR-01.

landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to SB 1383 [2016]), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

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

4.7 GEOLOGY AND SOILS

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

The project area is located on the eastern side of the San Francisco Bay and within the Coast Range Geomorphic Province of California, which is a region shaped by complex and dynamic geologic processes. Faulting, folding, and erosion have produced the northwest-trending ridges and valleys that characterize the Coast Ranges.

The proposed project site is directly underlain by fill consisting of silt, clay, sand, and debris to a depth of approximately 5 feet below grade in the northern portion of the existing terminal site, increasing to approximately 30 feet below grade in the southern portion of the existing terminal site.²⁰ The fill is generally well-graded and includes spoils from bay dredging. Debris observed in the fill includes material such as plant/tree matter, concrete, and metal debris. The fill is underlain by bay mud clay beneath most of the facility, consisting of soft marine deposits. Underlying the fill and bay mud is Merrit Sand.

²⁰ Piedmont Geologic. 2024. *Interim Corrective Action Progress Report: 2nd Quarter 2024 TransMontaigne – Richmond Terminal*. Website: https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8989725053/SL372291176.PDF (accessed September 2024).

Observed depths to groundwater at the site have historically ranged from approximately 1 to 12 feet below grade. The overall groundwater gradient for most of the site property, excluding the northernmost portion, is generally toward the south (toward the Santa Fe Channel), whereas the gradient in the northernmost site portion is generally toward the north. Tidal influence on groundwater levels reportedly extends approximately 250 feet into the southern portion of the terminal site.

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (No Impact)

Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace.

The State of California enacted the Alquist-Priolo Fault Zoning Act in 1972, requiring the State Geologist to delineate Earthquake Fault Zones along known active faults that have high potential for fault rupture. The project site is not located within a designated Earthquake Fault Zone.²¹ Therefore, the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving the rupture of a known earthquake fault. No impact would occur.

ii. Strong seismic ground shaking? (Less Than Significant Impact)

The project site and the entire San Francisco Bay Area are located in a seismically active region subject to strong seismic ground shaking. Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. The magnitude of a seismic event is a measure of the energy released by an earthquake; it is assessed by seismographs that measure the amplitude of seismic waves. The intensity of an earthquake is a subjective measure of the perceptible effects of a seismic event at a given point. The Modified Mercalli Intensity (MMI) scale is the most commonly used scale to measure the subjective effects of earthquake intensity. It uses values ranging from 1 to 10.

Mapping has been compiled by the Metropolitan Transportation Commission and Association of Bay Area Governments (ABAG) for the likely shaking intensities in the San Francisco Bay Area that would have a 10 percent chance of occurring in any 50-year period. A large earthquake (magnitude 6.7 or

²¹ California Geological Survey (CGS). 2018. California Earthquake Hazards Zone Application. Website: maps.conservation.ca.gov/cgs/EQZApp/app/ (accessed August 12, 2022).

greater) on one of the major active faults in the region would generate violent (MMI 9) ground shaking at the project site.²²

The most significant adverse impact associated with strong seismic shaking is potential damage to structures and improvements. The risk of ground shaking impacts is reduced through adherence to the design and materials standards set forth in building codes. The City of Richmond has adopted the 2022 California Building Code (CBC) (California Code of Regulations Title 24, Part 2), which provides for stringent construction requirements on projects in areas of high seismic risk. The design and construction for the proposed project would be required to conform with, or exceed, current best standards for earthquake-resistant construction in accordance with the most recent CBC adopted by the City and with the generally accepted standards of geotechnical practice for seismic design in Northern California. Therefore, the project would result in a less than significant impact related to increasing the exposure of people or structures to ground shaking compared to existing conditions.

iii. Seismic-related ground failure, including liquefaction? (Less Than Significant Impact)

Liquefaction is the transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Soils most susceptible to liquefaction are loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts and gravels with poor drainage, or those capped by or containing seams of impermeable sediment. According to ABAG liquefaction susceptibility mapping,²³ the soil liquefaction potential at the site is very high. The silt and sand layers encountered between the depths ranging from approximately above 5 feet to approximately 30 feet below ground surface (bgs) may liquefy.²⁴

Lateral spreading involves the lateral displacement of surficial blocks of sediment (e.g., alluvium) as a result of liquefaction in a subsurface layer. The surficial mass moves toward an unconfined area, such as a descending slope, and can occur on slope gradients as gentle as 1 degree. The Santa Fe Channel, Lauritzen Canal, and Parr Canal border the site to the south, west, and east, respectively. As described above, the project site is directly underlain by fill consisting of silt, clay, sand, and debris and the risk for liquefaction at the site is very high. Therefore, the project site could be susceptible to lateral spreading during a seismic event.

As described above, the proposed project would not include construction of any habitable structures, and proposed improvements would be largely at grade (e.g., new rail track) or consist of a pre-fabricated structure. Implementation of the best standards for earthquake-resistant construction in accordance with the most recent CBC adopted by the City and with the generally

²² Metropolitan Transportation Commission (MTA) and Association of Bay Area Governments (ABAG). 2020. Hazard Viewer Map. Website: <https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8> (accessed August 2024).

²³ Ibid.

²⁴ Piedmont Geologic. 2024. *Interim Corrective Action Progress Report: 2nd Quarter 2024 TransMontaigne – Richmond Terminal*. Website: https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8989725053/SL372291176.PDF (accessed September 2024).

accepted standards of geotechnical practice for seismic design in Northern California would ensure that impacts related to liquefaction would be less than significant.

iv. Landslides? (No Impact)

A landslide generally occurs on relatively steep slopes and/or on slopes underlain by weak materials. The project would be located on a flat site surrounded by existing development. Consequently, the proposed project components would not expose people or structures to landslides. No impact would occur.

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

Grading and earthmoving during project construction has the potential to result in erosion and loss of topsoil. The potential for soil erosion exists during the period of earthwork activities and between the time when earthwork is completed and new vegetation is established or hardscape is installed. Exposed soils could be entrained in stormwater runoff and transported off the project site. Because the proposed project would disturb less than 1 acre of soil, the project is not subject to the requirements of the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. WQ 2022-0057-DWQ, NPDES No. CAS000002) (CGP).²⁵ However, Chapter 12.22 of the Richmond Municipal Code (RMC) contains requirements for stormwater management and discharge control. RMC Section 12.22.090 outlines best management practices and standards that are required for construction activities and facilities that may contribute pollutants to stormwater. The proposed project would involve construction activities; therefore, the project must comply with RMC Section 12.22.090, which requires all construction to conform to the following: the California Stormwater Quality Association (CASQA) Stormwater BMP Handbooks for Construction Activities and New Development and Redevelopment; the Association of Bay Area Governments (ABAG) Manual of Standards for Erosion and Sediment Control Measures; and the City's grading and erosion control ordinance and other generally accepted engineering practices for erosion control as required by the City Manager.

Implementation of the proposed project would result in a nominal increase in impervious surface area (up to 900 square feet), which would not substantially increase volume of runoff during a storm that would increase the potential for soil erosion on-site. Therefore, implementation of the project would result in a less than significant impact related to soil erosion and the loss of topsoil.

²⁵ California Regional Water Quality Control Board (RWQCB). 2022. *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities Order No. WQ 2022-0057-DWQ, NPDES No. CAS000002*. Website: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0057-dwq.pdf (accessed January 24, 2025).

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

See Section 4.7.a.iii above, regarding lateral spreading and liquefaction. Potential effects associated with weak or unstable soils can be reduced or eliminated when they are re-engineered for stability prior to use. An acceptable degree of soil stability could be achieved for expansive or compressible soils through routine soil treatment programs (replacement, grouting, compaction, drainage control, etc.). Properly designing buildings and roads can offset the limited ability of the soil to support a load. The proposed project would be constructed with current best standards for earthquake-resistant construction in accordance with the most recent CBC adopted by the City and with the generally accepted standards of geotechnical practice for seismic design in Northern California. Therefore, no significant impacts would occur.

As indicated in Section 4.7.a.iv above, the project site is flat and is not located in an area identified as susceptible to landslides. There is no potential for seismically-induced landslides to occur on the project site.

Liquefaction-induced lateral spreading is defined as finite, lateral displacement of gently sloping or flat-laying ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit toward a free face such as an excavation, channel, or open body of water. Lateral spreading is generally caused by liquefaction of soils with gentle slopes. Although there is a potential for liquefaction at the site, the topography is flat and therefore, there is low potential for lateral spreading. Furthermore, proposed improvements would be designed and constructed in accordance with standard engineering practices and the CBC, which includes specifications for site preparation. Therefore, potential impacts associated with liquefaction-induced lateral spreading would be less than significant.

Collapsible soils are defined as any unsaturated soil that goes through a radical rearrangement of particles and greatly decrease in volume upon wetting, additional loading, or both. Soils subject to collapse do not occur at the project site. Furthermore, according to the United States Geological Survey (USGS) Areas of Land Subsidence in California,²⁶ the project site is not in an area of recorded subsidence.

Therefore, the proposed project would not be located on a geologic unit or soils that would become unstable or expose people or structures to landslide, lateral spreading, subsidence, liquefaction, or collapse. Impacts would be less than significant.

²⁶ United States Geological Survey (USGS). n.d. Areas of Land Subsidence in California. Website: https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html (accessed January 24, 2025)

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

Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. According to the Natural Resources Conservation Service Web Soil Survey,²⁷ the project site contains only one soil type: Urban Land (Ub). This soil type is not classified as an expansive soil.²⁸

Expansive soils could damage foundations, pavements, and other rigid structures installed as part of the proposed project. Damage from expansive soils would be minimized or eliminated using site-specific engineering techniques, including the treatment of expansive soils to reduce expansion potential, the installation of structures that can withstand pressures generated by expansive soils, and/or the replacement of expansive soils with non-expansive fill material. The proposed project would be designed and constructed in accordance with the most recent CBC adopted by the City and with the generally accepted standards of geotechnical practice for seismic design in Northern California. Compliance with these requirements would ensure that impacts related to expansive soils would be less than significant.

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

As described in Section 2.1.2.2 of this Initial Study, Existing Utilities and Infrastructure, the project site located in an urban area that is currently served by existing utility connections to service mains located in Wright Avenue (e.g., water, sewer, and power) and via an internal, closed-loop system within the project site (e.g., stormwater). The existing terminal does not contain or rely on septic systems and the proposed project would not involve the use of septic systems. Therefore, there would be no impact associated with septic systems. No new impacts or substantially more severe significant impacts related to septic systems would occur.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less Than Significant with Mitigation Incorporated)

Paleontological resources are non-renewable fossilized evidence of previous animal and plant life found in the geologic record. The evidence contains the remains or traces of the past life that has existed during the 600-million-year geological history of the San Francisco Bay Region.²⁹ As

²⁷ United States Department of Agriculture Soil Conservation Service. 2019. Web Soil Survey. Website: websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed January 24, 2025).

²⁸ United States Department of Agriculture Soil Conservation Service. 1977. *Soil Survey of Contra Costa County, California*.

²⁹ Graymer, R.W., B.C. Moring, G.J. Saucedo, C.M. Wentworth, E.E. Brabb, and K.L. Knudsen. 2006. *Geologic Map of the San Francisco Bay Region*.

described above, the proposed project site is directly underlain by fill consisting of silt, clay, sand, and debris to a depth of approximately 5 feet below grade in the northern portion of the existing terminal site, increasing to approximately 30 feet below grade in the southern portion of the existing terminal site.³⁰ The fill is underlain by bay mud clay beneath most of the facility, consisting of soft marine deposits. Underlying the fill and bay mud is Merrit Sand. Although no paleontological resources or unique geological features are known to exist within or near the project site, the proposed project would require ground disturbance to a depth of up to 10 feet bgs for installation of the new rail tracks and truck rack and removal of the existing underground contact water tank. Therefore, the possibility of accidental discovery of paleontological resources during project construction cannot be discounted. In the event that paleontological resources are encountered during project disturbing activities, **Mitigation Measure GEO-1** would be implemented to reduce potential impacts to a less than significant level.

Mitigation Measure GEO-1

Unanticipated Discovery of Paleontological Resources. Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. For purposes of this mitigation, a “qualified paleontologist” shall be an individual with the following qualifications: (1) a graduate degree in paleontology or geology and/or a person with a demonstrated publication record in peer-reviewed paleontological journals; (2) at least two years of professional experience related to paleontology; (3) proficiency in recognizing fossils in the field and determining their significance; (4) expertise in local geology, stratigraphy, and biostratigraphy; and (5) experience collecting vertebrate fossils in the field. If the paleontological resources are found to be significant and project activities cannot avoid them, measures shall be implemented to ensure that the project does not cause a substantial adverse change in the significance of the paleontological resource. Measures may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review. If paleontological materials are recovered, this report also shall be submitted to a paleontological repository such as the University of California Museum of Paleontology, along with significant paleontological materials. Public educational outreach may also be appropriate.

³⁰ Piedmont Geologic. 2024. *Interim Corrective Action Progress Report: 2nd Quarter 2024 TransMontaigne – Richmond Terminal*. Website: https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8989725053/SL372291176.PDF (accessed September 2024).

Implementation of **Mitigation Measure GEO-1** would reduce the level of the potential impact through the identification of paleontological resources during construction; the evaluation of unanticipated discoveries; and the recovery of significant paleontological data from those resources that warrant such investigation. This process would recover scientifically consequential information from at-risk resources to offset their potential loss. Therefore, with implementation of **Mitigation Measure GEO-1**, this impact would be less than significant with mitigation incorporated.

4.8 GREENHOUSE GAS EMISSIONS

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

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

- Carbon dioxide (CO₂);
- Methane (CH₄);
- Nitrous oxide (N₂O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulfur hexafluoride (SF₆).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, believed to be causing global warming. Although humanmade GHGs include naturally occurring GHGs (e.g., CO₂, methane, and N₂O), some humanmade gases (e.g., HFCs, PFCs, and SF₆) are completely new to the atmosphere.

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

These gases vary considerably in terms of global warming potential (GWP), a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (i.e., atmospheric lifetime). The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of CO₂ equivalents (CO₂e).

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

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

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

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

1. Buildings

- a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
- b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*.

2. Transportation

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

3. Retail projects: no net increase in existing VMT
 - b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
- B. Or be consistent with a local GHG reduction strategy that meets the criteria under *State CEQA Guidelines* Section 15183.5(b).

The City of Richmond does not have an adopted Climate Action Plan. Therefore, this section evaluates the proposed project's consistency with the BAAQMD's project design element thresholds. However, construction and operational GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) (refer to Appendix A) and are disclosed in the following sections for informational purposes.

Construction GHG Emissions. Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that construction of the proposed project would generate approximately 586 metric tons (MT) CO₂e. Construction GHG emissions were amortized over the life of the project (assumed to be 30 years) and added to the operational emissions. When annualized over the life of the project, amortized construction emissions would be approximately 19.5 MT CO₂e per year.

Operational GHG Emissions Long-term operation of the proposed project would generate GHG emissions from mobile, area, stationary, waste, and water sources as well as indirect emissions from sources associated with energy consumption. Mobile source GHG emissions would include project-generated vehicle trips to and from the project site. Area source emissions would be associated with activities such as landscaping and maintenance on the project site. Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the proposed project. Waste source emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

As discussed in Section 4.3, Air Quality, and Section 4.6, Energy, the proposed project is not anticipated to result in substantial emissions associated with area and energy sources. The new structures would not be plumbed for water or wastewater systems (only the nominal water use associated with three new employees would occur); therefore, the incremental water/wastewater demand would not be considered substantial. Moreover, the new structures would be comparable in size to the existing structures to be demolished, and other operational factors remain largely unchanged. Therefore, it is reasonable to conclude that incremental water/wastewater emissions are minimal and would not contribute to significant GHG emissions. Based on the nature of the proposed project, waste and water source emissions are also anticipated to be minimal.

Following guidance from the BAAQMD, GHG emissions for operation of the project were calculated using CalEEMod. In addition, emissions associated with the two additional marine vessel trips were estimated using the USEPA's Port Emissions Inventory Guidance³¹ using the same methodology described in Section 4.3, Air Quality. Based on the analysis results, summarized in Table 4.8.A, the proposed project would result in emissions of approximately 2,726.1 MT CO₂e per year. These estimated emissions are provided for informational purposes, and the significance of the proposed project is further analyzed below.

Table 4.8.A: Project Greenhouse Gas Emissions

Emission Type	Operational Emissions (metric tons per year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Mobile Sources	2,305.2	0.2	0.4	2,421.0
Area Sources	<0.1	<0.1	<0.1	<0.1
Energy Sources	<0.1	<0.1	<0.1	<0.1
Water Sources	<0.1	<0.1	<0.1	<0.1
Waste Sources	<0.1	<0.1	<0.1	<0.1
Marine Vessels				285.6
Amortized Construction Emissions				19.5
Total Operational Emissions				2,726.1

Source: Compiled by LSA
(September 2025).

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

N₂O = nitrous oxide

Applying the significance thresholds described above, a less than significant GHG impact would occur if the project were consistent with the identified design standards.

³¹ USEPA. 2022. Ports Emissions Inventory Guidance: Methodologies for Estimating Port Related and Good Movement Mobile Source Emissions. April. EPA-420-B-22-011. Website: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P1014J1S.pdf> (accessed September 2025)

Natural Gas Usage. According to the BAAQMD, a less than significant GHG impact would occur if the project does not include natural gas appliances or natural gas plumbing. The proposed project would not include the use of natural gas appliances or plumbing. Therefore, the proposed project would be consistent with this design element.

Energy Usage. The project must not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*. Energy use consumed by the proposed project would be associated with electricity consumption and fuel used for vehicle trips associated with the project. As described in Section 4.6, Energy, due to the small electricity demand of the terminal, it is not anticipated that operation of this facility would significantly impact Pacific Gas and Electric Company's (PG&E) ability to provide electricity in the region. Furthermore, as described in Section 2.3.2 of this Initial Study, the proposed project is anticipated to generate 104 daily trips, including 98 truck trips and six vehicle trips associated with new employees. Therefore, given the minimal trip generation, diesel fuel and gasoline consumption are expected to be minimal and would represent a small fraction of the overall Contra Costa County fuel consumption. Based on this analysis, as required under PRC Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy. As such, the proposed project would be consistent with this design element.

Vehicle Miles Traveled. To meet the BAAQMD's VMT threshold, the project must achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan or meet a locally-adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*.³² As discussed in Section 4.17, Transportation, a VMT analysis was not required for the proposed project; therefore, it is not expected that the proposed project would have a significant VMT impact. Further, the proposed project would be on track with meeting the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission regional target of reducing per capita emissions by 19 percent in order to achieve the GHG emission reductions developed by the California Air Resources Board (CARB) for the region, through the implementation of SB 375, by increasing the overall operational efficiency at the Richmond Terminal and thus reducing the delay on the regional freight network. By optimizing truck and freight circulation, trucks would spend less time idling, maneuvering, or re-circulating unnecessarily, and the proposed project would shift freight operations to a lower-emitting mode of throughput, thereby aligning with and contributing to the region's per-capita GHG reduction target. As such, the proposed project would be consistent with this design element.

Electric Vehicle Requirements. This criterion requires that the project achieve compliance with off-street electric vehicle requirements in the most recently adopted version of the California Green Building Standards Code (CALGreen) Tier 2 measures. The proposed project would involve the construction of 900 linear feet of rail expansion and a four-bay truck rack of approximately 3,968 square feet. As such, this design element is not applicable to the project.

³² Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. April.

The proposed project would be consistent with the BAAQMD's project design elements related to natural gas, energy, and VMT. Therefore, the proposed project would be consistent with the BAAQMD's GHG emission thresholds. As such, the proposed project would not generate significant GHG emissions that would have a significant effect on the environment, and this impact would be less than significant.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less Than Significant Impact)

The City of Richmond has not adopted a Climate Action Plan; therefore, the proposed project was analyzed for consistency with the goals of the Scoping Plan, Executive Order B-30-15, SB 32, and Assembly Bill (AB) 197.

Executive Order B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Executive Order B-30-15. CARB released the 2017 Scoping Plan,³³ to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. SB 32 builds on AB 32 and keeps California on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

The 2022 Scoping Plan³⁴ assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

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

³³ California Air Resources Board (CARB). 2017. *California's 2017 Climate Change Scoping Plan*. November.

³⁴ CARB. 2021. *2022 Scoping Plan*.

Energy efficient measures are intended to maximize energy efficiency in building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As discussed in Section 4.6, Energy, the energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources, and energy impacts would be negligible at the regional level. Therefore, the proposed project would not conflict with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The proposed project would involve the construction of 900 linear feet of rail expansion and a four-bay truck rack of approximately 3,968 square feet. Implementation of the proposed project would not significantly change the existing uses on-site. Furthermore, as described in the preceding section, the new structures would not be plumbed for water or wastewater systems (only the nominal water use associated with three new employees would occur); therefore, the incremental water/wastewater demand would not be considered substantial. Moreover, the new structures would be comparable in size to the existing structures to be demolished, and other operational factors would remain largely unchanged. Therefore, it is reasonable to conclude that incremental water/wastewater emissions are minimal and would not contribute to significant GHG emissions. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to increase zero emission vehicles and decrease VMT. As described above, the proposed project is not expected to result in a significant increase in the generation of vehicle trips or VMT. As such, the proposed project would not conflict with the transportation and motor vehicle measures.

As demonstrated above, the proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in Executive Order B-30-15, SB 32, and AB 197 and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant.

4.9 HAZARDS AND HAZARDOUS MATERIALS

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

Hazardous materials are chemicals that could cause harm during an accidental release or mishap and are defined as being toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer.³⁵ Hazardous substances include all chemicals regulated under the United States Department of Transportation's "hazardous materials" regulations and the United States Environmental Protection Agency's (USEPA) "hazardous waste" regulations.³⁶ Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The probable frequency and severity of consequences from the routine transport, use, or disposal of hazardous materials is affected by the type of substance, the quantity used or managed, and the nature of the activities and operations.

Land uses surrounding the project site consist of a mix of light and heavy industrial activities, as well as maritime operations. The terminal site is bounded to the north by Sim's Metal on South 4th

³⁵ A "sensitizer" is a chemical that can cause a substantial proportion of people or animals to develop an allergic reaction in normal tissue after repeated exposure to a chemical.

³⁶ United States Department of Transportation. 2017. Hazardous Materials Regulations. Website: www.phmsa.dot.gov/standards-rulemaking/hazmat/hazardous-materials-regulations (accessed January 24, 2025).

Street and Wright Avenue, specializing in metal recycling services. To the east of the facility is Eagle Rock Aggregates/Orca Sand & Gravel at 700 Wright Avenue, specializing in aggregate product distribution services. Southwest of the site, across the Santa Fe Channel, is the Richmond Shipyards District, which is home to several properties including the National Gypsum Company at 1040 Canal Boulevard, operating as a drywall plant for gypsum products manufacturing, and the Conoco Phillips Richmond Terminal at 1300 Canal Boulevard, functioning as a petroleum bulk storage and distribution facility. The property to the west is the Richmond Pacific Railroad Corporation at 402 Wright Avenue, which is engaged in transportation and warehousing operations.

Government Code Section 65962.5 states that the California Department of Toxic Substances Control (DTSC) shall compile and maintain annually a list of hazardous waste facilities subject to corrective action as part of the Health and Safety Code. This list is commonly referred to as the Cortese List. Cortese List data resources include EnviroStor, GeoTracker, and the Environmental Data Resources (EDR) search. The project site is currently listed on the Cortese List of active Cleanup and Abatement Order (CAO) sites due to soil and groundwater contamination. According to the State Water Resources Control Board's (SWRCB) Geotracker website,³⁷ the project site is listed as an open cleanup site and has been under quarterly monitoring since 2005, after an initial leaking underground storage tank was reported in 1985. The project site lists potential contaminants of concern as arsenic, aviation fuels and chemicals, benzene, chromium, copper, diesel, gasoline, heating oil/fuel oil, kerosene, lead, methyl tertiary-butyl ether/tertiary butyl alcohol/other fuel oxygenates, mercury, nickel, other metal, per- and polyfluoroalkyl substances (PFAS), silver, toluene, and xylene and lists the potential media of concern as groundwater and soil.

An Interim Corrective Action Plan for the project site was conditionally approved in December of 2023 by the San Francisco Bay Regional Water Quality Control Board (RWQCB) in response to a subsurface release of red-dye additive discovered in October 2020 and November 2023, and other historical site releases of petroleum products.³⁸ The site was most recently monitored in July 2024 in an Interim Corrective Action Progress Report by Piedmont Geologic, P.C. and Remedy Engineering, Inc., and is awaiting the approval and implementation of a site Self-Monitoring Program.

Three State-listed hazardous materials sites are located within 1,000 feet of the project site.³⁹ The regulatory oversight status of two of these three recorded release sites (which listed arsenic, cyanide, diesel, nickel, acid, metal, polychlorinated biphenyls [PCBs], toluene, trichloroethylene, metals/heavy metals, and petroleum/fuels/oils as potential contaminants of concern) are closed. A closed site indicates that regulatory requirements for response actions (e.g., site assessment and remediation) have either been completed or were not necessary. The third site is listed as open, but

³⁷ State Water Resources Control Board (SWRCB). 2024a. Geotracker Database. Website: https://geotracker.waterboards.ca.gov/profile_report?global_id=SL372291176&mytab=esidata&subcmd=edfsummarytable#esidata (accessed August 2024).

³⁸ Piedmont Geologic. *Interim Corrective Action Progress Report: 2nd Quarter 2024 TransMontaigne – Richmond Terminal*. Website: https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8989725053/SL372291176.PDF (accessed September 2024).

³⁹ State Water Resources Control Board (SWRCB). 2024b. Geotracker Map. Website: https://geotracker.waterboards.ca.gov/map/?global_id=SL372291176 (accessed September 2024).

inactive since 2018. The site lists waste, motor, hydraulic, and lubricating oils as the contaminants of concern and lists groundwater as the media of concern.

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

No hazardous wastes would be generated by the proposed project, but hazardous materials would continue to be stored and distributed with implementation of the proposed project. Potential impacts could involve mechanical failure on some equipment resulting in fuel or fluid spills. The hazardous material attributes of the facility's products (e.g., ethanol and renewable diesel) are mainly associated with their flammability and potential environmental impact should some mechanical failure on some equipment result in fuel or fluid spills.

The proposed project would include expansion of existing rail service that would require new pump infrastructure and piping, and expansion of the existing truck rack. During project construction, hazardous materials such as fuel, lubricants, paint, sealants, and adhesives would be transported and used at the project site. The proposed project would be required to comply with federal, State, and local regulations regarding the transportation, use, and disposal of hazardous materials, including preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that requires implementation of control measures for hazardous material storage and soil stockpiles, inspections, maintenance, and training, and containment of releases to prevent runoff into existing storm collection systems or waterways. Compliance with existing regulations and implementation of the SWPPP during construction would ensure that potential impacts associated with hazardous material use, transport, and disposal would be considered less than significant.

The existing terminal facility has a Spill Prevention Control and Countermeasure (SPCC) Plan, a Facility Response Plan (FRP), and an SWPPP, which are maintained and implemented by TransMontaigne pursuant to applicable federal, State, and local regulatory requirements. These plans would be updated, as needed, to reflect improvements associated with the proposed project. The SPCC Plan specifies that the facility provides more than adequate containment capability in the event of a leak, including a dedicated containment for truck loading areas, full tank farm containment walls, and dock transfer containment pan systems. By adhering to the existing SPCC Plan, FRP and SWPPP, future accidental spills or releases from day-to-day operations associated with the proposed project would be contained, recycled, and disposed of properly in compliance with federal, State, and local regulations. Therefore, potential impacts associated with the transport, use, storage, handling, and disposal of hazardous materials during operation of the project would be less than significant.

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

Implementation of the proposed project would expand but not fundamentally change current operations of the existing terminal facility, which includes the storage and distribution of hazardous materials. During operation of the proposed project, compliance with the existing hazardous materials regulations and programs, which are required for facilities handling significant quantities

of hazardous materials, would reduce the potential for release of hazardous materials that would be routinely transported and stored at the terminal facility. Compliance with these regulatory requirements would ensure that impacts associated with the handling of hazardous materials during operation of the project would be less than significant.

Past releases of hazardous materials on the project site have resulted in contamination of soil and groundwater, as described above. The public and/or the environment could be affected by the past releases of hazardous materials by exposing the environment, workers, and/or the public to potentially contaminated soil, and/or groundwater during construction activities, which involve excavation and site grading to accommodate proposed project components. If found, contamination could pose a health risk to construction workers at the project site and may require special soil management and disposal procedures to ensure that contaminated soil and/or groundwater are managed in accordance with applicable laws and regulations. Construction activities would be conducted with standard construction practices and in accordance with all applicable California Occupational Safety and Health Administration (Cal/OSHA) and other safety regulations to minimize the risk of hazardous materials/wastes. If impacted soil or groundwater is encountered during site grading, TransMontaigne would investigate and remediate cleanup and containment in compliance with the CAOs. In addition, TransMontaigne would continue to implement the semi-annual monitoring program and provide updates to the RWQCB, as required. Therefore, compliance with standard safety measures would minimize any potential impacts related to the release of hazardous materials into the environment. No new impact or substantially more severe significant impact related to the release of hazardous materials into the environment would occur.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (No Impact)

The closest school to the project site is Washington Elementary School, which is located approximately 0.93 mile west of the project site. The project site is not located within 0.25 mile of any existing or known proposed schools. Therefore, the proposed project would not emit hazardous emissions or handle hazardous materials within 0.25 mile of an existing or proposed school. No impact would occur.

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

Government Code Section 65962.5 states that the DTSC shall compile and maintain annually a list of hazardous waste facilities subject to corrective action as part of the Health and Safety Code. This list is commonly referred to as the Cortese List. Cortese List data resources include EnviroStor, GeoTracker, and the EDR search. As described above, the terminal facility is currently listed on the SWRCB's Geotracker website as an open cleanup site. An ongoing program monitors levels of contaminants in the soil and groundwater on the project site under the oversight of the USEPA and the RWQCB.

As discussed above, the disturbance of soil impacted with hazardous materials could result in a release of hazardous materials into the environment. Construction activities would be conducted with standard construction practices and in accordance with all applicable Cal/OSHA and other safety regulations to minimize the risk of hazards materials/wastes. If impacted soil or groundwater is encountered during site grading, TransMontaigne would investigate and remediate cleanup and containment in compliance with the CAOs. In addition, TransMontaigne would continue to implement the semi-annual monitoring program and provide updates to the RWQCB, as required. Therefore, compliance with standard safety measures would minimize any potential impacts related to being located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. This impact would be less than significant.

- e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? (No Impact)*

The proposed project site is not in the vicinity of a public or private airport. The closest airports to the project site are the San Rafael Airport, located approximately 10.8 miles to the northwest, Oakland International Airport, located approximately 15 miles to the southeast, Buchanan Field Airport, located approximately 17.5 miles to the east and San Francisco International Airport, located approximately 20 miles to the southwest. No other public or private airstrips are in the vicinity of the proposed project. Therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur.

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

The project area is not part of an adopted emergency response plan or emergency evacuation plan. The project site is located within the existing terminal facility. Fire and emergency vehicle access to the project site would be from the main entrance at 488 Wright Avenue. Existing streets that would be used to access the project site are built to City of Richmond standards and would not be modified. Implementation of the proposed project would not substantially alter or block the adjacent roadways and is not expected to impair the function of nearby emergency evacuation routes. The proposed project would not impair the implementation of, or interfere with, an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.

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

According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is within a Local Responsibility Area (LRA) for fire protection but is designated as a Very High Fire Hazard Severity Zone (VHFHSZ).⁴⁰ Its location within a LRA means that local government (the City of Richmond) is financially responsible for wildland fire protection. Further, the City of Richmond does

⁴⁰ California Department of Forestry and Fire Protection (CAL FIRE). n.d. California Fire Hazard Severity Zone Viewer. Website: <https://egis.fire.ca.gov/FHSZ/> (accessed August 2024).

not identify the project site or surrounding area as being in a moderate or high wildfire risk area.⁴¹ The proposed project site is in an urbanized area within Richmond and is not adjacent to wildlands. As such, the proposed project would not be subject to wildland fire risks. This impact would be less than significant.

⁴¹ City of Richmond. n.d. City of Richmond Geographic Information System Viewer. Website: <http://geoweb02.ci.richmond.ca.us/Html5Viewer/Index.html?configBase=http://geoweb02.ci.richmond.ca.us/Geocortex/Essentials/REST/sites/GISViewerINTERNET/viewers/html5/virtualdirectory/Resources/Config/Default> (accessed August 2024).

4.10 HYDROLOGY AND WATER QUALITY

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

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) regulate the quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project site, the San Francisco Bay RWQCB is responsible for implementation of the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses and water quality objectives for waterways and water bodies within the region. Section 303(d) of the federal Clean Water Act (CWA) requires that states identify water bodies, including bays, rivers, streams, creeks, and coastal areas, that do not meet water quality standards and those pollutants that are causing the impairment. Total Maximum Daily Loads (TMDLs) describe the maximum amount of a pollutant that a water body can receive while still meeting established water quality standards. A TMDL establishes limits for pollutant discharges into impaired water bodies. The project site is adjacent to the Sante Fe Channel and the Lauritzen Canal, which is part of central San Francisco Bay. The SWRCB Surface Water Quality Assessment 2020–2022 Integrated Report for CWA Sections 303(d) and 305(b) lists the central San Francisco Bay as an impaired water body for the following pollutants: dichlorodiphenyltrichloroethane (DDT), dioxin compounds, furan compounds,

polychlorinated biphenyls (PCBs) (dioxin-like), dieldrin, trash, mercury, invasive species, and chlordane.⁴²

Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal CWA). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES Program is administered by the San Francisco Bay RWQCB. According to the water quality control plans of the San Francisco Bay RWQCB, any construction activities, including grading, that would result in the disturbance of 1 acre or more would require compliance with the SWRCB Construction General Permit (CGP),⁴³ which requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of Construction best management practices (BMPs) during construction activities. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on-site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. Because the proposed project would disturb less than 1 acre of soil, the project is not subject to the requirements of the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. WQ 2022-0057-DWQ, NPDES No. CAS000002) (CGP).⁴⁴ However, Chapter 12.22 of the Richmond Municipal Code (RMC) contains requirements for stormwater management and discharge control. RMC Section 12.22.090 outlines best management practices and standards that are required for construction activities and facilities that may contribute pollutants to stormwater. The proposed project would involve construction activities; therefore, the project must comply with RMC Section 12.22.090, which requires all construction to conform to the following: the California Stormwater Quality Association (CASQA) Stormwater BMP Handbooks for Construction Activities and New Development and Redevelopment; the Association of Bay Area Governments (ABAG) Manual of Standards for Erosion and Sediment Control Measures; and the City's grading and erosion control ordinance and other generally accepted engineering practices for erosion control as required by the City Manager.

The proposed project would be subject to the Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit),⁴⁵ which

⁴² State Water Resources Control Board (SWRCB). 2023. *2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)*. Website: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html (accessed September 2023).

⁴³ SWRCB. 2022. NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002).

⁴⁴ California Regional Water Quality Control Board (RWQCB). 2022. *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities Order No. WQ 2022-0057-DWQ, NPDES No. CAS000002*. Website: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0057-dwq.pdf (accessed January 24, 2025).

⁴⁵ SWRCB. 2018. National Pollutant Discharge Elimination System (NPDES) Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-0122-DWQ & Order WQ 2018-0028-DWQ, General Permit for Storm Water Discharges Associated with Industrial Activities (Order NPDES NO. CAS000001). Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.html (accessed December 21, 2023).

implements the federally-required stormwater regulations in California for stormwater associated with industrial activities discharging to waters of the United States. In compliance with the requirements of the Industrial General Permit, the existing terminal facility has prepared an SWPPP that details the on-site stormwater management system and BMPs and accompanying site monitoring commitments implemented at the project site. Additionally, the existing facility maintains a current Spill Prevention Control and Countermeasure (SPCC) plan along with a Facility Response Plan pursuant to applicable federal, State, and local regulatory requirements. These plans would be updated, as needed, to reflect improvements associated with the proposed project.

As described in Section 2.1.2.2 of this Initial Study, two water collection networks are in place to collect both petroleum contact water and non-contact stormwater. Stormwater inlets from the tank farm, railcar loading area, and truck rack loading area are connected to the internal storm drain system. Stormwater from inside the containment areas and inside the storm drain system is collected and conveyed to a sand separator, oil-water separator and a series of filters, then directed to the holding basin, which releases to the Santa Fe Channel. Wastewater discharges are processed through the pre-treatment system for discharge to the City's municipal sewer system under the authority of its Industrial Discharge Permit. Other than runoff from the property perimeter, the only point of stormwater discharge is from the catch basin under the oversight of the NPDES Industrial General Permit (IGP).

The proposed project is located within the Santa Clara Valley-East Bay Plain Subbasin of the Santa Clara Valley Groundwater Basin. As described in Section 4.7, Geology and Soils, above, observed depths to groundwater at the site have historically ranged from approximately 1 to 12 feet below grade. The overall groundwater gradient for most of the site property, excluding the northernmost portion, is generally toward the south (towards the Santa Fe Channel), whereas the gradient in the northernmost site portion is generally toward the north. Tidal influence on groundwater levels reportedly extends approximately 250 feet into the southern portion of the terminal site.

The East Bay Municipal Utility District (EBMUD) is the Groundwater Sustainability Agency for the Santa Clara Valley-East Bay Plain Subbasin. The EBMUD's East Bay Plain Subbasin Groundwater Sustainability Plan, adopted July 27, 2023, describes the groundwater management and protection policies for the subbasin.

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

Impacts to water quality associated with construction and operation of the proposed project are described below.

Construction. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste

may be spilled or leaked and have the potential to be transported via stormwater runoff into receiving waters.

Although the project is not subject to the requirements of the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. WQ 2022-0057-DWQ, NPDES No. CAS000002) (CGP),⁴⁶ the City's Municipal Code in Chapter 12.22 requires that the project sponsor implement construction BMPs to minimize erosion and retain sediment on-site and to prevent leaks, spills, and discharge of construction debris and waste into receiving waters. Adherence to the City's Municipal Code would ensure that construction impacts related to surface water quality standards, waste discharge requirements, and surface water quality would be less than significant.

Operation. As described above, the proposed project would be subject to the requirements of the Industrial General Permit, which implements the federally-required stormwater regulations in California for stormwater associated with industrial activities discharging to waters of the United States. As outlined in Section 2.3.1.1 of this Initial Study, stormwater from the existing truck racks drains to an underground storage tank and is pumped through the terminal's existing, on-site, closed loop water treatment system and then discharged into San Francisco Bay. As part of the proposed project, the existing 5,000-gallon (14 feet long by 8 feet in diameter) underground storage tank would be demolished and replaced with an equivalent (or smaller) above-ground storage tank within the existing terminal facility. Replacement of the underground tank with an above ground tank would facilitate ongoing maintenance and inspection. Following project construction, stormwater would continue to be directed into the terminal's existing stormwater system for treatment and discharge in compliance with the approved SWPPP and the Industrial General Permit. Therefore, operation-period impacts to water quality would be less than significant.

The proposed project would not violate waste discharge requirements or water quality standards from construction and operational impacts by implementing temporary BMPs, site design measures, source control measures, and stormwater treatment measures. This impact would be less than significant.

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

Temporary excavations for proposed improvements may extend to depths of 10 feet below ground surface (bgs) for removal of the existing underground storage tank. Groundwater dewatering may be required if groundwater is encountered during construction activities. Release of dewatered groundwater to surface waters can introduce total dissolved solids and other constituents to surface waters and could cause degradation of the receiving water quality. In the event that groundwater is

⁴⁶ California Regional Water Quality Control Board (RWQCB). 2022. *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities Order No. WQ 2022-0057-DWQ, NPDES No. CAS000002*. Website: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0057-dwq.pdf (accessed January 24, 2025).

encountered during construction and groundwater dewatering is necessary, any groundwater dewatering during excavation would be conducted in accordance with the treatment and discharge requirements of the Industrial General Permit and in accordance with the SWPPP prepared for the terminal. In addition, such dewatering would be localized and temporary and would not result in the lowering of surrounding groundwater levels. Therefore, construction of the project would result in a less than significant impact associated with depleting groundwater supplies or substantially interfering with groundwater recharge.

Implementation of the proposed project would create approximately 900 square feet of additional impervious area at the project site. When compared to the volume of the groundwater basin (2,670,000 acre-feet),⁴⁷ any reduction in on-site infiltration would not be substantial. Long-term dewatering activities associated with groundwater monitoring would continue, but would not increase, with implementation of the proposed project. As such, the groundwater table would remain substantially unchanged by the proposed project. Therefore, impacts to groundwater supplies and recharge would be less than significant.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site; (Less Than Significant Impact)

During construction activities, soil would be exposed, and drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. Compliance with RMC Chapter 12.22 requires preparation of an erosion and sediment control plan to identify construction BMPs to be implemented as part of the proposed project to reduce impacts on water quality during construction, including those impacts associated with soil erosion and siltation. With compliance with the requirements in RMC Chapter 12.22, construction impacts related to on- or off-site erosion or siltation would be less than significant.

After the completion of project construction, operation of the proposed project would result in a minimal increase in impervious surfaces on the project site (up to 900 square feet). As discussed above, in compliance with the Industrial General Permit, the project sponsor would be required to implement the SWPPP, which details the existing on-site stormwater system as well as monitoring requirements. Following project construction, stormwater would continue to be directed into the terminal's existing stormwater system for treatment and discharge in compliance with the approved SWPPP and the Industrial General Permit. Therefore, operational impacts related to on- or off-site erosion or siltation would be less than significant.

⁴⁷ California Department of Water Resources (DWR). 2006. *Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin*. California's Groundwater Bulletin 118. Website: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/2_009_04_East-BayPlainSubbasin.pdf (accessed September 27, 2023).

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (Less Than Significant Impact)

Construction activities would temporarily alter on-site drainage patterns and compact soil, which can increase the volume and velocity of stormwater runoff. However, construction activities would be temporary, and the increase in runoff would not be substantial. As discussed in Section 4.10.a above, RMC Chapter 12.22 requires preparation of an erosion and sediment control plan to identify construction BMPs to be implemented as part of the project to reduce impacts to water quality during construction, including those impacts associated with flooding. Therefore, adherence to the City's Municipal Code would ensure that construction activities would not increase the rate or amount of surface runoff in a manner that would result in flooding either on-site or off-site.

Similarly, as discussed above, in compliance with the Industrial General Permit, the project sponsor would be required to implement the SWPPP, which details the existing on-site stormwater system as well as ongoing monitoring requirements. Following project construction, stormwater would continue to be directed into the terminal's existing stormwater system for treatment and discharge in compliance with the approved SWPPP and the Industrial General Permit. Therefore, operational impacts related to on- or off-site flooding would be less than significant.

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)

Refer to Sections 4.10.a and 4.10.c.i. The proposed project would not create or contribute runoff that would exceed the existing or planned stormwater drainage systems. The proposed project could result in additional sources of polluted runoff; however, compliance with State and local requirements for preparation of an erosion and sediment control plan and continued treatment, storage, and discharge of stormwater in accordance with the existing Industrial Waste Discharge Permit would ensure that potential impacts associated with runoff and stormwater drainage systems would be less than significant.

iv. Impede or redirect flood flows? (No Impact)

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map No. 06013C0236G (September 30, 2015), the project site is not located within a designated special flood hazard area.⁴⁸ The proposed project would construct new facilities within the existing boundaries of the existing terminal facility. Proposed facilities would be similar to and consistent with existing facilities and would not impede or redirect flood flows. No impact would occur.

⁴⁸ Federal Emergency Management Agency (FEMA). n.d. FEMA Flood Map Service Center. Website: [fema.gov/portal/home](https://www.fema.gov/portal/home) (accessed January 24, 2025).

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

As described above, the project site is not located within a 100-year flood hazard zone as mapped by FEMA. Therefore, the proposed project would not risk release of pollutants due to flood hazard.

Seiching is a phenomenon that occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities such as reservoirs and water tanks. Such waves can cause retention structures to fail and flood downstream properties. The project area is located within the San Pablo Dam inundation zone and could experience potential flooding from a seiche at the San Pablo Dam. The dam has recently been retrofitted, and the project would not construct any habitable structures. Therefore, the risk associated with possible seiche waves is not considered significant.

Tsunamis are generated wave trains generally caused by tectonic displacement of the seafloor associated with shallow earthquakes, seafloor landslides, rock falls, and exploding volcanic islands. The project site is located in proximity to San Francisco Bay and is located in a tsunami inundation area as identified by the California Department of Conservation (DOC) Tsunami Inundation Maps.⁴⁹ No habitable structures would be constructed; therefore, implementation of the proposed project would not significantly increase safety risks to people. However, the proposed project would construct additional facilities within the existing terminal facility to enhance the existing use of the site for storage and distribution of ethanol and renewable diesel, which would increase the volume of materials stored on-site that could be released during inundation.

Terminal operations and on-site facilities are designed to minimize the risk of accidental release of materials. Typically, marine vessels dock at the terminal for 2-3 hours before being emptied. Berthing time for vessels is limited to the time needed to safely conduct a marine product transfer operation, consistent with standard operations to ensure that product storage tanks have been gauged, paperwork has been completed, and other standard logistical tasks are addressed. Similarly, railcars for ethanol are offloaded within an hour of arrival and railcars for feedstocks are unloaded from 1 to 8 hours of arrival (due to potential need for steam heating). The offload process for railcars is done through a product manifold system, which reduces the offload time to only several hours.

As described in Section 2.1.2.2 of this Initial Study, stormwater generated at the project site is treated through an on-site water treatment system. The secondary containment walls/berms around the tank farm are designed to hold a worst-case scenario full volume release of the largest storage tank on-site (approximately 78,000 barrels) plus a safety factor of rainfall from a 25-year/24-hour storm event (this adds an additional 18 percent of containment). In addition, the railcar and truck rack offloading/loading systems must also have containment that can accommodate the release of an entire railcar. Under existing conditions, railcar containment on-site can hold approximately 120 percent of the full railcar volume. Similarly, truck containment must be sufficient to hold the release of the maximum truck compartment containment volume. Under existing

⁴⁹ California Department of Conservation (DOC). 2021. Inundation Maps, Contra Costa County. Website: <https://www.conservation.ca.gov/cgs/tsunami/maps/contra-costa> (accessed January 2025).

conditions, truck rack containment on-site can hold approximately 190 percent of the full maximum truck compartment volume. Implementation of the proposed project would increase the secondary containment volumes for the rail area and truck loading rack area to meet the containment requirements as identified in the terminal's Spill Prevention Control and Countermeasure Plan (SPPC Plan) and established pursuant to the Code of Regulations (CFR) Title 40 Section 112. With these existing operations and facilities in place, proposed improvements would not increase the risk of inundation of a tsunami compared to the existing conditions. This impact would be less than significant.

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

As discussed in Section 4.10.a above, the proposed project would be subject to the requirements of RMC Chapter 12.22 during construction activities and the existing General Industrial Stormwater Permit during project operations. Adherence to the City's Municipal Code and the General Industrial Stormwater Permit would ensure that construction and long-term operation of the proposed project would not violate any water quality standards or waste discharge requirements. Therefore, the proposed project would not conflict with the Basin Plan.

The California Sustainable Groundwater Management Act (SGMA), which took effect on January 1, 2015, established a framework of priorities and requirements to facilitate sustainable groundwater management throughout the State. The intent of SGMA is for groundwater to be managed by local public agencies (e.g., water districts and irrigation districts) and newly formed Groundwater Sustainability Agencies to ensure that a groundwater basin is operated within its sustainable yield (no long-term overdraft) through the development and implementation of Groundwater Sustainability Plans (GSPs). The project site is located within the Santa Clara Valley-East Bay Plain Subbasin for which EBMUD has adopted a GSP.

As described above, groundwater dewatering may be required for the installation of the proposed improvements. Groundwater dewatering, if needed, would be temporary in nature and would cease following completion of construction. It is not anticipated that the volume of groundwater extracted during dewatering activities would be substantial in comparison to the overall volume of the groundwater basin. Additionally, existing groundwater is currently extracted as part of ongoing groundwater monitoring activities conducted with the oversight of the RWQCB. Implementation of the proposed project would not increase the amount of groundwater extraction that currently occurs.

The proposed project would construct new facilities within the existing boundaries of the terminal facility. With an estimated 300 additional gallons of domestic water demand per day for the proposed three new employees, the proposed project would not require substantial additional water supply during project operations. Furthermore, proposed improvements would result in a minimal increase in impervious surface area and would not interfere with groundwater recharge. Therefore, construction and operational activities associated with the proposed project would not conflict with or obstruct implementation of the sustainable groundwater management plan. This impact would be less than significant.

4.11 LAND USE AND PLANNING

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

The existing terminal is an onshore bulk-liquids storage and distribution terminal that provides storage and transfer services for petroleum products (e.g., oil, marine fuel, diesel), denatured ethanol, renewable diesel, diesel additives, and renewable feed stocks (new and used vegetable and animal oils). The terminal receives petroleum and renewable products from another party's pipeline, barge/ship, rail, and truck and stores and distributes them to customers. The project site comprises approximately 10 acres of the total, approximately 11.5-acre terminal site. The terminal facility and its surrounding land uses can be characterized by a mix of light and heavy industrial activities, as well as maritime operations.

a. Would the project physically divide an established community? (No Impact)

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

The project area is predominantly an industrial employment center characterized by light and heavy industrial and maritime activities. The proposed project would be constructed on TransMontaigne-owned property and would not have the potential to cause a physical barrier within an established community. The proposed project would not require the construction of any new infrastructure that would divide an established community and would not remove any means of access. Therefore, the proposed project would not result in a physical division of an established community or adversely affect the continuity of land uses in the vicinity. No impact would occur.

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

As discussed in Section 2.1.4, Regulatory Setting, the City of Richmond General Plan Land Use Map designates the project site as "Port." This land use designation is intended for port and water-related uses including warehouses, storage tanks, shipbuilding slips, marine terminals for ship loading and unloading, truck loading and unloading areas, industrial businesses, auto uploading, ship repair, and private and public port areas. The land use designation is also intended for working waterfront uses such as private and publicly-owned port terminals, warehousing, commercial

fishing, ship repair, and related office uses. The allowable floor area ratio (FAR) ranges from 0.25 to 1.0, with a maximum building height of 100 feet.

The City of Richmond Zoning Map identifies the project site as Industrial, Water-Related (IW). The IW District is intended for waterfront-related industrial development that includes manufacturing, warehousing and distribution, marine services, supporting office uses, and other large-scale uses that support the Port of Richmond. Permitted uses include incubator-research facilities for marine-related activities, prototype manufacturing, testing, repairing, packaging, and storage as well as offices and support facilities. Accessory or secondary small-scale retail uses that serve local employees, port users, and visitors are also permitted.

The project site is located within the Richmond Port Priority Use Area as designated in the Bay Conservation and Development Commission (BCDC) San Francisco Bay Area Seaport Plan (Seaport Plan).⁵⁰ The Seaport Plan is part of the San Francisco Bay Plan (Bay Plan) and is used by the BCDC to help guide its regulatory decisions on permit applications, consistency determinations, and related matters. The Seaport Plan promotes the following goals:

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 the 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 goods movement and transportation planning efforts.
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.

Proposed improvements associated with the proposed project, including the construction of 900 feet of rail spurs, a modified truck rack, and an above-ground storage tank, would be consistent with the Port and IW land use plan designations and zoning, respectively. The proposed project is also consistent with the goals of the Seaport Plan.

Because the proposed project includes the construction of 900 feet of rail spurs, a modified truck rack, and an above-ground storage tank in order to facilitate existing uses at the facility, the project is consistent with the City of Richmond General Plan, the City of Richmond Zoning Ordinance, and other applicable plans. Therefore, the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant.

⁵⁰ San Francisco Bay Conservation and Development Commission (BCDC). 2023. Draft Seaport Plan. Website: <https://bcdc.ca.gov/wp-content/uploads/sites/354/2024/03/seaport-plan.pdf> (accessed August 2024).

4.12 MINERAL RESOURCES

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

Minerals are any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances including, but not limited to, coal, peat, and oil-bearing rock, but excluding geothermal resources, natural gas, and petroleum.

The California Department of Conservation (DOC), California Geological Survey, and the California State Mining and Geology Board are required by the Surface Mining and Reclamation Act of 1974 to categorize lands into four Aggregate and Mineral Resource Zones (MRZs), described below. These MRZs classify lands that contain significant regional or statewide mineral deposits. Lead Agencies are mandated by the State to incorporate MRZs into their General Plans.

MRZs are classified on the basis of geologic factors without regard to existing land use and land ownership. The four MRZs are categorized as follows:

- **MRZ-1:** An area where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- **MRZ-3:** An area containing mineral deposits, the significance of which cannot be evaluated.
- **MRZ-4:** An area where available information is inadequate for assignment to any other MRZ zone.

Of the four categories, lands classified as MRZ-2 are of the greatest importance because such areas are underlain by demonstrated mineral resources or are located where geologic data indicate that significant measured or indicated resources are present. MRZ-2 areas are designated by the State Mining and Geology Board as being "regionally significant." Such designations require that a Lead Agency make land use decisions involving designated areas in accordance with its mineral resource management policies and that it considers the importance of the mineral resource to the region or the State as a whole, not just to the Lead Agency's jurisdiction.

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

Per the California Division of Mines and Geology,⁵¹ the project site has been classified as MRZ-1. As described in the Open Space and Conservation Element of the City of Richmond General Plan,⁵² only two quarries have recently been in operation in Richmond: one quarry on Canal Boulevard near the Port of Richmond and another at Point Molate. The Canal Boulevard quarry has been closed and remediated. The Point Molate quarry is focused on recycling and handling operations rather than extraction. No quarry operations are anticipated in the future.

The proposed project site is within an area that has been previously developed for industrial uses. The project site is not located in an area used or available for extraction of a regionally important mineral resource, and the project would not convert an existing or potential future regionally important mineral extraction use to another use. Therefore, the proposed project would not result in the loss of availability of known mineral resources that would be of value to the region and residents of the State. No impact would occur.

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

Please refer to Section 4.12.a, above. The proposed project would not result in the loss of availability of any known locally important mineral resource recovery site. No impact would occur.

⁵¹ California Department of Conservation (DOC). 1996. *Generalized Mineral Land Classification Map of the South San Francisco Bay Production-Consumption Region*. Division of Mines and Geology.

⁵² City of Richmond. 2012a. *Richmond General Plan 2030, Conservation and Natural Resources*. Section 7.4. Website: <https://www.ci.richmond.ca.us/DocumentCenter/View/8812/70-Conservation-Natural-Resources-and-Open-Space?bidId=> (accessed September 2024).

4.13 NOISE

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

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

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

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} , the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on dBA. CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of applicable regulatory agencies, including, as appropriate, the City of Richmond.

Certain land uses are considered more sensitive to noise than others. Examples of these land uses include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project site is surrounded by a mix of uses within an industrial area of Richmond. The project site is located in south Richmond, which is characterized by a mix of uses, including industrial, manufacturing, commercial/restaurant uses, and residential uses opposite I-580 and opposite Marina Way South. The closest sensitive receptors are single-family residential uses located approximately 0.45 mile northeast of the project site.

The City of Richmond General Plan addresses excessive noise in the Public Safety and Noise Element.⁵³ Major noise sources in Richmond include transportation, industrial plant noise, and activities associated with neighborhoods. The General Plan provides policies and actions to protect the community from excessive noise levels. Policies and actions applicable to the proposed project include the following:

- Policy SN4.1: Noise Levels. Work with regulatory agencies to monitor and enforce noise standards in the community. Reduce or mitigate objectionable noise sources and require new noise sources to comply with noise standards. Regulate both indoor and outdoor noise levels to protect health and safety. Use a combination of noise standards and existing noise levels to determine impacts and mitigation measures.
- Policy SN4.3: Transportation-Related Noise. Monitor changes in technology that will prevent and mitigate transportation related noise impacts on residential and sensitive uses in the community. Support traffic and freeway improvements that will reduce noise impacts of vehicles. Alternatives to sound walls should be considered where possible.
- Action SN4.A: Noise Study Report Requirement. Require proposed commercial and industrial uses with potential noise and vibration-producing activities or new noise-sensitive uses that locate in an area with day-night average sound level (L_{dn}) of 55 or greater to provide noise study reports. The report should identify noise mitigation measures that limit noise to an acceptable level compared to existing conditions.
- Action SN4.B: Noise Study Guidelines. Regularly review and update guidelines for the analysis of noise impacts and conflicts in the community. Ensure that the effect of brief loud noises such as locomotive horns are analyzed and that noise limitations include a maximum acceptable noise level for noises of short duration for interior sleeping areas of residential and other uses. Use the noise analysis to review development proposals to assure consistency with noise standards. Consider the following measures for mitigating noise impacts on adjacent properties:

⁵³ City of Richmond. 2012c. *Richmond General Plan 2030, Element 12 – Public Safety and Noise*. April. Website: <https://www.ci.richmond.ca.us/DocumentCenter/View/8817/120-Public-Safety-and-Noise-Element?bidId=> (accessed January 2025).

- Screen and control noise sources such as parking, outdoor activities and mechanical equipment.
 - Use technology to reduce noise impacts in instances where setbacks cannot be increased.
 - Use state of the art noise-abating materials technology and construction standards and double or triple glazed windows to meet noise standards.
 - Control hours of operation, including deliveries and trash pickup to minimize noise impacts.
 - Use the Future Noise Contours data and Municipal Codes on noise to determine if additional noise studies are needed.
- Action SN4.C: Noise Ordinance. Regularly review and update the noise ordinance to regulate noise-generating activities and proposed developments near noise-generating activities based upon changes in state law. Where feasible, limit the impact of noise sources on noise-sensitive uses and consider noise and vibration impacts in land use planning decisions. Require mitigation of potential noise impacts on adjacent properties. Enforce the Land Use Compatibility Standards presented in the State of California's General Plan Guidelines when siting new uses in existing noise environments. Require new residential development and other noise sensitive uses near railroad crossings or other sources of brief loud noise to be analyzed for noise compatibility using standards based on both 24-hour averages and maximum instantaneous interior noise levels to determine the noise effects on sleep disturbance and other essential human functions. Encourage projects to use site planning and building orientation principles as well as state-of-the-art noise-abating materials, technology, and construction standards to minimize noise.

Reduce noise levels generated by roadways, railroads and other facilities by: encouraging the California department of transportation (Caltrans) to institute noise reduction measures on existing and future freeways to lessen noise impacts on areas immediately adjacent to the freeway; encouraging public agencies to ensure that their programs are consistent with those of the City as they relate to noise control; and urging strict enforcement of current federal railroad noise emission standards by the U.S. Department of Transportation.

A significant impact regarding operational noise levels would occur if operations were to generate noise levels that exceed the standards contained in Article 15.04.605 of the Richmond Municipal Code.⁵⁴ Table 15.04.605.040: Noise Standards dBA – Noise Levels for a Time Period Not Exceeding (minutes/hour) provides community noise exposure limits for designated zoning districts. To summarize, noise levels at single-family residences shall not exceed 60 dBA for greater than 30 minutes per hour from 7:00 a.m. to 10:00 p.m. nor 50 dBA for greater than 30 minutes per hour from 10:00 p.m. to 7:00 a.m.

⁵⁴ City of Richmond. 2025c. Richmond Municipal Code, Article 15.04.605 – Noise. Website: https://library.municode.com/ca/richmond/codes/code_of_ordinances?nodeId=ARTXVZOSU_CH15.04ZOSURE_SERIES_600GEST_ART15.04.605NO (accessed January 2025)

The City of Richmond Municipal Code addresses noise from stationary construction equipment during temporary construction activity in Section 9.52.110 in the Community Noise Ordinance.⁵⁵ To summarize, sound levels from stationary construction equipment shall not exceed 60 dBA on weekdays from 7:00 a.m. to 7:00 p.m. and 55 dBA on weekends, including legal holidays, from 9:00 a.m. to 8:00 p.m., in single-family residential zoning districts.

To assess existing noise levels, LSA conducted two long-term noise measurements in the vicinity of the project site. The long-term (24-hour) noise level measurements were conducted on September 26 through September 27, 2024, using two Larson Davis Spark 706RC Dosimeters. Table 4.13.A provides a summary of the measured hourly noise levels and calculated CNEL level from the long-term noise level measurements. As shown in Table 4.13.A, the calculated CNEL levels reached 77.8 dBA CNEL. Noise measurement sheets are provided in Appendix F. Figure 4.13-1 shows the long-term monitoring locations.

Table 4.13.A: Long-Term 24-Hour Ambient Noise Monitoring Results

Location		Daytime Noise Levels ¹ (dBA L _{eq})	Evening Noise Levels ² (dBA L _{eq})	Nighttime Noise Levels ³ (dBA L _{eq})	Daily Noise Levels (dBA CNEL)
LT-1	On a utility pole approximately 15 feet south of the Wright Avenue centerline and 1,440 feet south of the edge of Cutting Boulevard.	58.2 – 79.1	57.1 – 63.7	58.0 – 77.2	77.8
LT-2	On a utility pole approximately 20 feet south of the center of Wright Avenue and 495 feet south of the edge of Hoffman Boulevard.	61.9 – 72.0	55.4 – 69.7	58.7 – 70.4	73.5

Source: Compiled by LSA (2024).

Note: Noise measurements were conducted from September 26 to September 27, 2025, starting at 11:00 a.m.

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

² Evening Noise Levels = noise levels during the hours from 7:00 p.m. to 10:00 p.m.

³ Nighttime Noise Levels = noise levels during the hours from 10:00 p.m. to 7:00 a.m.

CNEL = Community Noise Equivalent Level

ft = foot/feet

dBA = A-weighted decibels

L_{eq} = equivalent continuous sound level

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

The following describes how the short-term construction and long-term operational noise impacts of the proposed project would be less than significant, according to the standards set forth above.

⁵⁵ City of Richmond. 2025d. Richmond Municipal Code, Chapter 9.52 – Community Noise Ordinance. Website: https://library.municode.com/ca/richmond/codes/code_of_ordinances?nodeId=ARTIXHE_CH9.52CONOOR (accessed January 2025)



LSA

- Project Location
- Noise Monitoring Location

FIGURE 4.13-1



0 200 400
FEET

SOURCE: Google Maps (2024)

Richmond Terminal Rail and Truck Rack Expansion Project
Noise Monitoring Locations

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Short-Term (Construction) Noise Impacts. Project construction could result in short-term noise impacts on the nearby sensitive receptors. The closest sensitive receptors are the single-family residences approximately 1,550 feet north of noise measurement location LT-2 and approximately 1,750 feet northeast of the project site boundary. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase of construction. The entire construction duration is expected to occur for approximately 12 months. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during grubbing and land clearing, grading and excavation; drainage, utilities, and sub-grade installations; and paving activities. Table 4.13.B lists typical construction equipment maximum instantaneous noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the project area but would no longer occur once construction of the project is completed.

Table 4.13.B: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet ¹
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Pick-up Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Welder	40	73

Source: Roadway Construction Noise Model (Federal Highway Administration 2006).

Note: Noise levels reported in this table are rounded to the nearest whole number.

¹ Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.

L_{max} = maximum instantaneous sound level

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the site, which would incrementally increase noise levels on roads leading to the site. As shown in Table 4.13.B, there would be a relatively high single-event noise exposure potential at a maximum level of 84 dBA L_{max} with trucks passing at 50 feet.

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

Table 4.13.B lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Typical maximum noise levels range up to 87 dBA L_{max} or 85 dBA L_{eq} at 50 feet during the noisiest construction phases. The site preparation phase, including excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

Table 4.13.C shows the nearest sensitive uses to the project site, their distance from the center of construction activities, which represents the acoustic center of construction noise; and composite noise levels expected during construction. These noise level projections do not consider intervening topography or barriers.

Table 4.13.C: Potential Construction Noise Impacts at Nearest Receptor

Receptor (Location)	Composite Noise Level (dBA L_{eq}) at 50 ft ¹	Distance ² (ft)	Composite Noise Level (dBA L_{eq})
Residential Use (Northeast)	89	2,270	56
Residential Use (East)		2,500	55
Educational Use (Northeast)		3,080	54

Source: Compiled by LSA (2025).

¹ The composite construction noise level represents the grading and excavation phase which is expected to result in the greatest noise level as compared to other phases.

² The assessment distance is associated with the average condition, identified by the distance from the center of construction activities to surrounding uses.

dBA L_{eq} = average A-weighted hourly noise level

ft = foot/feet

As identified above, the closest noise-sensitive receptor (residential use) is 2,270 ft from the center of project site located northeast of the project. The anticipated noise level at this receptor during construction would be 56 dBA L_{eq} based purely on distance attenuation. Because there are existing buildings between the construction activities and the nearest residence, construction noise levels would be further reduced and are expected to be below both the 60 dBA weekday and 55 dBA weekend construction noise levels stated in the City of Richmond's Noise Ordinance. Impacts from construction-related activities would be less than significant.

Operational Noise Impacts. Off-site traffic noise impacts would result in a significant impact if traffic noise were to increase by 4 dBA or more over ambient noise levels without the project. As described in Section 2.3.2 of this Initial Study, the proposed project would generate 104 new daily trips. Given the minimal additional traffic as compared to existing traffic volumes, the distance of sensitive receptors from the project site, and the presence of the I-580 freeway between the site and some of those sensitive receptors, the noise increase would not be perceptible. The proposed project would implement improvements, which would include structural modifications within the existing terminal facilities. Given the nature of these improvements, operational noise levels associated with equipment at the existing terminal facility would be similar to existing noise conditions and would not generate noise levels that would exceed the applicable standards. Therefore, operational noise impacts would be less than significant.

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

Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. As the vibration propagates from the foundation throughout the remainder of the building, the vibration of floors and walls may cause perceptible vibration from the rattling of windows or a rumbling noise. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. When assessing annoyance from groundborne noise, vibration is typically expressed as root mean square velocity in units of decibels of 1 micro-inch per second. To distinguish vibration velocity levels in decibels from noise levels, the unit is written as "VdB." Human perception to vibration in indoor environments starts at levels as low as 67 VdB and sometimes lower. Annoyance due to vibration in residential settings starts at 70 VdB. Groundborne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of the building, the motion does not provoke the same adverse human reaction.

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include trains and construction activities such as blasting, pile driving and operating heavy earthmoving equipment. The potential for the proposed project to expose sensitive structures and residential receptors to excessive groundborne vibration is discussed below.

Construction Vibration. Construction activities that would occur at the project site have the potential to generate low levels of groundborne vibration or groundborne noise levels. The project would require demolition of existing structures on the project site, as well as site clearing and grading activities. No impact pile driving would occur as part of the proposed project. Table 4.13.D.

provides the potential vibration levels associated with project construction at the nearest sensitive receptors. Based on the information provided in Table 4.13.D, vibration levels are expected to approach 28 VdB at the closest residential use to the northeast and would not exceed the annoyance thresholds.

Table 4.13.D: Potential Construction Vibration Annoyance Impacts at Nearest Receptor

Receptor (Location)	Reference Vibration Level (VdB) at 25 ft ¹	Distance (ft) ²	Vibration Level (VdB)
Residential Use (Northeast)	87	2,270	28
Residential Use (East)		2,500	27
Educational Use (Northwest)		3,080	24

Source: Compiled by LSA (2025).

¹ The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.

² The assessment distance is associated with the average condition, identified by the distance from the center of construction activities to surrounding uses.

ft = foot/feet

VdB = vibration velocity decibels

Table 4.13.E provides the potential vibration levels associated with project construction at the nearest buildings that could be damaged by groundborne vibration associated with construction activities. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project construction boundary (assuming the construction equipment would be used at or near the project setback line).

Table 4.13.E: Potential Construction Vibration Damage Impacts at Nearest Receptor

Receptor (Location)	Reference Vibration Level (PPV) at 25 ft ¹	Distance (ft) ²	Vibration Level (PPV)
Industrial Use (West)	0.089	30	0.044
Residential Use (Northeast)		1,750	<0.001
Residential Use (East)		2,300	<0.001
Educational Use (Northeast)		2,580	<0.001

Source: Compiled by LSA (2025).

¹ The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.

² The assessment distance is associated with the peak condition, identified by the distance from the perimeter of construction activities to surrounding structures.

ft = foot/feet

PPV = peak particle velocity

Based on the information provided in Table 4.13.E, vibration levels are expected to approach 0.044 peak particle velocity (PPV) inches per second (in/sec) at the nearest structure to the west and below 0.001 PPV in/sec at the nearest residences to the northeast and would not exceed the 0.2 PPV in/sec damage threshold considered safe for non-engineered timber and masonry buildings.

Vibration levels at all other buildings located further from the project site would be lower. Therefore, construction would not result in any vibration damage, and impacts would be less than significant.

Operational Vibration. No permanent noise sources that would expose persons to excessive groundborne vibration or noise levels would be located within the project site. In addition, long-term operational activities associated with the proposed project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration. Therefore, this impact would be less than significant.

- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (No Impact)*

The airport nearest to the project site is the San Rafael Airport (approximately 10.8 miles northwest of the site). Although aircraft-related noise is occasionally audible on the project site, the site does not lie within an airport land use plan area or within the 60 dBA L_{dn} noise contours of this airport. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels due to the proximity of a public airport. No impact would occur.

4.14 POPULATION AND HOUSING

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

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

The proposed project would not include the construction of residential units or new businesses and thus would not directly induce population growth. The proposed project would include the construction of 900 feet of rail spurs, a truck rack, and additionally utilities and facilities, including an aboveground storage tank within the existing terminal facility. The existing terminal facility operates continuously, with a 24 hours per day, 7 days per week schedule. The terminal currently operates with a minimum of three employees per shift. Implementation of the proposed project may require two to three additional employees to operate proposed facilities. Although these employees may move to the area solely for reasons of employment, it is more likely that employees would commute from various locations in or near Richmond or the immediate region. Therefore, the proposed project would not directly or indirectly induce population growth. No impact would occur.

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

The proposed project would not displace any existing housing or people, and no replacement housing would need to be constructed elsewhere because the site is currently developed with the existing terminal facility, and there are no residences on-site. No impact would occur.

4.15 PUBLIC SERVICES

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

The project site is located in Richmond, Contra Costa County, California, and is served by the following existing public services:

- Fire Protection:** The Richmond Fire Department (RFD) provides fire protection and life safety services to citizens and visitors of Richmond. The RFD employs 94 staff members, 89 of which are sworn personnel and 5 of which are non-sworn personnel.⁵⁶ The RFD has seven fire stations throughout Richmond; the closest RFD station to the project site is RFD Station 61, which is located approximately 1.17 miles northeast of the project site at 140 West Richmond Avenue. RFD Station 62 and the Chevron Fire Station are also capable of responding to a fire at the project site. Estimated response time to the project site is 6 minutes or less. Emergency access to the site would be provided via Wright Avenue.

The Chevron oil refinery is approximately 2 miles from the project site and would provide backup response services for foam suppression due to an existing arrangement with the City. Other agencies capable of responding to a fire at the project site are the El Cerrito Fire Department and the Contra Costa County Fire Protection District.

- Police Protection:** The Richmond Police Department (RPD) has served the City since 1909.⁵⁷ The RPD provides community services as well as crime prevention and analysis services. The RPD is located at 1701 Regatta Boulevard, approximately 1.1 miles from the project site. Divisions of the RPD include a K-9 Unit, Marine Unit, Investigative Unit, Traffic Unit, Regulatory Unit, Crisis

⁵⁶ City of Richmond. n.d.-b. Department Facts. Website: <https://www.ci.richmond.ca.us/1483/Department-Facts> (accessed August 2024).

⁵⁷ City of Richmond. n.d.-a. A Century of Service. Website: <https://www.ci.richmond.ca.us/1848/A-Century-of-Service> (accessed August 2024).

Negotiation Team, and more.⁵⁸ In 2006, the RPD organized the City into three districts (i.e., Northern, Central, and Southern) and divided each district into three beats in order to assign officers to distinct neighborhoods.

- **Schools:** The West Contra Costa Unified School District (WCCUSD), established in 1965, serves the residents of Richmond as well as residents of nearby cities of Pinole, Hercules, San Pablo, and El Cerrito.⁵⁹ WCCUSD has 56 schools, including 33 elementary schools, five K-8 schools, six middle schools, seven high schools, and five alternative schools.⁶⁰ The project site falls within the boundaries of Washington Elementary School, Fred T. Korematsu Middle School, and John F. Kennedy High School.
 - **Parks:** The City of Richmond Parks and Landscaping Division oversees the landscaping and maintenance of 54 parks within Richmond, and Richmond is also home to several regional parks that are operated by the East Bay Regional Park District. One national park (i.e., Rosie the Riveter/World War II Home Front National Historical Park) also falls within Richmond's city limits.⁶¹
- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*
- i. Fire protection? (No Impact)*

The proposed project would improve facilities at the existing terminal to allow the terminal to offload, store, and ship out (via marine vessel) more renewable feedstocks. The proposed project would not result in a substantial increase in the use of existing terminal facilities or the number of employees (the proposed project would require two to three additional employees during project operations) servicing the facilities and would not include housing units or other structures that would increase the population in the area or that would generate a higher demand for fire protection services.

Adherence to applicable emergency access and fire safety codes and implementation of proposed project improvements would ensure that the proposed project would not result in an increase in the demand for fire services and that there is adequate emergency access to the project site. In addition, plans would be submitted to the RFD for review and approval prior to the issuance of building permits to ensure the project would conform to applicable building and fire codes. Utility

⁵⁸ City of Richmond. n.d.-d. Our Teams and Units. Website: <https://www.ci.richmond.ca.us/3768/Our-Teams-and-Units> (accessed August 2024).

⁵⁹ West Contra Costa Unified School District (WCCUSD). n.d. WCCUSD. Website: <https://www.wccusd.net/> (accessed August 2024)

⁶⁰ Ibid.

⁶¹ City of Richmond. n.d.-c. Parks & Facilities. Website: <https://www.ci.richmond.ca.us/2075/Parks-Facilities> (accessed August 2024).

improvements proposed as part of the project would be required to comply with all applicable building code requirements requiring fire protection devices such as sprinklers, alarms per the California Fire Code, adequately spaced fire hydrants, and fire access lanes. The RFD would continue to provide services to the project site and not require additional firefighters to serve the proposed project. The demand for fire protection services resulting from the proposed project would not require the construction of new or an alteration of existing fire protection facilities to maintain an adequate level of fire protection service. No impact would occur.

ii. Police protection? (No Impact)

The proposed project would increase employment by two to three people but would not result in additional residents on the project site; therefore, the proposed project would have no impact on the ratio of police officers per residents and would not contribute to delayed response times for police services provided by the City of Richmond. Therefore, project implementation would not trigger the need for new or physically altered police facilities. The proposed project would not result in substantial adverse physical impacts associated with the provision of or 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 police protection. No impact would occur.

iii. Schools? (No Impact)

The proposed project does not include any residential uses that would increase population growth, generate an increased demand for school facilities, or require the construction of school facilities. As previously stated, implementation of the project is not anticipated to substantially increase employment on the site, and, with no new residences proposed on-site, the project would not generate an increase in school-aged children who would require the need for new or expanded public school services within the WCCUSD. Therefore, the proposed project would not impact school services and facilities. No impact would occur.

v. Parks? (No Impact)

As discussed in Section 4.14, Population and Housing, the proposed project would not substantially increase employment within Richmond or result in the construction of residential uses. As such, implementation of the proposed project would not result in the increased use of existing parks or other recreation uses and would not require the expansion of parks within Richmond. No impact would occur.

v. Other public facilities? (No Impact)

Development of the proposed project would not increase demand for other public services including libraries, community centers, and public health care facilities. As previously discussed, the proposed project does not include development of residential uses or a substantial increase in employment at the project site and would, therefore, not result in an increased demand for other public facilities. No impact would occur.

4.16 RECREATION

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

As of 2012, the City of Richmond had 6,500 acres of parks and open space.⁶² Most of the parkland is within Wildcat Canyon Regional Park, located on the eastern boundary of Richmond. In addition, neighborhood and community parks throughout Richmond are accessible for everyday use by city residents. The nearest recreational facilities to the project site include Miller Knox Regional Shoreline Park, Martin Luther King Jr. Memorial Park, and Southside Community Park.

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)

The proposed project would not substantially increase the number of employees at the existing terminal facility, and there would be no new housing associated with the proposed project. Because the proposed project would not substantially increase the population directly, indirectly, temporarily, or permanently, the proposed project would not generate new demand for recreational facilities that would increase the use of existing facilities such that substantial physical deterioration of the facility would occur or be accelerated. Therefore, no impact would occur.

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)

The proposed project does not include the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No impact would occur.

⁶² City of Richmond. 2012d. *Richmond General Plan 2030, Parks and Recreation*. Section 10.4. Website: <https://www.ci.richmond.ca.us/DocumentCenter/View/8815/100-Parks-and-Recreation-Element?bidId=> (accessed September 2024).

4.17 TRANSPORTATION

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

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

In order to assess the impact of the proposed project on the surrounding circulation system (i.e., Wright Avenue and Harbour Way), trips that would be generated during typical operation and temporary construction were calculated. Wright Avenue and Harbour Way (south of I-580) are two-lane streets providing local and regional access to and from the project site. The capacities of these two streets are 1,600-1,700 vehicles per hour per lane.

As outlined in Section 2.3.2 of this Initial Study, TransMontaigne has estimated that project operations would result in 98 additional truck trips (49 inbound and 49 outbound truck trips) per day, with approximately 10 truck trips occurring in the morning hour of peak traffic ("AM peak-hour") and 10 truck trips occurring in the evening hour of peak traffic ("PM peak-hour"). Additionally, with the implementation of the proposed project, two to three additional employees may be needed for the increased rail operations. As such, the proposed project would generate an additional six daily trips, including three AM peak-hour trips and three PM peak-hour trips, for the three additional employees.

As a result, the proposed project is anticipated to generate up to 104 new daily trips, including 13 AM peak-hour trips and 13 PM peak-hour trips. As described in the Contra Costa County Transportation Analysis Guidelines (dated June 23, 2020), an intersection level of service (LOS) analysis is typically conducted for intersections to which at least 50 net new peak-hour vehicle trips would be added by a project (intersections to which fewer than 50 net new peak-hour vehicles trips would be added by a project are not). Based on the low operational trip generation (approximately 13 max trips in a single hour in both the morning and evening peak periods), it is anticipated that the proposed project would not have any adverse impacts on the surrounding circulation system (i.e., Wright Avenue and Harbour Way South). Therefore, typical operations would not conflict with the local roadway system. The impact would be less than significant.

Construction of the proposed project would result in a short-term increase in vehicle trips on surrounding roadways (i.e., Wright Avenue and Harbour Way South). The addition of temporary construction-related vehicles would not substantially affect congestion on these roadway segments because trips would occur at different periods of the day and would represent a small percentage of the capacity of the roadways (i.e., less than 1.5 percent of the 1,600-1,700 vehicles per hour per lane capacities of both Wright Avenue and Harbour Way). Construction-related truck traffic would access the terminal site from Wright Avenue. No construction work would be conducted within the public right-of-way. Delivery of construction materials would avoid peak traffic hours.

Construction is anticipated to occur over a 12-month period. Construction activities would be limited to daylight hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 9:00 a.m. and 8:00 p.m. on weekends and legal holidays, consistent with the City's Community Noise Ordinance. Construction of the proposed project would include the following four phases (with average phase duration) and anticipated daily trucks:

1. Demolition (2 weeks): 16 trucks
2. Earthwork (4 days): 20 trucks
3. Rails and Ties (4 days): 2 trucks
4. Concrete Paving (3 days): 16 trucks

On average, approximately 15 contractors (10 for mechanical work and five for electrical work) would be on-site each day during construction. For a shorter period of time, there would be a maximum of 25 contractors (10 mechanical, five electrical, and 10 rail installation contractors).

However, because typical construction hours are 7:00 a.m. to 7:00 p.m., it is conservatively assumed that each worker would arrive during the AM peak hour and depart during the PM peak hour. In addition, all workers are conservatively assumed to drive themselves individually to and from the project site. Truck trips would occur throughout the day, including both peak hours.

Table 4.17.A provides a trip generation summary for each phase of construction. Phase 2 (Earthwork) represents the peak of construction activities (highest construction trip generation). As shown in Table 4.17.A, Phase 2 would temporarily generate 110 daily trips, including 23 AM peak-hour trips and 23 PM peak-hour trips, for construction. Based on the construction trip generation, it is anticipated that the proposed project would not have any temporary adverse impacts on the surrounding circulation system (i.e., Wright Avenue and Harbour Way South). Therefore, temporary construction activities would not conflict with the local roadway system. The impact would be less than significant.

Table 4.17.A: Construction Trip Generation Summary

Description	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Construction Trip Generation									
Phase 1 – Demolition (2-Week Duration)									
Workers ¹ (PCE = 1)	15	Vehicle	30	15	0	15	0	15	15
Trucks ² (PCE = 2)	16	Truck	64	4	4	8	4	4	8
Total			94	19	4	23	4	19	23
Phase 2 – Earthwork (4-Day Duration)									
Workers ¹ (PCE = 1)	15	Vehicle	30	15	0	15	0	15	15
Trucks ² (PCE = 2)	20	Truck	80	4	4	8	4	4	8
Total			110	19	4	23	4	19	23
Phase 3 – Rails and Ties (4-Day Duration)									
Workers ¹ (PCE = 1)	15	Vehicle	30	15	0	15	0	15	15
Trucks ² (PCE = 2)	2	Truck	8	2	2	4	2	2	4
Total			38	17	2	19	2	17	19
Phase 4 – Concrete Paving (3-Day Duration)									
Workers ¹ (PCE = 1)	15	Vehicle	30	15	0	15	0	15	15
Trucks ² (PCE = 2)	16	Truck	64	4	4	8	4	4	8
Total			94	19	4	23	4	19	23

Source: Compiled by LSA (2025).

■ = Peak of construction activities (highest construction trip generation).

¹ Each worker is anticipated to arrive during the a.m. peak hour and depart during the p.m. peak hour.

² Truck trips are anticipated to occur throughout the day, including the a.m. and p.m. peak hours.

PCE = passenger car equivalent. A worker vehicle has a PCE of 1 and a truck has a PCE of 2.

Although the proposed project would generate vehicles and trucks for typical operations and temporary construction, it would not preclude alternative modes of transportation or facilities (e.g., transit, bicycle, or pedestrian). The proposed project would not make any changes to the public right-of-way in the project vicinity and would not conflict with existing or planned pedestrian, bicycle, or transit facilities. Therefore, project impacts associated with conflicts with any program, plan, ordinance, or policy addressing the circulation system⁶³ including transit, roadway, bicycle, and pedestrian facilities, would be less than significant.

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

According to *State CEQA Guidelines* Section 15064.3(a), project-related transportation impacts are generally best measured by evaluating the project's vehicle miles traveled (VMT). VMT refers to the amount and distance of automobile travel attributable to a project.

⁶³ City of Richmond. 2012b. *Richmond General Plan 2030, Circulation Element*. Website: <https://www.ci.richmond.ca.us/DocumentCenter/View/8810/40-Circulation-Element?bidId=> (accessed December 2024)

As a result of Senate Bill (SB) 743, the California Office of Administrative Law cleared the revised *State CEQA Guidelines* for use on December 28, 2018. Among the changes to the guidelines was the removal of vehicle delay and level of service from consideration under CEQA. The intent of SB 743 and the revised *State CEQA Guidelines* is to promote the reduction of greenhouse gas (GHG) emissions, the development of multimodal transportation networks, and a diversity of land uses. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT.

The City has not formally adopted VMT guidelines or thresholds. According to the City of Richmond Guidelines and Procedures for the Implementation of the California Environmental Quality Act,⁶⁴ the City currently recommends a VMT analysis based upon the Contra Costa County Transportation Analysis Guidelines (TA Guidelines).⁶⁵

The TA Guidelines recommends a screening level threshold for projects that generate fewer than 110 daily trips. Generally, small projects generating less than 110 daily trips may be assumed to cause a less than significant impact under CEQA and would not require further VMT analysis.

As discussed previously, the proposed project is estimated to generate 104 new daily trips. Therefore, the proposed project satisfies the VMT screening criterion for a small project. As such, the proposed project is screened out of a VMT analysis and is presumed to have a less than significant impact. The proposed project would not be inconsistent with *State CEQA Guidelines* Section 15064.3, subdivision (b).

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

Traffic to and from the project site would utilize the existing regional and local roadway network (i.e. Wright Avenue and Harbour Way). As previously described, the peak-hour per lane capacities of Wright Avenue and Harbour Way are 1,600-1,700 vehicles. Given the low trip generation for typical day-to-day operations (104 daily trips with a max of 13 peak-hour trips) and low construction trip generation for a temporary duration of four days (110 daily trips with a maximum of 23 peak-hour trips), the surrounding streets have sufficient capacity to accommodate the vehicle and truck traffic associated with the proposed project. The proposed project would not change the existing street layout or alignment in the surrounding area. No construction activities would take place within the roads or public right-of-way. As such, there would be no changes to roadway or driveway configurations, turning radii, or lane widths.

⁶⁴ City of Richmond. 2021. *City of Richmond Guidelines and Procedures for the Implementation of the California Environmental Quality Act*. March 16. Website: <https://www.ci.richmond.ca.us/DocumentCenter/View/307/CEQA-Guidelines-and-Procedures> (accessed December 2024).

⁶⁵ Contra Costa County 2020. *Contra Costa County Transportation Analysis Guidelines*. Conservation and Development Department and Public Works Department. June 23. Website: <https://www.contracosta.ca.gov/DocumentCenter/View/70739/FINAL-CCC-Transportation-Analysis-Guidelines-v3-5-10-21> (accessed December 2024).

The proposed project would not introduce design features or a new land use to the project site that would conflict with the surrounding urban land uses. The design of the proposed project, including internal circulation and streetscape, would be reviewed by the City's Public Works Department and the Richmond Fire Department (RFD) to ensure proper fire engine access and turning radii throughout the development. Consequently, the proposed project would not significantly increase traffic hazards due to geometric design (e.g., sharp curves or unsafe intersections) or incompatible land uses (e.g., farm equipment). This impact would be less than significant.

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

The terminal includes existing fire access and fire infrastructure. Emergency access to the terminal would continue to be provided via Wright Avenue and internal paved routes, which would remain open and unchanged during construction. As mentioned earlier, the existing driveway on Wright Avenue would serve as the primary access to the terminal from the regional road network, and no modifications are planned for its current layout. Therefore, emergency access is expected to remain adequate. The impact would be less than significant. Consequently, approval of the project plans would ensure that emergency access impacts are minimal, and no mitigation would be required.

4.18 TRIBAL CULTURAL RESOURCES

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

- a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or (Less Than Significant with Mitigation Incorporated)*

Enacted in 2014 and codified in part in PRC Section 21080.3.1, Assembly Bill (AB) 52 (Gatto) amended CEQA to require tribal cultural resources to be considered as potentially significant cultural resources under the CEQA environmental review process. The procedures under AB 52 offer Tribes an opportunity to take an active role in the CEQA process in order to protect tribal cultural resources. Pursuant to AB 52, if a Native American identifies tribal cultural resources within a project site, the Native American shall contact the local lead agency.

On October 25, 2024, the City of Richmond sent AB 52 outreach letters to the Tribes listed in the contact list provided by the Native American Heritage Commission (NAHC) on September 24, 2024. The letters, sent to the listed tribal contacts via electronic mail with read receipt, described the proposed project, provided maps of the project site, and invited the Tribes to request consultation should they have any concerns. On October 28, 2024, a tribal representative from the Confederated Villages of Lisjan Nation (Lisjan Nation) responded via email requesting consultation under AB 52.

City staff held a video conference with the tribal representative on January 29, 2025, to discuss the proposed project. In addition, on October 29, 2024, a representative of the Amah Mutsun Tribal Band of San Juan Bautista (Amah Mutsun Tribal Band) sent an e-mail response that included recommendations for training and monitoring if any positive cultural or historic sensitivity was identified within 1 mile of the project site. The City agreed to the tribal representatives' recommendations and concluded the AB 52 consultation.

As discussed in Section 4.5, Cultural Resources, no cultural resources were previously documented within the project site or identified by the survey. No known significant archaeological or tribal cultural resources are located within the project site that are listed or eligible for listing in the California Register of Historical Resources (California Register) or in a local register of historical resources as defined in PRC Section 5020.1(k).

Results of a records search identified one prehistoric resource within 0.25 mile of the project site. Additionally, the project site is bounded by a water source, which is an area that should be considered sensitive for prehistoric resources. Therefore, there is a possibility that the proposed project could impact as-yet-unrecorded subsurface resources on the project site that could be eligible for listing in the California Register or in a local register of historical resources as defined in PRC Section 5020.1(k).

Implementation of Mitigation Measures TCR-1 through TCR-4 would satisfy the agreement between the City and tribal representatives under AB 52 and reduce potential impacts from the proposed project to a less than significant level.

Mitigation Measure TCR-1

Cultural Resources and Tribal Cultural Resources Sensitivity WEAP Training. Prior to commencement of any ground-disturbing activity, all personnel involved in project-related ground-disturbing activities (e.g., on-site construction managers, backhoe operators) shall be required to participate in a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]). The WEAP shall be developed by an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in archaeology, in consultation with input from the Confederated Villages of Lisjan Nation and the Amah Mutsun Tribal Band of San Juan Bautista.

The WEAP training shall be conducted before any project-related ground-disturbing activities (including building foundation or subsurface tank removal) begin at the project site. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and whom to contact if any potential cultural

resources or tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

The WEAP training shall be presented by an archaeologist and a representative from the Tribe. The City of Richmond shall maintain a record of all construction personnel that have received the WEAP training. WEAP training recipient records shall be maintained by the applicant throughout the duration of construction.

Mitigation Measure TCR-2

Native American Monitoring. Prior to ground disturbing activities, Tribal monitor(s) from the Confederated Villages of Lisjan Nation (CVLN) and Amah Mutsun Tribal Band of San Juan Bautista (AMTB) shall be retained. Tribal monitor(s) will have the authority to halt and redirect work should any archeological or tribal cultural resources be identified during monitoring. If archeological or Tribal cultural resources are encountered during ground disturbing activities, work within 100 feet of the find must halt and the find evaluated for listing in the California Register of Historic Resources (CRHR) and National Register of Historic Places (NRHP). Monitoring may be reduced or halted at the discretion of the Tribal monitor(s), in consultation with the lead agency, if site conditions indicate that there is little likelihood of encountering intact deposits (e.g., encountering bedrock, sediments being excavated are fill or negative findings for 50 percent of ground disturbance). If monitoring is reduced to spot checking, spot checking shall occur when ground disturbing activities move to a new location within the project site and when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock).

Mitigation Measure TCR-3

Unanticipated Discovery of Tribal Cultural Resources. If cultural resources of Native American origin are identified during grading or excavation of the proposed project, all ground disturbing activities within 100 feet must cease until a qualified professional archaeologist (either an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archeology or an archaeologist supervised by such an archaeologist) has evaluated the nature and significance of the find as a cultural resource, and the City of Richmond (City) Planning Division representative has consulted a representative from the Confederated Villages of Lisjan Nation (CVLN) and the Amah Mutsun Tribal Band of San Juan Bautista (AMTB). The archeologist will stake the area of discovery, placing stakes no more than 10 feet apart,

forming a circle having a radius of no less than 100 feet from the point of discovery. If the City in consultation with the consulting Tribe(s), determines that the resource is a Tribal Cultural Resource and thus significant under CEQA and/or the Tribe(s), the entity shall retain a qualified archeologist and a Tribal monitor, at the applicant's expense, to prepare and implement a mitigation plan, in accordance with state guidelines and in consultation with the consulting Tribe(s). The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline appropriate treatment of the resource in coordination with the consulting Tribe(s) and, if applicable, the qualified archeologist. Examples of appropriate mitigation for the Tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resources, protecting traditional use of the resources, or protecting the confidentiality of the resources, or heritage recovery.

Mitigation Measure TCR-4

Halt Work/Coroners Evaluation/Impact to Previously

Undiscovered Human Remains. If human remains are encountered during construction and ground disturbing activities, the applicant or the applicant's contractor must redirect all work within 100 feet of the remains and immediately contact the County Coroner, the City of Richmond Planning Manager, and a qualified professional archeologist (either an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archeology or an archaeologist supervised by such an archaeologist) to assess the situation. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated funerary objects. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD. Upon completion of the archeologist's assessment, a report must be prepared documenting, methods and results, as well as recommendations regarding the treatment of the human remains and any associated archeologist materials. The report must be submitted to the City, the project proponent, the Northwest Information Center (NWIC) and the consulting Tribe. Tribal representatives will rebury the Native American human remains and associated funerary objects with the appropriate dignity either: in accordance with the recommendations of the MLD if available; or in the project vicinity at a location selected in consultation with the Tribe, the professional archeologist, the City and the project

proponent, where the reburial would be accessible to Tribal members in perpetuity and would not be subject to further disturbance. The discovery and reburial is to be kept confidential and secure to prevent any further disturbance.

In the event that previously unidentified archaeological resources are discovered by the tribal monitor, implementation of **Mitigation Measures TCR-3 and TCR-4**, and **Mitigation Measures CUL-1a and CUL-1b**, as detailed in Section 4.5, Cultural Resources, and compliance with Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98 would reduce the potential construction-period discovery of previously unidentified subsurface deposits and human remains that may be of tribal origin to a less than significant level. With implementation of **Mitigation Measures CUL-1a, CUL-1b, TRC-1, TCR-2, TCR-3, and TCR-4**, impacts to tribal cultural resources would be less than significant with mitigation incorporated.

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

Please refer to Section 4.18.b, above. Although the cultural resources study did not yield historically significant resources, there is a possibility that the proposed project could impact as-yet-unrecorded, subsurface deposits on the project site that could be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In the event that previously unidentified archaeological resources are discovered by the tribal monitor, implementation of **Mitigation Measures TCR-3, TCR-4 and Mitigation Measures CUL-1a and 1b** (as detailed in Section 4.5, Cultural Resources), and compliance with Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98 would reduce the potential construction-period discovery of previously unidentified subsurface deposits and human remains that may be of tribal origin to a less than significant level. With incorporation of **Mitigation Measures CUL-1, TRC-1, TCR-2, TCR-3, and TCR-4**, impacts to tribal cultural resources would be less than significant.

4.19 UTILITIES AND SERVICE SYSTEMS

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

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

The proposed project consists of the construction of railroad spurs, modification of the existing truck rack, construction of an above-ground storage tank, and associated improvements within the existing terminal facility, with a projected increase in employment of up to three people. All critical infrastructure to support the proposed improvements already exists.

Water Supply. East Bay Municipal Utility District (EBMUD) has jurisdiction over the water service lines in Richmond. Potable water is supplied via the San Pablo Dam from the Mokelumne River in the Sierra Nevada Mountains and from local rain-fed reservoirs. EBMUD provides recycled water to Richmond for irrigation, industrial cooling, toilet flushing, and environmental restoration.

EBMUD updated its Urban Water Management Plan (UWMP) in 2020, and it was adopted in 2021.⁶⁶ According to the UWMP, the average daily water demand within the entire EBMUD service area is projected to be 186 mgd in 2025, 194 mgd in 2035, and 209 mgd in 2045.⁶⁷ The UWMP specifies that EBMUD has water rights that allow for delivery of up to a maximum of 325 million gallons per day (mgd) from the Mokelumne River, subject to the availability of Mokelumne River runoff and numerous flow release obligations. EBMUD's secondary water supply source is local runoff from the

⁶⁶ East Bay Municipal Water District. 2021. *Urban Water Management Plan 2020*. June 22.

⁶⁷ East Bay Municipal Water District. 2021. *Urban Water Management Plan 2020*. June 22.

East Bay area watersheds, which is stored in the terminal reservoirs within EBMUD's service area. Local runoff supplies the East Bay, on average, 23 mgd during normal hydrologic years. In addition, EBMUD has a contract with the United States Bureau of Reclamation for delivery of up to 133,000-acre feet of water in a single qualifying year, not to exceed a total of 165,000-acre feet in three consecutive qualifying years from the Central Valley Project.

During construction, water would be required primarily for dust suppression. Water use would cease when construction is complete. Because water required during construction would not continue beyond the 12-month construction period, sufficient water supplies are available to provide for the project's minimal water needs during the construction phase of the project.

Water use for operation of the terminal facility would be similar to existing conditions. Fire suppression on-site is designed in accordance with National Fire Protection Association (NFPA) 30 – Flammable and Combustible Liquids Code. Where applicable, tanks have Fire Foam Chambers equipped to supply a water/fire suppression foam mixture to the product in the tanks (per NFPA recommendations). Separately, the truck rack is equipped with a fire suppression sprinkler system (per NFPA recommendations) and the rail car area is equipped with fire monitors capable of shooting water/foam mixture onto the rail area for prevention. Fire extinguishers are provided throughout the project site. The fire-loop system for the terminal is supplied by EBMUD. The fire protection system would not require additional municipal water because the existing firewater system is adequate, and the existing facility's flow rates are sufficient.

Based on previous water bills, existing domestic water usage amounts to approximately 100 gallons per employee per day. With the addition of three new employees to serve the proposed project, the proposed project is anticipated to generate additional domestic water demand of approximately 300 gallons per day, which represents a negligible portion (less than 0.01 percent) of the average daily water demand within the entire EBMUD service area for 2025, 2035, and 2045. Therefore, the proposed project would not result in a substantial change in water demand. Therefore, the proposed project would not require the construction of new or expanded water supply facilities or the expansion of such facilities.

Wastewater. As described in Section 2.1.2.2 of this Initial Study, the project site is not served by a private on-site wastewater treatment system but instead conveys wastewater via municipal sewage infrastructure to a treatment plant operated by the RSSD. The treatment plant is a public facility and is therefore subject to the State's wastewater treatment requirements. The wastewater treatment plant has a dry-weather treatment capacity of 24 mgd and wet weather capacities for primary/secondary treatment and primary treatment of 24 mgd and 40 mgd respectively.⁶⁸

⁶⁸ PBS&J. 2011. *Richmond General Plan Draft Environmental Impact Report*. Prepared for the City of Richmond Development Services Department. February. Website: <https://www.ci.richmond.ca.us/DocumentCenter/View/59005/General-Plan-Draft-EIR> (accessed August 2024).

Because the proposed project would not substantially increase the number of employees at the Richmond Terminal facility, no substantial change in wastewater generation is anticipated. It is estimated that the three additional employees at the project site would produce approximately 270 gallons of wastewater per day.⁶⁹ This represents a negligible portion of the wastewater treatment plant's permitted physical capacity.

In addition, as described in Section 2.1.2.2 of this Initial Study, petroleum contact water generated by WWTP facilities, including the truck loading rack is managed as wastewater that can be discharged into the municipal sewage infrastructure to a treatment plant operated by the RSSD. Equipment used for the on-site pre-treatment of petroleum contact water shares some equipment functionality with the terminal's existing stormwater pre-treatment system, as described below. The proposed project would include relocation and consolidation of the existing truck rack facilities from two two-bay racks to one four-bay rack. The proposed project would not increase the capacity of the truck loading rack facility, but would increase the efficiency of the truck loading/unloading operations at the existing terminal. As a result, the proposed project is not anticipated to significantly increase the amount of petroleum contact water discharged to the municipal sewer system. Petroleum contact water would continue to be pre-treated at the WWTP prior to discharge. Existing wastewater infrastructure would serve the proposed project improvements. Therefore, implementation of the proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities.

Stormwater. Proposed improvements would create a minimal increase in impervious surfaces (up to 900 square feet of the 11-acre project site); the majority of the project site is already paved and would continue to be paved. As described in Section 2.1.2.2 of this Initial Study, non-contact stormwater, which includes precipitation that has fallen in areas less likely to be impacted by regulated pollutants (e.g., secondary containment of the bermed tank farm) is treated on-site and discharged into San Francisco Bay in compliance with the terminal's existing Waste Discharge Permit through the Regional Water Quality Control Board (RWQCB). The existing storm water conveyance and treatment system is designed to handle volumes and flow rates in excess of current flows in compliance with permit requirements. With implementation of the proposed project, non-contact stormwater would continue to be treated on-site and discharged in accordance with the terminals' Waste Discharge Permit. No new stormwater facilities would be required. As part of the proposed project, the existing 5,000-gallon (14 feet long by 8 feet in diameter) underground storage tank would be demolished and replaced with an equivalent (or smaller) above-ground storage tank within the existing terminal facility. Replacement of the underground tank with an above ground tank would facilitate ongoing maintenance and inspection.

Increased peak stormwater flow, which is anticipated due to the added impervious surface area, can be readily handled by the existing system capacity. Therefore, changes to stormwater runoff would be negligible. Neither construction nor implementation of the proposed project would significantly

⁶⁹ In the absence of an official wastewater generation rate, wastewater can be reasonably assumed to be 90 percent of water use.
300 gallons of indoor water use per day * 0.9 = 270 gpd

affect the amount of on-site runoff and therefore would not require the expansion of stormwater facilities. No additional stormwater drainage facilities would be required.

Gas, Electricity, and Telecommunications. As described in Section 2.3, Proposed Project, the proposed project would include installation of product piping headers and hose connections at the rail rack, a pumping system, and modification/relocation of existing piping infrastructure to make room for the proposed new rail. The environmental impacts of these facilities have been evaluated throughout this Initial Study checklist. No change to existing natural gas or telecommunications usage at the project site is anticipated because the operation of the proposed facilities would be similar to the current operation. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded gas, electricity, or telecommunications facilities.

The proposed project would not 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, and impacts would be less than significant.

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

The project would not result in a significant increase in the existing demand for water used by the existing facilities. New or expanded water supply entitlements would not be required to serve the proposed project. The proposed project may require potable or reclaimed water for dust suppression during project construction. However, the amount of water required would be small and would only be needed during the construction period. Therefore, the proposed project would have sufficient water supplies available to serve the increased water demand resulting from the project during normal, dry, and multiple dry years. The proposed project would have a less than significant impact related to water supplies.

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

Refer to Section 4.19.a above. Implementation of the proposed project would not result in a change in the demand for wastewater treatment. Impacts related to wastewater treatment would be less than significant.

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

Solid waste disposal service for Richmond is currently contracted to the West Contra Costa Integrated Waste Management Authority (WCCIWMA). The WCCIWMA is a joint powers agency created by its member agencies, including the cities of Richmond, Hercules, and El Cerrito. The service region consists of approximately 74 square miles across the cities involved in the joint

powers authority.⁷⁰ The WCCIWMA ensures compliance with the California Department of Resources Recycling and Recovery (CalRecycle), as well as applicable California laws pertaining to solid waste disposal, including Assembly Bill (AB) 939, AB 1826, and Senate Bill (SB) 1383. The existing tank facility currently generates hazardous waste that is disposed of in accordance with existing permit requirements and regulations. WCCIWMA has a Post-Collection Agreement with: (a) West County Resource Recovery, Inc.; (b) West Contra Costa Sanitary Landfill, Inc.; (c) Golden Bear Transfer Services, Inc.; (d) Richmond Sanitary Service, Inc.; and (e) Keller Canyon Landfill Company, Inc.

Project construction would generate wastes including construction materials, trench spoils, and general refuse, and these wastes would need to be disposed of in local or regional facilities. Waste generated from construction could include non-hazardous metal waste (e.g., concrete rubble, organic waste [vegetation], boxes and crates, refuse from construction workers), trenching spoils (rubble, soils, broken asphalt), and hazardous wastes. During construction of the proposed project, approximately 3,175 square feet of demolition debris would be excavated or removed and hauled off site to a waste processing facility or to a recycling yard. Other non-hazardous metal waste and non-metal waste would be hauled to local disposal centers for recycling or taken to landfills. Hazardous waste would be sent to a permitted treatment or disposal facility.

The closest landfill to the project site is the Acme Landfill, which is located in Martinez (approximately 18 miles northeast of the project site). As of March 2012, the Acme Landfill had a remaining capacity of 506,590 cubic yards, with a maximum permitted capacity of 6.195 million cubic yards.⁷¹ The quantity of solid waste materials associated with construction would be relatively minimal, limited to the construction period, and would not pose a significant impact upon existing landfills. No additional solid waste would be generated by long-term operations of the proposed project. Impacts related to solid waste disposal would be less than significant.

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

The California Integrated Waste Management Act of 1989 (AB 939) reorganized solid waste disposal planning within the State of California. The legislation required every county to adopt a Countywide Integrated Waste Management Plan describing local waste diversion and disposal conditions as well as to create programs to meet State goals for diverting waste from landfills. A mandatory diversion goal was established that diverted 25 percent of waste from landfills by 1995 and 50 percent by 2000 and maintained 50 percent thereafter. AB 341 replaced the Integrated Waste Management Act (AB 939) to establish new diversion and recycling goals. The goal of diversion was increased to 75 percent by 2020.

⁷⁰ West Contra Costa Integrated Waste Management Authority (WCCIWMA). n.d. Recyclemore. Website: <https://recyclemore.com/> (accessed August 2024).

⁷¹ California Department of Resources Recycling and Recovery (CalRecycle). 2019. SWIS Facility/Site Activity Details: Acme Landfill (07-AA-0002). Website: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4396?siteID=217> (accessed August 2024).

The City of Richmond is part of the WCCIWMA, which was created after AB 939 was passed. WCCIWMA met the 50 percent diversion rate of wastes from landfills during construction and demolition activities in 2006 and continues to work to maintain this level of diversion, in compliance with AB 939.⁷²

As described in Section 4.19.d, above, implementation of the project would generate solid waste associated with construction activities. To the extent possible, solid waste would be recycled either on-site or transported to a local disposal center for recycling. Increased solid waste generation would be limited to the construction period and not from long-term operation of the proposed project. Because the proposed project would comply with federal, State, and local statutes and regulations related to solid waste, proposed project impacts associated with solid waste would be less than significant.

⁷² WCCIWMA. n.d. RecycleMore. Website: <http://www.recyclemore.com/> (accessed August 2024).

4.20 WILDFIRE

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

Wildland fires occur in geographic areas that contain the types and conditions of vegetation, topography, weather, and structure density susceptible to risks associated with uncontrolled fires that can be started by various ignition sources.

The City of Richmond General Plan Land Use Map designates the project site as Port, and the City of Richmond Zoning Map identifies the project site as Industrial, Water-Related (IW). These uses are urban in nature, containing no open space areas with the potential to pose a wildfire risk.

The project site does not contain brush- or grass-covered areas typically found in areas susceptible to wildfires. As discussed in Section 2.1.2, Existing Conditions, the terminal facility is almost completely paved, with limited areas of gravel surface.

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? (No Impact)

According to mapping by the California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ), a State Responsibility Area (SRA), or a Local Responsibility Area (LRA).⁷³ The nearest VHFHSZ is located approximately 3 miles to the east, near the Wildcat Canyon Regional Park. Additionally, as noted in Section 4.9, Hazards and Hazardous Materials, the City does not identify the project site or surrounding area as being in a moderate or high wildfire risk area.⁷⁴ The proposed project would

⁷³ California Department of Forestry and Fire Protection (CAL FIRE). n.d.-a. California Fire Hazard Severity Zone Viewer. Website: <https://egis.fire.ca.gov/FHSZ/> (accessed August 2024)

⁷⁴ CAL FIRE. n.d.-b. LRA Fire Hazard Severity Zone Maps. Website: <https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/> (accessed September 2024).

construct improvements within the existing terminal facility. The proposed project would not change the existing roadway design within the project area. In the event of an emergency on the site, employees could exit the site via the existing driveway to Wright Avenue, which provides access to I-580, as they currently would under existing conditions. Therefore, in the event of a fire, the proposed project would not substantially impair the implementation of, or physically interfere with, an adopted emergency response plan. No impact would occur.

- b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? (No Impact)*

The project site is generally level and bound by adjacent industrial development. It is not located within or near any sloped areas. Prevailing winds are typically from the west from February to November and from the north from November to February in Richmond.⁷⁵ The proposed project would implement improvements that would be consistent with and similar in nature to the existing facility. The proposed project would not include any design features that would increase the potential for a wildfire. Therefore, the proposed project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur.

- c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? (No Impact)*

The project site is not located in or near a VHFHSZ, nor is it located in or near an SRA. All associated utility connections would be constructed in conformance with City standards as detailed in Section 4.19, Utilities and Service Systems. All proposed project improvements would be located within the boundaries of the existing terminal facility. Utility installations and improvements at the project site would not exacerbate fire risk due to the location of the project site in an industrial area outside of a designated fire hazard zone. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure (e.g., roads, fuel breaks, emergency water sources, power lines, or other utilities) that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. No impact would occur.

- d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? (No Impact)*

Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips, occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking but can also occur as a result of erosion and downslope runoff

⁷⁵ Weatherspark. n.d. Climate and Average Weather Year Round in Richmond. Website: <https://weatherspark.com/y/551/Average-Weather-in-Richmond-California-United-States-Year-Round#:~:text=The%20predominant%20average%20hourly%20wind,of%2094%25%20on%20August%20> (accessed August 2024).

caused by rain following a fire. The proposed project is located on land that is relatively flat and is surrounded by land that is also relatively flat. Based on the location of the proposed project, which is outside of a VHFHSZ, and the site's flat topography, the susceptibility of the sites to downstream flooding or landslides associated with runoff from post-fire slope instability or post-fire drainage changes would be low. Therefore, the proposed project would not expose people or structures to significant risks as a result of post-fire slope instability or drainage and runoff. No impact would occur.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

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

As discussed in Section 4.4, Biological Resources, construction of the proposed project has the potential to adversely impact migratory birds and raptors protected under the Migratory Bird Treaty Act (MBTA) during the nesting season. With implementation of **Mitigation Measure BIO-1**, potential impacts to migratory birds and raptors would be reduced to less than significant levels. In addition, the proposed project has the potential to adversely impact burrowing owl and roosting bats, if burrowing owls and roosting bats are present during project construction. **Mitigation Measures BIO-2 and BIO-3** would be implemented to reduce potential impacts to burrowing owl and roosting bats to less than significant levels. With implementation of **Mitigation Measures BIO-1 through BIO-3**, impacts to special-status species would be less than significant.

As discussed in Section 4.5, Cultural Resources, the proposed project is not expected to result in any significant impacts to any examples of the major periods of California history or prehistory. However, because the proposed project includes excavation, it has the potential to impact unknown buried archaeological resources and human remains at the project site. To avoid or minimize impacts to previously unidentified archaeological resources that may be determined significant under CEQA, in the event that cultural materials are encountered during grading/construction at the project site, all work shall cease until the find has been evaluated and mitigation measures put in place for the disposition and protection of any find, as specified in **Mitigation Measure CUL-1b**.

With implementation of **Mitigation Measures CUL-1a and CUL-1b**, potential impacts to significant archaeological resources would be less than significant. **Mitigation Measures TCR-1 through TCR-4** are prescribed to reduce impacts to previously unknown tribal cultural resources that may be located within the project site to less than significant levels. Furthermore, if human remains are encountered during construction activities, the regulatory process outlined in Health and Safety Code (HSC) Section 7050.5 must be followed, which involves coordination with the Native American Heritage Commission (NAHC) and a Native American Most Likely Descendant (MLD). Adherence to the HSC and PRC Section 5097.98, which addresses the treatment of Native American human remains, means that the proposed project would not knowingly disturb human remains but would appropriately address any human remains should any be encountered during project work.

With implementation of **Mitigation Measures BIO-1 through BIO-3 and CUL-1a and CUL-1b** and compliance with HSC Section 7050.5, the project would not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or a 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. Impacts would be less than significant with mitigation incorporated.

- 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 with Mitigation Incorporated)*

Section 15065(a)(3) of the *State CEQA Guidelines* states that a project's cumulative impacts are the possible environmental effects that may be cumulatively considerable when considered with other reasonably foreseeable projects. Cumulatively considerable impacts occur when the incremental effects of a particular project or program are significant when viewed in connection with the effects of other past, current, or reasonably foreseeable future projects. Section 15355 of the *State CEQA Guidelines* defines a cumulative impact as an impact which is created as a result of the combination of the project evaluated in the CEQA document together with other projects causing related impacts.

The proposed project is located within the boundaries of the existing terminal facility. The proposed project's impacts would be individually limited and not cumulatively considerable. The potentially significant impacts that can be reduced to a less than significant level with implementation of recommended mitigation measures include the topics of air quality, biological resources, cultural resources, and geology and soils. These impacts would primarily be related to construction-period activities, would be temporary in nature, and would not substantially contribute to any potential cumulative impacts associated with these topics. For the topic of air quality, potentially significant impacts to air quality standards associated with project construction would be reduced to less than significant levels with implementation of **Mitigation Measure AIR-1**. For the topic of biological resources, implementation of **Mitigation Measures BIO-1 through BIO-3** would ensure that impacts to special-status species, including nesting birds, burrowing owl, pallid bat, and other roosting bats are reduced to a less than significant level. For the topic of cultural resources, potentially significant

impacts to archaeological and cultural resources would be reduced to less than significant levels with implementation of **Mitigation Measures CUL-1a** and **CUL-1b**. For the topic of geology and soils, potentially significant impacts to paleontological resources would be reduced to less than significant levels with implementation of **Mitigation Measure GEO-1**. For the topic of tribal cultural resources, potentially significant impacts would be reduced to less than significant levels with implementation of **Mitigation Measures TCR-1 through TCR-4**.

For the topics of aesthetics, agricultural and forestry resources, energy, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire, the project would have no impacts or less than significant impacts and, therefore, would not substantially contribute to any potential cumulative impacts for these topics. All environmental impacts that could occur as a result of the proposed project would be reduced to a less than significant level through the implementation of the mitigation measures recommended in this document.

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

The impacts relevant to the proposed project are localized and confined to the immediate project area. Given that the potential project-related impacts would be less than significant and limited to a confined location and there are no identified future projects scheduled for development within the project area, implementation of the proposed project would not result in impacts that are cumulatively considerable when evaluated with the impacts of other current projects or the effects of probable future projects.

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

The proposed project includes implementation of improvements to the existing terminal facility to allow the terminal to offload, store, and ship out (via marine vessel) more renewable feedstocks by providing increased rail capacity and a new truck rack built to the most current standards. As demonstrated throughout this environmental document, impacts associated with the proposed project including those that may have a direct or indirect adverse effect on humans, can be reduced to less than significant through project-specific mitigation or regulatory compliance measures. The proposed project would not result in environmental effects that would cause a substantial direct or indirect adverse effect on human beings.

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APPENDIX A

CALEEMOD OUTPUT SHEETS



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Richmond Terminal Rail Expansion Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Richmond Terminal Rail Expansion
Construction Start Date	4/7/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	29.8
Location	488 Wright Ave, Richmond, CA 94804, USA
County	Contra Costa
City	Richmond
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1547
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Construction	0.20	Mile	10.0	0.00	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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.62	49.6	38.8	0.06	1.58	1.50	3.08	1.45	0.19	1.64	—	6,787	6,787	0.27	0.07	6,815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.26	41.5	31.3	0.05	1.21	1.24	2.45	1.10	0.16	1.26	—	5,895	5,895	0.24	0.05	5,918
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.68	21.4	16.5	0.03	0.66	0.66	1.32	0.61	0.09	0.69	—	2,972	2,972	0.12	0.03	2,985
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	3.90	3.01	< 0.005	0.12	0.12	0.24	0.11	0.02	0.13	—	492	492	0.02	0.01	494

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.62	49.6	38.8	0.06	1.58	1.50	3.08	1.45	0.19	1.64	—	6,787	6,787	0.27	0.07	6,815

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.26	41.5	31.3	0.05	1.21	1.24	2.45	1.10	0.16	1.26	—	5,895	5,895	0.24	0.05	5,918
2026	1.25	41.5	31.3	0.05	1.21	1.24	2.45	1.10	0.16	1.26	—	5,890	5,890	0.24	0.05	5,913
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.68	21.4	16.5	0.03	0.66	0.66	1.32	0.61	0.09	0.69	—	2,972	2,972	0.12	0.03	2,985
2026	0.14	4.07	3.19	< 0.005	0.14	0.09	0.23	0.13	0.01	0.14	—	552	552	0.02	0.01	554
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.12	3.90	3.01	< 0.005	0.12	0.12	0.24	0.11	0.02	0.13	—	492	492	0.02	0.01	494
2026	0.03	0.74	0.58	< 0.005	0.03	0.02	0.04	0.02	< 0.005	0.03	—	91.4	91.4	< 0.005	< 0.005	91.8

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	4.25	3.43	< 0.005	0.19	—	0.19	0.18	—	0.18	—	490	490	0.02	< 0.005	492
Dust From Material Movement	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.29	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.6	33.6	< 0.005	< 0.005	33.7
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.56	5.56	< 0.005	< 0.005	5.58
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	44.1	44.1	< 0.005	< 0.005	44.7
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
Hauling	0.01	0.37	0.18	< 0.005	0.01	0.08	0.08	< 0.005	0.02	0.02	—	292	292	0.02	0.05	307

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.79	2.79	< 0.005	< 0.005	2.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.0	20.0	< 0.005	< 0.005	21.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.46	0.46	< 0.005	< 0.005	0.47
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
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.31	3.31	< 0.005	< 0.005	3.48

3.3. Linear, Grading & Excavation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51	49.5	37.5	0.06	1.58	—	1.58	1.45	—	1.45	—	6,496	6,496	0.26	0.05	6,518
Dust From Material Movement	—	—	—	—	—	1.24	1.24	—	0.13	0.13	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.41	13.6	10.3	0.02	0.43	—	0.43	0.40	—	0.40	—	1,780	1,780	0.07	0.01	1,786
Dust From Material Movement	—	—	—	—	—	0.34	0.34	—	0.04	0.04	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.47	1.88	< 0.005	0.08	—	0.08	0.07	—	0.07	—	295	295	0.01	< 0.005	296
Dust From Material Movement	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.07	1.26	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	264	264	< 0.005	0.01	268
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.0	27.0	< 0.005	< 0.005	28.2
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.0	67.0	< 0.005	< 0.005	68.0
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.39	7.39	< 0.005	< 0.005	7.73
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.1	11.1	< 0.005	< 0.005	11.3

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	1.28
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

3.5. Linear, Drainage, Utilities, & Sub-Grade (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	41.5	30.4	0.05	1.21	—	1.21	1.10	—	1.10	—	5,694	5,694	0.23	0.05	5,713
Dust From Material Movement	—	—	—	—	—	1.03	1.03	—	0.11	0.11	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	7.46	5.48	0.01	0.22	—	0.22	0.20	—	0.20	—	1,025	1,025	0.04	0.01	1,029
Dust From Material Movement	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.36	1.00	< 0.005	0.04	—	0.04	0.04	—	0.04	—	170	170	0.01	< 0.005	170

Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.89	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	202	202	0.01	0.01	204
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	36.7	36.7	< 0.005	< 0.005	37.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.07	6.07	< 0.005	< 0.005	6.17
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
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

3.7. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	41.5	30.4	0.05	1.21	—	1.21	1.10	—	1.10	—	5,693	5,693	0.23	0.05	5,712
Dust From Material Movement	—	—	—	—	—	1.03	1.03	—	0.11	0.11	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	2.60	1.91	< 0.005	0.08	—	0.08	0.07	—	0.07	—	356	356	0.01	< 0.005	358
Dust From Material Movement	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.47	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.0	59.0	< 0.005	< 0.005	59.2
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.83	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	198	198	0.01	0.01	200
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	12.7
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.07	2.07	< 0.005	< 0.005	2.10
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
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

3.9. Linear, Paving (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	14.1	11.3	0.01	0.63	—	0.63	0.60	—	0.60	—	1,619	1,619	0.07	0.01	1,625
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	1.47	1.18	< 0.005	0.07	—	0.07	0.06	—	0.06	—	169	169	0.01	< 0.005	169
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.27	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.9	27.9	< 0.005	< 0.005	28.0
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.58	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	138	138	< 0.005	0.01	140
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.6	14.6	< 0.005	< 0.005	14.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.41	2.41	< 0.005	< 0.005	2.45
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
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

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	4/7/2025	5/12/2025	5.00	25.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	5/13/2025	9/30/2025	5.00	100	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	10/1/2025	2/1/2026	5.00	88.0	—
Linear, Paving	Linear, Paving	2/2/2026	3/27/2026	5.00	38.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 2	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 2	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 2	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Tier 2	3.00	8.00	36.0	0.38

Linear, Grading & Excavation	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Tier 2	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 2	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Tier 2	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Back hoes	Diesel	Tier 2	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 2	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Tier 2	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Tier 2	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 2	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 2	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Tier 2	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Tier 2	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Tier 2	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Tier 2	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82

Linear, Paving	Tractors/Loaders/Back	Diesel	Tier 2	2.00	8.00	84.0	0.37
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5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	11.7	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.40	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	4.08	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	11.7	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.40	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	11.7	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.40	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.40	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT

Linear, Paving	Onsite truck	—	—	HHDT
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5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
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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 (Building Square Footage)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	0.00	520	10.0	3,175	—
Linear, Grading & Excavation	0.00	0.00	10.0	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	0.00	0.00	10.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Construction	10.0	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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8. User Changes to Default Data

Screen	Justification
Construction: Off-Road Equipment	default construction equipment with tier 2 engines
Construction: Demolition	An estimated 520 cubic yards of material would need to be removed

Richmond Terminal Expansion - Operations Custom Report

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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	Richmond Terminal Expansion - Operations
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	29.8
Location	488 Wright Ave, Richmond, CA 94804, USA
County	Contra Costa
City	Richmond
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1547
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Other Non-Asphalt Surfaces	0.90	1000sqft	0.02	0.00	0.00	—	—	—

Other Asphalt Surfaces	3.97	1000sqft	0.09	0.00	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	16.1	7.71	0.13	0.22	3.73	3.96	0.21	1.01	1.22	0.00	13,926	13,926	1.03	2.22	14,642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.23	17.0	7.72	0.13	0.22	3.73	3.96	0.21	1.01	1.22	0.00	13,925	13,925	1.03	2.22	14,612
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	16.7	7.69	0.13	0.22	3.68	3.90	0.21	0.99	1.21	0.00	13,924	13,924	1.03	2.22	14,623
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	3.05	1.40	0.02	0.04	0.67	0.71	0.04	0.18	0.22	0.00	2,305	2,305	0.17	0.37	2,421

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.24	16.1	7.71	0.13	0.22	3.73	3.96	0.21	1.01	1.22	—	13,926	13,926	1.03	2.22	14,642
Area	< 0.005	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.24	16.1	7.71	0.13	0.22	3.73	3.96	0.21	1.01	1.22	0.00	13,926	13,926	1.03	2.22	14,642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	17.0	7.72	0.13	0.22	3.73	3.96	0.21	1.01	1.22	—	13,925	13,925	1.03	2.22	14,612
Area	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.23	17.0	7.72	0.13	0.22	3.73	3.96	0.21	1.01	1.22	0.00	13,925	13,925	1.03	2.22	14,612
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.24	16.7	7.69	0.13	0.22	3.68	3.90	0.21	0.99	1.21	—	13,924	13,924	1.03	2.22	14,623
Area	< 0.005	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.24	16.7	7.69	0.13	0.22	3.68	3.90	0.21	0.99	1.21	0.00	13,924	13,924	1.03	2.22	14,623
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	3.05	1.40	0.02	0.04	0.67	0.71	0.04	0.18	0.22	—	2,305	2,305	0.17	0.37	2,421
Area	< 0.005	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	3.05	1.40	0.02	0.04	0.67	0.71	0.04	0.18	0.22	0.00	2,305	2,305	0.17	0.37	2,421

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.02	0.02	0.24	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	58.1	58.1	< 0.005	< 0.005	58.9
Other Asphalt Surfaces	0.22	16.1	7.47	0.13	0.22	3.68	3.90	0.21	0.99	1.21	—	13,868	13,868	1.03	2.21	14,583
Total	0.24	16.1	7.71	0.13	0.22	3.73	3.96	0.21	1.01	1.22	—	13,926	13,926	1.03	2.22	14,642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.02	0.02	0.21	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	54.6
Other Asphalt Surfaces	0.21	16.9	7.50	0.13	0.22	3.68	3.90	0.21	0.99	1.21	—	13,871	13,871	1.03	2.21	14,557
Total	0.23	17.0	7.72	0.13	0.22	3.73	3.96	0.21	1.01	1.22	—	13,925	13,925	1.03	2.22	14,612
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	< 0.005	< 0.005	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	9.01	9.01	< 0.005	< 0.005	9.13
Other Asphalt Surfaces	0.04	3.04	1.37	0.02	0.04	0.66	0.70	0.04	0.18	0.22	—	2,296	2,296	0.17	0.37	2,412
Total	0.04	3.05	1.40	0.02	0.04	0.67	0.71	0.04	0.18	0.22	—	2,305	2,305	0.17	0.37	2,421

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consume Products	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	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

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequeste red	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequeste red	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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
Other Non-Asphalt Surfaces	6.00	6.00	6.00	2,190	75.7	75.7	75.7	27,628

Other Asphalt Surfaces	100.0	100.0	100.0	36,498	4,000	4,000	4,000	1,459,907
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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	292

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)
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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8. User Changes to Default Data

Screen	Justification
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Operations: Vehicle Data	Proposed project would result in 100 truck trips and 6 employee trips, for a total of 106 ADT. Assuming trucks will travel 40 miles. employee trip rate = 6 ADT / 0.9 tsf = 6.667 truck trip rate = 100 ADT / 3.968 tsf = 20.25
Operations: Fleet Mix	Assuming all trucks will be HHD trucks.

APPENDIX B

EMISSIONS CALCULATIONS



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Tier 3 Emission Factors

Pollutant	Propulsion Engines	Auxiliary Engines
NOx	3.4	2.8
PM10	0.16	0.16
CO2	593	695

Mode	Engine Type	Power	Time
Manuvering	Propulsion	3,000	2
Hotelling	Auxilliary	500	24

Annual Emissions

Pollutant	Transit Emissions	Hotelling Emissions	Total Annual Emissions (Tons)	Total Average daily (lbs/day)
NOx	0.4896	0.8064	1.296	7.101369863
PM10	0.02304	0.04608	0.06912	0.378739726
CO2	85.392	200.16	285.552	N/A

				Emissions		
				g/kWh per Vessel Call	Tons per Vessel Call	Annual Emissions (Tons)
NO	3,000	2	3.4	20,400	0.0204	0.4896
	500	24	2.8	33,600	0.0336	0.8064
PM	3,000	2	0.16	960	0.00096	0.02304
	500	24	0.16	1,920	0.00192	0.04608
CO2	3,000	2	593	3,558,000	3.558	85.392
	500	24	695	8,340,000	8.34	200.16

* Emissions per vessel were estimated using emissions = power (kWh) x Emission Factors x time (hours)

* 1 ton = 1,000,000 grams

* 2 additional vessel per month would result in a total of 24 vessels per year

Source: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1014J1S.pdf>

Engine Group	Fuel Type	Keel-laid Year (NOx Tier, if applicable)	Engine Type	NOx Emission Factor (g/kWh)	Source
Propulsion	MGO/MDO	Any	ST	2	24
Propulsion	MGO/MDO	Any	GT	5.7	24
Propulsion	MGO/MDO	1999 and earlier*	SSD	17	24
Propulsion	MGO/MDO	1999 and earlier*	MSD	13.2	24
Propulsion	MGO/MDO	2000–2010 (Tier I)	SSD	16	25
Propulsion	MGO/MDO	2000–2010 (Tier I)	MSD	12.2	25
Propulsion	MGO/MDO	2011–2015 (Tier II)	SSD	14.4	25
Propulsion	MGO/MDO	2011–2015 (Tier II)	MSD	10.5	25
Propulsion	MGO/MDO	2016 and later (Tier III)**	SSD	3.4	25
Propulsion	MGO/MDO	2016 and later (Tier III)**	MSD	2.6	25
Propulsion	RM/HFO	Any	ST	2.1	24
Propulsion	RM/HFO	Any	GT	6.1	24
Propulsion	RM/HFO	1999 and earlier*	SSD	18.1	24
Propulsion	RM/HFO	1999 and earlier*	MSD	14	24
Propulsion	RM/HFO	2000–2010 (Tier I)	SSD	17	26
Propulsion	RM/HFO	2000–2010 (Tier I)	MSD	13	26
Propulsion	RM/HFO	2011–2015 (Tier II)	SSD	15.3	26
Propulsion	RM/HFO	2011–2015 (Tier II)	MSD	11.2	26
Propulsion	RM/HFO	2016 and later (Tier III)**	SSD	3.6	25
Propulsion	RM/HFO	2016 and later (Tier III)**	MSD	2.8	25
Propulsion	LNG	Any	LNG	1.3	27
Auxiliary	MGO/MDO	1999 and earlier*	MSD	13.8	25
Auxiliary	MGO/MDO	1999 and earlier*	HSD	10.9	25
Auxiliary	MGO/MDO	2000–2010 (Tier I)	MSD	12.2	25
Auxiliary	MGO/MDO	2000–2010 (Tier I)	HSD	9.8	25
Auxiliary	MGO/MDO	2011–2015 (Tier II)	MSD	10.5	25
Auxiliary	MGO/MDO	2011–2015 (Tier II)	HSD	7.7	25
Auxiliary	MGO/MDO	2016 and later (Tier III)**	MSD	2.6	25
Auxiliary	MGO/MDO	2016 and later (Tier III)**	HSD	2	25
Auxiliary	RM/HFO	1999 and earlier*	MSD	14.7	19
Auxiliary	RM/HFO	1999 and earlier*	HSD	11.6	19
Auxiliary	RM/HFO	2000–2010 (Tier I)	MSD	13	19
Auxiliary	RM/HFO	2000–2010 (Tier I)	HSD	10.4	19
Auxiliary	RM/HFO	2011–2015 (Tier II)	MSD	11.2	19
Auxiliary	RM/HFO	2011–2015 (Tier II)	HSD	8.2	19
Auxiliary	RM/HFO	2016 and later (Tier III)**	MSD	2.8	25
Auxiliary	RM/HFO	2016 and later (Tier III)**	HSD	2.1	25
Auxiliary	LNG	Any	LNG	1.3	27
Boiler	MGO/MDO	Any	Boiler	2	24
Boiler	RM/HFO	Any	Boiler	2.1	24

Engine Group	Fuel Type	Engine Type	BSFC (g/kWh)
Propulsion	MGO/MDO	SSD	185
Propulsion	MGO/MDO	MSD	205
Propulsion	MGO/MDO	ST	300
Propulsion	MGO/MDO	GT	300
Propulsion	RM/HFO	SSD	195
Propulsion	RM/HFO	MSD	215
Propulsion	RM/HFO	ST	305
Propulsion	RM/HFO	GT	305
Propulsion	LNG	LNG	166
Auxiliary	MGO/MDO	MSD	217
Auxiliary	MGO/MDO	HSD	217
Auxiliary	RM/HFO	MSD	227
Auxiliary	RM/HFO	HSD	227
Auxiliary	LNG	LNG	166
Boiler	MGO/MDO	Boiler	300
Boiler	RM/HFO	Boiler	305

CO2 EF

593.11 propulsion

695.702 auxilliary

Fuel Type	Engine Type	PM10 Emission Factor (g/kWh)
MGO/MDO	ST	0.16
MGO/MDO	GT	0.01
RM/HFO	ST	0.93
RM/HFO	GT	0.06
LNG	LNG	0.03

APPENDIX C

BIOLOGICAL RESOURCES MEMORANDUM



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CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: August 30, 2023

To: Michael Brandes, TransMontaigne

FROM: Dan Sidle, Associate/Senior Biologist

SUBJECT: Biological Resources at TransMontaigne Project Site
488 Wright Avenue Richmond, California

On August 18, 2023, Associate/Senior Biologist Dan Sidle surveyed the project site and surrounding area for special-status species, evidence of nesting birds and roosting bats, and sensitive habitat.

The rock rip-rap along edge of the site provides potential habitat for burrowing owls, but no burrowing owls, California ground squirrels, or ground squirrel burrows were observed in the rip-rap. A pre-construction survey for burrowing owls is recommended prior to construction activities and would be incorporated as part of the proposed project.

The locations of the proposed new track and reconstruction of the existing truck rack were inspected. No evidence of current or prior nesting or roosting activity was observed. Pre-construction surveys for nesting birds and roosting bats are recommended prior to initiation of construction activities.

No evidence of current or prior nesting by other birds was observed at or near the site during the survey. Western gulls, double-crested cormorants, and rock pigeons were observed flying nearby. Although suitable nesting habitat is present on the site and species such as killdeer, western gull, American crow, and house finch could nest on the structures or, in the case of killdeer, in the gravel areas, no evidence of nesting was observed. The project site appears to be used for operation activities continuously and therefore, may provide limited nesting habitat due to the existing high level of disturbance.

The California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB) was searched for records of special-status species. The harbor immediately south of the project site contains CNDDDB records for longfin smelt and green sturgeon. Additionally, a burrowing owl CNDDDB record exists approximately 1.75 miles to the east. The project would not impact these occurrences if these species were present at these occurrence locations during the time of construction, since longfin smelt and green sturgeon would be in the open water habitat, while the burrowing owl location is too far away from the project site to be impacted by the project. Burrowing owls overwinter in the rock rip-rap along the San Francisco Bay Shoreline in Pt. Isabel Regional Shoreline

approximately 2.5 miles to the southwest and could overwinter or briefly occupy the rock rip-rap at the project site.

Peregrine falcons and ospreys are known to nest in the Richmond harbor area but have not nested at or immediately adjacent to the project site. The closest recorded osprey nest is approximately 0.50 mile to the west near Canal Boulevard, while peregrine falcons have nested approximately 1 mile from the site. Due to the project site's location within an active facility and urban setting with intervening urban development, these nesting birds, if active during construction, are not likely to be impacted by the proposed project.

No sensitive habitat or suitable habitat for special-status plant species occurs on the project site.

APPENDIX D

HISTORIC RESOURCE EVALUATION



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CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

October 18, 2024

Michael Brandes
Manager, Major Products
TransMontaigne Operating Company
1670 Broadway, Suite 3100
Denver, CO 80202

Subject: Historical Resource Evaluation of TransMontaigne Richmond Terminal,
488 Wright Avenue, Richmond, Contra Costa County, California
(LSA Project No. 20241849.01)

Dear Mr. Brandes:

At the request of the City of Richmond, LSA prepared a Historical Resource Evaluation (HRE) of the TransMontaigne Richmond Terminal at 488 Wright Avenue an approximately 11.5-acre privately owned onshore bulk liquids storage and distribution facility. The terminal is currently comprised of 27 above ground cylindrical metal tanks of various size and piping, valves, catwalks, a “rail rack” for loading unloading railroad tank cars, a “fuel rack” structure for material transfer onto or off of over the road trucks, a dock that extends into Richmond’s Harbor Channel, and related infrastructure that provides storage and transfer services for petroleum products such as diesel fuel, ethanol, fuel oil, and renewable-based fuels. The project area also contains vapor and water containment systems, a detached single-story prefabricated shop building, and a detached single-story office building operated by the Denver, Colorado-based TransMontaigne Company at 488 Wright Avenue (project area) (APN 560-280-012-9) that fronts the Richmond’s Harbor Channel, in Richmond, Contra Costa County, California (Attachment A: Figures 1, 2, and 3).

The 11.5-acre project area is within an area characterized by a mix of light and heavy industrial activities, as well as maritime operations. The TransMontaigne Richmond Terminal site is bounded to the north by Sim’s Metal on South 4th St and Wright Avenue, specializing in metal recycling services. To the east of the facility is Eagle Rock Aggregates/Orca Sand & Gravel at 700 Wright Ave, specializing in aggregate product distribution services. Southwest of the site, across the Santa Fe Channel, the Richmond Shipyards District is home to several properties including the National Gypsum Company at 1040 Canal Boulevard, operating as a drywall plant for gypsum products manufacturing, and the Conoco Phillips Richmond Terminal at 1300 Canal Boulevard, functioning as a petroleum bulk storage and distribution facility. The property to the west is the Richmond Pacific Railroad Corporation at 402 Wright Avenue, engaged in transportation and warehousing operations.

LSA prepared this HRE to assess the status of 488 Wright Avenue to determine if this 11.5-acre project area qualifies as a historical resource under California Public Resources Code (PRC) §21084.1. The HRE documents background online research, as well as a field review by an architectural historian to document existing conditions. The methods, analysis, and conclusions of the HRE are presented in the sections that follow.

Please see Attachment B for the State of California Department of Parks and Recreation 523 (DPR 523) Series forms for a full individual California Register of Historical Resources eligibility evaluation of the TransMontaigne Richmond Terminal.

BACKGROUND RESEARCH

Records Search

At LSA's request, staff at the NWIC of the California Historical Resources Information System conducted a cultural resources records search on August 28, 2024 (NWIC File #24-0274). The NWIC, an affiliate of the Office of Historic Preservation (OHP), is the official State repository of cultural resources records and reports for Contra Costa County. The search consisted of a review of records for cultural resources studies and built-environment resources focused within the project area at 488 Wright Avenue and a ¼-mile radius. As part of the records search, LSA also reviewed the following State or local inventories for cultural resources in or adjacent to the study area:

- *California Inventory of Historic Resources* (California Office of Historic Preservation 1976);
- *Five Views: An Ethnic Historic Site Survey for California* (California Office of Historic Preservation 1988);
- *California Points of Historical Interest* (California Office of Historic Preservation 1992);
- *California Historical Landmarks* (California Office of Historic Preservation 2024a);
- *Built Environment Resource Directory for Contra Costa County* (California Office of Historic Preservation 2024b);
- *Contra Costa County Historic resources Inventory* (Contra Costa County 2019); and
- *City of Richmond Historic Resource Inventory* (City of Richmond 2012).

Results

The NWIC records search identified no previously conducted cultural resource studies or previously recorded cultural resources within the 11.5-acre project study area at 488 Wright Avenue. The existing TransMontaigne Richmond Terminal at 488 Wright Avenue was not previously identified as a cultural resource.

The NWIC records search identified one previously recorded cultural resource was identified within a ¼ mile radius:

- **P-07-000173/CA-CCO-000295**; Ellis Island Shellmound. This resource is a buried prehistoric shellmound located on the east side of Harbor Way South. Nels C. Nelson of the University of California, Berkeley Anthropology Department first identified and recorded this resource in 1906-07 and is listed as "Nelson Site No. 295." Today, this site is underneath a modern industrial property and an active rail line.

No cultural resource studies have been conducted within the 11.5-acre project area at 488 Wright Avenue.

State and Local Inventories

A review of State and local inventories identified the following historical resource within or adjacent to the project area:

- **California Historical Landmark No. 1032 Richmond Shipyards District.** The boundaries of this landmark are not clearly provided but is described as inclusive of the Kaiser Shipyards during World War II, of which the 11.5-acre project area at 488 Wright Avenue was within Kaiser's Richmond Shipyard No. 1.

The review of State and local inventories did not identify any additional previously identified cultural resources within the study area.

Map Review

LSA reviewed the following publications, maps, and websites for historical information about the study area and vicinity:

- *Historic Civil Engineering Landmarks of San Francisco and Northern California* (American Society of Civil Engineers, San Francisco Section 1977);
- *California Place Names* (Gudde 1998);
- *Historic Spots in California* (Hoover, et. al., 2002);
- *California 1850: A Snapshot in Time* (Marschner 2000);
- *An Architectural Guidebook to San Francisco and the Bay Area* (Cerny 2007);
- *Architecture of the San Francisco Bay Area: A History & Guide* (Schwarzer 2007);
- *San Francisco Architecture* (Woodbridge, Woodbridge, and Byrne 1992, 2005);
- *A Living Legacy: Historic Architecture of the East Bay* (Wilson 1987);
- USGS topographic quadrangle maps (1895, 1900, 1908, 1914, 1915, 1929, 1952, 1957, 1960, 1966, 1969, 1974, 1980, 1999, 2012); and
- Historical aerial photos (NETRONLINE 2024).

Results

The literature and map review revealed the study area was wholly tidal marshland north of Potrero San Pablo (present day Point Richmond). By 1915, the limit of navigable water was largely defined by the modern alignment of West Cutting Boulevard, an improved road that connected Point

Richmond with Richmond proper and communities beyond (NETRONLINE 1900, 1908, 1914, 1915). By 1939, the marshlands south of West Cutting Boulevard and north of Potrero San Pablo were filled with dredge spoils or imported fill to create the modern configuration of the Richmond Inner Channel. The project area at 488 Wright Avenue is atop this filled or “made land” and shown as undeveloped. Lauritzen Canal to the west and Parr Canal east of the project area are also depicted (UCSB 1939). Aerial photos and topographic maps from the 1940s show the radical transformation of the project area and wider the Richmond Inner Harbor associated with the construction of Kaiser’s Richmond Shipyards No. 1 and No. 4. The project area was included as part of Richmond Shipyard No. 1 and continued seven slips for constructing Liberty and Victory ships. The modern alignment of Wright Avenue is depicted winding through the shipyards (NETRONLINE 1946, 1948; World War II Database 2024).

After the Allied Victory in August 1945, Kaiser decommissioned and closed the shipyards and a gradual evolution into the modern industrial area. By 1958, much of the Kaiser Shipyard infrastructure was removed and the project area at 488 Wright Avenue is depicted containing a tank farm comprised of 22 above ground cylindrical metal tanks of various size, a fuel rack, a single-story, detached office, and a detached, single-story shop building. By 1981, the tank farm had grown to 25 above ground tanks. The number of tanks would fluctuate from 24 (in 1987) to 27 (by 2005) (NETRONLINE 1958, 1981, 1997, 2005, 2018, 2022).

Architectural guidebooks of the San Francisco Bay Area and the East Bay do not include the project area or many other industrial properties (Woodbridge, Woodbridge, and Byrne, 1992, 2005; Cerny, 2007; Schwarzer, 2007; Wilson 1987). Other built environment resources in or adjacent to the project area are listed or depicted in the publications, maps, and websites LSA reviewed reflect the surrounding area’s prevailing industrial land use pattern situated in a marine port setting of Richmond’s Inner Harbor and the San Francisco Bay beyond. Please see the References Cited for a complete list of materials and sources reviewed.

FIELD REVIEW

LSA architectural historian Michael Hibma, M.A., conducted a field review of the 11.5-acre TransMontaigne Richmond Terminal at 488 Wright Avenue on September 26, 2024. The purpose of the review was to characterize the architectural style, identify its respective character-defining features, and assess its condition with respect to potential alterations. The field review was recorded with field notes and photographs.

Results

The field survey identified an orderly assortment of 27 above ground cylindrical metal tanks of various size and piping, valves, catwalks, a “rail rack” for loading or unloading up to six railroad tank cars, a “fuel rack” structure for material transfer onto or off of over the road trucks, a dock that extends into Richmond’s Harbor Channel, and related infrastructure that provides storage and transfer services for petroleum products such as diesel fuel, ethanol, fuel oil, and renewable-based fuels. The project area also contains vapor and water containment systems, a detached single-story prefabricated shop building, and a detached single-story office building. The office, and shop buildings appear of newer construction with a flat (Shop Building) or low-pitched end-gabled roof (Office Building), metal cladding, and metal-framed slider windows.

The project area is within a larger area of industrial uses including coal storage, scrap metal processing/recycling, an aggregate rock processing facility, a cement plant connected via surface streets and railroad trackage on the north side of the Richmond's Inner Harbor and San Francisco Bay beyond.

HISTORICAL AND ARCHITECTURAL CONTEXT

Please see Attachment B for DPR 523 Series forms containing the historical and architectural context of the TransMontaigne Richmond Terminal at 488 Wright Avenue.

CONCLUSION

Background research and a field review identified one built environment cultural resources more than 50 years old in the study area: the 11.5-acre TransMontaigne Richmond Terminal at 488 Wright Avenue, Richmond, Contra Costa County, California. Based on the results of this HRE, LSA concludes that the TransMontaigne Richmond Terminal does not appear individually eligible for inclusion in the California Register of Historical Resources (California Register) at the local, State, or national level of significance under any of the evaluative criteria of the California Register. The TransMontaigne Richmond Terminal at 488 Wright Avenue is associated with the post-World War II land use evolution of Richmond's Inner Harbor. This property is one of several similar examples of this phase of Richmond's history and background research did not indicate the project area is of higher associative value with this pattern of events.

The design professionals responsible for designing the TransMontaigne Richmond Terminal were not identified. The built environment contains examples of a common industrial purpose-built buildings, structures, and infrastructure designed to store and transport liquid petroleum products. Background research did not indicate a potential association of TransMontaigne Richmond Terminal with new or innovative ways to store or transport these products. Accordingly, the TransMontaigne Richmond Terminal at 488 Wright Avenue does not appear to qualify as a historical resource for the purposes of CEQA (PRC §21084.1).

If you have any questions about this HRE, please contact me by phone at (510) 236-3810, or by email at <michael.hibma@lsa.net>.

Sincerely,

LSA Associates, Inc.



Michael Hibma, M.A.
Associate/Architectural Historian

Attachments: A: Maps

B: DPR 523 Series Forms: TransMontaigne Richmond Terminal
488 Wright Avenue Richmond.

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¹ For a full set of references consulted, please see the DPR523 Series forms in Attachment B of this HRE.

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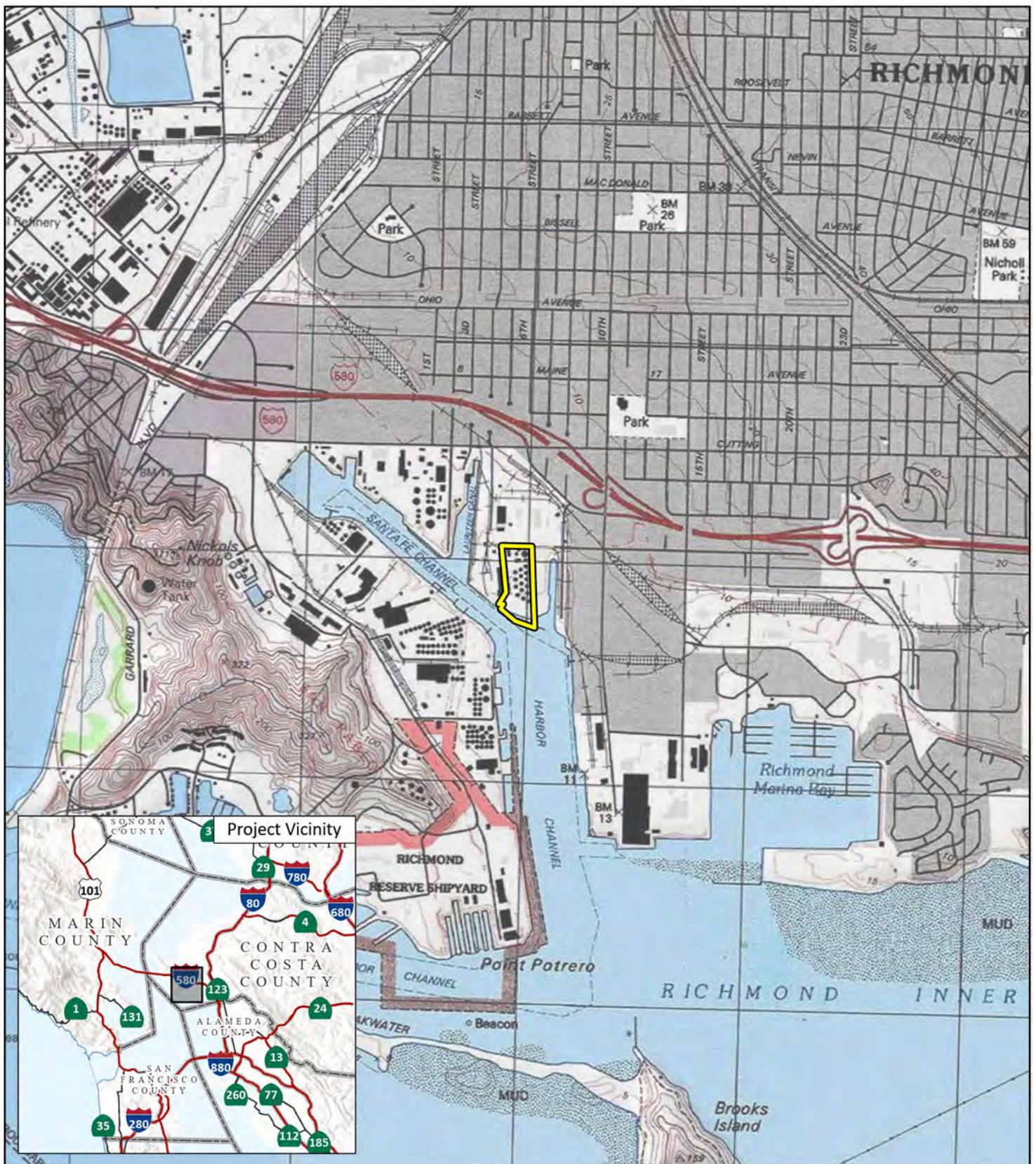
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ATTACHMENT A: MAPS

Figure 1: Regional location and Project Area

Figure 2: Project Location

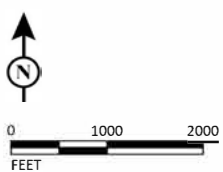
Figure 3: Project Area



LSA

 Project Area

FIGURE 2



SOURCE: Richmond, CA, 7.5' Quad (USGS 1993)

I:\2024\20241849.01\GIS\Pro\Richmond Terminal Rail and Truck Rack Expansion Project\Richmond Terminal Rail and Truck Rack Expansion Project.aprx (8/20/2024)

Richmond Terminal Rail and Truck Rack Expansion Project
Project Location



LSA

LEGEND

Project Area



0 150 300
FEET

SOURCE: Nearmap Aerial Imagery (09/2022).

I:\PPT1701\GIS\Maps\Figure 2_Project Area.mxd (3/27/2023)

FIGURE 3

Richmond Terminal Rail Expansion and
Truck Rack Improvements Project

Project Area

ATTACHMENT B: DPR SERIES 523 FORMS

**TransMontaigne Richmond Terminal
488 Wright Avenue, Richmond**

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Other Listings
Review Code _____ Reviewer _____ Date _____

Page 1 of 19

Resource Name: 488 Wright Avenue

P1. Other Identifier: TransMontaigne Richmond Terminal

P2. Location: Not for Publication: Unrestricted: ☒

a. **County:** Contra Costa

b. **USGS 7.5' Quad:** *Richmond, Calif.* **Date:** 1980; T4S/R1W; *Rancho San Pablo*; Mount Diablo Baseline & Meridian

c. **Address:** 488 Wright Avenue **City** Richmond **Zip** 94804

d. **UTM:** 10S 555871mN/4197116mE (approx. center of 11.5-acre parcel)

e. **Other Locational Data:** Richmond Inner Harbor; APN 560-280-012-9

P3a. Description: This resource is an approximately 11.5-acre privately owned onshore bulk liquids storage and distribution facility. The terminal is currently comprised of 27 above ground cylindrical metal tanks of various size and piping, valves, catwalks, a “rail rack” for loading unloading railroad tank cars, a “fuel rack” structure for material transfer onto or off of over the road trucks, a dock that extends into Richmond’s Harbor Channel, and related infrastructure that provides storage and transfer services for petroleum products such as diesel fuel, ethanol, fuel oil, and renewable-based fuels. The project area also contains vapor and water containment systems, a detached single-story prefabricated shop building, and a detached single-story office building. This resource is within an area characterized by a mix of light and heavy industrial activities, as well as maritime operations. The TransMontaigne Richmond Terminal site is bounded to the north by Sim’s Metal on South 4th St and Wright Avenue, specializing in metal recycling services. To the east of the facility is Eagle Rock Aggregates/Orca Sand & Gravel at 700 Wright Ave, specializing in aggregate product distribution services. Southwest of the site, across the Santa Fe Channel, the Richmond Shipyards District is home to several properties including the National Gypsum Company at 1040 Canal Boulevard, operating as a drywall plant for gypsum products manufacturing, and the Conoco Phillips Richmond Terminal at 1300 Canal Boulevard, functioning as a petroleum bulk storage and distribution facility. The terminal at 488 Wright avenue is in fair condition and is in active use.

P3b. Resource Attributes: HP8. Industrial Building; HP11. Engineering Structures

P4. Resources Present: ☒ **Building** ☒ **Structure** ☒ **Object**

P5a. Photograph:



P5b. Description of Photo:

TransMontaigne Richmond Terminal, 488 Wright Avenue. North and east façades, view southwest. LSA photograph 9/26/24.

P6. Date Constructed/Age and

Source: Historic, built circa 1958. Aerial photograph, NETRONLINE.com.

P7. Owner and Address:

TransMontaigne Operating Company
1670 Broadway, Suite 3100
Denver, CO 80202

P8. Recorded by:

Michael Hibma, M.A.
LSA
157 Park Place
Point Richmond, California 94801

P9. Date recorded: 10/11/2024

P10. Survey Type: Intensive

P11. Report Citation: Hibma, Michael. 2024. *Historical Resource Evaluation of TransMontaigne Richmond Terminal, 488 Wright Avenue, Richmond, Contra Costa County, California*. LSA Associates, Inc., Point Richmond, California.

Attachments: ☒ **Location Map** ☒ **Continuation Sheets** ☒ **Building, Structure, and Object Record**

DPR 523A (1/95)

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

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NRHP Status Code: 6Z
Resource Name: 488 Wright Avenue

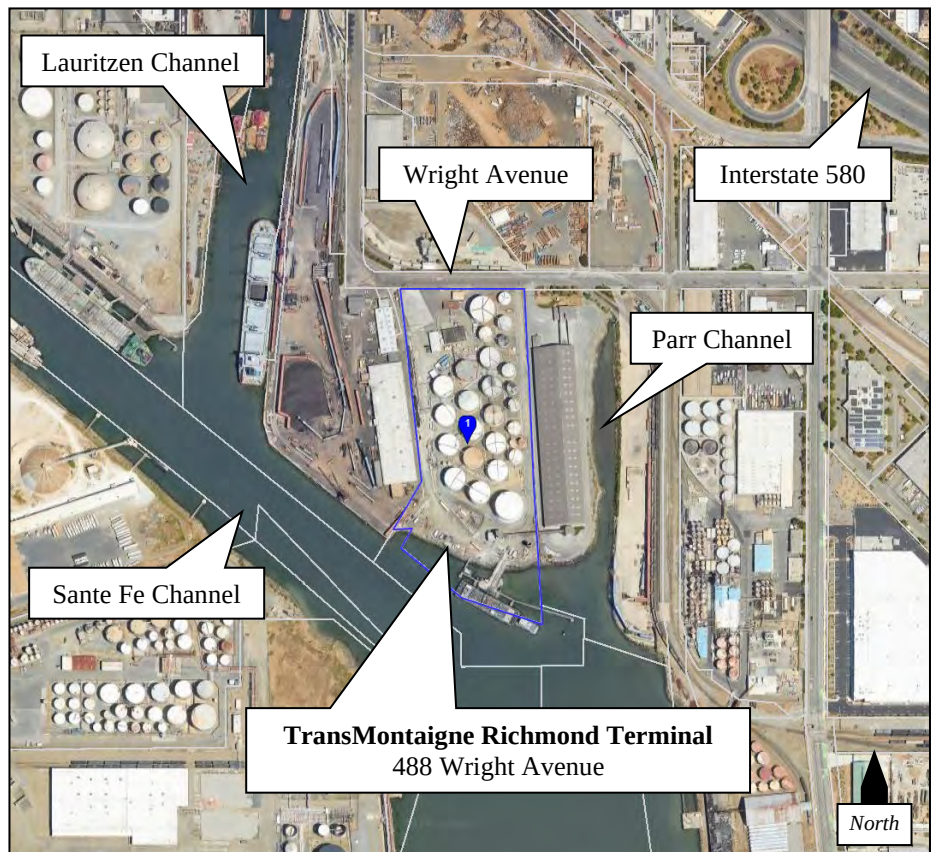
- B1. Historic Name:** 488 Wright Avenue
B2. Common Name: TransMontaigne Richmond Terminal
B3. Original Use: Bulk fuel loading and unloading terminal
B4. Present Use: Same
B5. Architectural Style: Vernacular, industrial
B6. Construction History: According to aerial photographs of this area, the former Kaiser shipyards gradually evolved into the present industrial land use patterns. By 1958, much of the Kaiser Shipyard infrastructure was removed and the fuel distribution facility at 488 Wright Avenue is depicted containing 22 above ground cylindrical metal tanks of various size, a fuel rack, a single-story, detached office, and a detached, single-story shop building. By 1981, the tank farm had grown to 25 above ground tanks. The number of tanks would fluctuate from 24 (in 1987) to 27 (by 2005) (NETRONLINE 1958, 1981, 1997, 2005, 2018, 2022).
B7. Moved? No
B8. Related Features: Dock, railcar rack, heavy duty truck fuel rack
B9. a. Architect: Undetermined
b. Builder: Undetermined
B10. Significance: Theme: Industrial development **Area:** Inner Harbor, Richmond, Contra Costa County
Period of Significance: N/A **Property Type:** Industrial **Applicable Criteria:** N/A

This 11.5-acre privately owned onshore bulk liquids storage and distribution facility is in the Richmond Inner Harbor, southwest of downtown Richmond and east of Point Richmond. Research indicates that this storage and distribution center was in place by 1958 and is associated with the post-World War II development of the Port of Richmond. Please see the continuation sheets for the historic context and an overview of land use history and property-specific development.

- B11. Additional Resource Attributes:**
None.
B12. References:
See Continuation Sheets.
B13. Remarks: None

- B14. Evaluator:**
Michael Hibma, M.A.
LSA
157 Park Place
Point Richmond, CA 94801

Date of Evaluation: 9/11/2024



(This space reserved for official comments.)

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DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

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Resource Name: 488 Wright Avenue

Map Name: USGS 7.5-minute *Richmond, Calif.*

Scale: 1:24,000

Date of Map: 1980



B10. Significance (continued)

HISTORICAL CONTEXT. This resource is in an industrial port area southwest of downtown Richmond, Contra Costa County. The following section identifies and elaborates the historic contexts of settlement and architectural patterns applicable to the resource and provides a descriptive typology of the applicable common architectural styles associated with the contexts. This resource has not been previously evaluated for national, state, or local significance.

Exploration and Settlement. The first recorded exploration of the San Francisco Bay region by Europeans was the Fages-Crespí Exploration of 1772–1773. Captain Don Pedro Fages was sent to locate the San Francisco Bay, reported by earlier Spanish mariners unable to conclusively find the port due to heavy coastal fogs. Additionally, Fages was ordered to reconnoiter, describe, and map lands east of San Francisco Bay. Fages was accompanied by Franciscan missionary and explorer Juan Crespí, six leather-jacketed soldiers (*solados de cuero*), and servants. Fages departed from Monterey Presidio and proceeded north through the Santa Clara Valley to the East Bay hills and north and east into the San Ramon Valley and the Carquinez Strait. On reaching the Carquinez Strait, the party turned south and returned to Monterey via the Santa Clara Valley (Adams 2019; Milliken 1995:36-37; Treutlein 1968:39-51).

Two years after the Fages-Crespí expedition, another party of explorers organized under Colonel Juan Bautista de Anza led a group of approximately 250 colonists from Mexico north to settlements in Alta California. After de Anza reached Monterey in 1776, he then proceeded north and sited the locations for the San Francisco Presidio and the Mission San Francisco de Asís. The de Anza party continued east through the Santa Clara Valley to determine what river(s) drained into the San Francisco Bay. Arriving at the Carquinez Strait, de Anza led his men east along the shore. Due to the terrain, de Anza turned his men south along the northern and eastern faces of Mount Diablo, encircling the area that would later become Pittsburg, Antioch, Concord, and Clayton (Abeloe 1966:53-55; Adams 2019; Jenkins 1951:16-17; Milliken 1995:52-57; Treutlein 1968:63,84). Following the period of official military expeditions, the Spanish further solidified their hold on the area through land grant ranchos along the East Bay and founding missions *San Francisco de Asís* (in San Francisco) and *La Misión del Gloriosísimo Patriarca Señor San José* (in present-day Fremont).

Mexican Period. After Mexico declared independence in 1821, the republican ethos of the Mexican state favored secular growth over ecclesiastical. During this time, the Mexican government was distracted by political developments in central Mexico, far away from Alta California, and the native-born Spanish speakers, or *Californios*, experienced relative peace and enjoyed minimal intrusion into their social, political, and economic affairs. Secularization of the missions beginning in 1834 made large amounts of lands available that were previously held by missions. Subsequently, the Mexican governors granted large swaths of land as ranchos to individuals as a reward for military service or personal political support. The new "Secularization Law" intended to share mission lands between Mexican citizens and Alta California's indigenous inhabitants was never implemented. The destitute missions no longer provided living quarters and work for their Native American neophyte population. The dissolution of the mission system freed tens of thousands of acres, creating a land rush (Works Progress Administration 1939:47-50; Bancroft 1888 II:607-627; McWilliams 1973:38, Monroy 1990:123-132; Marschner 2000:4-6; Robinson 1948:29-31).

Gold Rush and Statehood. Anglo-Americans began to arrive in the area during the 1830s and 1840s and married into the established Mexican gentry. The discovery of gold at Coloma, east of Sacramento, in January 1848 ushered in the Gold Rush, which brought tens of thousands of mostly young, single men to California to work the placers. When the surface placers played out, many former miners turned to more conventional forms of economic activity such as agriculture, lumbering, animal husbandry, manufacturing, carpentry, and other services. Following the ratification of the Treaty of Guadalupe Hidalgo, many communities formed on rancho lands by boosters and land promoters competing for settlers, commercial investment and development, and financial viability. Statehood was granted as part of the Compromise of 1850, which settled, among other issues, a four-year political impasse in the United States Senate between free and slave states regarding whether slavery could expand into territories won during the war. California entered the Union as a free state.

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Resource Name: 488 Wright Avenue

Recorded by: Michael Hibma, M.A., LSA Associates, Inc.

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☒ Continuation

B10. Significance (continued)

HISTORICAL CONTEXT (continued).

Contra Costa County. Contra Costa County was one of the original 27 counties following California's admission to the Union in 1850. In 1853, approximately two-thirds of southern Contra Costa County was combined with a northern portion of Santa Clara County and reorganized as Alameda County. The remaining land was subdivided into small townships (Coy 1973:91-93; Munro-Fraser 1882:190-204). In 1851, to enable a more recognizable and legally defensible method of land surveying and development of real estate industry, Colonel Leander Ransom, Deputy Surveyor-General, established the initial base point atop Mount Diablo setting in place the base point for all land surveys of California. The following year, Richard. D. Cutts of the U.S. Coast and Geodetic Survey used Mount Diablo as a base point for their National Triangulation Survey, but comprehensive surveys of the state did not occur until the 1860s (Adams 2000; Brewer 1966:198; Hoover et al. 1990:50; Jenkins 1951:35; Pettley 1998; Starr 1973:178).

A year after California joined the Union, residents of the rapidly growing bayshore communities of Oakland and Berkeley increasingly complained of inconveniences and unresponsiveness from the County seat 20 miles north in Martinez. In response, the California Legislature created a new county in 1853 by combining part of southern Contra Costa and northern Santa Clara counties to form Alameda County (Coy 1923:61-63; 91-92; Munro-Fraser 1883:166-167; Scott 1959:35).

City of Richmond. The fuel storage and distribution center is situated within the former Rancho San Pablo, a 17,939-acre rancho granted in 1823 by Mexican Governor Luís Antonio Arguello to Francisco María Castro for his military service, and later for his public service as alcalde of Yerba Buena (modern San Francisco). Rancho San Pablo included the cities of Richmond, San Pablo, and Kensington in western Contra Costa County. Like many similar ranchers, Castro raised cattle and participated in the hide and tallow trade from the 1820s until his death in 1831. With the arrival of the Gold Rush in 1848, thousands of people, mostly young men, arrived in California via San Francisco, and many passed through Rancho San Pablo on their way to the Sierra Nevada gold fields. By the 1880s, squatters and poachers, and later costly legal land disputes, liquidated the Castro family's holdings until only 50 acres remained in what is now the city of San Pablo. For much of the mid-to-late 19th century, much of what would become the city of Richmond was occupied by small farms (Banks and Orlins 1981:54-60).

The development of what would become Richmond was influenced by the arrival during the late-1890s of the Santa Fe Railroad, known today as the Burlington Northern and Santa Fe Railway Company (BNSF). The railroad competed with the dominant Southern Pacific Railroad to connect Bay Area manufacturers and Central Valley agricultural producers with interior and overseas markets. Railroad development, in turn, brought about industrial development. In 1897, the Santa Fe and San Joaquin Railroad, a subsidiary of BNSF, purchased land at Ferry Point in Point Richmond to construct its western terminus. Trains began arriving at the Richmond Terminal by 1900, where they waited to be ferried across bay to port facilities in San Francisco. The railroad's terminus and deep water access for shipping attracted the Pacific Oil Company, later the Standard Oil Company of California and known today as Chevron. A refinery was built, and production began by 1902. Subsequently, four deep-water terminals were built in Richmond to provide shipping accessibility for newly developing industries throughout the northern East Bay region. Other forms of industry came to the area, such as pottery and brick makers, machine shops, produce canneries, steel companies, and marine-related services (Banks and Orlins 1981:561-65).

This economic growth spurred a corresponding population growth. By 1905, Richmond's population was approximately 1,500. During the early-20th century, land uses began to change in density, driven principally by the relocation of people and businesses following the San Francisco Earthquake and Fire of 1906. For most of the early-to-mid-20th century, Richmond remained largely agricultural and industrial in nature, with the deep-water Inner Harbor allowing export of Contra Costa County's farm produce and goods from 60 factories (City of Richmond 1958:19-22). By 1915, Richmond's street grid was established on lands north and east of Point Richmond.

B10. Significance (continued)

HISTORICAL CONTEXT (continued).

By the 1920s, most of the Richmond's commercial development and residential growth occurred outside Point Richmond, and the city expanded south and east to accommodate growth. Due to the geographical confines of Point Richmond, along with the presence of the expanding refinery and the BNSF railyard, there was little room to grow. Municipal services and facilities such as City Hall relocated, farmland was subdivided into residential tracts, and commercial activity expanded along MacDonald Avenue and soon eclipsed Point Richmond as the primary commercial and residential hub of Richmond.

Point Richmond's decline was dramatically reversed during World War II. By 1943, Richmond's population nearly quadrupled to 100,000, as thousands of Americans, mostly from the rural South and Dust Bowl, arrived to work in the former Todd-California shipyards (then absorbed and operated by the Kaiser Corporation) and other war-time support industries. This population surge soon overwhelmed Richmond's existing housing stock, public school capacity, municipal utilities, and transportation infrastructure. To address the crisis, the federal government built over 24,000 housing units, additional schools, new roads, and myriad other projects to help the City meet workforce needs.

By 1943, Allied victory was increasingly certain, and planning for the anticipated drop off in shipyard and other industrial activity during peacetime began. Following the end of the war in August 1945, as anticipated, government-driven war-time production dropped off sharply, industrial activity slackened, and the population declined. However, more war-time arrivals chose to remain than city officials anticipated. Despite this, Richmond's industrial capacity gradually diminished in the 1970s and 1980s, as industries moved overseas, yielding space to a growing demand for offices, commercial retail, service industries, and housing (Page & Turnbull and Donna Graves 2009:113-117).

Echoing this post-war trend, Point Richmond "remained almost dormant until the late 1960s," when new residents began to discover the neighborhood's intact early-20th century architectural character and built environment. A byproduct of the general decline in Point Richmond since the late 1920s was the unintentional preservation of its historical building stock and urban development (Point Richmond History Association 1984:9-10). By the 1980s, incoming residents and businesses were moving into the neighborhood. In response, plans were drawn up to add over 24,000 square feet of commercial and office space that would restore Point Richmond's building density to a level "not seen since its 'boom-town' days of 1910" (Point Richmond History Association 1984:9-10). This trend of gradual growth has continued as new businesses occupying historical buildings and in-fill residential and commercial development.

488 Wright Avenue. By 1915, in response to development spurred by the arrival of the railroad, refinery, and related industries, the street grid of Richmond was established and land made ready for development. By the 1930s, the project site and surrounding area was developed with port facilities with mostly residential and commercial properties to the north in Point Richmond. The immediate area was industrial in character and did not contain any amenities such as parks, libraries, playgrounds, schools, and health clinics. The project area at 488 Wright Avenue is atop this filled or "made land" and shown as undeveloped. Lauritzen Canal to the west and Parr Canal east of the project area are also depicted (UCSB 1939). Aerial photos and topographic maps from the 1940s show the radical transformation of the project area and wider the Richmond Inner Harbor associated with the construction of Kaiser's Richmond Shipyards No. 1 and No. 4. The project area was included as part of Richmond Shipyard No. 1 and continued seven slips for constructing Liberty and Victory ships. The modern alignment of Wright Avenue is depicted winding though the shipyards (NETRONLINE 1946, 1948; World War II Database 2024).

After the Allied Victory in August 1945, Kaiser decommissioned can closed the shipyards and a gradual evolution into the modern industrial area. By 1958, much of the Kaiser Shipyard infrastructure was removed and the project area at 488 Wright Avenue is depicted containing a tank farm comprised of 22 above ground cylindrical metal tanks of various size, a fuel rack, a single-story, detached office, and a detached, single-story shop building. By 1981, the tank farm had grown to 25 above ground tanks. The number of tanks would fluctuate from 24 (in 1987) to 27 (by 2005) (NETRONLINE 1958, 1981, 1997, 2005, 2018, 2022).

B10. Significance (continued)

HISTORICAL CONTEXT (continued)

Tank Farms. The fuel storage and distribution facility at 488 Wright Avenue is an example of a “tank farm” property type. Designed to provide support for industrial operations as well as larger consumer markets. Sometimes described as “tank orchards” or “tank gardens” for their orderly arrangement, these properties are used to store petroleum products for distribution for retail sale. As noted by author Bryan Hayes,

“Seen up close, a tank farm seems immense; from another perspective, however, the tanks are amazingly small. Given the world's thirst for oil, they hold only a few weeks' supply. A typical refinery has enough tank capacity to store two weeks' worth of crude stocks and four weeks' worth of refined products. It seems petroleum molecules are like those insects that emerge from the earth, live and breed for a day, and then per-ish. Oil is burned up no more than a few weeks after it comes out of the ground.

Most petroleum tanks are cylindrical. Their proportions tell an interesting story. The smallest tanks are taller than they are wide--perhaps 20 feet in diameter and 30 feet high. Going to larger sizes, the diameter increases much more than the height, so the tanks become fatter and flatter. The very largest are 400 feet in diameter and 60 feet high (big enough to house a respectable professional sports arena). The reason for making big tanks shallower is that the internal pressure at the base of the tank depends on the height of the fluid inside, not the total volume. Higher pressures call for stronger and more expensive walls.

The walls are fabricated from curved steel panels welded together in a bricklike pattern. The most common size for the plates is 8 feet by 30 feet. (Knowing this, you may be able to estimate the size of a tank by counting panels.) Because the pressure is greatest at the bottom, the lower plates are thicker--an inch to an inch and a half--tapering to about half an inch thick at the top” (Hayes 2005:166-169).

Other notable features of tank farms are earthen berm that surround the tanks so to contain spills from ruptured tanks or piping as well as in the event of a fire or explosion prevent the spread of ignited petroleum and contain fire suppressant materials. Amongst the tanks are several stations or points for suppressing fire, such as hydrants, fire foam, as well as materials for cleaning up hazardous materials. The fuel storage and distribution facility at 488 Wright Avenue is a multimodal distribution center whereby unrefined or refined petroleum products arrive or depart by ship, rail, or truck. These modes of transportation require loading apparatuses or “racks” to safely and properly load/offload materials from railcars or on the road tractor trailers.

Fuel storage and distribution facilities such as the example at 488 Wright Avenue are common in areas where fuel refineries are located as well as areas with easy access to railroads, highways, and regional pipelines for inter-regional distribution of fuel for retail sale.

ARCHITECTURAL CONTEXT.

Vernacular. A useful approach to understanding what vernacular style is, can begin by defining what it is not. That is, vernacular architecture is not overly formal or monumental in nature but is represented by unadorned construction that is not designed by a professional architect. Vernacular architecture is the commonplace or ordinary building stock that addresses a practical purpose with a minimal amount of flourish or otherwise traditional or ethnic influences (Upton and Vlach 1986:xv-xxi, 426-432). The historical roots of the Vernacular style in the United States dates from colonial settlement during the 16th and 17th centuries.

European immigrants, either of modest independent means, or financed with corporate backing, brought with them a wood-based building tradition. From this combination came a new building tradition associated with unsettled and heavily forested land and a young population. This new style, vernacular style, was “characterized by short-lived or temporary dwellings focused on the family and distinct from the place of work” (Jackson 1984:85-87). Typically associated with older, hand-built rural buildings in remote or rural, agricultural settings, vernacular architecture can also include modern, prefabricated, general purpose steel buildings used as shop space, warehouses, discount-clearance centers and many other uses (Gottfried and Jennings 2009:9-16).

B10. Significance (continued)

ARCHITECTURAL CONTEXT (continued)

These buildings are relatively simple, often prefabricated and easily replicable across America. These materials were easy to clean, maintain, or replace. This prefabricated architecture was (and remains) economical to build, with a simple design that conveyed its utilitarian purpose without elaborate ornamentation that was easily replicated, a quality that continues to appeal to businesses (Wiseman 2000:149). Character defining features of Vernacular architecture include: simple rooflines; small building footprints; simple construction techniques and materials; and designed and constructed by a carpenter or general building contractor with no visible or discernable style (McAlester 2013: 753).

ELIGIBILITY EVALUATION

This section applies the California Register of Historical Resources (California Register) criteria to the fuel storage and distribution facility at 488 Wright Avenue. This 11.5-acre property has not been previously evaluated for eligibility for inclusion in the California Register. The evaluation analysis below quotes the applicable California Register criterion and is followed by a significance finding and, if warranted, an assessment of integrity.

Criterion 1: *Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage?*

The fuel storage and distribution facility at 488 Wright Avenue reflects broad patterns of post-World War II development of Richmond and the wider East Bay. The facility is located in the Richmond Inner Harbor and was built circa 1958 in an area with industrial land use patterns. The fuel storage and distribution facility at 488 Wright Avenue is one of many similar properties associated with this pattern of events. Background research indicates this property is not the first or largest example of this type and does not appear to be of higher, associative stature compared to other, similar property types.

For these reasons, the fuel storage and distribution facility at 488 Wright Avenue does not appear individually eligible for inclusion in the California Register under Criterion 1.

Criterion 2: *Is associated with the lives of persons important in our past?*

Background research did not identify the design professional(s) responsible for designing the 11.5-acre facility. The built environment contains many prefabricated and relatively utilitarian typologies commonly found within industrial areas. Background research also indicated that property has changed over time, namely in number of tanks as well as detached support buildings (office, shops, and etc.).

For these reasons, the fuel storage and distribution facility at 488 Wright Avenue does not appear individually eligible for inclusion in the California Register under Criterion 2.

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

The fuel storage and distribution facility at 488 Wright Avenue possesses some of the general architectural characteristics of Vernacular, a practical and functional architectural style well represented in the existing industrial building stock of Richmond, Contra Costa County, the San Francisco Bay Area, and statewide. It is a building type inexpensive to build, and this property was designed to provide a functional multi-modal distribution center for petroleum products. The design professionals responsible for designing the facility were not identified.

For these reasons, the fuel storage and distribution facility at 488 Wright Avenue does not appear individually eligible for inclusion in the California Register under Criterion 3.

B10. Significance (continued)

ELIGIBILITY EVALUATION (continued)

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

This criterion is typically used to evaluate the potential of archaeological deposits to contain information important in understanding past lifeways of California's early historical period and pre-contact inhabitants. Its application to architecture is less common in eligibility assessments due to the prevalence of media that have previously thoroughly documented the form, materials, and design of a given building type. Consequently, information about vernacular and modern design and industrial construction techniques, as represented by the fuel storage and distribution facility at 488 Wright Avenue are readily obtainable from other widely available sources, such as architectural journals, style guides, overviews, and compendia.

For these reasons, the fuel storage and distribution facility at 488 Wright Avenue does not appear individually eligible for inclusion in the California Register under Criterion D.

Integrity Assessment

Historic integrity refers to the ability of a resource to convey its significant historical associations. Integrity is a critical component of historical resources that are listed in, or eligible for listing in, the California Register. As described above, there are seven aspects of integrity used to measure a property's ability to convey its significance: *location, design, setting, materials, workmanship, feeling, and association* (NPS 1997:45). Historical resources eligible for listing in the California Register must meet one of the criteria of significance and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. "To retain historic integrity a property will always possess several, and usually most, of the aspects" (NPS, 1997a:44).

The fuel storage and distribution facility at 488 Wright Avenue does not appear eligible either individually or collectively for inclusion in the California Register; therefore, its integrity was not assessed.

CONCLUSION

Background research and a field review identified one built environment cultural resources more than 50 years old: the 11.5-acre TransMontaigne Richmond Terminal at 488 Wright Avenue, Richmond, Contra Costa County, California. LSA concludes that the TransMontaigne Richmond Terminal does not appear individually eligible for inclusion in the California Register at the local, State, or national level of significance under any of the evaluative criteria of the California Register. The TransMontaigne Richmond Terminal at 488 Wright Avenue is associated with the post-World War II land use evolution of Richmond's Inner Harbor. This property is one of several similar examples of this phase of Richmond's history and background research did not indicate the project area is of higher associative value with this pattern of events.

The design professionals responsible for designing the TransMontaigne Richmond Terminal were not identified. The built environment contains examples of a common industrial purpose-built buildings, structures, and infrastructure designed to store and transport liquid petroleum products. Background research did not indicate a potential association of TransMontaigne Richmond Terminal with new or innovative ways to store or transport these products.

Accordingly, the TransMontaigne Richmond Terminal at 488 Wright Avenue does not appear to qualify as a historical resource for the purposes of the California Environmental Quality Act (PRC §21084.1).

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Resource Name: 488 Wright Avenue

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☒ Continuation

P5a. Photograph (continued)



488 Wright Avenue. Asphalt and fuel supply racks at left foreground and 53,000-gallon diesel tank behind. Shop and office buildings at right. View southwest from across Wright Avenue. LSA photograph 9/26/24.



488 Wright Avenue. Asphalt and fuel supply racks at right foreground and 53,000-gallon diesel tank beyond. View southeast. LSA photograph 9/26/24.

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P5a. Photograph (continued)



488 Wright Avenue. Railroad car fuel supply rack. View northwest. LSA photograph 9/26/24.



488 Wright Avenue. Railroad car fuel supply rack. View south. LSA photograph 9/26/24.

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P5a. Photograph (continued)



488 Wright Avenue. Tanks and piping infrastructure, Representative view. View southeast. LSA photograph 9/26/24.



488 Wright Avenue. Tanks, piping, and fire suppression infrastructure, Representative view.
View southeast. LSA photograph 9/26/24.

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P5a. Photograph (continued)



488 Wright Avenue. View north from southwestern corner of 11.5-acre property.
Tanks at right, railroad car fuel rack in background. LSA photograph 9/26/24.



488 Wright Avenue. View east from southwestern corner of 11.5-acre property.
Tanks at left, portion of marine dock at right. Cement processing plant in background. LSA photograph 9/26/24.

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☒ Continuation

P5a. Photograph (continued)



488 Wright Avenue. View north from southern boundary of 11.5-acre property. LSA photograph 9/26/24.



488 Wright Avenue. View west from eastern property boundary. Representative tanks, piping, and metal bridge walk over earthen berm. LSA photograph 9/26/24.

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P5a. Photograph (continued)



488 Wright Avenue. View west and through tank farm from eastern property boundary. LSA photograph 9/26/24.



488 Wright Avenue. View south from eastern property boundary. Representative tanks, piping, and metal bridge walk over earthen berm. LSA photograph 9/26/24.

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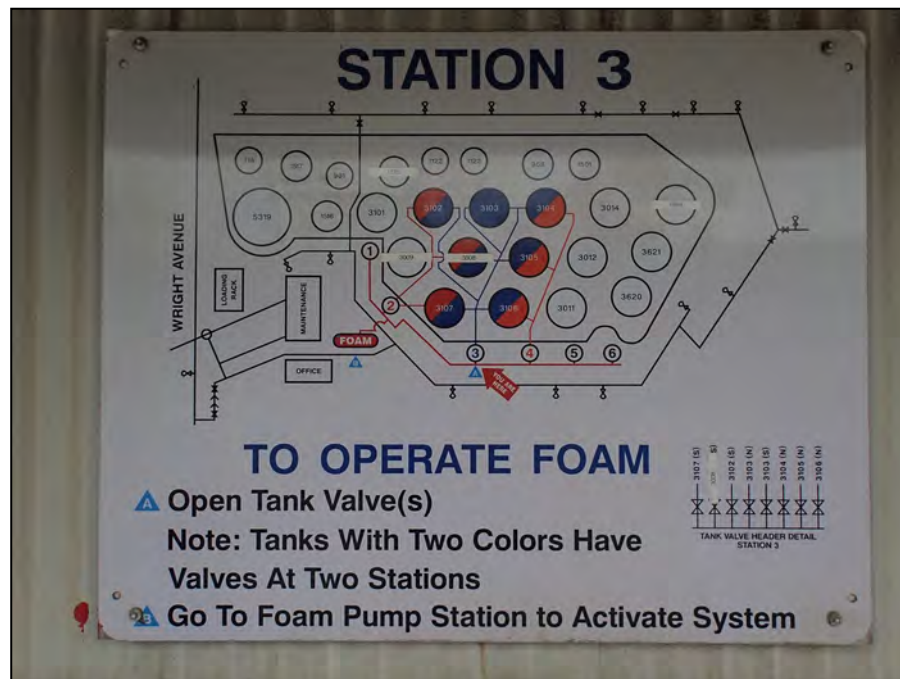
Date: 9/11/24

☒ Continuation

P5a. Photograph (continued)



488 Wright Avenue. Office building and detached shop building (behind). View southeast. LSA photograph 9/26/24.



488 Wright Avenue. Map of fire suppression station No. 3 within fuel distribution faciulity. LSA photograph 9/26/24.

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Resource Name: 488 Wright Avenue

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Date: 9/11/24

☒ Continuation

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CONTINUATION SHEET

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Resource Name: 488 Wright Avenue

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B12. References (continued)

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State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

Page 19 of 19

Resource Name: 488 Wright Avenue

Recorded by: Michael Hibma, M.A., LSA Associates, Inc.

Date: 5/12/2424 ☒ Continuation

B12. References (continued)

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APPENDIX E

CONSTRAINTS ANALYSIS



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CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

November 19, 2024

Mr. Avery Stark
Active Planning Manager/ Zoning Manager
City of Richmond
450 Civic Center Plaza
Richmond, CA 94804

Subject: Constraints Analysis for the Richmond Terminal Rail Expansion and Truck Rack Improvements Project (project) in the City of Richmond, Contra Costa County (LSA Project No. 20241849)

Dear Mr. Stark:

This letter presents the results of the constraints analysis for the Richmond Terminal Rail Expansion and Truck Rack Improvements Project (project) Assessor's Parcel Numbers 560-280-012-9 and 560-280-008-7 totaling 11 acres located at 488 Wright Avenue. The record search was conducted to establish the status and extent of previously recorded resources and studies within and adjacent to the project area (see Figure 1, Attachment A, and Record Search Results, Attachment B).

METHODOLOGY

Records Search

On August 28, 2024, a record search was conducted by staff at the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park. The NWIC, an affiliate of the California Office of Historic Preservation (OHP), is the official repository of cultural resources records and reports for Contra Costa County. The record search included a review of previously documented prehistoric and historic-period and cultural resource records within a 0.25-mile radius of the project site, as well as a review of cultural resources reports in the database.

Sacred Lands File Search

On August 20, 2024, LSA sent a request to the Native American Heritage Commission (NAHC) for a search of their Sacred Lands File (SLF) to obtain information on potential Traditional Cultural Properties in the vicinity of the project area and a list of tribes recommended for contact.

RESULTS

Records Search

Data from the record search conducted at the NWIC indicate that there have been five previous studies within 0.25 mile, two of which included the project area (see attached records search results). Although no resources are documented within the project area, one prehistoric resource was documented within 0.25 mile of the project area. The prehistoric resource recorded, CA-CCO-000295, is located approximately 0.25 mile southeast of the project area and includes burials and evidence of habitation, including shell mounds and debris.

Sacred Lands File Search

On September 24, 2024, the NAHC responded with positive results of the SLF search and provided a list of 19 individuals representing 9 tribes recommended for contact. Please see Attachment C for details.

FINDINGS/RECOMMENDATIONS

The absence of resources previously documented within the project area and severe disturbance suggest that sensitivity for *in situ* archaeological resources is low. However, the proximity of a habitation site with burials indicates some potential for non-*in situ* resources that may be of local interest, particularly on the coast next to a watercourse such as the Santa Fe Channel. Therefore, Worker's Environmental Awareness Program (WEAP) training and/or archaeological monitoring is recommended. The following standard conditions apply.

If buried cultural materials are encountered during earthmoving operations associated with the project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds and determine appropriate treatment.

In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall take place until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

If you have any questions regarding this information, please contact me at cassidy.sharp@LSA.net.

Sincerely,

LSA Associates, Inc.



Cassidy Sharp, RPA
Archaeologist

Attachments: A: Figure 1: Project Location
B: Record Search Results
C: Sacred Lands File Search Results

ATTACHMENT A

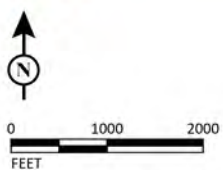
FIGURE 1



LSA

 Project Area

FIGURE 1



SOURCE: Richmond, CA, 7.5' Quad (USGS 1993)

I:\2024\20241849.01\GIS\Pro\Richmond Terminal Rail and Truck Rack Expansion Project\Richmond Terminal Rail and Truck Rack Expansion Project.aprx (8/20/2024)

Richmond Terminal Rail and Truck Rack Expansion Project
Project Location

ATTACHMENT B

RECORD SEARCH RESULTS

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE

HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO

SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1400 Valley House Drive, Suite 210
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwwic@sonoma.edu
<https://nwwic.sonoma.edu>

8/28/2024

NWIC File No.: 24-0274

Michael Hibma
LSA Associates, Inc.
157 Park Place
Richmond, CA 94801

Re: Richmond Terminal Rail Expansion & Terminal Development Project

The Northwest Information Center received your record search request for the project area referenced above, located on the Richmond USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a ¼ mi. radius:

Resources within project area:	None listed
Resources within ¼ mi. radius:	P-07-000173
Reports within project area:	S-1647, 4901
Reports within ¼ mi. radius:	S-22544, 38651, 53933

Resource Database Printout (list):

☐ enclosed ☒ not requested ☐ nothing listed

Resource Database Printout (details):

☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records:

☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list):

☐ enclosed ☒ not requested ☐ nothing listed

Report Database Printout (details):

☒ enclosed ☐ not requested ☐ nothing listed

Report Digital Database Records:

☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies:

☒ enclosed ☐ not requested ☐ nothing listed

Report Copies:

☐ enclosed ☒ not requested ☐ nothing listed

OHP Built Environment Resources Directory:

☐ enclosed ☒ not requested ☐ nothing listed

Archaeological Determinations of Eligibility:

☒ enclosed ☐ not requested ☐ nothing listed

CA Inventory of Historic Resources (1976):

☐ enclosed ☒ not requested ☐ nothing listed

GLO and/or Rancho Plat Maps:

☒ enclosed ☐ not requested ☐ nothing listed

Historical Maps:

☒ enclosed ☐ not requested ☐ nothing listed

Local Inventories:

☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey:

☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information:

☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature:

☐ enclosed ☒ not requested ☐ nothing listed

Shipwreck Inventory:

☒ enclosed ☐ not requested ☐ nothing listed

****** Current versions of these resources are available on-line:

Shipwreck Inventory: <https://www.slc.ca.gov/shipwrecks/>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Annette Neal

Researcher

ATTACHMENT C

SACRED LANDS FILE SEARCH RESULTS



NATIVE AMERICAN HERITAGE COMMISSION

September 24, 2024

Jaimi Starr
LSA Associates, Inc.Via Email to: Jaimi.Starr@lsa.net

Re: Richmond Terminal (20241849.01) Project, Contra Costa County

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the tribes on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne
Cultural Resources Analyst

Attachment

CHAIRPERSON
Reginald Pagaling
*Chumash*VICE-CHAIRPERSON
Buffy McQuillen
*Yokayo Pomo, Yuki,
Nomlaki*SECRETARY
Sara Dutschke
*Miwok*PARLIAMENTARIAN
Wayne Nelson
*Luiseño*COMMISSIONER
Isaac Bojorquez
*Ohlone-Costanoan*COMMISSIONER
Stanley Rodriguez
*Kumeyaay*COMMISSIONER
Laurena Bolden
*Serrano*COMMISSIONER
Reid Milanovich
*Cahuilla*COMMISSIONER
Bennae Calac
*Pauma-Yuima Band of
Luiseño Indians*EXECUTIVE SECRETARY
Raymond C.
Hitchcock
*Miwok, Nisenan*NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

APPENDIX F

NOISE MONITORING SHEETS



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Noise Measurement Survey – 24 HR

Project Number: 20241849.01

Test Personnel: Dana Kwan

Project Name: Richmond Terminal

Equipment: Spark 706RC (SN:18906)

Site Number: LT-1 Date: 9/26/24

Time: From 11:00 a.m. To 11:00 a.m.

Site Location: On a utility pole approximately 15 feet south of the Wright Avenue centerline and 1,440 feet south of the edge of Cutting Boulevard

Primary Noise Sources: Massive generator constantly running, tank and vehicle traffic (heavy trucks and regular vehicles), train horns, boat horns, beeping from vehicles and port machinery

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L _{eq}	L _{max}	L _{min}
11:00 AM	9/26/24	73.6	94.2	53.9
12:00 PM	9/26/24	70.7	94.2	51.4
1:00 PM	9/26/24	79.1	104.4	63.3
2:00 PM	9/26/24	78.5	106.5	61.7
3:00 PM	9/26/24	74.1	95.0	51.8
4:00 PM	9/26/24	67.9	90.0	52.1
5:00 PM	9/26/24	58.2	76.2	52.4
6:00 PM	9/26/24	69.1	94.6	53.3
7:00 PM	9/26/24	63.7	90.8	51.0
8:00 PM	9/26/24	61.9	89.3	51.7
9:00 PM	9/26/24	57.1	75.5	52.3
10:00 PM	9/26/24	62.1	87.0	54.3
11:00 PM	9/26/24	63.0	87.0	48.7
12:00 AM	9/27/24	64.2	92.2	49.4
1:00 AM	9/27/24	58.0	83.6	48.6
2:00 AM	9/27/24	68.5	81.8	48.6
3:00 AM	9/27/24	65.5	88.5	52.6
4:00 AM	9/27/24	72.2	83.3	52.1
5:00 AM	9/27/24	73.2	92.5	61.3
6:00 AM	9/27/24	77.2	92.2	66.9
7:00 AM	9/27/24	74.0	92.5	65.2
8:00 AM	9/27/24	72.8	93.2	56.1
9:00 AM	9/27/24	75.5	96.3	63.6
10:00 AM	9/27/24	76.1	98.3	62.5

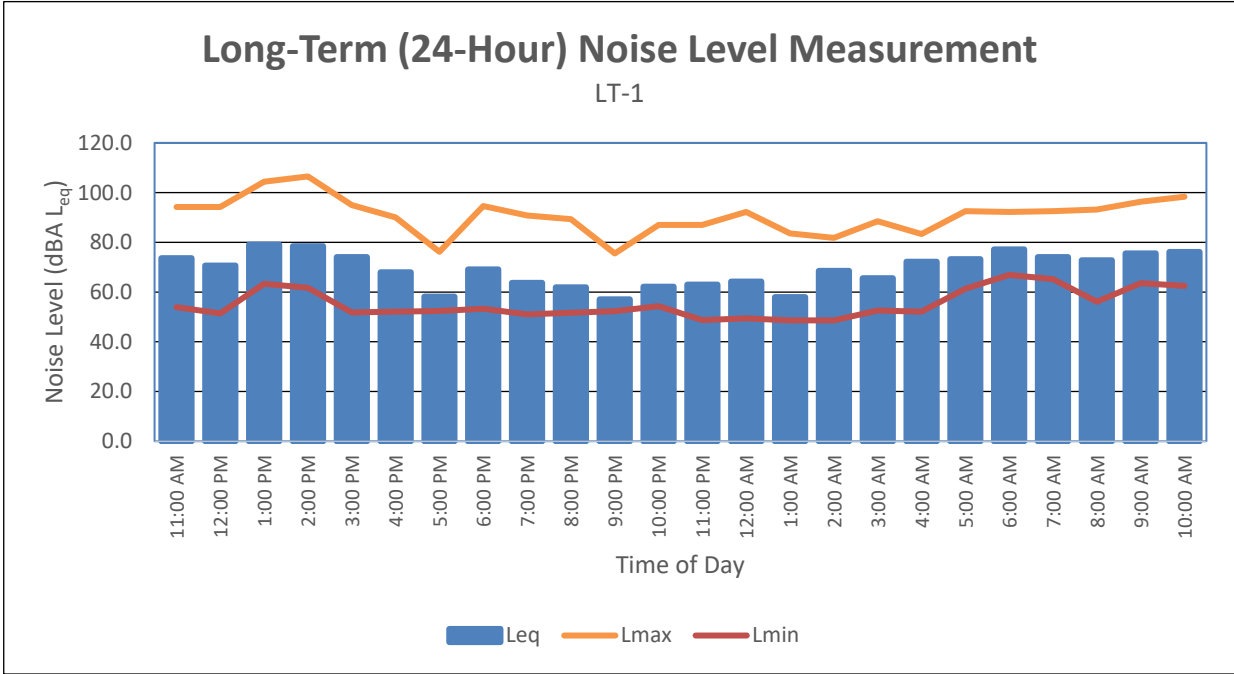
Source: Compiled by LSA Associates, Inc. (2024).

dba = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20241849.01

Test Personnel: Dana Kwan

Project Name: Richmond Terminal

Equipment: Spark 706RC (SN:17815)

Site Number: LT-2 Date: 9/26/24

Time: From 11:00 a.m. To 11:00 a.m.

Site Location: On a utility pole approximately 20 feet south of the center of Wright Avenue and 495 feet south of the edge of Hoffman Boulevard

Primary Noise Sources: Hum coming from tanks to the west, tank and vehicle traffic (heavy trucks and regular vehicles), train horns, beeping from vehicles and port machinery

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Date	Noise Level (dBA)		
		L _{eq}	L _{max}	L _{min}
11:00 AM	9/26/24	70.7	89.8	51.8
12:00 PM	9/26/24	71.4	94.3	51.6
1:00 PM	9/26/24	67.4	92.4	52.6
2:00 PM	9/26/24	67.7	93.2	53.4
3:00 PM	9/26/24	64.9	92.4	50.5
4:00 PM	9/26/24	63.2	88.4	50.4
5:00 PM	9/26/24	61.9	84.8	50.6
6:00 PM	9/26/24	70.4	98.5	49.5
7:00 PM	9/26/24	55.4	71.3	50.0
8:00 PM	9/26/24	57.0	80.1	49.8
9:00 PM	9/26/24	69.7	96.9	49.7
10:00 PM	9/26/24	65.2	94.7	48.1
11:00 PM	9/26/24	65.0	92.2	48.3
12:00 AM	9/27/24	64.1	92.5	47.7
1:00 AM	9/27/24	58.7	86.8	46.4
2:00 AM	9/27/24	59.8	84.7	45.6
3:00 AM	9/27/24	63.5	86.5	46.9
4:00 AM	9/27/24	69.0	86.4	48.5
5:00 AM	9/27/24	69.3	88.9	53.8
6:00 AM	9/27/24	70.4	90.2	55.0
7:00 AM	9/27/24	72.0	92.9	55.0
8:00 AM	9/27/24	69.7	88.6	52.5
9:00 AM	9/27/24	69.6	87.5	50.9
10:00 AM	9/27/24	69.0	86.4	49.6

Source: Compiled by LSA Associates, Inc. (2024).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level

