



**Mt. Diablo Resource Recovery
Maintenance Facility Project**

Initial Study Mitigated Negative
Declaration

January 28, 2021

Prepared for:

City of Antioch
Community Development Department
Planning Division
200 H Street
Antioch, CA 94509

Prepared by:

Stantec Consulting Services Inc.
1340 Treat Boulevard, Suite 300
Walnut Creek, CA 94597



Table of Contents

ACRONYMS AND ABBREVIATIONS	IV
INITIAL STUDY MITIGATED NEGATIVE DECLARATION	IX
1.0 INTRODUCTION.....	1.1
1.1 PROJECT TITLE.....	1.1
1.2 LEAD AGENCY.....	1.1
1.3 LEAD AGENCY CONTACT	1.1
1.4 PURPOSE.....	1.1
1.5 PROJECT LOCATION	1.2
1.6 EXISTING SETTING AND SURROUNDING LAND USES.....	1.2
1.7 GENERAL PLAN DESIGNATION AND ZONING	1.9
1.8 CEQA AND PUBLIC AND AGENCY REVIEW.....	1.9
1.9 REQUIRED PERMITS AND APPROVALS.....	1.10
1.10 SCOPE OF THIS INITIAL STUDY	1.10
1.11 DOCUMENT ORGANIZATION	1.11
2.0 PROJECT DESCRIPTION.....	2.1
2.1 PROJECT OVERVIEW	2.1
2.2 PROJECT CONSTRUCTION	2.14
3.0 ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION.....	3.1
3.1 AESTHETICS.....	3.3
3.2 AGRICULTURE AND FORESTRY RESOURCES.....	3.9
3.3 AIR QUALITY	3.13
3.4 BIOLOGICAL RESOURCES.....	3.33
3.5 CULTURAL RESOURCES	3.43
3.6 ENERGY	3.49
3.7 GEOLOGY AND SOILS	3.55
3.8 GREENHOUSE GASES	3.63
3.9 HAZARDS AND HAZARDOUS MATERIALS.....	3.71
3.10 HYDROLOGY AND WATER QUALITY	3.79
3.11 LAND USE AND PLANNING	3.89
3.12 MINERAL RESOURCES	3.93
3.13 NOISE	3.95
3.14 POPULATION AND HOUSING.....	3.117
3.15 PUBLIC SERVICES	3.121
3.16 RECREATION.....	3.127
3.17 TRANSPORTATION	3.129
3.18 TRIBAL CULTURAL RESOURCES.....	3.137
3.19 UTILITIES AND SERVICE SYSTEMS.....	3.141
3.20 WILDFIRE	3.149
3.21 MANDATORY FINDINGS OF SIGNIFICANCE.....	3.153



4.0	REFERENCES.....	4.1
5.0	LIST OF PREPARERS	5.1

LIST OF TABLES

Table 2.1-1: Proposed Hours of Operation	2.9
Table 2.2-1: Project Construction Schedule – Phase 1	2.14
Table 2.2-2: Project Construction Schedule – Phase 2	2.14
Table 2.2-3: Project Construction Schedule – Phase 3	2.14
Table 2.2-4: Project Construction Equipment – Phase 1	2.15
Table 2.2-5: Project Construction Equipment – Phase 2 and Phase 3	2.15
Table 2.2-6: Estimated Cut and Fill.....	2.16
Table 3.3-1: California and National Ambient Air Quality Standards	3.14
Table 3.3-2: Contra Costa County Area Designations for State and National Ambient Air Quality	3.16
Table 3.3-3: BAAQMD Project-Level Air Quality CEQA Thresholds of Significance	3.17
Table 3.3-4: Annual Construction Emissions	3.22
Table 3.3-5: Operational Annual Emissions for Full Buildout in 2021 (Unmitigated)	3.23
Table 3.3-6: Operational Annual Emissions for Full Buildout in 2026 (Unmitigated)	3.24
Table 3.3-7: Health Risks from Project Construction at the Maximally Exposed Sensitive Receptor.....	3.27
Table 3.3-8: Screening Health Risk Assessment Cumulative Results.....	3.29
Table 3.3-9: Summary of the Cumulative Health Impacts at the Maximally Exposed Individual During Project Operations.....	3.30
Table 3.3-10: Screening Levels for Potential Odor Sources.....	3.31
Table 3.6-1: Construction Off-Road Fuel Consumption.....	3.50
Table 3.6-2: Construction On-Road Fuel Consumption.....	3.51
Table 3.6-3: Construction Trailer	3.51
Table 3.6-4: Long-Term Operational Vehicle Fuel Consumption.....	3.52
Table 3.8-1: Construction Greenhouse Gas Emissions.....	3.67
Table 3.8-2: Unmitigated Project Operational GHG Emissions (Full Buildout Scenarios)	3.67
Table 3.13-1: Typical A-Weighted Sound Levels.....	3.96
Table 3.13-2: Definition of Sound Measurement	3.96
Table 3.13-3: Guideline Vibration Annoyance Potential Criteria.....	3.99
Table 3.13-4: Guideline Vibration Damage Potential Criteria	3.99
Table 3.13-5: Vibration Source Levels for Select Construction Equipment	3.100
Table 3.13-6: USEPA Impact Guidelines.....	3.108
Table 3.13-7: Construction Phase/Stage Equipment.....	3.112
Table 3.13-8: Summary of Federal Highway Administration Roadway Construction Noise Model at Closest Noise-Sensitive Receptor	3.113
Table 3.13-9: Calculated Noise Level from Each Construction Phase/Stage	3.114
Table 3.13-10: Vibration Source Levels for Construction Equipment	3.115
Table 3.17-1: Project Trip Generation.....	3.131
Table 3.17-2: Low VMT Area Summary.....	3.133

LIST OF FIGURES

Figure 1-1:Regional Location.....	1.3
Figure 1-2: Project Site Location.....	1.5
Figure 1-3: Existing Conditions	1.7
Figure 2-1:Project Site Plan.....	2.3



Figure 2-2: Project Elevations	2.7
Figure 2-3: Preliminary Stormwater Control Plan	2.11
Figure 3-1: Sensitive Receptors.....	3.105

LIST OF APPENDICES

Appendix A	Biological Resources Analysis.....	A-1
Appendix B	Air Quality And Greenhouse Gas Assumptions And Calcemod Results	B-1
Appendix C	Cultural Resources Inventory Report	C-1
Appendix D	Geotechnical Investigation	D-1
Appendix E	Phase I Environmental Site Assessment.....	E-1
Appendix F	Preliminary Stormwater Control Plan	F-1
Appendix G	Noise Modeling	G-1
Appendix H	Traffic Memorandum	H-1



Acronyms and Abbreviations

µg/m ³	micrograms per liter
2017 Clean Air Plan	2017 Clean Air Plan, Spare the Air, Cool the Climate
AB	Assembly Bill
ADT	Average Daily Traffic
Air Basin	San Francisco Bay Area Air Basin
APD	Antioch Police Department
APN	Assessor's Parcel Number
applicant	Mt. Diablo Resource and Recovery
AP Zone Act	Alquist-Priolo Special Studies Zone Act of December 1972
AQP	air quality plan
ATCM	air toxic control measures
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAL FIRE	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CCCYPD	Contra Costa County Fire Protection District
CCR	California Code of Regulations
CCTA	Contra Costa Transportation Authority
CCWD	Contra Costa Water District
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH ₄	Methane
CHRIS	California Historical Resources Information System
CNDDDB	California Natural Diversity Database



CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	Carbon Dioxide Equivalent
CRHR	California Register of Historical Resources
dB	Decibel
dB(A)	A-weighted decibels
DDSD	Delta Diablo Sanitation District
DOC	California Department of Conservation
DPA	Delta District Plan Area
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
FCAA	Federal Clean Air Act
FEMA	Flood Emergency Management Agency
FESA	Federal Endangered Species Act
Flood Control District	Contra Costa County Flood Control and Water Conservation District
FR	Federal Register
FTA	Federal Transportation Administration
GHG	greenhouse gases
gpd	gallons per day
GSP	Groundwater Sustainability Plan
HCP	Habitat Conservation Plan
HMBP	Hazardous Materials Business Plan
HRA	Health Risk Assessment
in/sec	inches per second
ISMND	Initial Study Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
Ldn	day-night sound level



Leq	equivalent sound level
LID	low impact development
Lmin	minimum sound levels
Lmax	maximum sound levels
LOS	level of service
mgd	million gallons per day
MLD	most likely descendant
MMTCO ₂ e	Million Metric Tons Carbon Dioxide Equivalents
MRZ	Mineral Resource Zone
MTCO ₂ e	Metric Tons Carbon Dioxide Equivalents
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OPR	Governor's Office of Planning and Research
PG&E	Pacific Gas and Electric Company
PM ₁₀	particulate matter 10 microns or less in diameter
PM _{2.5}	particulate matter 2.5 microns or less in diameter
PPV	peak particle velocity
PRC	Public Resources Code
project	Mt. Diablo Resource Recovery Truck Maintenance Facility Project
RCNM	Roadway Construction Noise Model
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SEL	Sound Exposure Level
SIP	State Implementation Plan
SR-160	State Route 160
Stantec	Stantec Consulting Services Inc.
SWPPP	stormwater pollution prevention plan



TACs	Toxic Air Contaminants
TCP	traffic control plan
Technical Advisory	<i>Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory</i>
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
VMT	vehicle miles travelled
WWTP	Delta Diablo Wastewater Treatment Plant



This page left intentionally blank.



INITIAL STUDY MITIGATED NEGATIVE DECLARATION

Project Title: Mt. Diablo Resource Recovery Truck Maintenance Facility Project

Project Description: Mt. Diablo Resource and Recovery (applicant) is proposing development of the Mt. Diablo Resource Recovery Truck Maintenance Facility Project (project) at 2600 Wilbur Avenue in the City of Antioch, California. The proposed project would be developed in three phases on a 10.28-acre site that is currently developed with a 9,730-square-foot metal warehouse building and approximately 10,000 square feet of paved surface parking. Phase 1 would initially use the existing 9,730 square foot warehouse building as an interim truck repair and maintenance facility and would construct approximately 3.5 acres of truck and employee parking, and a truck fueling station. In Phase 2, the proposed project would construct a new 18,533 square foot metal building, a vehicle and equipment wash station, and a storage yard. The new 18,533 square foot metal building would dedicate approximately 15,533 square feet to truck service repairs and approximately 3,000 square feet to shop and dispatch offices, restrooms, a break room, locker rooms, and a storage room. Phase 3 would include drainage improvements and grading approximately 1.73 acres in the western portion of the site. This portion of the project site would continue to be used as a storage yard; however, future development is planned and may include construction of an 18,500-square-foot warehouse building that provides truck parking and is similar in design, appearance, and height as the Phase 2 building.

Name of Lead Agency:

City of Antioch
Community Development Department - Planning Division
200 H Street
Antioch, CA 94509

Lead Agency Contact Information:

Jose Cortez, Associate Planner
Phone: (925) 779-6118
Email: jcortez@antiochca.gov



Determination: The City of Antioch has determined that a) all potentially significant or significant impacts required to be identified in the Initial Study Mitigated Negative Declaration (ISMND) have been identified and analyzed; and b) with respect to each significant impact on the environment either of the following apply: 1) changes or alterations have been required in or incorporated into the proposed project that avoid or mitigate the significant impacts to a level of less than significant; or 2) those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency. The ISMND and supporting documents are available for review during normal business hours by appointment only at the City of Antioch Community Development Department, located at 200 H Street Antioch, California 94509, and online at: <https://www.antiochca.gov/community-development-department/planning-division/environmental-documents/>

By: _____

Jose Cortez, Associate Planner

Date: _____

1/26/21



1.0 INTRODUCTION

Mt. Diablo Resource and Recovery (applicant) is proposing development of the Mt. Diablo Resource Recovery Truck Maintenance Facility Project (project) at 2600 Wilbur Avenue in the City of Antioch (City), California. The proposed project would be developed in three phases on a 10.28-acre site that is currently developed with a 9,730 square foot metal warehouse building and approximately 10,000 square feet of paved surface parking. Phase 1 would initially use the existing 9,730-square-foot warehouse building as an interim truck repair and maintenance facility and would construct approximately 3.5 acres of truck and employee parking and a truck fueling station. In Phase 2, the proposed project would construct a new metal warehouse building of approximately 18,533 square feet, a vehicle and equipment wash station, and a storage yard. The new 18,533 square foot metal building would dedicate approximately 15,533 square feet to truck service repairs and approximately 3,000 square feet to shop and dispatch offices, restrooms, a break room, locker rooms, and a storage room. Phase 3 would include drainage improvements and grading approximately 1.73 acres in the western portion of the site. This portion of the project site would continue to be used as a storage yard; however, future development is planned and may include construction of a 18,500-square-foot warehouse building that provides truck parking and is similar in design, appearance, and height as the Phase 2 building.

1.1 PROJECT TITLE

Mt. Diablo Resource Recovery Truck Maintenance Facility Project

1.2 LEAD AGENCY

City of Antioch
Community Development Department, Planning Division
200 H Street
Antioch, CA 94509

1.3 LEAD AGENCY CONTACT

Jose Cortez, Associate Planner
Phone: (925) 779-6118
Email: jcortez@antiochca.gov

1.4 PURPOSE

The purpose of the proposed project is to allow for the development of a new truck maintenance facility on a 10.28-acre site located at 2600 Wilbur Avenue in the City of Antioch, California. This Initial Study Mitigated Negative Declaration (ISMND) has been prepared to evaluate the proposed project for potential environmental effects in compliance with the California Environmental Quality Act (CEQA). The City is the Lead Agency under CEQA and has the principal responsibility for carrying out or approving a project that may have a significant effect



on the environment. This ISMND has been prepared in anticipation of determining that all potentially significant impacts from implementing the proposed project can be mitigated to less than significant levels. This document has been prepared in accordance with CEQA, Public Resources Code (PRC) Section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations (CCR), Title 14, Section 15000 et seq.

1.5 PROJECT LOCATION

The project site is located approximately 1 mile west of State Route 160 (SR-160) at 2600 Wilbur Avenue in the City of Antioch, California (Figure 1-1).

1.6 EXISTING SETTING AND SURROUNDING LAND USES

The 10.28-acre project site consists of a single parcel identified as Assessor's Parcel Number (APN) 051-032-009 (Figure 1-2). The project site is rectangular in shape, relatively level, and is at or near street grade in elevation. It is currently developed with a 9,730 square foot metal warehouse building that is surrounded by approximately 10,000 square feet of paved surface parking (Figure 1-3). The existing warehouse building was constructed in 2010 to serve as a storage facility and is now vacant. It is approximately 30 feet tall and contains six roll-up doors. The remaining portion of the site is undeveloped, but is leased by multiple tenants to store equipment, park company trucks and employee vehicles, and for towing or impounding vehicles. Prior to commencement of Phase 1, the existing lease agreements for the project site will end to allow for completion of all site improvements proposed under Phases 1 and 2. However, the west portion of the project site will still be leased by an existing tenant and used as a storage yard to park, tow, and impound vehicles until the design for Phase 3 is finalized.

The project site is also bisected by a rail spur, which previously provided rail access for the parcel north of the site (APN 051-031-005). The southwest portion of the onsite rail spur is no longer connected to the main railroad tracks south of the project site, and therefore rail access has been terminated. The rail spur is within a 30-foot wide reserve easement (Grant Deed 2006-00906-00). The use provisions of the reserve easement allow the proposed uses onsite and crossing access. Pacific Gas and Electric (PG&E) provides gas and electric service to the project site, and the City provides water for fire protection. The existing warehouse building is currently served by an onsite septic system. There are also existing storm drains along the site frontage and a private water well in the northwestern corner of the project site. The private well was installed in 2008 to provide water to the existing warehouse building's restroom. None of the tenants currently consume water produced from the private well.

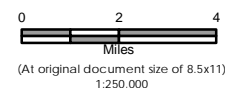
The project site is in the northeast portion of the City, which predominantly consists of the industrial uses located near the San Joaquin River. The project site is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka and Santa Fe Railroad to the south. Other land uses surrounding the project site include industrial uses to the north and single-family residences and vineyards to the south.





Legend

- Project Site
- City Limits



Project Location

Antioch, CA

Client/Project

City of Antioch
Mt. Diablo Resource Recovery Truck Maintenance
Facility Project

Figure No.

1-1

Title

Regional Location

Notes
1. Coordinate System: NAD 1983 StatePlane
California II FIPS 0402 Feet

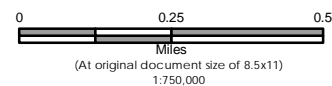
This page left intentionally blank.





Legend

Project Site



Project Location

Antioch, CA

Client/Project

City of Antioch
Mt. Diablo Resource Recovery Truck Maintenance
Facility Project

Figure No.

1-2

Title

Project Site

Notes
1. Coordinate System: NAD 1983 StatePlane
California II FIPS 0402 Feet

This page left intentionally blank.





View of the existing 9,730 square foot metal warehouse building and the paved surface parking.



View of the remaining undeveloped portion of the project site. The orange traffic cones delineate the existing rail spur in the center of the project site.

Source: Stantec, October 2020



Project Location

Antioch, CA

Client/Project

City of Antioch
Mt. Diablo Resource Recovery Truck Maintenance
Facility Project

Figure No.

1-3

Title

Existing Conditions

This page left intentionally blank.



1.7 GENERAL PLAN DESIGNATION AND ZONING

General Plan Land Use Designation

According to the City's 2003 General Plan, the project site is in the Eastern Waterfront Employment Focus Area and designated Industrial. The Eastern Waterfront Employment Focus Area encompasses the industrial areas in the northeastern portion of the City, south of the San Joaquin River Delta and west of SR-160. The primary function of this area is to provide employment opportunities and to assist the City in achieving its goal of a balance between local housing and employment.

The Industrial land use designation is defined as "are intended for a range of industrial businesses, including uses, which, for reasons of potential environmental effects are best segregated from other, more sensitive, land uses, such as residential neighborhoods.." Uses permitted include light manufacturing and assembly, general manufacturing and assembly, research and development, operable vehicle storage, personal storage, light and general storage and distribution, building contractor's offices and yards, boating and related activities, and open space (City of Antioch 2003a).

Zoning

The project site is zoned Heavy Industrial (M-2). Based on the Zoning Code, the Heavy Industrial (M-2) zoning district "allows heavy industrial uses which may generate adverse impacts on health or safety. This zone applies primarily to existing heavy industrial uses. The district is consistent with the General and Industrial General Plan Designations. Uses include production of and extraction of metals or chemical products from raw materials, steel works and finishing mills, chemical or fertilizer plants, petroleum and gas refiners, paper mills, lumber mills, asphalt, concrete and hot mix batch plants, power generation plants, glassworks, textile mills, concrete products manufacturing and similar uses." Truck terminal facilities are allowed within the Heavy Industrial (M-2) zoning district with approval of a Use Permit (City of Antioch 2020a).

1.8 CEQA AND PUBLIC AND AGENCY REVIEW

CEQA requires that project proponents disclose the significant impacts to the environment from proposed development projects. The intent of CEQA is to foster good planning and to consider environmental issues during the planning process. The City is the Lead Agency under CEQA for the preparation of this ISMND. CEQA Guidelines (Section 21067) define the Lead Agency as: "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." Approval of the proposed project is considered a public agency discretionary action, and therefore is subject to compliance with CEQA. The City has directed the preparation of an analysis to comply with CEQA.

Stantec Consulting Services Inc. (Stantec) has prepared this document at the direction of the City. The purpose of this document is to disclose the environmental consequences of implementing the proposed project to decision-makers and the public. The public, City residents, and other local and state resource agencies will be given the opportunity to review



and comment on this document during a 30-day public-review period. Comments received during the review period will be considered by the City prior to certification of this ISMND and project approval.

The public review period will commence on January 28, 2021, and end on February 26, 2021, pursuant to CEQA Guidelines Section 15105. If you wish to send written comments (including via e-mail), they must be received by 5 p.m. on February 26, 2021. Written comments should be addressed to:

Jose Cortez, Associate Planner
Phone: (925) 779-6118
Email: jcortez@antiochca.gov

The ISMND and supporting documents are available for review at the City of Antioch, Community Development Department, located at 200 H Street Antioch, CA 94509, Monday through Friday during normal business hours by appointment only, and online at: <https://www.antiochca.gov/community-development-department/planning-division/environmental-documents/>

1.9 REQUIRED PERMITS AND APPROVALS

This ISMND would be used by the City as the Lead Agency to evaluate the potential environmental impacts of the proposed project.

For the proposed project to be implemented, a series of actions and approvals would be required from multiple agencies. Anticipated project approvals/actions would include, but are not limited to, the following:

- Use Permit: City of Antioch
- Design Review: City of Antioch
- Adoption of the Mitigated Negative Declaration: City of Antioch

Other ministerial approvals such as building permits, grading permits, and encroachment permits are also anticipated. Additionally, all work related to improvements and project grading would be subject to the City of Antioch Municipal Code, including the Zoning Code, Building Code, and Fire Code.

1.10 SCOPE OF THIS INITIAL STUDY

As the Lead Agency under CEQA, the City is responsible for compliance with the environmental review process prescribed by the CEQA Guidelines. This ISMND focuses on the environmental issues identified as potentially significant in the CEQA checklist and by the CEQA Guidelines. This ISMND evaluates the potentially significant effects on the environment and identifies mitigation measures to mitigate the effects to a point where clearly no significant effect on the environment would occur. A complete project description is included in Section 2.0. Evaluations of the CEQA Appendix G checklist questions are analyzed in Section 3.0 and references are included at the end of each resource section. The following technical studies were conducted and/or reviewed in preparing this ISMND: air quality modeling outputs, biological resources



assessment, cultural resources study, traffic impact study, and noise modeling. These studies and supporting data are included as appendices to this ISMND and referred to where appropriate throughout this document.

1.11 DOCUMENT ORGANIZATION

This ISMND is organized as follows:

Section 1.0: Introduction. This section introduces the proposed project and describes the project site, existing setting, general plan land use designation and zoning, public and agency review, required permits and approvals, scope of the ISMND, and organization of this document.

Section 2.0: Project Description. This section describes the components of the proposed project and project construction activities.

Section 3.0: Environmental Checklist and Environmental Evaluation. This section presents an analysis of the range of environmental issues identified in the CEQA Environmental Checklist and determines whether the proposed project would result in no impact, a less than significant impact, a less than significant impact with mitigation incorporated, or a potentially significant impact for each topic. If impacts are determined to be potentially significant after incorporation of applicable mitigation measures, an Environmental Impact Report would be required. For this proposed project, however, mitigation measures have been incorporated, where needed, that would reduce all potentially significant impacts to a less than significant level.

Section 4.0: References. This section lists the references used in preparing this ISMND.

Section 5.0: List of Preparers. This section identifies the report preparers.



This page left intentionally blank.



2.0 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The proposed project involves the development of a truck maintenance facility on a 10.28-acre site that is currently developed with a 9,730-square-foot metal warehouse building and approximately 10,000 square feet of paved surface parking. The proposed project would initially use the existing warehouse building as an interim truck repair and maintenance facility until the new 18,533-square-foot warehouse is constructed. Other proposed structures and improvements would be constructed in the following three phases:

- **Phase 1** involves the construction of approximately 3.5 acres of truck and employee parking and a truck fueling station.
- **Phase 2** involves the construction of a new 18,533-square-foot metal building with 15,533 square feet dedicated to truck service repairs and 3,000 square feet dedicated to shop and dispatch offices, restrooms, a break room, locker rooms, and a storage room. Additionally, a vehicle and equipment wash station and a storage yard would be constructed adjacent to the new truck maintenance facility.
- **Phase 3** involves drainage improvements and grading approximately 1.73 acres in the western portion of the site. This portion of the project site would continue to be used as a storage yard. However, future development is planned and may include an industrial metal warehouse building(s) of similar design, appearance, building height, and truck parking as the Phase 2 building that is up to 18,500 square feet. If it is determined that the additional warehouse building is not needed, this portion of the site would be used as a graveled storage yard for trucks, disposal and recycling service containers, and shipping containers that store truck parts. To provide a conservative analysis, it is assumed that this portion of the project site would be developed with a 18,500-square-foot warehouse building.

The components of the three phases are described in the following sections. Figure 2-1 provides the overall site plan for the proposed project.

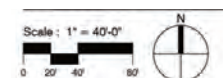
2.1.1 Phase 1

Phase 1 would disturb approximately 7.55 acres of the site to construct approximately 3.5 acres of truck and employee parking, an interior access road, utility improvements, and a truck fueling station. During Phase 1, the existing 9,730-square-foot metal warehouse building would serve as the interim truck maintenance and dispatch facility until the new 18,533-square-foot maintenance facility is completed in Phase 2. The proposed project would complete interior improvements to the existing warehouse building, including construction of an office, breakroom, restrooms, and locker rooms for the mechanic staff, and a maintenance dispatch office and restrooms for truck drivers.



This page left intentionally blank.





Source: MCG Architecture, March 2020

Project Location
Antioch, CA

Client/Project
City of Antioch
Mt. Diablo Resource Recovery Maintenance Facility Project

Figure No.

2-1

Title

Project Site Plan



This page left intentionally blank.



Other onsite improvements would include the construction of a two-way, all-weather 40-foot-wide interior access road within the project site. The 40-foot-wide interior road would extend west to east and would be oriented around the rail spur for trucks and employee vehicles to access the existing warehouse building and parking areas on the east end of the project site. A security guard station of approximately 48 square feet would also be constructed on the west end of the project site near the main gate entrance. Alternatively, a security vehicle may be employed with a security desk within the existing warehouse building. To provide a conservative analysis, the free-standing structure was assumed.

Upon completion of Phase 1, the parking area would provide 147 parking spaces for the solid waste, recycling, and collection trucks and employee vehicles. The parking spaces would consist of 62 standard parking spaces, 79 truck parking spaces, and 6 standard parking spaces that are compliant with the Americans with Disabilities Act. Of the 79 truck parking spaces, 9 spaces would be reserved for vehicles awaiting service, shop service equipment, parts transport, or mobile repair vehicles; and 3 spaces would be reserved for vendor deliveries, trailers, containers, or staging.

2.1.2 Phase 2

Phase 2 would involve the disturbance of approximately 1 acre to construct a new truck maintenance facility in the center of the project site. The proposed facility would consist of a single building that is 30 feet tall and approximately 18,533 square feet total (Figure 2-2). The new truck maintenance facility would include 12 truck service bays, approximately 15,533 square feet of space for truck service repairs, and approximately 3,000 square feet of office space. The proposed office space would include a shop office, dispatch office, restrooms, a break room, locker rooms, and a storage room.

The building would be constructed of metal seam panels and appear similar in character to the existing warehouse building. Each truck service bay would be secured with a metal roll-up door. There would also be one open truck service bay on the west side of the building that would be covered with a metal canopy, approximately 30 feet tall. The open truck service bay would be used for truck, trailer, and equipment cleaning. Additionally, a vehicle and equipment wash station and a storage yard would be constructed adjacent to the new truck maintenance facility.

Once Phase 2 is completed, most of the truck maintenance and dispatch activities would be moved from the existing warehouse building and into the new truck maintenance facility. The existing warehouse building would continue to be used for some maintenance dispatch, service release, and quality control inspection and would provide storage for truck service parts.

2.1.3 Phase 3

Phase 3 proposes the construction of additional improvements on the west portion of the project site to support operation of the new truck maintenance facility. These improvements would include grading approximately 1.73 acres of the project site and installing drainage improvements in accordance with Chapter 6-9, Stormwater Management and Discharge Control, of the Antioch Municipal Code. The specific building configurations for the Phase 3 area



have not been finalized and would continue to be leased by an existing tenant and used as a storage for parking, towing, and vehicle impoundment. However, to provide a conservative analysis, it is assumed that this portion of the project site would be developed with an 18,500-square-foot warehouse building that would provide truck parking and would be similar in design, appearance, and building height as the Phase 2 building. If the applicant determines that the additional warehouse building is not needed, this portion of the site would be used as a graveled storage yard for trucks, disposal and recycling service containers, and shipping containers that store truck parts.

2.1.4 Truck Fueling Station

Phase 1 of the proposed project would construct a truck fueling station on the east end of the project site near the existing warehouse building. The truck fueling station would include an aboveground 8,000-gallon diesel fuel tank and an aboveground 1,000-gallon gasoline fuel tank with associated pumps, lines, and secondary containment facilities. Refueling would be incidental to the truck maintenance activities for the 65 trucks only. There would be no distribution or retail sales of fuel from these proposed facilities.

2.1.5 Access and Circulation

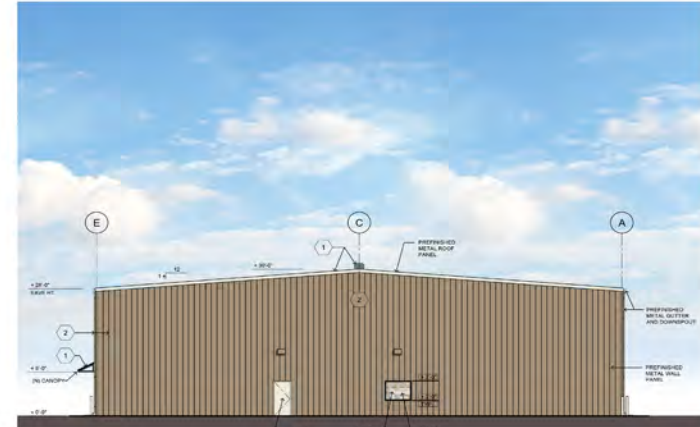
All trucks would arrive to the project site via SR-160 and westbound Wilbur Avenue. There are two existing 40-foot-wide driveways on the west and east ends of the project site along Wilbur Avenue. The trucks would enter and exit the facility using the double-gated entrance on the western end of the project site. The existing entrance on the eastern end of the project site would remain locked but functional to accommodate emergency vehicles and truck mechanic staff exiting the facility. Both access gates would have signage restricting access to authorized personnel only. The proposed project would provide standard traffic signage and pavement markings throughout the project site to direct all trucks and employee vehicles to use the two-way 40-foot wide interior access road for ingress and egress to the maintenance buildings and parking areas. As shown in Figure 2-1, the 40-foot interior access road would also facilitate circulation to the proposed fueling station. The proposed fueling station would be centrally located in the truck parking area. Employees would be able to fuel the trucks from either the north, west, or east sides of the fueling station.

To access the truck parking areas on the east side of the rail spur, a 30-foot-wide crossing would be constructed over the north portion of the rail spur easement. The proposed crossing would be lighted and delineated with standard reflective traffic-rated railroad crossing signage. Pursuant to the provisions of the existing reserve easement (Grant Deed 2006-00906-00), security fencing may be installed around the perimeter of the onsite rail spur; however, it would not be required. To provide unimpeded emergency access throughout the site, the proposed project would not place fencing around the rail spur and instead would place reflective delineators (traffic cones) along the boundary of the easement. All trucks, employee vehicles, and pedestrian traffic would be directed to cross the rail spur at the designated crossing point. All employees would receive safety training pertaining to the use of the rail spur crossing.

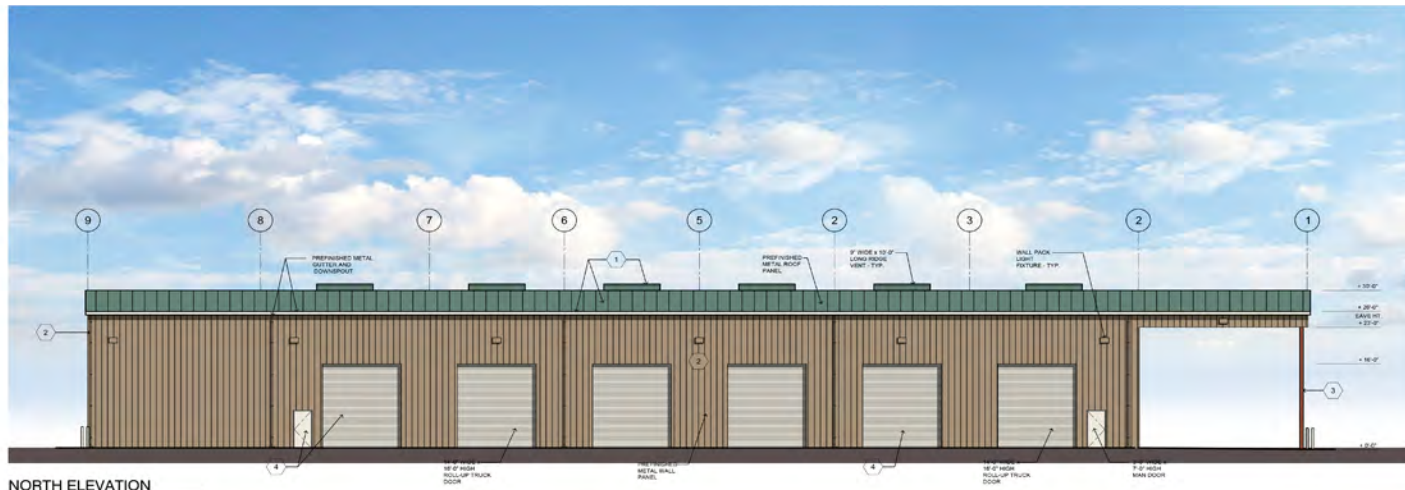




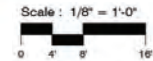
WEST ELEVATION



EAST ELEVATION



NORTH ELEVATION



Source: MCG Architecture, March 2020

Project Location
Antioch, CA

Client/Project
City of Antioch
Mt. Diablo Resource Recovery Maintenance Facility Project

Figure No.

2-2

Title

Project Elevations



This page left intentionally blank.



2.1.6 Employees and Hours of Operation

The proposed project would result in 70 employees at the project site consisting of 65 solid waste and recycling truck drivers and 5 truck mechanics. The solid waste and recycling truck drivers would operate Monday through Friday from 4:00 AM to 2:00 PM, and on Saturday from 5:00 AM to 2:00 PM. The trucks would be parked at the project site and would leave on weekday mornings to complete daily routes to pick-up and dispose of all recycling materials at the Mt. Diablo Resource Recovery's facility, which is located at 1300 Loveridge Road in the City of Pittsburg. Thereafter, the trucks would return to the project site to park overnight where maintenance inspections and servicing would be completed. Notably, because the trucks that would be stationed at the proposed facility are currently working in the same service areas, there would be no increase in truck vehicle trips. The employee trips and the trucks would be relocated to the proposed project site from the Loveridge Rd. Pittsburg facility.

As shown in Table 2.1-1, the truck mechanics would work in two shifts Monday through Friday. The truck mechanics would also work on Saturday from 7:00 AM to 4:00 PM. The proposed facility would not operate on Sunday. Typically, all 65 trucks would receive a standard visual safety inspection by mechanics prior to the next day's route. Trucks with noted inspection discrepancies or that are due for scheduled routine service would be brought into the maintenance building. It is estimated that 8 to 10 trucks would on average require service per day.

Table 2.1-1: Proposed Hours of Operation

Proposed Shifts	Beginning	Ending	Employees/ Vehicles
Proposed Truck Driver Shifts			
Monday through Friday	4:00 AM – 5:00 AM	11:00 AM – 2:00 PM	65
Saturday	5:00 AM	2:00 PM	2
Sunday	None	None	None
Proposed Truck Mechanics Shifts			
Monday through Friday	<ul style="list-style-type: none"> • 1st Shift: 5:00 AM • 2nd Shift: 2:00 PM 	<ul style="list-style-type: none"> • 1st Shift: 2:00 PM • 2nd Shift: 11:00 PM 	<ul style="list-style-type: none"> • 1st Shift: 2 employees • 2nd Shift: 3 employees
Saturday	7:00 AM	4:00 PM	5 employees
Sunday	None	None	None

In addition, the proposed facility would be monitored and secured via onsite maintenance staff and an after-hours security guard. Security cameras would also be installed to monitor all traffic entering and exiting the project site, and onsite movement.

2.1.7 Utilities

The proposed project would include utility connections in accordance with the requirements of the applicable utility providers for water, wastewater, stormwater drainage, power, and



telecommunications services. These utilities would connect to existing infrastructure in the vicinity of the site.

Water

The existing warehouse building is currently served by a 6-inch water main for fire protection. Additionally, the existing warehouse building receives potable water from a private well located in the northwest corner of the project site. The current tenants do not consume the water provided by the private well. The project proposes to connect to the existing 12-inch water main in Wilbur Avenue. All water distribution improvements would be constructed in accordance with the current version of the City's Construction Details. It is estimated that the existing warehouse building would demand approximately 1,280 gallons per day (gpd) of water and the Phase 2 and Phase 3 buildings would each demand approximately 1,860 gpd (5,000 gpd total).

Wastewater

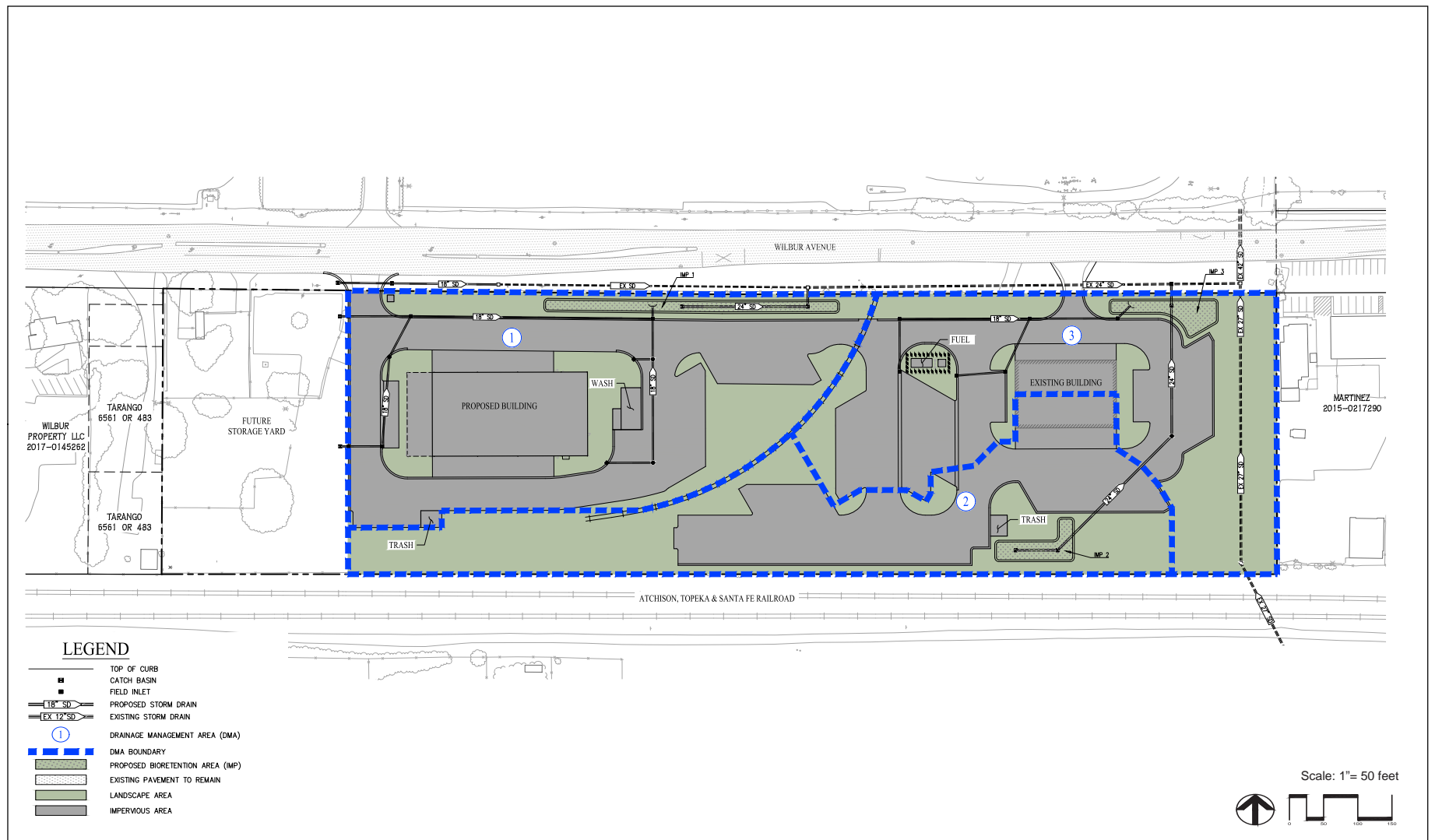
The existing warehouse building is currently served by an onsite septic system. The project proposes to disconnect and remove the existing septic system, and connect to the City's public sewer system. The proposed project would construct a 4-inch sanitary sewer line at the existing warehouse building and at the proposed truck maintenance facility, which would connect to an 8-inch lateral and ultimately to the 15-inch sanitary sewer line within Wilbur Avenue. All sewer distribution improvements would be constructed and designed in accordance with the current version of the City's Construction Details.

Based on the City's General Plan wastewater generation rate of 1,000 gpd per acre, the 10.28-acre project site would generate approximately 10,280 gpd of wastewater (City of Antioch 2003b). The proposed truck wash station would also use a water filtration system to recycle and reuse wash water.

Stormwater Treatment

The project site currently contains approximately 202,177 square feet of impervious surface. The proposed project would create approximately 207,000 square feet of impervious surface in Phase 1 and approximately 34,240 square feet of impervious surface in Phase 2 (241,240 square feet total). This would result in the addition of approximately 39,063 square feet of new impervious surface at the project site. The City has adopted the requirements of the Contra Costa County C.3 Stormwater Standards in Chapter 6-9, Stormwater Management and Discharge Control, of the Antioch Municipal Code. In accordance with these requirements, stormwater runoff from impervious surfaces on the project site, including rooftops and the parking lots, would be directed into Low Impact Development (LID) and Best Management Practice (BMP) systems. The LID systems would consist of three bioretention areas on the north and south sides of the project site totaling approximately 9,172 square feet (Figure 2-3). The proposed project would grade the entire 10.28-acre site so the LID facilities could capture impervious surface runoff, including surface runoff from the proposed vehicle and equipment wash station, prior to entering the piped storm drain system.





Source: CBG Civil Engineers, May 2020

Project Location
Antioch, CA

Client/Project
City of Antioch
Mt. Diablo Resource Recovery Maintenance Facility Project

Figure No.

2-3

Title

Preliminary Stormwater Control Plan



This page left intentionally blank.



The proposed project would connect to the existing 18-inch and 24-inch storm drain lines within Wilbur Avenue. The existing storm drain lines connect to an existing 42-inch storm drainpipe northeast of the project site that drains to the San Joaquin River Delta.

Electricity, Natural Gas, and Telecommunications

PG&E provides electricity and natural gas service to the project site. During Phase 1, upgrades would be made to the building's existing electrical system. A fiber optic cable would also be installed to provide telecommunication service to the existing building.

Currently, the proposed project's electrical demand does not indicate the need for rooftop solar. However, the new truck maintenance facility proposed under Phase 2 and the warehouse building anticipated under Phase 3 would be designed to support rooftop solar panels.

2.1.8 Landscaping

There are eight coast live oaks on the west end of the project site (Appendix A). Article 12, Tree Preservation and Regulation, of the Antioch Municipal Code defines a protected tree as any established tree at least 10 inches in diameter and 4.5 feet above natural or finished grade; any indigenous tree such as a blue oak, valley oak, coast live oak, canyon live oak, interior live oak, California buckeye, or California bay; any landmark tree that is at least 48 inches in diameter and/or in excess of 4.5 feet above natural grade; any street tree that is planted within either the public right-of-way and/or tree planting easement; or any mature tree that is at least 26 inches in diameter and 4.5 feet above natural grade. All coast live oaks on the project site exceed 10 inches in diameter and regarded as established indigenous trees as defined by Article 12 of the Antioch Municipal Code.

The proposed project would remove the nine onsite trees. In accordance with Section 9-5.1205 of the Antioch Municipal Code, the applicant would submit a request for tree removal as part of the development application. The development application would be required to include a site plan showing the existing topography, a description of the established trees, and a written statement requesting permission to remove the trees. Approval or denial of the tree removal request would be made as part of the development application and discretionary project review process. Additionally, the proposed project would be subject to the replacement requirements outlined in Section 9-5.1205 of the Antioch Municipal Code. These requirements are further discussed in Section 3.4, Biological Resources.

The proposed project would provide approximately 152,452 square feet of landscaping around the site perimeter and within site planters placed throughout the truck and employee parking areas. Landscaping would consist of drought-tolerant trees and shrubbery as required by the City's Water Efficient Landscape Ordinance (Article 10 of the Antioch Municipal Code). The proposed project would also plant 27 Chinese pistache trees throughout the site.

2.1.9 Lighting

The proposed project would provide exterior lighting in the new truck and employee parking areas to illuminate the parking surfaces and walkways. The parking lot lighting would consist of



46 standard pole lighting fixtures up to 25 feet in height. All exterior lighting would be shielded in accordance with Section 9-5.1715 of the Antioch Municipal Code.

2.2 PROJECT CONSTRUCTION

2.2.1 Construction Schedule

The proposed project would be constructed in three phases. As shown in Table 2.2-1, it is anticipated that the construction of Phase 1 would take approximately 3 months starting in June 2021 and ending in August 2021. It is anticipated that Phase 2 would take approximately 5 months with construction starting in June 2023 and ending in October 2023. The anticipated construction schedule for Phase 3 is currently unknown, but to provide a conservative analysis, it is expected that construction would be similar to Phase 2 and would take approximately 5 months, and it was assumed to begin construction in 2026.

Table 2.2-1: Project Construction Schedule – Phase 1

Construction Task	Start Date	End Date	Workdays
Site Preparation	6/1/2021	6/14/2021	10
Grading	6/15/2021	7/12/2021	20
Paving	7/13/2021	8/9/2021	20

Table 2.2-2: Project Construction Schedule – Phase 2

Construction Task	Start Date	End Date	Workdays
Site Preparation	6/1/2023	6/1/2023	1
Grading	6/2/2023	6/5/2023	2
Building Construction	6/6/2023	10/23/2023	100
Paving	9/15/2023	9/21/2023	5
Architectural Coating	10/24/2023	10/30/2023	5

Table 2.2-3: Project Construction Schedule – Phase 3

Construction Task	Start Date	End Date	Workdays
Site Preparation	6/1/2026	6/1/2026	1
Grading	6/2/2026	6/3/2026	2
Building Construction	6/4/2026	10/21/2026	100
Paving	9/15/2026	9/21/2026	5
Architectural Coating	10/24/2026	10/30/2026	5

Project construction hours would be in accordance with the City of Antioch noise ordinance, which limits activity during the hours specified below:



1. On weekdays prior to 7:00 AM and after 6:00 PM
2. On weekdays within 300 feet of occupied dwellings prior to 8:00 AM and after 5:00 PM
3. On weekends and holidays prior to 9:00 AM and after 5:00 PM, irrespective of the distance from the occupied dwellings

There would be an average of 8 temporary onsite workers during each construction phase, but there would be a maximum of 12 construction workers during peak hours. It is anticipated that the construction workforce would be available from nearby areas.

2.2.2 Construction Equipment, Access, and Staging Areas

The project site would be accessed by construction crews from SR-160 and Wilbur Avenue. All construction materials and equipment would be stored onsite. Construction activities would generally be anticipated to occur within the project site; however, work may extend into Wilbur Avenue to connect to existing utility lines and other necessary improvements. Any construction traffic, lane closures, or street staging would require an approved traffic control plan (TCP) and an encroachment permit from the City. Construction equipment anticipated for each phase is listed in Tables 2.2-3 and 2.2-4. No pile driving is proposed.

Table 2.2-4: Project Construction Equipment – Phase 1

Phase Name	Equipment Type	# of Equipment	Usage (hours/day)	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.4
	Scrapers	2	8	367	0.48
Paving	Pavers	2	8	130	0.42

Table 2.2-5: Project Construction Equipment – Phase 2 and Phase 3

Phase Name	Equipment Type	# of Equipment	Usage (hours/day)	Horsepower	Load Factor
Site Preparation	Graders	1	8	187	0.41
	Tractors/Loaders/Backhoes	1	8	97	0.37
Grading	Concrete/Industrial Saws	1	8	81	0.73
	Rubber Tired Dozers	1	1	247	0.4



Phase Name	Equipment Type	# of Equipment	Usage (hours/day)	Horsepower	Load Factor
	Tractors/Loaders/Backhoes	2	6	97	0.37
Building Construction	Cranes	1	4	231	0.29
	Forklifts	2	6	89	0.2
	Tractors/Loaders/Backhoes	2	8	97	0.37
Paving	Cement and Mortar Mixers	4	6	9	0.56
	Pavers	1	7	130	0.42
	Rollers	1	7	80	0.38
	Tractors/Loaders/Backhoes	1	7	97	0.37
Architectural Coating	Air Compressors	1	6	78	0.48

2.2.3 Construction Activities

Construction activities associated with the proposed project would occur in three phases and would consist of site clearing, grading, utility connections, building construction, frontage improvements, and landscaping on the site. Overall, the proposed project would disturb approximately 10.28 acres and would result in approximately 210,101 square feet of impervious surface upon buildout.

The estimated amount of cut and fill for each phase is provided in Table 2.2-5. It is estimated that the total amount of earth movement for the proposed project would require approximately 14,285 cubic yards of cut and approximately 11,385 cubic yards of fill.

Table 2.2-6: Estimated Cut and Fill

Activity	Phase 1	Phase 2	Phase 3	Total
Cut (CY)	10,490	40	3,755	14,285
Fill (CY)	6,735	2,345	2,305	11,385
Net (CY)	3,755 (export)	2,305	1,450 (export)	2,900 (export)

Notes:

CY = cubic yard



3.0 ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

The environmental factors checked below would be potentially affected by this project, involving at least one impact that would require mitigation to reduce the impact from “Potentially Significant” to “Less Than Significant” as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gases | <input checked="" type="checkbox"/> Hazards/Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/ Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

Evaluation of Environmental Impacts

This section presents the environmental checklist form found in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended as appropriate. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant and for which mitigation has not been identified. If any potentially significant impacts are identified, an Environmental Impact Report (EIR) must be prepared instead of an ISMND.

Less Than Significant with Mitigation Incorporated: This designation applies when applicable and feasible mitigation measures previously identified in prior applicable EIRs or in the General Plan EIR have reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact” and, pursuant to Section 21155.2 of the PRC, those measures are incorporated into the ISMND. This designation also applies when the incorporation of new project-specific mitigation measures not previously identified in prior applicable EIRs or in the General Plan EIR has reduced an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.”

Less Than Significant Impact: Any impact that would not be considered significant under CEQA, relative to existing standards.

No Impact: The proposed project would not have any impact. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources that a Lead Agency cites following each question. A “No Impact” answer is adequately



supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).



3.1 AESTHETICS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Environmental Setting

The project site is set within the City's Eastern Waterfront Employment Focus Area. This area is primarily flat and encompasses the industrial areas in the City that are south of the San Joaquin River and west of the SR-160 corridor. The 10.28-acre project site is developed with a 9,730-square-foot metal warehouse building that is surrounded by approximately 10,000 square feet of paved surface parking. The existing warehouse building was constructed in 2010 to serve as a storage facility and is now vacant. It is approximately 30 feet tall and contains six roll-up doors. The remaining portion of the project site is mostly undeveloped but is leased by multiple tenants to store equipment and park company trucks and employee vehicles and for towing or impounding vehicles. Additionally, the project site is bisected by a rail spur, which previously provided rail access for the parcel north of the site.

The project site is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. Beyond the project site, uses include industrial uses to the north and single-family residences and vineyards to the south. Mount Diablo is located approximately 11 miles southwest of the project site and is visible throughout the area, including within and near the project site. Views of Mount Diablo and its ridgelines are identified as important scenic resources in the City's General Plan and is a prominent natural landmark (City of Antioch 2003b). The City's General Plan also identifies the San Joaquin River as an important scenic resource and a prominent natural landmark. The San Joaquin River is located about 0.4 mile from the project site and is not visible.

There are no officially designated state scenic highways within the City (Caltrans 2020). The segment of SR-160 that begins at the Contra Costa County and Sacramento County line is the



nearest officially designated state scenic highway and located more than 1 mile north of the project site.

3.1.2 Methodology

Analysis of the project's visual impacts is based on an evaluation of the changes to the existing visual resources that would result from implementation of the proposed project. In determining the extent and implications of the visual changes, consideration was given to the following: the existing visual quality of the affected environment; specific changes in the visual character and quality of the affected environment; the extent to which the affected environment contains places or features that provide unique visual experiences or that have been designated in plans and policies for protection or special consideration; and the sensitivity of viewers and their activities, and the extent to which these activities are related to the aesthetic qualities affected by the project.

3.1.3 Environmental Impact Analysis

This section discusses potential impacts on aesthetics associated with the proposed project and provides mitigation measures where necessary.

Impact AES-1 Have a substantial adverse effect on a scenic vista?

Impact Analysis

There are no designated scenic vistas in the project vicinity; however, the City's General Plan considers views toward Mount Diablo and its foothill ridgelines as important scenic resources (City of Antioch 2003b). The project site is within the City's Eastern Waterfront Employment Focus Area, an urbanized area designated by the General Plan for development of commercial and industrial uses. The project site is also already developed with a 9,730-square-foot metal warehouse building that is approximately 30 feet tall. Therefore, due to the existing development on and surrounding the project site, views toward Mount Diablo are partially available. In Phase 2, the proposed project would construct a new 18,533-square-foot warehouse building that is approximately 30 feet tall. Additionally, in Phase 3, the proposed project would construct a 18,500-square-foot warehouse building that would be similar in design, appearance, and building height as the Phase 2 building. The height of the proposed warehouse buildings would be the same height as the existing onsite warehouse building and would be consistent with the development standards for the Heavy Industrial (M-2) zoning district, which allows buildings up to 70 feet tall. Furthermore, given the amount of separation between the existing and proposed structures on the project site, views of Mount Diablo would still be partially available. As such, construction of the proposed project would not further limit views of Mount Diablo as compared to existing conditions, and impacts to scenic vistas would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.



Level of Significance After Mitigation

Less Than Significant Impact.

Impact AES-2	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?
---------------------	--

Impact Analysis

The proposed project would not be visible from a state scenic highway. The nearest officially state designated scenic highway is the segment of SR-160 located in Sacramento County (Caltrans 2020a). This segment of SR-160 is located more than 1 mile from the project site; therefore, the project site is not visible to viewers travelling on southbound SR-160.

Furthermore, the project site is developed with a warehouse building, surface parking, and a rail spur. It does not contain vegetation, rock outcroppings, or historic buildings that are identified as scenic resources by the City's General Plan. Therefore, the proposed project would have no impact on scenic resources within a state scenic highway.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact AES-3	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 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?
---------------------	---

Impact Analysis

The project site is in an urbanized area and developed with a metal warehouse building, surface parking, and a rail spur. The project site is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. Beyond the project site, uses include industrial uses to the north and single-family residences and vineyards to the south.

The proposed project would be consistent with the existing visual character of the project site by developing a truck maintenance facility that includes a new 18,533-square-foot warehouse building, approximately 3.5 acres of truck and employee parking, an interior access road, utility improvements, a truck fueling station, and a vehicle and equipment wash station. The proposed warehouse building would include 12 truck service bays, approximately 15,533 square feet of space for truck service repairs, and approximately 3,000 square feet of office space. The proposed office space would include a shop office, a dispatch office, restrooms, a break room,



locker rooms, and a storage room. The proposed warehouse building would be approximately 30 feet tall and would be constructed of metal seam panels. Each truck service bay would be secured with a metal roll-up door. There would also be one open truck service bay on the west side of the building that is covered with a metal canopy, approximately 30 feet tall. As discussed in Section 2.1.3, Phase 3, the specific building configurations for the Phase 3 area have not been finalized. However, to provide a conservative analysis, it is assumed that this portion of the project site would be developed with a 18,500-square-foot warehouse building that provides truck parking and is similar in design, appearance, and building height as the Phase 2 building. Therefore, the proposed project would be consistent with the height requirements for the Heavy Industrial (M-2) zoning district, which allows buildings up to 70 feet tall. The proposed project would also appear consistent with the height and appearance of the existing onsite metal warehouse building.

In addition, the proposed project would be subject to the City's design review process in accordance with Section 9-5.2607 of the Antioch Municipal Code. Compliance with the City's design review process would ensure that the proposed project is compatible with the surrounding land uses. As such, the proposed project would not degrade the existing visual character or quality at the site or its surroundings, and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact AES-4	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?
---------------------	---

Impact Analysis

The project site is developed and contains onsite security lighting for the existing warehouse building. Areas adjacent to the project site also contain multiple sources of lighting that are typical of developed areas. Sources of nighttime lighting include exterior security lighting on the nearby residential and commercial buildings, lighting associated with the industrial facilities north of the project site, and headlights from vehicles driving along Wilbur Avenue. Glare is also generated in the project area from parked cars, passing cars, and windows on nearby buildings.

Activities during the project's construction phase would contribute additional light to the site, primarily due to reflection from equipment surfaces and the use of headlights and work lights if construction activities occur outside of daylight hours. However, construction activities would be temporary and would not substantially increase light levels in the project area. During operation, the primary sources of light would be from the facility itself, including exterior lighting and indoor lighting from facility windows. Exterior lighting would consist of 46 standard pole lighting fixtures up to 25 feet in height. These fixtures would be placed along the site perimeter and over the parking lots where trucks would be stored when not in use. Vehicle headlights would be a secondary source of light in the early morning, at night, and during inclement weather. The solid



waste and recycling trucks would be primarily operational between the hours of 4:00 AM and 5:00 AM, returning to the project site by 2:00 PM. Additionally, truck mechanics would arrive to the project site between 5:00 AM and 7:00 AM, and leave the project site by 11:00 PM on weekdays and 4:00 PM on Saturdays. The project site is mostly surrounded by commercial and industrial uses. There are residences located south of the project site; however, the residences would not be directly affected by light spillover or glare from the proposed project because they are setback at least 100 feet from the project site by the railroad. Furthermore, the introduction of new operational light sources to the site at night and early morning would add incrementally to background light levels currently present as a result of existing and surrounding development. The proposed project would also be required to shield all lighting and direct it away from adjacent streets and properties in accordance with Section 9-5.1715 of the Antioch Municipal Code. Additionally, all proposed lighting would be subject to the City's Design Review process to ensure that light and glare created by the proposed project would not affect day- or nighttime views in the area. The proposed project would not create a new source of substantial light or glare, and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



This page left intentionally blank.



3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forestland (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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forestland or conversion of forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 Environmental Setting

The project site is in an industrial part of the City, approximately 0.4 mile south of the San Joaquin River Delta. The project site is developed with a 9,730-square-foot metal warehouse building and approximately 10,000 square feet of paved surface parking. It is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. Other land uses surrounding the project site include industrial uses to the north and single-family residences and vineyards to the south. The California Department of Conservation's (DOC) Important Farmland map classifies the project site as "Other Land," which is defined as nonagricultural land surrounded by urban development (DOC 2020). According to the City's General Plan EIR, the lands planned for development do not include prime farmland, important agricultural resources, or forest land (City of Antioch 2003b). Additionally, there are no lands planned for development that are contracted under the Williamson Act (City of Antioch 2003b).

3.2.2 Methodology

The following analysis is based on a review of documents pertaining to the project site, including the General Plan, General Plan EIR, and DOC's Important Farmland map.



3.2.3 Environmental Impact Analysis

This section discusses potential impacts on agriculture and forestry resources associated with the proposed project and provides mitigation measures where necessary.

Impact AG-1	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?
--------------------	--

Impact Analysis

The project site is located in an industrial part of the City and is developed, with a metal warehouse building and surface parking. According to the DOC's Important Farmland map, the project site is classified as "Other Land," which consists of nonagricultural land surrounded by urban development (DOC 2020). The project site is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. There are vineyards south of the railroad that are classified as Farmland of Statewide Importance by the DOC Important Farmland map (DOC 2020). However, the proposed project would not include development on these lands, which would result in the conversion of important farmland. The project site is designated Industrial by the General Plan and zoned Heavy Industrial (M-2). As discussed in the General Plan EIR, the lands planned for development under the General Plan do not include prime farmlands or important agricultural resources (City of Antioch 2003b). As such, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact AG-2	Conflict with existing zoning for agricultural use or a Williamson Act contract?
--------------------	---

Impact Analysis

According to the City's General Plan EIR, the lands planned for development by the General Plan do not contain any land zoned for agriculture or land subject to a Williamson Act contract (City of Antioch 2003b). The project site is zoned Heavy Industrial (M-2) and does not permit agricultural uses. As such, the proposed project would not conflict with existing zoning for agricultural use or with a Williamson Act contract. No impact would occur.

Level of Significance Before Mitigation

No Impact.



Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact AG-3	Conflict with existing zoning for, or cause rezoning of, forestland (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))?
--------------------	---

Impact Analysis

Under PRC Section 12220(g), "Forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The project site is developed with a warehouse building, rail spur, and surface parking. It does not contain any forestry resources, timberland production zones, or active timberland uses, and does not meet the definition of "forest land" as defined by PRC Section 12220(g). Furthermore, the project site is zoned Heavy Industrial (M-2), which does not permit agriculture or timberland production uses. The proposed project would have no impact on forestland, timberland, or timberland zoned Timberland Production.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact AG-4	Result in the loss of forestland or conversion of forestland to non-forest use?
--------------------	--

Impact Analysis

The General Plan does not identify any forestry resources, timberland resource zones, or active timberland production within or adjacent to the project site, and the project site does not meet the definition of "forest land" as defined by PRC Section 12220(g). As such, the proposed project would not result in the loss of forestland or convert forestland to non-forest use. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.



Level of Significance After Mitigation

No Impact.

Impact AG-5	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 forestland to non-forest use?
--------------------	--

Impact Analysis

As discussed, the project site is within an industrial part of the City and is developed with a warehouse building, rail spur, and surface parking. The project site does not contain agricultural resources, forestland, or timberland resources (DOC 2020; City of Antioch 2003b). Land uses surrounding the project site include commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. None of the properties surrounding the project site contain forestland or timberland resources. There are vineyards south of the railroad that are classified as Farmland of Statewide Importance by the DOC Important Farmland map (DOC 2020). However, the proposed project would not include development or off-site improvements on these lands, which would result in the conversion of important farmland. As such, the proposed project would not involve other changes that would result in the conversion of farmland to a nonagricultural use or the conversion of forestland to a non-forest use. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.



3.3 AIR QUALITY

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 Environmental Setting

The City of Antioch is in Contra Costa County, which is within the boundaries of the San Francisco Bay Area Air Basin (Air Basin) and under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (CARB). The regional climate within the San Francisco Bay Area is driven by a summertime high-pressure cell centered over the northeastern Pacific Ocean that dominates the summer climate of the west coast. The persistence of this high-pressure cell generally results in negligible precipitation during the summer, and meteorological conditions are typically stable with a steady northwesterly wind flow. This flow causes upwelling of cold ocean water from below the surface, which produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts to the south, resulting in wind flows offshore, the absence of upwelling, and an increase in the occurrence of storms. Winter stagnation episodes are characterized by nocturnal drainage wind flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the Air Basin.

Criteria Air Pollutants

The Federal Clean Air Act (FCAA) establishes the framework for modern air pollution control. The FCAA, enacted in 1970 and amended in 1990, directs the U.S. Environmental Protection Agency (USEPA) to establish ambient air quality standards. These standards are divided into primary and secondary standards. The primary standards are set to protect human health, and the secondary standards are set to protect environmental values, such as plant and animal life.



The FCAA requires the USEPA to set National Ambient Air Quality Standards for the six criteria air pollutants. These pollutants include particulate matter, ground-level ozone, carbon monoxide (CO), sulfur oxides, nitrogen oxides (NOx), and lead. According to the BAAQMD, ozone and particulate matter 2.5 microns or less in diameter (PM_{2.5}) are the major regional air pollutants of concern in the San Francisco Bay Area. Ozone is primarily an issue in the summer and PM_{2.5} in the winter (BAAQMD 2020).

Air Quality Standards

The FCAA requires states to develop a general plan to attain and maintain the standards in all areas of the country and a specific plan to attain the standards for each area designated nonattainment. These plans, known as State Implementation Plans (SIPs), are developed by state and local air quality management agencies and submitted to the USEPA for approval.

The SIP for the State of California is administered by CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's SIP incorporates individual federal attainment plans for each regional air district. SIPs are prepared by the regional air district and sent to CARB to be approved and incorporated into the California SIP. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

CARB also administers the California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants include the six federal criteria pollutant standards listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The federal and state ambient air quality standards are summarized in Table 3.3-1.

Table 3.3-1: California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Ozone	1 Hour	0.09 ppm (180 µg/m ³)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	
Respirable Particulate Matter	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m ³	—	
Fine Particulate Matter	24 Hour	—	35 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	
Carbon Monoxide	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	—
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	—



Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m³)	100 ppb (188 µg/m³)	—
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m³)	75 ppb (196 µg/m³)	—
	3 Hour	—	—	0.5 ppm (1,300 µg/m³)
	24 Hour	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
Lead	30-Day Average	1.5 µg/m³	—	—
	Calendar Quarter	—	1.5 µg/m³	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m³	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 µg/m³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m³)	—	

Notes:

¹ In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

µg/m³ = micrograms per cubic meter

mg/m³ = milligrams per cubic meter

Source: CARB 2016

As summarized in Table 3.3-2, the Air Basin and Contra Costa County are currently designated as nonattainment areas for state ozone, PM_{2.5}, and particulate matter 10 microns or less in diameter (PM₁₀) standards, as well as national ozone and PM_{2.5} standards, but are listed as unclassified under national PM₁₀. The standards for CO, NO_x, sulfur dioxide, and lead are being



met in the Bay Area. The BAAQMD has developed its 2017 Clean Air Plan, Spare the Air, Cool the Climate (2017 Clean Air Plan) to update the most recent Bay Area ozone plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health and Safety Code. To fulfill state ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors—reactive organic gases (ROG) and NO_x—and reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Clean Air Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants (BAAQMD 2017a).

Table 3.3-2: Contra Costa County Area Designations for State and National Ambient Air Quality

Criteria Pollutants	State Designation	National Designation
Ozone (1-hour)	Nonattainment	—
Ozone (8-hour)	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Unclassified
PM _{2.5}	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	Attainment	—
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	—
Visibility Reducing Particles	Unclassified	—

PM_{2.5} = particulate matter 2.5 microns or less in diameter

PM₁₀ = particulate matter 10 microns or less in diameter

Source: BAAQMD 2017b

Bay Area Air Quality Management District

Nearly all development projects in the Bay Area have the potential to generate air pollutants that may increase the difficulty of attaining National Ambient Air Quality Standards and CAAQS. Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. The BAAQMD has developed the *CEQA Air Quality Guidelines* to help public agencies evaluate air quality impacts (BAAQMD 2017c). The BAAQMD's guide includes recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors. The May 2017 version of the Guidelines includes revisions made to the BAAQMD's 2010 Guidelines to address the California Supreme Court's 2015 opinion in *Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist.*, 62 Cal.4th 369. Table 3.3-3 provides a summary of the recommended thresholds.



Table 3.3-3: BAAQMD Project-Level Air Quality CEQA Thresholds of Significance

Criteria Pollutants	Construction-Related	Operational-Related	
		Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tpy)
Criteria Air Pollutants and Precursors (regional)	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tpy)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ (exhaust)	82	82	15
PM _{2.5} (exhaust)	54	54	10
PM ₁₀ /PM _{2.5} (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
GHGs (projects other than stationary sources)	None	Compliance with Qualified GHG Reduction Strategy OR 1,100 MTCO ₂ e/yr OR 4.6 MTCO ₂ e/SP/yr (residents + employees)	

Notes:

CO = carbon monoxide

GHG = greenhouse gases

lbs/day = pounds per day

MTCO₂e/yr = metric tons of carbon dioxide equivalent per year

MTCO₂e/SP/yr = metric tons of carbon dioxide equivalent per service population per year

NO_x = nitrogen oxide

PM_{2.5} = particulate matter 2.5 microns or less in diameter

PM₁₀ = particulate matter 10 microns or less in diameter

ppm = parts per million

ROG = reactive organic gas

tpy = tons per year

Source: BAAQMD 2017c

The BAAQMD has established rules and regulations to attain and maintain state and national air quality standards. The rules and regulations that apply to this proposed project include but are not limited to the following:

Regulation 8, Rule 3

Architectural Coatings. This rule governs the manufacture, distribution, and sale of architectural coatings and limits the ROG content in paints and paint solvents. Although this rule does not directly apply to the proposed project, it does dictate the ROG content of paint available for use during the construction.



Regulation 8, Rule 15

Emulsified and Liquid Asphalts. Although this rule does not directly apply to the proposed project, it does dictate the ROG content of asphalt available for use during construction through the regulation of the sale and use of asphalt and limitations to the ROG content in asphalt.

BAAQMD manages a naturally occurring asbestos program that administers the requirements of CARB's naturally occurring asbestos air toxic control measures (ATCM). The BAAQMD provides an exemption application, notification form for road construction and maintenance operations, and asbestos dust mitigation plan applications for projects to submit prior to the start of construction, or upon discovery of asbestos, ultramafic rock, or serpentine during construction. Forms must be submitted to the BAAQMD in accordance with the procedures detailed in the BAAQMD Asbestos ATCM Inspection Guidelines Policies and Procedures.

City of Antioch

As a component of the 2003 General Plan, the City has adopted policies to minimize air pollutant emissions within the Antioch planning area. The following policies are applicable to the proposed project:

10.6.2 Air Quality Policies*Construction Emissions*

- a) Require development projects to minimize the generation of particulate emissions during construction through implementation of the dust abatement actions outlined in the CEQA Handbook of the Bay Area Air Quality Management District.

Mobile Emissions

- a) Require developers of large residential and non-residential projects to participate in programs and to take measures to improve traffic flow and/or reduce vehicle trips resulting in decreased vehicular emissions.
- b) Budget for the purchase of clean fuel vehicles, including electrical and hybrid vehicles where appropriate, and if feasible, purchasing natural gas vehicles as diesel vehicles are replaced.
- c) Support and facilitate employer-based trip reduction programs by recognizing such programs in environmental mitigation measures for traffic and air quality impacts where the ongoing implementation can be ensured, and their effectiveness can be monitored.

Stationary Sources

- a) As part of the development review process for non-residential development, require the incorporation of best available technologies to mitigate air quality impacts.
- b) Provide physical separation between (1) proposed new industries having the potential for emitting toxic air contaminants and (2) existing and proposed sensitive receptors (e.g. residential areas, schools, and hospitals).



3.3.2 Methodology

Construction and operational emissions for the proposed project were modeled using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. For detailed information on the assumptions please refer to Appendix B, Air Quality and Greenhouse Gas Assumptions and CalEEMod Results.

3.3.3 Environmental Impact Analysis

This section discusses potential impacts on air quality associated with the proposed project and provides mitigation measures where necessary.

Impact AIR-1 Conflict with or obstruct implementation of the applicable air quality plan?

Impact Analysis

The BAAQMD's 2017 Clean Air Plan is the regional air quality plan (AQP) for the Air Basin. It identifies strategies to bring regional emissions into compliance with federal and state air quality standards. The BAAQMD's Guidance provides three criteria for determining if a plan-level project is consistent with the current AQP control measures. However, the BAAQMD does not provide a threshold of significance for project-level consistency analysis. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- Criterion 1: Does the project support the primary goals of the AQP?
- Criterion 2: Does the project include applicable control measures from the AQP?
- Criterion 3: Does the project disrupt or hinder implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan, the current AQP, are to:

- Protect public health through the attainment air quality standards;
- Protect the climate

As discussed in impact discussions AIR-2, AIR-3, and AIR-4, the proposed project would not significantly contribute to cumulative nonattainment pollutant violations, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people after implementation of Mitigation Measure AIR-1. Therefore, the proposed project would be consistent with criterion 1 with incorporation of Mitigation Measure AIR-1, which would require all construction contractors to implement the basic construction mitigation measures recommended by the BAAQMD to reduce fugitive dust emissions.

Criterion 2

The 2017 Clean Air Plan contains 85 control measures aimed at reducing air and climate pollutants in the Bay Area. For purposes of consistency with climate planning efforts at the state level, the control strategy in the Clean Air Plan is based upon the same economic sector



framework used by the CARB for its 2014 update to Assembly Bill (AB) 32, Scoping Plan. The sectors are as follows:

- Stationary Sources
- Transportation
- Energy
- Buildings
- Agriculture
- Natural and Working Lands
- Waste Management
- Water
- Super-Greenhouse Gas (GHG) Pollutants

Of the 85 measures, only the transportation control measure, TR-2, Trip Reduction Program, would apply to the proposed project as the proposed project would have 70 employees. TR-2, Trip Reduction Program, is implemented through BAAQMD's Regulation 14, Rule 1, which includes requirements for employers to offer specific commuter benefit options if they employ more than 50 full-time employees. The applicant would also be required to conform to the energy efficiency requirements of the California Building Standards Code, also known as Title 24. Specifically, the project must implement the requirements of the most recent Building Energy Efficiency Standards, which is the current version of Title 24. The proposed project would comply with all applicable rules and regulations and would not impede attainment because the proposed project's emissions would fall below the BAAQMD regional significance thresholds. Table 3.3-4, Table 3.3-5, and Table 3.3-6 show that the proposed project would not exceed the BAAQMD thresholds of significance for construction or operation, even when considering a worst-case assumption that full buildout of the proposed project would occur in 2021.

Criterion 3

If the approval of a project would not cause a disruption, delay, or otherwise hinder the implementation of any clean air plan control measure, it would be considered consistent with the 2017 Clean Air Plan. Examples of how a project may cause the disruption or delay of control measures include a project that precludes an extension of a transit line or bike path or proposes excessive parking beyond parking requirements. The proposed project would not preclude extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. As shown above, the proposed project would incorporate the applicable AQP control measures as project design features.

Conclusion

The proposed project would be consistent with the criteria of the AQP with incorporation of Mitigation Measure AIR-1. As such, with the incorporation of this mitigation measure this impact would be less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact.



Mitigation Measures

MM AIR-1 Implement Construction Best Management Practices. The applicant shall require all construction contractors to implement the basic construction mitigation measures recommended by the Bay Area Air Quality Management District (BAAQMD) to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures. Additional measures may be identified by the BAAQMD or contractor as appropriate:

- a) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day;
- b) All haul trucks transporting soil, sand, or other loose material offsite will be covered;
- c) All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;
- d) All vehicle speeds on unpaved roads will be limited to 15 miles per hour;
- e) All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- f) Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of the California Code of Regulations. Clear signage shall be provided for construction workers at all access points.
- g) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- h) Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person will respond and take corrective action within 48 hours. The BAAQMD's phone number will also be visible to ensure compliance with applicable regulations.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.



Impact AIR-2 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Impact Analysis

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 proposed project's construction and operational impacts are assessed separately below.

Construction Emission

Emissions from construction-related activities are generally short-term in duration but may still cause adverse air quality impacts. The proposed project would generate emissions from construction equipment exhaust, worker travel, and fugitive dust. These construction emissions would include criteria air pollutants from the operation of heavy construction equipment.

Construction of the proposed project would be completed in three phases, as shown in Tables 2.1-1 through 2.2-3 in Chapter 2.0, Project Description. Phase 1 would be constructed in approximately 3 months and Phase 2 and 3 would each be constructed in approximately 5 months.

The construction schedule used in the analysis represents a "worst-case" analysis scenario since emission factors for construction equipment decrease as the analysis year increases due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule extends to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required pursuant to CEQA guidelines. Table 3.3-4 provides the construction emissions estimate for the proposed project.

Table 3.3-4: Annual Construction Emissions

Year	Air Pollutants			
	ROG	NOx	PM ₁₀	PM _{2.5}
Phase 1 (tons/year)	0.07	0.76	0.03	0.03
Phase 2 (tons/year)	0.14	0.39	0.02	0.02
Phase 3 (tons/year)	0.14	0.36	0.01	0.01
Total Emissions (tpy)	0.36	1.50	0.06	0.06
Total Emissions (lbs/yr)	722.62	3,005.74	122.32	112.60
Average Daily Emissions (lbs/day)	2.72	11.30	0.46	0.42
Significance Threshold	54	54	82	54



Year	Air Pollutants			
	ROG	NO _x	PM ₁₀	PM _{2.5}
(lbs/day)				
Exceeds Significance Threshold?	No	No	No	No

Notes:

lbs/day = pounds per day

lbs/yr = pounds per year

NO_x = nitrogen oxide

PM_{2.5} = particulate matter 2.5 microns or less in diameter

PM₁₀ = particulate matter 10 microns or less in diameter

ROG = reactive organic gas

tpy = tons per year

Source: Appendix B

As shown in Table 3.3-4, the construction emissions in each year are well below the recommended thresholds of significance. However, the proposed project would implement Mitigation Measure AIR-1, as recommended by the BAAQMD to reduce potential fugitive dust impacts. Therefore, the emissions from project construction would be less than significant with mitigation incorporated.

Operational Emissions

As previously discussed, the pollutants of concern include ROG, NO_x, PM₁₀, and PM_{2.5}. To provide the most conservative estimate, 2021 and 2026 were used to assess full build out operations. The BAAQMD Criteria Air Pollutant Significance thresholds were used to determine impacts.

Operational emissions would occur over the lifetime of the proposed project and would be from two main sources: area sources and truck/motor vehicles, or mobile sources. Operational emissions were modeled for full buildout occurring in 2021 and occurring in 2026. If the later buildout year were used, the emissions would be lower due to cleaner vehicles from increasing regulations. Therefore, using an earlier year to consider full buildout of the proposed project would provide a worst-case scenario of emissions. The results of the unmitigated emission estimates for full buildout during both 2021 and 2026 are presented in Tables 3.3-5 and 3.3-6, respectively.

Table 3.3-5: Operational Annual Emissions for Full Buildout in 2021 (Unmitigated)

Emissions Source	Tons per Year			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Area	0.24	0.00	0.00	0.00
Energy	0.01	0.05	0.00	0.00



Emissions Source	Tons per Year			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Mobile – Employee Vehicles	0.02	0.04	0.14	0.04
Mobile – Trucks	0.28	8.85	0.73	0.22
Mobile – Visitors/Deliveries	0.01	0.06	0.04	0.01
<i>Total Project Annual Emissions</i>	<i>0.55</i>	<i>9.00</i>	<i>0.93</i>	<i>0.28</i>
Existing Emissions (Emissions from Relocated Trucks)	0.27	8.59	0.71	0.22
Net Project Annual Emissions	0.28	0.41	0.21	0.06
Thresholds of Significance	10	10	15	10
Exceeds Significance Threshold?	No	No	No	No

Notes:

NO_x = nitrogen oxide

PM₁₀ = particulate matter 10 microns or less in diameter

PM_{2.5} = particulate matter 2.5 microns or less in diameter

ROG = reactive organic gas

Source: Appendix B

Table 3.3-6: Operational Annual Emissions for Full Buildout in 2026 (Unmitigated)

Emissions Source	Tons per Year			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Area	0.24	0.00	0.00	0.00
Energy	0.01	0.05	0.00	0.00
Mobile – Employee Vehicles	0.01	0.02	0.14	0.04
Mobile – Trucks	0.17	4.51	0.71	0.20
Mobile – Visitors/Deliveries	0.01	0.04	0.04	0.01
<i>Total Project Annual Emissions</i>	<i>0.44</i>	<i>4.62</i>	<i>0.90</i>	<i>0.26</i>
Existing Emissions (Emissions from Relocated Trucks)	0.17	4.37	0.69	0.20
Net Project Annual Emissions	0.27	0.25	0.21	0.06
Thresholds of Significance	10	10	15	10



Emissions Source	Tons per Year			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Exceeds Significance Threshold?	No	No	No	No

Notes:

NO_x = nitrogen oxide

PM₁₀ = particulate matter 10 microns or less in diameter

PM_{2.5} = particulate matter 2.5 microns or less in diameter

ROG = reactive organic gases

Source: Appendix B

As shown in Table 3.3-5, the results for full buildout in 2021 were the highest, however, those emissions are still below the BAAQMD's threshold of significance. Therefore, because the annual emissions are below the thresholds of significance; the impact is less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure AIR-1 is required.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact AIR-3 Expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis

This discussion addresses whether the project would expose sensitive receptors to construction-generated fugitive dust (PM₁₀), naturally occurring asbestos, construction-generated diesel particulate matter (DPM), operational related toxic air contaminants (TACs), or operational CO hotspots. Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The project site itself is not considered a sensitive receptor.

The closest sensitive receptors are the single-family residential homes at 1887-1957 Santa Fe Avenue, which are located across the railroad tracks from the project site, with the north edge of the residential backyards approximately 100 feet from the south edge of the project site. The existing warehouse building on the project site is located approximately 540 feet from the backyard edge of the single-family home at 1957 Santa Fe Avenue.



Construction Emissions

Fugitive Dust PM₁₀

As discussed in Impact AIR-2, fugitive dust (PM₁₀) would be generated from site grading and other earth-moving activities. Most of this fugitive dust would remain localized and would be deposited near the project site. However, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from the project site. The project would implement Mitigation Measure AIR-1 requiring fugitive dust control measures that are consistent with BMPs established by the BAAQMD, to reduce the project's construction-generated fugitive dust impacts to a less than significant level.

Naturally Occurring Asbestos

Construction in areas of rock formations that contain naturally occurring asbestos could release asbestos into the air and pose a health hazard. As described in the Regulatory Setting, BAAQMD enforces CARB's ATCMs at sites that contain ultramafic rock. The ATCM for Construction, Grading, Quarrying and Surface Mining Operations was signed into state law on July 22, 2002, and became effective in the Air Basin in November 2002. The purpose of this regulation is to reduce public exposure to naturally occurring asbestos. A review of the map containing areas more likely to have rock formations containing naturally occurring asbestos in California indicates that there is no asbestos in the immediate project area (U.S. Geological Survey 2011). Therefore, it can be reasonably concluded that the project would not expose sensitive receptors to naturally occurring asbestos. Impacts would be less than significant.

Diesel Particulate Matter

Construction-related activities would result in temporary, short-term project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary air toxic of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by CARB in 1998.

A construction Health Risk Assessment (HRA) was prepared for the proposed project and is included in Appendix B. The construction HRA evaluated DPM (represented as PM_{2.5} (exhaust PM_{2.5}) emissions generated during construction of the proposed project and the related health risk impacts for sensitive receptors located within 1,000 feet of the project boundary. According to the BAAQMD, a project would result in a significant impact if it would individually expose sensitive receptors to TACs, resulting in an increased cancer risk greater than 10.0 in one million, an increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient PM_{2.5} increase greater than 0.3 micrograms per liter (µg/m³).

The project site is located within 1,000 feet of existing sensitive receptors that could be exposed to diesel emission exhaust during the construction period. The nearest sensitive receptors are residents occupying the single-family houses located south and southwest of the project site, the closest of which is located approximately 160 to 220 feet south of the project site. To estimate the potential cancer risk associated with construction of the proposed project from



equipment exhaust (including DPM), a dispersion model was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences). The maximally exposed sensitive receptor was found to be an existing residence located approximately 160 feet south of the project site.

The results of the construction HRA are summarized in Table 3.3-7. As shown, construction emissions would not result in a significant health risk based on BAAQMD's thresholds of significance.

Table 3.3-7: Health Risks from Project Construction at the Maximally Exposed Sensitive Receptor

Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Risks and Hazards at the maximally exposed sensitive receptor¹			
Risks and Hazards: Infant	6.00	0.01	0.06
Risks and Hazards: Child	1.61	0.01	0.06
Risks and Hazards: Adult	0.18	0.01	0.06
Threshold	10	1	0.3
Exceeds Threshold?	No	No	No

Notes:

1. The maximally exposed sensitive receptor is located at an existing residence located approximately 160 feet south of the project site.

2. Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{2.5} exhaust) by the REL of 5 µg/m³.

µg/m³ = micrograms per liter

DPM = diesel particulate matter

PM_{2.5} = particulate matter 2.5 microns or less in diameter

Source: Appendix B.

Operational Emissions

Carbon Monoxide Hotspots

Localized high levels of CO (CO hotspot) are associated with traffic congestion and idling or slow-moving vehicles. The BAAQMD recommends a screening analysis to determine if a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is necessary. The project would result in a less than significant impact to air quality for local CO 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, regional transportation plan, and local congestion management agency plans; or



- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; or
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

A review of the 2017 Congestion Management Plan for Contra Costa County indicates that the proposed project is consistent with the applicable congestion management plan. The proposed project would generate fewer than 50 peak hour trips and would not substantially increase traffic volumes on nearby roadways above 44,000 vehicles per hour (see level of service (LOS) Screening/vehicle miles traveled (VMT) Analysis, Appendix H). Furthermore, the adjacent roadways are not located in an area where vertical and/or horizontal mixing, or the free movement of the air mass, is substantially limited by physical barriers such as bridge overpasses or urban or natural canyon walls. Therefore, the proposed project would not significantly contribute to an existing or projected CO hotspot. Impacts would be less than significant.

Toxic Air Contaminant Emissions

To address potential risk and hazard impacts, the BAAQMD has developed individual project and cumulative thresholds of significance for air toxics evaluations (BAAQMD 2017c). The individual project thresholds are as follows:

- An increased cancer risk level of more than 10 in 1 million
- An increased non-cancer (chronic or acute) hazard index greater than 1.0
- An incremental increase of greater than 0.3 $\mu\text{g}/\text{m}^3$ annual average $\text{PM}_{2.5}$

The cumulative thresholds are as follows:

- A cancer risk level of more than 100 in 1 million from all local sources
- A chronic non-cancer hazard index greater than 10.0 from all local sources
- An annual average $\text{PM}_{2.5}$ concentration greater than 0.8 $\mu\text{g}/\text{m}^3$ from all local sources

The proposed project does not consist of the siting of new sensitive receptors. Employees are not considered sensitive receptors because visits to the work and commercial uses would be short-term in duration (compared to residential occupancy) and episodic. However, because there are sensitive receptors within 1,000 feet of the project site, a health risk screening was prepared to evaluate potential impacts from existing sources of TACs (Appendix B).

For project-level analysis, BAAQMD specifies both individual and cumulative-level thresholds of significance for risks and hazards. For projects that are considered new sources of TACs or $\text{PM}_{2.5}$ (such as stationary sources, industrial sources, or roadway projects), it is generally appropriate to use both the project-level and cumulative-level thresholds because the project-level threshold identifies said project's individual contribution to risk, while the cumulative threshold assesses said project's cumulative contribution to risk. However, for projects that consist of new receptors, it is generally appropriate to use only the cumulative-level threshold because the project itself is not a source of TACs and, thus, the individual project-level



threshold is not relevant. The cumulative risk threshold accounts for all potential sources of TACs and PM_{2.5} in proximity to new receptors. Because the proposed project is a planned industrial development with no identified uses considered a source of TACs, this analysis is focused to the cumulative impact of nearby sources of TACs to the project site. BAAQMD's recommended procedure involves first consulting with screening tools to identify whether there are any substantial TAC sources within 1,000 feet of the project site. Table 3.3-8 provides a summary of the cumulative screening health risk assessment.

Table 3.3-8: Screening Health Risk Assessment Cumulative Results

Source	Cancer Risk in One Million	Chronic Inhalation Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Project Construction			
Project Construction – Unmitigated	5.9968	0.0116	0.0580
Existing Sources			
Existing Major Local Roadways	0.0810	ND	0.0015
Existing Highways	0.8178	ND	0.0158
Existing Railways	15.3066	ND	0.0224
Cumulative Health Risks at the Maximally Exposed Sensitive Receptor¹			
Cumulative Total with Unmitigated Project Construction	22.20	0.0116	0.10
BAAQMD's Cumulative Thresholds of Significance	100	10	0.8
Threshold Exceedance in Unmitigated Scenario?	No	No	No

Notes:

BAAQMD = Bay Area Air Quality Management District

µg/m³ = micrograms per liter

ND = no data available

PM_{2.5} = particulate matter 2.5 microns or less in diameter

¹ The maximally exposed sensitive receptor is located at an existing residence located approximately 160 feet south of the project site.

Source: Appendix B

The analysis showed that the proposed project would not exceed the lifetime excess cancer risk or chronic hazard index, nor would it exceed the PM_{2.5} concentration level. As such, it can be assumed that residents would not be subject to levels of TACs above screening levels. Therefore, construction impacts from TAC sources would be less than significant.

During operation of the proposed project, residents could also be exposed to potential health risks from operation of trucks and vehicles at the project site. A health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 30-year exposure scenario. The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the USEPA Human Health Evaluation Manual (1991) and the Office of Environmental Health Hazard Assessment Guidance Manual. Assumptions for the



health risk are provided in Appendix B. The results of the health risk assessment are provided in Table 3.3-9.

Table 3.3-9: Summary of the Cumulative Health Impacts at the Maximally Exposed Individual During Project Operations

Source	Cancer Risk in One Million	Chronic Inhalation Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Project DPM			
Project Construction and Operations	6.8617	0.0076	0.0378
Existing Sources			
Existing Major Local Roadways	0.0810	ND	0.0015
Existing Highways	0.8178	ND	0.0158
Existing Railways	15.3066	ND	0.0224
Cumulative Health Risk at the Maximum Exposed Sensitive Receptor¹			
Cumulative Total with Unmitigated Project Construction	23.07	0.01	0.08
BAAQMD's Cumulative Thresholds of Significance	100	10	0.8
Exceed Threshold?	No	No	No

Notes:

BAAQMD = Bay Area Air Quality Management District

µg/m³ = micrograms per liter

ND = no data available

PM_{2.5} = particulate matter 2.5 microns or less in diameter

¹ The maximally exposed sensitive receptor is located at an existing residence located approximately 160 feet south of the project site.

Source: Appendix B

The analysis showed that the proposed project would not exceed the lifetime excess cancer risk or chronic hazard index, nor would it exceed the PM_{2.5} concentration level. As such, it can be assumed that residents would not be subject to levels of TACs above screening levels. Therefore, operational impacts from TAC sources would be less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure AIR-1 is required.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.



Impact AIR-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact Analysis

As stated in the BAAQMD 2017 Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard, and the ability to detect odors varies considerably among the populations and overall is subjective.

BAAQMD does not have a recommended odor threshold for construction activities. However, BAAQMD recommends screening criteria that are based on distance between types of sources known to generate odor and the receptor. For projects within the screening distances, the BAAQMD has the following threshold for project operations:

- An odor source with five (5) or more confirmed complaints per year averaged over three years is considered to have a significant impact on receptors within the screening distance shown in the BAAQMD's guidance (see Table 3.3-3).

The BAAQMD's 2017 Air Quality Guidelines provide a table with odor screening distances recommended by BAAQMD for a variety of land uses. Projects that would site an odor source or a receptor farther than the applicable screening distance, as shown in Table 3.3-10, would not likely result in a significant odor impact.

Table 3.3-10: Screening Levels for Potential Odor Sources

Odor Generator	Distance
Wastewater Treatment Facilities	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Compositing Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Metal Smelting Plants	1 mile

Source: BAAQMD 2017c



Project Construction

Diesel exhaust and ROGs would be emitted during construction of the proposed project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore not create objectionable odors affecting a substantial number of people. As such, construction odor impacts would be less than significant.

Project Operation

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain land uses typically associated with emitting objectionable odors. The project site is in an industrial portion of the City, and the new truck maintenance facility would be consistent with the Heavy Industrial (M-2) zoning designation for the site. Therefore, the proposed project would result in a less than significant impact related to creating objectionable odors affecting a substantial number of people during operation. The potential for the proposed project to create objectionable odors affecting a substantial number of people during construction and operation would be considered less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



3.4 BIOLOGICAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Environmental Setting

The project site is in an industrial part of the City, approximately 0.4 mile south of the San Joaquin River Delta. It is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. Other land uses surrounding the project site include industrial uses to the north and single-family residences and vineyards to the south.

The project site is rectangular in shape and relatively level and is at or near street grade in elevation. It is developed with a 9,730-square-foot metal warehouse building that is surrounded by approximately 10,000 square feet of paved surface parking. The project site is also bisected by a rail spur, which previously provided rail access for the parcel north of the site. Outside of



existing developed areas, gravel and recycled asphalt have been spread over and mixed into the soils throughout the property making hard-pack, all-weather-working surfaces that were used for many decades as part of the past industrial uses.

3.4.2 Methodology

This section is based on the Biological Resource Analysis prepared by Monk & Associates. The Biological Resources Analysis included background research, literature review, and site surveys. The findings of the Biological Resources Analysis are summarized herein, and the complete report is provided in Appendix A.

Background Research

Monk & Associates completed a review of the most recent version of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database RareFind 5 application (CNDDDB 2019), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation database, and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants database for historical and recent records of special-status plant and animal species known to occur within 3 miles of the project site. All known records and any reasonably obtainable biological survey reports were reviewed to determine if special-status species would occur on or near the project site.

For purposes of this analysis, special-status species are plants and animals that are subject to the California Endangered Species Act (CESA) and federal Endangered Species Act (FESA) and species that are considered rare by the scientific community (e.g., CNPS). Special-status species are defined as follows:

- Plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code Section 2050 et seq.; 14 CCR Section 670.1 et seq.) or the FESA (50 Code of Federal Regulations [CFR] 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);
- Plants and animals that are candidates for possible future listing as threatened or endangered under FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under CESA (California Fish and Game Code Section 2068);
- Plants and animals that meet the definition of endangered, rare, or threatened under CEQA (14 CCR Section 15380) that may include species not found on either state or federal endangered species lists;
- Plants occurring on Ranks 1A, 1B, 2A, 2B, 3, and 4 of the CNPS electronic Inventory (CNPS 2001). CDFW recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in the majority of cases, would qualify for state listing, and the CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are “plants about which more information is necessary,” and “plants of limited distribution,” respectively (CNPS 2001) (more on CNPS Rank species below);



- Many of the plants constituting California Rare Plant Rank 3 may meet the definitions of threatened or endangered per CESA and could be eligible for state listing. Impacts to Rank 3 plant species or their habitats should be analyzed during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, as they may meet the definition of rare or endangered under CEQA Guidelines Section 15125(c) and/or Section 15380. Additional plants may be included as special-status species on a case-by-case basis due to local significance or recent biological information;
- Migratory nongame birds of management concern listed by USFWS (Migratory Nongame Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);
- Animals that are designated as “species of special concern” by the CDFW (2020);
- Animal species that are “fully protected” in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

Based on this background research, a list of special-status species that have the potential to occur or are known to occur within the project site was developed and is provided in Appendix A.

Site Surveys

Monk & Associates biologists conducted surveys of the project site on January 7 and 12, 2020, to record biological resources and to assess the likelihood of agency-regulated areas on the project site. Monk & Associates’ site evaluation included a thorough examination of the site to document potential habitats on or adjacent to the project site that could support special-status species and/or waters of the U.S. and state.

Habitat Communities

The habitat communities present within the project site include ruderal and anthropogenic communities. No aquatic resources were identified within the project site (Appendix A). Descriptions of the habitat communities present within the project site are provided below.

Ruderal

Ruderal plants thrive in waste areas, roadsides, and other sites that have been disturbed by anthropogenic activities. On the project site such vegetation occurs in limited locations, mostly under or near fences that have prevented maintenance activities from clearing this vegetation. Dominant ruderal grass and forb species found on the project site include nonnative species such as ripgut brome (*Bromus diandrus*), smilo grass (*Stipa miliacea* var. *miliacea*), stinkwort (*Dittrichia graveolens*), and yellow star thistle (*Centaurea solstitialis*). Subdominants include cheeseweed (*Malva parviflora*) and filaree (*Erodium cicutarium*, *E. moschatum*). Wild mustard (*Sinapis arvensis*), annual yellow sweetclover (*Melilotus indicus*), and spotted spurge (*Euphorbia maculata*) can also be found in the ruderal plant assemblage. One native ruderal



species, telegraph weed (*Heterotheca grandiflora*), was found in sparse locations along the fence line next to Wilbur Avenue.

Anthropogenic

The vegetation along the western and eastern property boundaries would be classified as anthropogenic communities. Anthropogenic communities are plant communities that are dominated by plants introduced by humans and are established or maintained by human disturbance. Some of these communities are assemblages of ruderal species that have invaded disturbed areas, while others are entirely artificial communities such as agricultural row crops or orchards. Anthropogenic communities can support a few native species; however, they are generally dominated by nonnative taxa that thrive in high disturbance conditions.

A few scattered coast live oaks (*Quercus agrifolia* var. *agrifolia*) are located along the western property boundary surrounding the active vehicle storage lot and trailer. These trees may date prior to the industrial use of the project site but have been incorporated into the use areas.

Special-Status Species

Plants

According to the California Natural Diversity Database (CNDDB), 14 special-status plant species are known to occur within 3 miles of the project site. All special-status plants that were evaluated occur in specialized plant communities and habitats that do not occur on the project site, such as marshes and swamps, dunes, valley and foothill grassland, riparian scrub, dune, and chaparral. Therefore, the project site does not provide suitable habitat for any special-status plant species known to occur within 3 miles of the project site.

Wildlife

According to CNDDB, 18 special-status animal species are known to occur within 3 miles of the project site. Based on the type of habitat present within the project site, there is low potential for 3 of the 18 special-status wildlife species to occur. The three species with low potential to occur include the white-tailed kite (*Elanus leucurus*), Swainson's hawk (*Buteo swainsoni*), and western red bat (*Lasiurus blossevillii*). Trees located along the western limits of the project site provide suitable nesting and marginal roosting habitat for these species (Appendix A).

Critical Habitat

The project site is within USFWS designated critical habitat for delta smelt (*Hypomesus transpacificus*). However, there is no suitable aquatic habitat present on the project site for delta smelt. Critical habitat within the vicinity of the project site, including Antioch Dunes evening-primrose (*Oenothera deltoides* ssp. *howellii*) and Contra Costa wallflower (*Erysimum capitatum* var. *angustatum*) critical habitat, is located 0.32 mile west of the project site in the Antioch Dunes National Wildlife Refuge. There is no suitable habitat present on the project site for Antioch Dunes evening-primrose or Contra Costa wallflower.



3.4.3 Environmental Impact Analysis

This section discusses potential impacts on biological resources associated with the proposed project and provides mitigation measures where necessary.

Impact BIO-1	Have a substantial adverse effect, either directly or through habitat modifications on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
---------------------	---

Impact Analysis

Special-Status Plants Species

There is no potential habitat within the project site for special-status plants to occur. The project site is developed with a 9,730-square-foot metal warehouse building and approximately 10,000 square feet of paved surface parking. Other portions of the project site consist of bare ground made up of hard-packed gravel soils resulting from the previous industrial use of the site. The only vegetation on site consists of ruderal plant species growing under or near fences, except for the nine coast live oaks located at the western end of the project site. Based on the lack of suitable habitat, the project site does not provide potential habitat for special-status plant species to occur, and there would be no impacts on special-status plants.

Special-Status Wildlife Species

Special-Status and Migratory Birds

The project site is within an industrial part of the City and is developed with a metal warehouse building and paved surface parking. It was determined that there is low potential for two special-status bird species to occur within the project site: the white-tailed kite (fully protected species under the Fish and Game Code) and Swainson's hawk (state threatened) as these species could nest within the coast live oaks located at the west end of the project site and in trees adjacent to the project site. The coast live oaks could also provide potential foraging and nesting habitat for other migratory bird species protected under the Migratory Bird Treaty Act or California Fish and Game Code. The proposed project would remove the nine coast live oak trees on the west end of the project site. Construction activities during the typical nesting season (February 1 through August 31) may cause direct effects (e.g., tree removal and vegetation clearing) and indirect effects (e.g., noise and vibration) to nesting birds, causing adults to abandon active nests and resulting in nest failure and reduced reproductive success. Prior to construction, the proposed project would implement Mitigation Measure BIO-1, which involves conducting pre-construction nesting bird surveys to document all nests on and adjacent to the project site. Protective buffers would be implemented around all documented nests during construction to minimize disturbance to nesting birds. Therefore, impacts on special-status wildlife and nesting migratory birds would be less than significant with implementation of Mitigation Measure BIO-1.



Special-Status Mammals

Due to the extent of continual disturbance associated with the industrial use of the project site and the absence of riparian habitat (foraging habitat), it was determined that there is low potential for one special-status mammal species to occur within the project site, western red bat (species of special concern). However, western red bats roost in the foliage of trees and shrubs, and could roost in the coast live oaks located at the west end of the project site and in trees adjacent to the project site. The proposed project would remove the nine coast live oak trees on the west end of the project site. Therefore, to avoid impacts to roosting western red bats, the proposed project would implement Mitigation Measure BIO-2, which requires a qualified biologist to conduct preconstruction bat surveys to inspect the coast live oaks and adjacent trees for potential bat roosts. If the qualified biologist identifies bat roosts, then a plan for removal and exclusion shall be prepared in conjunction with CDFW. The plan would identify the appropriate protective buffers around all documented roosts to reduce potential impacts. Therefore, impacts on roosting western red bats would be less than significant with implementation of Mitigation Measure BIO-2.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM BIO-1 Avoid Disturbance of Nesting Birds. If project activities occur during the nesting season for native birds (February 1 to August 31), a nesting survey shall be conducted within 15 days of starting construction work or tree removal activities. The nesting survey shall include an examination of the entire project site including existing buildings and all trees onsite and within 200 feet of the project site (e.g., within a zone of influence of nesting birds). The zone of influence includes those areas outside of the project site where earth-moving vibrations and/or other construction-related noise could disturb birds. If birds are identified nesting on or within the zone of influence of the proposed project, a qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance. Typically, adequate nesting buffers are 50 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known to the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified biologist shall prescribe adequate nesting buffers to protect the nesting birds from harm while the proposed project is constructed.

No construction or earth-moving activity shall occur within any established nest protection buffer prior to September 1 unless it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, or that the nesting cycle is otherwise completed. In the region of the project site, most species complete



nesting by mid-July. This date can be significantly earlier or later, and would have to be determined by the qualified biologist. At the end of the nesting cycle and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed, and construction may commence in established nesting buffers without further regard for the nest site.

MM BIO-2 Avoid Disturbance of Roosting Bats. Prior to construction and tree removal activities, a qualified biologist shall conduct preconstruction surveys for roosting bats within 14 days of starting work. Tree removal and construction activities shall be conducted during specific seasonal periods of bat activity: between August 31 and October 15, when bats would be able to fly and feed independently, and between March 1 and April 1 to avoid hibernating bats and prior to the formation of maternity colonies. If the qualified biologist finds evidence of bat presence during the surveys, then a plan for removal and exclusion shall be prepared in conjunction with CDFW.

If construction activities and tree removal must occur outside of the seasonal activity periods (e.g., between October 16 and February 28-29, or between April 2 and August 30), then a qualified biologist shall conduct preconstruction surveys within 14 days of starting work. If roosts are found, a determination shall be made whether there are young. If a maternity site is found, impacts to the maternity site shall be avoided by establishment of a non-disturbance buffer until the young have reached independence. The size of the buffer zone shall be determined by the qualified biologist at the time of the surveys. If the qualified biologist finds evidence of bat presence during the surveys, then a plan for removal and exclusion when there are not dependent young present shall be prepared in conjunction with CDFW.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact BIO-2	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
---------------------	---

Impact Analysis

The project site does not contain riparian habitat or any other sensitive natural communities identified within a local or regional plan, policy, and regulation, or by CDFW. In addition, no aquatic habitats were identified within the project site that could be considered waters of the U.S. or state that would be subject to the U.S. Army Corps of Engineers and/or Regional Water Quality Control Board's (RWQCB) jurisdiction under Sections 404 and 401 of the Clean Water Act, or subject to CDFW's jurisdiction under Section 1600 of the California Fish and Game Code. Therefore, the proposed project would have no impact to riparian or sensitive habitats.

Level of Significance Before Mitigation

No Impact.



Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact BIO-3	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
---------------------	--

Impact Analysis

No aquatic resources or potential wetlands covered under the jurisdiction of the USACE or RWQCB occur within the project site. As such, there would be no impact to state or federally protected wetlands.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact BIO-4	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?
---------------------	--

Impact Analysis

Wildlife corridors are linear and regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project would not interfere with the movement of native wildlife as the site is within an industrial area and has been developed with industrial uses. The project site is also surrounded by a 6-foot chain link fence on the north, east, and west sides, and a solid 10-foot metal fence on the south side of the project site where it abuts the railroad corridor. Therefore, the proposed project would have no impact to wildlife corridors.



Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact BIO-5	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
---------------------	---

Impact Analysis

There are nine coast live oaks located at the west end of the project site, which would be removed as part of the proposed project. The nine coast live oaks all exceed 10 inches diameter and are regarded as “established indigenous trees” per Article 12 of the Antioch Municipal Code. In accordance with Section 9-5.1205 of the Antioch Municipal Code, the applicant would be required to request for tree removal as part of the development application. The development application would be required to include a site plan showing the existing topography, a description of the established trees, and a written statement requesting permission to remove the trees. Approval or denial of the tree removal request would be made as part of the development application and discretionary project review process. The proposed project would also be subject to the City’s replacement ratio, which requires each established tree that is legally removed to be replaced with two 24-inch box trees (Section 9-5.1205[J] of the Antioch Municipal Code). The Antioch Municipal Code also states that any legally removed indigenous trees shall be replaced by boxed specimens at a rate and size to be established by the decision-making body at the time of regular development application approval (City of Antioch 2020a). Adherence to the requirements set forth in Article 12 of the Antioch Municipal Code would ensure that the proposed project would not conflict with the City’s Tree Preservation and Regulation Ordinance.

Additionally, the proposed project would provide approximately 152,452 square feet of landscaping around the site perimeter and within site planters placed throughout the truck and employee parking areas. Landscaping would consist of drought-tolerant trees and shrubbery as required by the City’s Water Efficient Landscape Ordinance (Article 10 of the Antioch Municipal Code). The proposed project would also plant 27 Chinese pistache trees throughout the site. As such, the proposed project would not conflict with any local policies or ordinances protecting biological resources, including the City’s Tree Preservation and Regulation Ordinance. Impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.



Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact BIO-6	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?
---------------------	--

Impact Analysis

In July 2007, the East Contra Costa County Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP) was adopted by Contra Costa County, other member cities, the USFWS, and CDFW (East Contra Costa County Habitat Conservancy 2006). However, the City declined to participate in the HCP/NCCP. The City is currently developing an HCP/NCCP in coordination with the East Contra Costa County Habitat Conservancy, USFWS, and CDFW. The City is designing the HCP/NCCP to be entirely consistent with the approved East Contra Costa County HCP/NCCP, but it has not been finalized or adopted. Therefore, the project site is not located in an area with an approved HCP/NCCP, or local, regional, or state HCP. As such, the proposed project would not conflict with the provisions of such a plan, and no impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.



3.5 CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.5.1 Environmental Setting

The project area is in the delta region on the western edge of the Great Valley Geomorphic Province (USGS 2003). The Great Valley is an alluvial plain with deep layers of sediments that have collected between the mountains of the Coast Ranges to the west and the Sierra Nevada to the east since the Jurassic Period. The Sacramento and San Joaquin River systems drain the northern and southern portions of the Great Valley, respectively (CGS 2002). The project area is historically part of the marshy wetlands along the San Joaquin River.

The Antioch General Plan EIR (City of Antioch 2003b), indicates that the City is home to a variety of historic-period cultural resources, ranging from landmark commercial buildings to Victorian, Craftsman, and Modern-style homes and to churches, schools, and civic buildings. There are 20 historical archaeological sites recorded within the City. Additionally, 56 of Antioch's historic-era buildings, and 4 monuments, are listed on national, state, and local registers of historic properties and landmarks (City of Antioch 2003b).

3.5.2 Methodology

To determine the presence or absence of cultural resources within the project site and vicinity, Stantec prepared a Cultural Resources Inventory Report on October 1, 2020. The cultural resources report includes the results of a records search performed at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS), literature review, Native American outreach, buried site sensitivity analysis, and a pedestrian field survey of all locations of anticipated ground disturbance for construction, staging, and access. The cultural resources inventory was conducted to satisfy the requirements of CEQA and follows the CEQA Guidelines. The Cultural Resources Inventory Report is provided in Appendix C.

Records Search and Literature Review

A records search (NWIC file no. 20-0515) was completed at the NWIC of the CHRIS, located in Rohnert Park, California on September 17, 2020. As an affiliate of the State of California Office



of Historic Preservation, the NWIC is the official state repository of cultural resource records and reports for the region that includes Contra Costa County. The search included the entire project site as well as a 0.25-mile buffer around the project site (referred to as project area throughout this section). The following inventories were reviewed:

- Directory of Properties in the Historic Property Data File (California Office of Historic Preservation)
- National Register of Historic Places (NRHP)
- California Inventory of Historic Resources (California Department of Parks and Recreation).
- California Historical Landmarks (California Office of Historic Preservation).
- California Points of Historical Interest.
- All available historic maps, including historic topographic maps and Bureau of Land Management General Land Office maps.

In addition, Stantec contacted the California Native American Heritage Commission (NAHC) on September 17, 2020, to request a search of the Sacred Lands File and a list of Native American contacts that might have knowledge of tribal cultural resources within the project area. The request included a description of the proposed project as well as a location map. The NAHC responded on September 18, 2020, stating that the results of the Sacred Lands File search were negative. The NAHC also provided a list of 13 Native American individuals and organizations for further consultation. Stantec sent certified letters to each of the Native American contacts on October 2, 2020. Follow-up phone calls were made to each of the contacts on October 22, 2020. At that time, Chairperson Zwierlein of the Amah Mutsun Tribal Band of Mission San Juan Bautista stated that she is not aware of any known tribal cultural resources at the project location, but recommended that construction personnel be given cultural sensitivity training prior to the commencement of project activities and that an archaeologist assess any potential resources identified during construction.

On November 2, 2020, Stantec emailed a project description and invitation to consult to all remaining Native American individuals and organizations on the NAHC contact list. No additional responses were received (Appendix C).

Records Search Results

Four studies have been conducted within the project site. Thirteen additional studies have been conducted within the 0.25-mile buffer. No previously recorded cultural resources were identified within the project site; however, four resources were identified within 0.25 mile. All previously recorded resources identified during the records search are historic-period resources located outside of the project area and would not likely be impacted by project activities.

Field Survey

Stantec conducted a pedestrian survey of the project area on September 25, 2020, to identify historic and prehistoric sites and artifacts. The project site consists of a partially improved lot



that has been modified by the construction of existing structures, grading, and the construction of adjacent roads and railroad lines. A railroad spur associated with historic-period Atchison, Topeka, and Santa Fe Line (P-07-000806/CA-CCO-732H) was identified on the property. The railroad has been previously evaluated and found not eligible for listing on the NRHP or the California Register of Historical Resources (CRHR). The spur is therefore not considered a resource for the purposes of CEQA and requires no further management consideration. No additional historic properties or historic-period or prehistoric archaeological sites were observed during the field survey. No indicators of intact buried cultural deposits were identified. More information about the survey can be found in Appendix C.

Buried Site Sensitivity

Soils within or immediately adjacent to the project area consist of unidentified alluvium dating from the late Pleistocene to the late historic period (Strand and Koenig 1965; Meyer and Rosenthal 2007). Deposits are primarily Delhi sands, which are excessively drained eolian deposits derived from igneous and sedimentary rock. Delhi sands are found on alluvial fans, floodplains, and terraces and have two to nine percent slopes (NRCS 2020). The nearest water source is located approximately 1,500 feet north of the project site (USGS 2020). No permanent fresh water sources are located within the project site. While this type of landform is sensitive for cultural resources, the high levels of previous disturbance and lack of perennial freshwater within the project site suggest a low to moderate sensitivity for buried cultural resources (Meyer and Rosenthal 2007).

3.5.3 Environmental Impact Analysis

This section discusses potential impacts on cultural resources associated with the proposed project and provides mitigation measures where necessary.

Impact CUL-1	Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?
---------------------	--

Impact Analysis

The project site consists of a partially improved lot that has been modified by the construction of existing structures, grading, and the construction of adjacent roads and railroad lines. A railroad spur associated with the historic-period Atchison, Topeka, and Santa Fe Line (P-07-000806/CA-CCO-732H) was identified on the property. The railroad has been previously evaluated and was found not eligible for listing on the NRHP or the CRHR. The spur is therefore not considered a resource for the purposes of CEQA and requires no further management consideration. No additional historic properties were identified within or near the project site. Additionally, the existing onsite warehouse building was constructed in 2010 and does not require further evaluation. Therefore, the proposed project would have no impact on any known or potential historical resources.

Level of Significance Before Mitigation

No Impact.



Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact CUL-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Impact Analysis

The archival research and the NWIC records search performed as part of the cultural resources analysis indicated that there are no known resources within the project area. Furthermore, it is unlikely that buried archaeological resources are present as the project site has been developed and modified by the construction of existing structures, grading, and the construction of adjacent roads and railroad lines. However, subsurface construction activities such as trenching and grading associated with the proposed project could potentially damage or destroy previously undiscovered cultural resources. In the event undiscovered archeological resources are encountered during construction, the proposed project would implement Mitigation Measure CUL-1. The implementation of Mitigation Measure CUL-1 would require adherence to standard inadvertent discovery procedures and reduce potential impacts to previously undiscovered subsurface archeological resources. Additionally, the proposed project would implement Mitigation Measure CUL-2 to ensure that construction personnel would be aware of the procedures to follow in the event that potential cultural resources are identified. Therefore, with the implementation of Mitigation Measure CUL-1 and Mitigation Measure CUL-2, potential impacts on archeological resources would be reduced to a less than significant level.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM CUL-1 Cultural Materials Discovered During Construction. If any cultural resource is encountered during ground disturbance or subsurface construction activities (e.g., trenching, grading), all construction activities within a 50-foot radius of the identified potential historical resource shall cease until an archaeologist who meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology and/or history evaluates the resource for its potential significance and determines whether the resource requires further study. If the qualified archaeologist determines that the cultural resource does not appear to be eligible for inclusion on the CRHR, it will be appropriately documented on Department of Parks and Recreation (DPR) 523 series forms and project activity may resume. If the qualified archaeologist determines that the cultural resource appears eligible for inclusion on the CRHR, the archaeologist shall make recommendations to the City of Antioch on the measures to be implemented to protect the discovered resources. The measures may include avoidance, preservation in place, data recovery excavation, or other appropriate measures outlined in PRC Section 21083.2. Any previously undiscovered resources found during construction within the project area should be recorded



on appropriate DPR forms and evaluated for significance in terms of CEQA criteria. The applicant shall be responsible for the costs of retaining a qualified archaeologist and the recording of resources on DPR forms.

No further grading shall occur within a 50-foot radius of the discovery until the City of Antioch approves the measures to protect these resources. Any archaeological artifacts recovered because of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

MM CUL-2 Worker Awareness Training. Prior to the start of any ground disturbance, all field personnel shall receive worker's environmental awareness training on cultural resources. The training, which may be conducted with other environmental or safety trainings, will provide a description of cultural resources that may be encountered during construction and outline the steps to follow in the event that a discovery is made.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact CUL-3	Disturb any human remains, including those interred outside of formal cemeteries?
---------------------	--

Impact Analysis

There are no known human remains within the project site and no indications that it has been used for burial purposes in the past. Therefore, it is unlikely that human remains would be encountered during construction. However, ground disturbance and subsurface construction activities such as trenching and grading associated with the proposed project could potentially disturb previously undiscovered human burial sites. Therefore, Mitigation Measure CUL-3 would be implemented to reduce impacts to a less than significant level by ensuring compliance with Section 7050.5 of the California Health and Safety Code and PRC 5097.98.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM CUL-3 Human Remains Discovered During Construction. If ground-disturbing activities uncover previously unknown human remains, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

There shall be no further excavation or disturbance of the area where the human remains were found or within 50 feet of the find until the Contra Costa County Coroner and the appropriate City representative are contacted. Duly authorized representatives of the Coroner and the City shall be permitted onto the project site and shall take all actions consistent with Health and Safety Code Section



7050.5 and Government Code Sections 27460, et seq. Excavation or disturbance of the area where the human remains were found or within 50 feet of the find shall not be permitted to re-commence until the Coroner determines that the remains are not subject to the provisions of law concerning investigation of the circumstances, manner, and cause of any death. If the Coroner determines that the remains are Native American, the Coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of the human remains and any associated grave goods with appropriate dignity, as provided in PRC Section 5097.98. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the MLD’s recommendations, the owner or the MLD may request mediation by NAHC.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.



3.6 ENERGY

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.6.1 Environmental Setting

PG&E provides electricity and natural gas service to the City of Antioch. The City is located within PG&E's Delta Distribution Planning Area (DPA), which covers the eastern portion of Contra Costa County from Bay Point to Discovery Bay. Electricity distribution facilities are located throughout the Delta Distribution Planning Area, with no one set of facilities dedicated to serving the City.

Upon buildout of the project site, electricity to the project site would be provided by PG&E. All electricity infrastructure would be located underground and would tie-in to existing infrastructure.

In February 2018, PG&E announced that it had reached California's 2020 renewable energy goal 3 years ahead of schedule, and now delivers nearly 80 percent of its electricity from GHG free resources. Approximately 54 percent of PG&E's electricity came from renewable resources including solar, wind, geothermal, biomass and small hydroelectric sources in 2019 (PG&E 2020).

3.6.2 Methodology

The energy requirements for the proposed project were determined using the construction and operational estimates generated from the Air Quality Analysis and calculated in the Energy Consumption Summary completed for the proposed project (refer to Appendix B). Short-term construction and long-term energy consumption are discussed below.

3.6.3 Environmental Impact Analysis

This section discusses potential energy impacts associated with the proposed project and provides mitigation measures where necessary.



Impact EN-1	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
--------------------	---

Impact Analysis

This impact addresses the energy consumption from both the short-term construction and long-term operations and are discussed separately below.

Short-Term Construction

Off-Road Equipment

The proposed project is anticipated to be constructed in three phases, with the first phase breaking ground as early as June 2021, and all phases estimated to be completed by October 2026. Table 3.6-1 provides estimates of the proposed project's construction fuel consumption from off-road construction equipment.

Table 3.6-1: Construction Off-Road Fuel Consumption

Phase	Construction Activity	Fuel Consumption (gallons)
Phase 1	Site Preparation	703.39
	Grading	3,563.1
	Paving	375.87
Phase 2	Site Preparation	18.46
	Grading	60.18
	Building Construction	1,941.07
	Paving	105.15
	Architectural Coating	31.02
Phase 3	Site Preparation	18.46
	Grading	60.18
	Building Construction	1,941.07
	Paving	105.15
	Architectural Coating	31.02
Total Construction Fuel Consumption		8,954.1

Source: Appendix B

As shown in Table 3.6-1, construction activities associated with the proposed project would be estimated to consume 8,954.1 gallons of diesel fuel. There are no unusual characteristics to the proposed project that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the state. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Furthermore, proposed idling restrictions adopted to reduce potential air quality impacts would have the co-benefit of reducing fuel consumption. A conservative estimate would assume a 5



percent reduction in fuel use through idling restrictions. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of fuel.

On-Road Vehicles

On-road vehicles for construction workers, vendors, and haulers would require fuel for travel to and from the site during construction. Table 3.6-2 provides an estimate of the total on-road vehicle fuel usage during construction.

Table 3.6-2: Construction On-Road Fuel Consumption

Project Phase	Total Annual Fuel Consumption (gallons)
Phase 1	941.5
Phase 2	1,812.9
Phase 3	2,345.4
Total Construction On-Road Fuel Consumption	5,099.8

Source: Appendix B

There are no unusual characteristics of the proposed project that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the state. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Other Construction Energy Consumption

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. As onsite construction activities would be restricted to permissible construction hours, it is anticipated that the use of construction lighting would be minimal. Single-wide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 to 720 square feet. Table 3.6-3 shows the energy consumption estimated for a typical 720-square-foot mobile office trailer during construction.

Table 3.6-3: Construction Trailer

Project Phase	Kilowatt hours per year (kWh/yr)
Phase 1	1,241
Phase 2	2,717
Phase 3	2,717
Total	6,674

Notes:

kWh/yr = kilowatt hours per year

Source: Appendix B



There are no unusual characteristics of the proposed project that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the state. Therefore, it is expected that construction energy consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Summary

As shown in Tables 3.6-1 through 3.6-3, construction of the proposed project would not result in substantial consumption of energy or fuel in a manner that would be considered wasteful, inefficient, or unnecessary. All construction activities would be required to comply with applicable state and federal laws pertaining to energy efficiency during construction, including limiting idling times for construction equipment and vehicles. Therefore, the impact would be less than significant.

Long-Term Operations

Transportation Energy Demand

Table 3.6-4 provides an estimate of the daily and annual fuel consumed by vehicles traveling to and from the proposed project. These estimates were derived using the same assumptions used in the operational air quality analysis for the proposed project.

Table 3.6-4: Long-Term Operational Vehicle Fuel Consumption

Project Component	Annual VMT	Average Fuel Economy (miles/gallon)	Total Annual Fuel Consumption (gallons)
Employee Vehicles	389,822	26.58	14,666
Trucks	1,654,900	5.85	282,737
Visitors/Deliveries	117,615	25.50	4,613
Total			302,016

Notes:

VMT = vehicle miles traveled

Source: Appendix B

As shown above, annual consumption is estimated at 302,016 gallons. In terms of land use planning decisions, the proposed project would constitute industrial development within an established industrial area and would not be opening up a new geographical area for development such that it would draw mostly new trips, or substantially lengthen existing trips. The proposed project would be well positioned to accommodate existing population and reduce VMT. For these reasons, it would be expected that vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use activities in the region.



Building Energy Demand

The proposed project is estimated to demand 404,358 kilowatt hours of electricity and 1,045,050 kilo-British Thermal Units of natural gas, respectively, on an annual basis (Appendix B). This would represent an increase in demand for electricity and natural gas.

It would be expected that building energy consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar buildings in the region. Current state regulatory requirements for new building construction contained in the California Green Building Standards Code (CALGreen) and Title 24 would increase energy efficiency and reduce energy demand in comparison to existing commercial structures, and therefore would reduce actual environmental effects associated with energy use from the proposed project. Additionally, the CALGreen and Title 24 standards have increased efficiency standards through each update. Therefore, while the proposed project would result in increased electricity and natural gas demand, the electricity and natural gas would be consumed more efficiently and would be typical of business park development.

Based on the above information, the proposed project would not result in the inefficient or wasteful consumption of electricity or natural gas.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact EN-2	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
--------------------	---

Impact Analysis

The City's General Plan includes Energy Objectives 10.8.1 and 10.8.2 to reduce the reliance on nonrenewable energy sources in existing and new commercial, industrial, and public structures through implementation of energy resource policies to encourage the use of renewable energy and decrease energy demand. The City's Climate Action Plan (CAP) also includes strategies focused on green building, renewable energy, transportation, land use, education, and waste management.

The proposed project would not conflict with the energy objectives of the General Plan nor the strategies in its CAP. The proposed project would constitute industrial development within an established industrial area within the City and would not be opening up a new geographical area for development such that it would draw mostly new trips or substantially lengthen existing trips. The proposed project would be well positioned to accommodate existing population and reduce VMT. The proposed project would not impede the City's bicycle and pedestrian network.



The proposed project would comply with the versions of CCR Titles 20 and 24, including CALGreen, that are applicable at the time that building permits are issued and with all applicable City measures.

For the above reasons, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



3.7 GEOLOGY AND SOILS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.7.1 Environmental Setting

Geology and Seismicity

The following information is based on the findings of the Geotechnical Investigation prepared for the proposed project by Stevens Ferrone & Bailey Engineering Company, Inc, on January 21, 2020 (Appendix D). The information focuses on the existing topography of the project site, the underlying bedrock and site seismicity, and the general conditions of the onsite soils.



According to the Geotechnical Investigation, the surface soils at the project site have been mapped as Delhi sand (2 to 9 percent slopes) by the U.S. Department of Agriculture Web Soil Survey. These soils are classified as having a high infiltration rate (low runoff potential) when thoroughly wet and may consist of deep, well-drained to excessively drained sands or gravelly sands. Based on the results of the soil borings, the project site is underlain with sandy, gravelly, and clayey fill materials from about 6 inches to 5.5 feet below ground surface (bgs). Outside of the fill material areas, the borings encountered surficial loose to medium dense sands. These surficial fills and soils are heterogenous and have variable compression and expansion characteristics. Underlying these surficial fills and soils, the borings primarily encountered fine- to medium-grained sands with interbeds of silts and clays to the maximum depth explored of about 50 feet (Appendix D). Additionally, groundwater was encountered at approximately 20 to 25 feet bgs at the project site (Appendix D).

The project site is located in the San Francisco Bay Area, which is considered a seismically active region. Major earthquakes have occurred near the City in the past and can be expected to occur in the future (City of Antioch 2003b). The Alquist-Priolo Special Studies Zone Act of December 1972 (AP Zone Act) regulates development near active faults to mitigate the hazard of surface fault rupture. The AP Zone Act requires that the State Geologist (Chief of the California Department of Mines and Geology) delineate “special study zones” along known active faults in California. Cities and counties affected by these zones must regulate certain development projects within these zones. The AP Zone Act prohibits the development of structures for human occupancy across the faults displaced during the last 11,000 years. “Potentially” active faults are those that show evidence of surface displacement during the last 1.6 million years. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity is sometimes difficult to obtain and may not exist locally.

The project site is not located within an Alquist-Priolo Earthquake Fault Zone (Appendix D). The nearest faults to the project site that are zoned under the AP Zone Act include the Concord-Green Valley Fault located approximately 15 miles to the west and the Marsh Creek-Greenville fault located approximately 12 miles to the southwest (CGS 2020). Additionally, the San Andreas Fault is located approximately 45 miles west of the City. The intensity of ground shaking that would occur in Antioch because of an earthquake depends on the size, distance, and response of the geologic materials in the area (City of Antioch 2003b). Strong ground shaking that occurs during earthquakes can induce other geologic hazards such as liquefaction, landslides, subsidence, lateral spreading, or collapse. As discussed in the Geotechnical Investigation, the project site is mapped within a seismic hazard zone for liquefaction (Appendix D). The project site and surrounding area are relatively level to gently sloping and are not located near a slope that would result in a landslide hazard.

Paleontological Resources

According to the City’s General Plan EIR, numerous fossils have been collected from within the City. A fossil locality search at the Cultural Access Services identified marine fossils collected from almost all the sedimentary formations located in Antioch. Literature review also indicated that all the formations north of Mt. Diablo contain fossils. There are at least eight fossil localities within and immediately adjacent to the City’s Planning Area and another five are within a 1-mile



radius of the City's Planning Area. Fossils in the City's Planning Area identified by the California Museum of Paleontology, UC Berkeley include mammoths, primitive horses, bison, rats, beaver-type creatures, and sloths (City of Antioch 2003b).

A search of the University of California Museum of Paleontology database for mammal fossils did not identify any paleontological resources within the project site (UCMP 2020). The closest vertebrate fossil sites to the project site include an assemblage located approximately 10.2 miles to the southwest in Concord, within Eocene marine rocks (Paleocene to Oligocene) formation, and an assemblage approximately 11.5 miles to the west in Bay Point, within Eocene marine rocks (Paleocene to Oligocene) Formation (UCMP 2020).

3.7.2 Methodology

A Geotechnical Investigation was prepared for the project site by Stevens Ferrone & Bailey Engineering Company, Inc. on January 21, 2020. The results of the geotechnical investigation were reviewed to determine potential geology and soils impacts associated with the proposed project and are summarized herein. The Geotechnical Investigation is provided in Appendix D.

3.7.3 Environmental Impact Analysis

This section discusses potential impacts on geology and soils associated with the proposed project and provides mitigation measures where necessary.

Impact GEO-1	<p>Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving:</p> <ul style="list-style-type: none"> 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?
---------------------	--

Impact Analysis

i. Fault Rupture

Ground rupture is the visible breaking and displacement of the earth's surface along the trace of a fault during an earthquake. The project site is not located in a designated Alquist-Priolo earthquake fault zone, and there are no potentially active faults mapped within the project site. The nearest Alquist-Priolo Earthquake Fault Zones are the Concord-Green Valley Fault located 15 miles west of the project site and the Marsh Creek-Greenville Fault located approximately 12 miles southwest of the project site (CGS 2020). Due to the lack of Alquist-Priolo fault zones in the project site, the potential for damage to structures at the project site due to rupture of a known earthquake fault is very low, and the impact would be less than significant.



ii. Ground Shaking

The project site is in a seismically active region and earthquake-related ground shaking is expected to occur during the design life of the proposed project. The proposed project would be constructed in conformance with the latest edition of the California Building Code, which includes engineering standards appropriate to withstand anticipated ground accelerations at the project site. Conformance with the earthquake design parameters of the California Building Code would be subject to review by the City's Building Division. Additionally, the proposed project would be subject to General Plan Policies 11.3.2-a and 11.3.2-k, which require new developments to prepare site-specific soil reports and incorporate the recommendations and findings of these reports into the project development plans (City of Antioch 2003a). The recommendations and findings identified in the Geotechnical Investigation would be incorporated into the proposed project as part of Mitigation Measure GEO-1. Therefore, impacts related to ground shaking at the project site would be less than significant with implementation of Mitigation Measure GEO-1.

iii. Liquefaction

According to the Geotechnical Investigation, the project site is mapped within a seismic hazard zone for liquefaction (Appendix D). Based on liquefaction analyses, the Geotechnical Investigation determined that the more cohesionless saturated soil layers (layers located below the highest measured groundwater level of 20 feet bgs) have a moderate to high potential for liquefying when subjected to a Maximum Considered Earthquake event (Appendix D). Therefore, to reduce liquefaction effects on buildings, the Geotechnical Investigation recommends that building foundations consist of post-tensioned slabs or thickened mat slabs capable of resisting the differential ground surface settlements. The proposed project would be required to implement the recommendations of the Geotechnical Investigation into the project design and development plans as required by Mitigation Measure GEO-1. Additionally, the proposed project would be required to conform to the latest edition of the California Building Code, which contains seismic building criteria and standards that are designed to reduce liquefaction risks to acceptable levels. As such, compliance with the California Building Code and implementation of Mitigation Measure GEO-1 would reduce impacts related to liquefaction to a less than significant level.

iv. Landslides

The project site and the surrounding area are relatively level to gently sloping and not located near a slope that would result in a landslide hazard. Therefore, the potential for a seismically induced landslide to occur at the project site is very low. No impact would occur.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM GEO-1 Implement Geotechnical Report Design Measures. Prior to issuance of grading permits, the applicant shall incorporate all design specifications and recommendations contained within the Geotechnical Investigation, dated January 21, 2020, into relevant project plans and construction. These specifications and recommendations pertain to but are not limited to the project's earthwork



activities, foundation support, and pavement design. The project site plans shall be prepared by a civil and structural engineer and submitted to the City for review during the building permit process.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact GEO-2 Result in substantial soil erosion or the loss of topsoil?

Impact Analysis

The project site has already experienced substantial soil compaction as it is developed with a warehouse building, rail spur, and surface parking. Project construction activities would occur in three phases and involve site clearing, grading, utility connections, building construction, frontage improvements, and landscaping on the site. The proposed project would disturb approximately 10.28 acres and require approximately 14,285 cubic yards of cut and approximately 11,385 cubic yards of fill. Earth movement activities could expose unprotected soils to stormwater runoff causing erosion and loss of topsoil. However, compliance with existing regulatory requirements, such as the grading erosion control measures specified in the California Building Code and General Plan Policy 10.6.2-f, which requires implementation of BMPs, would reduce impacts from erosion and the loss of topsoil.

In addition, the proposed project would disturb more than 1 acre and be required to comply with the National Pollutant Discharge Elimination System (NPDES) permitting program and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would identify BMPs to control the discharge of sediment and other pollutants during construction. As discussed in Section 3.10, Hydrology and Water Quality, the proposed project would implement a SWPPP and associated BMPs as part of Mitigation Measure HYD-1 to reduce potential erosion impacts. Therefore, the proposed project would not result in substantial soil erosion or loss of topsoil, and impacts would be less than significant with implementation of Mitigation Measure HYD-1.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure HYD-1 is required. Refer to Section 3.10, Hydrology and Water Quality, for complete details pertaining to this mitigation measure.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact GEO-3 Be located on strata 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?

Impact Analysis

According to the Geotechnical Investigation, the project site is underlain with sandy, gravelly, and clayey fill materials from about 6 inches to 5.5 feet bgs. Outside of the fill material areas, the surficial soils consist of loose to medium dense sands. These surficial fills and soils are



heterogenous and have variable compression and expansion characteristics. Underlying the surficial fills and soils, the project site contains fine- to medium-grained sands with interbeds of silts and clays to the maximum depth explored of about 50 feet (Appendix D). As discussed in the Geotechnical Investigation, soils below the groundwater level of 20 feet could be subject to moderate to high liquefaction. During construction, excavations are estimated to reach a maximum of 5 feet bgs and are not expected to encounter groundwater that would require dewatering. Additionally, the project site and surrounding area are relatively level to gently sloping and are not located near a slope that would result in a landslide hazard. The proposed project would comply with the latest edition of the California Building Code and implement the recommendations identified in the Geotechnical Investigation as required by Mitigation Measure GEO-1 to ensure the stability of foundations and reduce the potential for differential settlement. Therefore, impacts related to unstable soils would be less than significant with Mitigation Measure GEO-1 incorporated.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure GEO-1 is required.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact GEO-4 Be located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code, creating substantial risks to life or property?

Impact Analysis

The project site consists of sandy, gravelly, and clayey fill materials, and loose to medium dense sands that have variable compression and expansion characteristics (Appendix D). To ensure that the proposed structures are placed on stable soils, the proposed project would comply with the latest edition of the California Building Code and incorporate the recommendations of the Geotechnical Investigation as required by Mitigation Measure GEO-1. Specifically, the Geotechnical Investigation recommends over-excavating the existing site grades to depths of about 2 feet, scarifying and recompacting the bottom 12 inches in-place, and replacing the excavation with compacted fill materials. Where fills are deeper than 3 feet in thickness, the Geotechnical Investigation recommends the entire thickness of fill be removed and recompacted. Over-excavations should be performed so that no more than 5 feet of differential fill thickness would occur below proposed building foundations (Appendix D). Therefore, the proposed project would not be located on expansive soils once constructed, and impacts related to expansive soils would be less than significant with Mitigation Measure GEO-1 incorporated.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure GEO-1 is required.



Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact GEO-5	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
---------------------	--

Impact Analysis

The project site is currently served by an onsite septic system. The project proposes to disconnect and remove the existing septic system in accordance with the Contra Costa Health Services requirements. The proposed project would connect to the City's public sewer system and construct a 4-inch sanitary sewer line at the existing warehouse building and at the proposed truck maintenance facility, which would connect to an 8-inch lateral and ultimately to the 15-inch sanitary sewer line within Wilbur Avenue. All sewer distribution improvements would be constructed and designed in accordance with the current version of the City's Construction Details. Therefore, the proposed project would not rely on the use of septic tanks or alternative wastewater disposal systems, and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact GEO-6	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
---------------------	---

Impact Analysis

The project site is in an industrial part of the City and is developed with a warehouse building, rail spur, and surface parking. The University of California Museum of Paleontology online database does not identify any known paleontological resources in the City or on the project site (UCMP 2020). Additionally, the City's General Plan does not identify the presence of any unique geologic features within the City's planning area (City of Antioch 2003b). It is unlikely that paleontological or unique geologic resources would be encountered during construction. However, the proposed project would include some ground disturbance during construction, such as grading and excavation of up to 5 feet, which could directly or indirectly destroy an unknown unique paleontological or unique geologic feature. If unknown unique paleontological resources are discovered onsite during construction, all activities would be stopped within a 50-foot radius of the identified resource until a qualified paleontologist evaluates the finding as required by Mitigation Measure GEO-2. Therefore, impacts to paleontological or unique geologic features would be less than significant with implementation of Mitigation Measure GEO-2.

Level of Significance Before Mitigation

Potentially Significant Impact.



Mitigation Measures

MM GEO-2 Procedures for Paleontological Resources Discovered During Construction. If any paleontological resources are encountered during ground-disturbing or subsurface construction activities (e.g., trenching, grading), all construction activities within a 50-foot radius of the identified resource shall cease, and the City shall immediately be notified. The applicant shall retain a qualified paleontologist (as approved by the City) to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resource. The appropriate treatment of an inadvertently discovered paleontological resource shall be implemented to ensure that impacts to the resource are avoided.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.



3.8 GREENHOUSE GASES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.8.1 Environmental Setting

Greenhouse Gases

GHGs and climate change are cumulative global issues. CARB and USEPA regulate GHG emissions within the State of California and the United States, respectively. While CARB has the primary regulatory responsibility within California for GHG emissions, local agencies can also adopt policies for GHG emission reduction.

Many chemical compounds in the Earth's atmosphere act as GHGs, as they absorb and emit radiation within the thermal infrared range. When radiation from the sun reaches the Earth's surface, some of it is reflected back into the atmosphere as infrared radiation (heat). GHGs absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy from the sun to the Earth's surface should be approximately equal to the amount of energy radiated back into space, leaving the temperature of the Earth's surface roughly constant. Many gases exhibit these "greenhouse" properties. Some of them occur in nature (water vapor, carbon dioxide [CO₂], methane [CH₄], and nitrous oxide), while others are exclusively human-made (like gases used for aerosols).

The principal climate change gases resulting from human activity that enter and accumulate in the atmosphere are listed below:

Carbon Dioxide

CO₂ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). CO₂ is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

Methane

CH₄ is emitted during the production and transport of coal, natural gas, and oil. CH₄ emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.



Nitrous Oxide

Nitrous oxide is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

Fluorinated Gases

Hydrofluorocarbons, perfluorinated chemicals, and sulfur hexafluoride are synthetic, powerful climate-change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate-change gases, they are sometimes referred to as high global warming potential gases.

Emissions Inventories and Trends

California uses the annual statewide GHG emission inventory to track progress toward meeting statewide GHG targets. In 2018, emissions from routine GHG emitting activities statewide were 425 million metric tons of carbon dioxide equivalent (MMTCO_{2e}), 0.8 MMTCO_{2e} higher than 2017 levels. This puts total emissions 6 MMTCO_{2e} below the 2020 target of 431 million metric tons (CARB 2020). California statewide GHG emissions dropped below the 2020 GHG limit in 2016 and have remained below the 2020 GHG limit since then.

Potential Environmental Impacts

For California, climate change in the form of warming has the potential to incur or exacerbate environmental impacts, including but not limited to changes to precipitation and runoff patterns, increased agricultural demand for water, inundation of low-lying coastal areas by sea-level rise, and increased incidents and severity of wildfire events. Cooling of the climate may have the opposite effects. Although certain environmental effects are widely accepted to be a potential hazard to certain locations, such as rising sea level for low-lying coastal areas, it is currently infeasible to predict all environmental effects of climate change on any one location.

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

Regulatory Requirements

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this legislation establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. The governor has also issued several executive orders related to the state's evolving climate change policy. Of particular importance are AB 32 and Senate Bill (SB) 32, which outline the state's GHG



reduction goals of achieving 1990 emissions levels by 2020 and a 40 percent reduction below 1990 emissions levels by 2030.

In the absence of federal regulations, control of GHGs is generally regulated at the state level and is typically approached by setting emission reduction targets for existing sources of GHGs, setting policies to promote renewable energy and increase energy efficiency, and developing statewide action plans.

In 2009, the City of Antioch approved Resolution 2009/57 adopting GHG reduction targets to reduce overall City-wide carbon emissions by 25 percent of the 1990 levels by 2020 and 80 percent by 2050. The reduction targets adopted by the City are consistent with the statewide GHG reduction targets established by AB 32. On May 24, 2011, the City Council approved the Community and Municipal Climate Action Plans. The plan included potential programs and actions the City could implement to reach the reduction targets established by Resolution 2009/57. The City's plans include city-wide goals and strategies, but not a project-specific threshold for determining the significance of GHG emissions.

3.8.2 Methodology

BAAQMD provides multiple options for project-level GHG thresholds in its 2017 CEQA Guidelines. BAAQMD does not presently provide a construction-related GHG generation threshold but recommends that construction-generated GHGs be quantified and disclosed. BAAQMD also recommends that lead agencies (in this case, the City of Antioch) make a determination of the level of significance of construction-generated GHG emissions in relation to meeting AB 32 GHG reduction goals. The lead agency is also encouraged to incorporate BMPs to reduce GHG emissions during project construction, as feasible and applicable.

The proposed project is located within the BAAQMD; therefore, BAAQMD thresholds are the most appropriate to use for the proposed project. The thresholds suggested by BAAQMD for project-level operational GHG generation are as follows:

- Compliance with a qualified GHG Reduction Strategy, or
- 1,100 metric tons of carbon dioxide equivalent (MTCO₂e) per year, or
- 4.6 MTCO₂e per service population (employees plus residents).

BAAQMD's CEQA Guidelines state that if annual emissions of GHG exceed the thresholds, the project would result in a cumulatively considerable significant impact to global climate change. Therefore, if the project is less than any one of the thresholds identified above, then the project would result in a less than significant cumulative impact to global climate change. Notably, the thresholds provided above reflect compliance with AB 32 and the 2020 GHG reduction targets for the State of California. BAAQMD is in the process of developing GHG thresholds to address post-2020 timeframes associated with SB 32 for the year 2030. In the absence of developed thresholds, a common practice has been to apply the 40 percent reduction of the 2020 threshold to reflect the 2030 target reductions as follows:

- 660 MTCO₂e /year, or
- 2.76 MTCO₂e per service population



According to the BAAQMD CEQA Guidelines, the efficiency threshold is appropriate for mixed-use projects that include both residential and nonresidential land uses. Therefore, the efficiency threshold is not appropriate for the proposed project because there are no residents. As such, if the project exceeds 660 MTCO₂e it would be considered to have a significant impact.

The project’s GHG emissions were quantified using CalEEMod version 2016.3.2 with the same assumptions used for the air quality analysis (see Appendix B). The analysis in this section is based, in part, on the findings of the CalEEMod analysis. The modeling data is provided in its entirety in Appendix B.

3.8.3 Environmental Impact Analysis

This section discusses potential impacts concerning GHGs associated with the proposed project and provides mitigation measures where necessary.

Impact GHG-1	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
--------------	---

Impact Analysis

Constructions Emission Inventory

The proposed project would emit GHG emissions during construction from the off-road equipment, worker vehicles, and any hauling that may occur. As previously indicated, BAAQMD does not presently provide a construction-related GHG generation threshold but recommends that construction-generated GHG be quantified and disclosed. Because impacts from construction activities occur over a relatively short-term period, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, a standard practice is to amortize construction emissions over the anticipated lifetime of a project, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. Construction emissions would be generated from the exhaust of equipment, the exhaust of construction hauling trips, and worker commuter trips. The construction phases include, site preparation, site grading, paving, building construction, and architectural coating. MTCO₂e emissions during construction of the project are shown in Table 3.8-1.



Table 3.8-1: Construction Greenhouse Gas Emissions

Construction Year	MTCO ₂ e
Phase 1	100
Phase 2	81
Phase 3	85
Total Construction Emissions	266
Construction Emissions Amortized Over 30 Years	9

Notes:

MTCO₂e = metric tons of carbon dioxide equivalent

Source: Appendix B

As shown in Table 3.8-1, the proposed project's estimated maximum yearly construction emissions would be 266 MTCO₂e. Commercial projects are typically amortized over a 30- to 40-year lifespan. To provide a conservative estimate, the 30-year period was used. The amortized construction emissions are expected to be 9 MTCO₂e per year.

Operational Emission Inventory

Long-term operational GHG emissions would result from proposed-project-generated vehicular/truck traffic, onsite combustion of natural gas, offsite generation of electrical power over the life of the proposed project, the energy required to convey water to and wastewater from the project site, and the emissions associated with the hauling and disposal of solid waste from the project site.

Operational GHG emissions by source and operational year are shown in Table 3.8-2. The net total project emissions are estimated to be 433 MTCO₂e per year in 2021, 398 MTCO₂e per year in 2026, 359 MTCO₂e per year in 2030. All buildout scenarios would be below the applicable thresholds of significance. Therefore, the proposed project would have a less than significant GHG impact during operations.

Table 3.8-2: Unmitigated Project Operational GHG Emissions (Full Buildout Scenarios)

Emissions Source	Year 2021 Total MTCO ₂ e/year	Year 2026 Total MTCO ₂ e/year	Year 2030 Total MTCO ₂ e/year
Area	0	0	0
Energy Consumption	110	110	90
Mobile – Employee Vehicles	125	102	89
Mobile – Trucks	2,862	2,665	2,612
Mobile – Visitors/Deliveries	46	39	36
Waste	53	53	53
Water Usage	5	5	4
Amortized Construction Emissions	9	9	9



Emissions Source	Year 2021 Total MTCO ₂ e/year	Year 2026 Total MTCO ₂ e/year	Year 2030 Total MTCO ₂ e/year
Total Annual Project Emissions	3,210	2,983	2,893
Existing Emissions (Emissions from Relocated Trucks)	2,777	2,585	2,534
Net Project Annual Emissions	433	398	359
Applicable Thresholds of Significance (MTCO ₂ e/year)	660	660	660
Exceeds Significance Threshold?	No	No	No

Notes:

MTCO₂e = metric tons of carbon dioxide equivalent

Source: Appendix B

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis

The City has adopted two separate CAPs, the first being the Community CAP, and the second being the Municipal CAP, as well as a Climate Action and Resilience Plan. The Community CAP is focused on implementing strategies to reduce GHG emissions through green building design, renewable energy, transit-oriented development, and education. The Municipal CAP has been developed to address GHG emissions resulting from municipal operations and infrastructure. The Community CAP includes a goal of reducing County GHG emissions by 25 percent below 2005 levels by 2020 and 80 percent below 2005 levels by 2050 but has no mandatory provisions that would apply to the proposed project. The State of California has adopted regulations that apply to the proposed project that would help the City achieve its reduction goal. The proposed project would be subject to Title 24 energy efficiency standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The proposed project would comply with CALGreen, which includes requirements to increase recycling, reduce waste, reduce water use, increase bicycle use, and other measures that would reduce GHG emissions. Motor and truck vehicle emissions associated with the proposed project would be reduced through compliance with state regulations on fuel efficiency and fuel carbon content. The regulations include the



Pavley fuel efficiency standards that require manufacturers to meet increasing stringent fuel mileage rates for vehicles sold in California and the Low Carbon Fuel Standard that requires reductions in the average carbon content of motor vehicle fuels. Emissions related to electricity consumption by the proposed project would be reduced as the electric utility complies with the Renewable Portfolio Standard, which requires utilities to increase its mix of renewable energy sources to 50 percent by 2030. The proposed project would not conflict with the City's Community CAP and regulations adopted by the State of California to reduce GHG emissions; therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



This page left intentionally blank.



3.9 HAZARDS AND HAZARDOUS MATERIALS

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

3.9.1 Environmental Setting

Hazardous materials, as defined by CCR, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed of, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic: Causes human health effects
- Ignitable: Has the ability to burn
- Corrosive: Causes severe burns or damage to materials
- Reactive: Causes explosions or generates toxic gases



Hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust.

California Government Code, Section 65962.5 requires the California Environmental Protection Agency to compile, maintain, and update specified lists of hazardous material release sites. The required lists of hazardous material release sites are commonly referred to as the “Cortese List,” which are contained on internet websites, including the online EnviroStor database from the Department of Toxic Substances Control (DTSC) and the online GeoTracker database from the State Water Resources Control Board. These two databases include hazardous material release sites, along with other categories of sites or facilities specific to each agency’s jurisdiction. A Phase I Environmental Site Assessment was prepared for the proposed project by AEI Consultants on January 3, 2020, which included review of several hazardous materials databases. As discussed in the Phase I Environmental Site Assessment, AEI Consultants did not identify the presence or likely presence of any hazardous substances on the project site, or evidence of a past release of hazardous substances or petroleum products. The project site is listed on the EnviroStor database as a closed release case as of March 6, 2006 (Appendix E). In the case closure letter dated March 6, 2006, DTSC noted that the site does not appear to pose a threat to human health or the environment under residential land use. Therefore, DTSC determined that no further action was necessary with respect to investigation and remediation of hazardous substances at the project, and a certificate of completion was issued (Appendix E).

There are no public or private airports within 2 miles of the City limits, and there are no lands in the City that are within an airport land use plan (City of Antioch 2003b). The nearest public airports to the project site are the Byron Airport and the Buchanan Field Airport, located about 13 miles southeast and 15 miles west of the project site, respectively (Tollfree Airline 2020). The nearest private airport is the Funny Farm Airport, approximately 8 miles southeast of the project site in the City of Brentwood. According to the California Department of Forestry and Fire Protection (CAL FIRE), the City is not located in or adjacent to a local or state fire hazard severity zone (CAL FIRE 2020).

3.9.2 Methodology

The following analysis is based on a review of documents pertaining to the project site, including the General Plan, General Plan EIR, and the Phase I Environmental Site Assessment prepared by AEI Consultants on January 3, 2020. The Phase I assessment is provided in Appendix E.

3.9.3 Environmental Impact Analysis

This section discusses potential impacts concerning hazards and hazardous materials associated with the proposed project and provides mitigation measures where necessary.



Impact HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

AND

Impact HAZ-2 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?

Impact Analysis

The proposed project would involve the development of a truck maintenance facility on a 10.28-acre site that is developed with a warehouse building, surface parking, and a rail spur. Construction activities associated with the proposed project would occur in three phases and consist of site clearing, grading, utility connections, building construction, frontage improvements, and landscaping on the site. The proposed project would not include any activities associated with the demolition of structures prior to the 1980s and would not pose a hazard regarding asbestos containing materials and lead-based paints.

During construction, small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used and transported to and from the project site as needed. Accidental releases of small quantities of hazardous materials or toxic substances could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. However, contractors would be required to transport, store, and handle hazardous materials and toxic substances related to construction activities in accordance with relevant regulations and guidelines, including California Health and Safety Codes and City ordinances. Regulatory requirements for the transport of hazardous wastes in California are specified in Title 22 of CCR, Division 4.5, Chapters 13 and 29. In accordance with these regulations, transport of hazardous materials must comply with the California Vehicle Code, California Highway Patrol regulations (contained in CCR, Title 13); the California State Fire Marshal regulations (contained in CCR, Title 19); United States Department of Transportation regulations (CFR, Title 49); and U.S. Environmental Protection Agency regulations (contained in CFR, Title 40). The use of hazardous materials is also regulated by DTSC (CCR, Title 22, Division 4.5). Therefore, construction of the proposed project would result in a less than significant impact related to the routine transport, use, disposal of, or accidental release of hazardous materials or toxic substances.

As a truck maintenance facility, the routine transport, handling, and use of hazardous substances would be part of facility operations. Hazardous substances may include, but are limited to: solvents; degreasers; metalworking; gasoline and additives; diesel fuel and additives; and other fluids and chemicals involved in truck maintenance. Operation of the proposed project would also include the storage of equipment and truck parts, and a truck fueling station that is equipped with an aboveground 8,000-gallon diesel fuel tank and an aboveground 1,000-gallon gasoline fuel tank to serve the shop service trucks. The truck fueling station's storage and delivery of the hazardous materials would comply with all applicable federal, state, and local regulation in order to functionally operate, including but not limited to Section 2540.7 – Gasoline Dispensing and Service Stations, of the California Occupational Safety and Health regulations ; and Chapter 38 – Liquefied Petroleum Gases, of the California Fire Code. Furthermore, the



proposed project would be subject to Title 40 of the CFR, which requires sites that handle any individual hazardous material or mixture in excess of the following quantities: 55 gallons (liquid); 500 pounds (solid); or 200 cubic feet (gases) to prepare a Hazardous Materials Business Plan (HMBP). The proposed project would implement the HMBP as required by Mitigation Measure HAZ-1 and include measures for safe storage, transportation, use, and handling of hazardous materials. Additionally, the HMBP would include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release. The HMBP would be submitted to Contra Costa Health Services, which is the Certified Unified Agency for Contra Costa County.

As discussed in Section 3.10, Hydrology and Water Quality, the proposed project would be required to prepare a SWPPP for construction and operation activities in accordance with the NPDES Construction General Permit and Industrial General Permit. During construction, the SWPPP and applicable BMPs would be implemented as part of Mitigation Measure HYD-1 to reduce potential impacts from pollutants entering the City's water system to a less than significant level. Additionally, the post-operational SWPPP would be implemented as required by Mitigation Measure HYD-2 and include a spill prevention and countermeasure plan that identifies the proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used onsite. The plan would also identify the proper storage, handling, use, and disposal of petroleum products associated with the onsite truck fueling station. Therefore, the routine transport, use, disposal, or accidental release of hazardous materials would be less than significant with implementation of Mitigation Measures HAZ-1, HYD-1, and HYD-2.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM HAZ-1: Prepare and Implement a Hazardous Materials Business Plan. The applicant shall prepare a HMBP in accordance with CFR, Title 40. The HMBP shall include inventory of any individual hazardous material or mixture in excess of any of the following quantities: 55 gallons (liquid); 500 pounds (solid); or 200 cubic feet (gases). The HMBP would include measures for safe storage, transportation, use, and handling of hazardous materials. The HMBP shall also include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release. The HMBP shall be submitted to Contra Costa Health Services prior to occupancy.

Mitigation Measures HYD-1 and HYD-2 are also required. Refer to Section 3.10, Hydrology and Water Quality, for complete details pertaining to these mitigation measures.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.



Impact HAZ-3	Emit hazardous emissions or handle hazardous or acutely-hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
---------------------	---

Impact Analysis

The project site is not located within 0.25 mile of an existing or proposed school. The nearest school is the Cornerstone Christian School, which is about 0.60 mile southwest of the project site. The proposed project does not involve the development of a use that would emit hazardous materials, substances, or waste during operation. The use of heavy equipment and activities involving hazardous materials would be limited to the construction phase and confined to construction areas and within existing roadways. Construction of the proposed project would comply with all applicable federal, state and local laws and regulations pertaining to the transport, use, disposal, handling and storage of hazardous materials to reduce the likelihood and severity of accidents during buildout of the project site. Implementation of Mitigation Measure HAZ-1 would also require the proposed project to implement a HMBP that identifies the measures for the safe storage, transportation, use, and handling of hazardous materials associated with the proposed truck fueling station. Any hazardous material handling associated with the operation of the proposed project would be limited in both quantity and concentration to the smallest possible limits. Pursuant to California Occupational Safety and Health regulations, all hazardous materials stored onsite would be accompanied by a Material Safety Data Sheet, which would inform onsite operators of necessary remediation processes in the event of accidental release. Therefore, with adherence to the required applicable regulations and implementation of Mitigation Measure HAZ-1, the proposed project would have a less than significant impact related to the emission or handling of hazardous materials near a school.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure HAZ-1 is required.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact HAZ-4	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?
---------------------	--

Impact Analysis

As discussed in Section 3.9.1, Environmental Setting, the project site is listed on the EnviroStor database as a closed release case as of March 6, 2006 (Appendix E). In the case closure letter dated March 6, 2006, DTSC noted that the site does not appear to pose a threat to human health or the environment under residential land use. Therefore, DTSC determined that no further action was necessary with respect to investigation and remediation of hazardous substances at the project site, and a certificate of completion was issued (Appendix E). The Phase I Environmental Site Assessment did not identify any other recognized environmental



concerns at the project site (Appendix E). As such, the proposed project would not be located on a hazardous materials site that would create a significant hazard to the public and the environment, and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact HAZ-5	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?
---------------------	---

Impact Analysis

The project site is not located within 2 miles of a public airport. The nearest public airports to the project site are the Byron Airport and the Buchanan Field Airport, located about 14 miles southeast and 16 miles west of the project site, respectively. The project site does not fall within an airport land use plan for either of these airports. Therefore, the proposed project would not result in a safety hazard or excessive noise levels for people residing or working in the project area. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact HAZ-6	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
---------------------	---

Impact Analysis

The proposed project would be required to comply with the Contra Costa County Emergency Operations Plan (Contra Costa County 2015). Although the Contra Costa County Emergency Operations Plan does not identify specific emergency evacuation routes, compliance would ensure efficient response to emergency incidents within Contra Costa County and the City. Furthermore, the proposed project would not result in the permanent modification to any existing roadways, and therefore would not physically interfere with any existing emergency routes. During the construction phase, temporary and/or partial street closures may be needed. However, access to the project site and the surrounding area would be maintained in accordance with a TCP. The TCP would identify all detours and appropriate traffic controls and



would ensure adequate circulation and emergency access are provided during the construction phase.

During operation, access to the project site would primarily be from the proposed double-gated entrance on the western end of the project site. The existing entrance on the eastern end of the project site would remain locked but functional to accommodate emergency vehicles and truck mechanic staff exiting the facility. Additionally, there is a rail spur in the center of the project site. The proposed project would construct a two-way 40-foot-wide paved interior access road, which would cross over the north portion of the rail spur easement via a 30-foot-wide crossing so that trucks could access the parking area on the east side of the project site. Pursuant to the provisions of the existing reserve easement (Grant Deed 2006-00906-00) for the rail spur, security fencing may be installed around the perimeter of the onsite rail spur; however, it would not be required. To provide unimpeded emergency access throughout the site, the proposed project would not place fencing around the rail spur and instead would place reflective delineators (traffic cones) along the boundary of the easement. The proposed crossing would also be lighted and delineated with standard reflective traffic rated railroad crossing signage. All trucks, employee vehicles, and pedestrian traffic would be directed to cross the rail spur at the designated crossing point. All employees would receive safety training pertaining to the use of the rail spur crossing. As such, project construction and operation activities would not interfere with an emergency evacuation or response plan, and this impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact HAZ-7 Expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Impact Analysis

Based on review of Fire Hazard Severity Zone maps developed by CAL FIRE, the project site is not within or near a state responsibility area and does not contain lands classified as very high fire hazard severity zones (CAL FIRE 2020). According to the City's General Plan EIR, the southern and unincorporated portions of the City are the most susceptible to wildland fire hazards because these areas contain rural, hilly terrain, and are adjacent to natural grasslands and brush (City of Antioch 2003b). The project site is in the northeast portion of the City and located in an urban area near other commercial and industrial uses. The proposed project would be required to comply with the California Fire Code and all applicable fire safety standards set forth by the City regarding fire protection to protect the proposed structures and future occupants from possible wildland fires. The proposed project would also be served by a 6-inch water main for fire suppression. As such, the proposed project is not expected to be exposed to risks associated with wildland fires, and impacts would be less than significant.



Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



3.10 HYDROLOGY AND WATER QUALITY

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

3.10.1 Environmental Setting

Watershed and Regional Drainage

The project site is located within the San Joaquin River Hydrologic Region, specifically in the East County Delta Drainages Watershed. The East County Delta Drainages Watershed is approximately 88 square miles and includes the northeastern portion of Antioch, eastern Oakley, Bethel Island, and Knightsen. This watershed includes Contra Costa County's agricultural core along with a mix of grasslands, wetlands, municipal, and industrial uses. There are numerous irrigation canals and channels throughout this area, which drain into Old River and the San Joaquin River (ECWMA 2019). Other principal waterways within the City include



East Antioch Creek, West Antioch Creek, Markely Creek, Sand Creek, Marsh Creek, and Deer Creek (City of Antioch 2003b).

Several reservoirs are also present within the City, such as the Contra Loma Reservoir, Antioch Municipal Reservoir, and Lake Alhambra. The Contra Loma Reservoir and Antioch Municipal Reservoir are key components of the City's water system, as these reservoirs provide emergency water supplies and ensure sufficient supplies are provided from the Contra Costa Canal (City of Antioch 2003b). Additionally, the City receives water from the San Joaquin River and the Sacramento-San Joaquin Delta.

Groundwater

The City is located within the East Contra Costa Subbasin, which is part of the larger San Joaquin Valley Groundwater Basin. The East Contra Costa Subbasin is drained by the San Joaquin River and Marsh Creek. The San Joaquin River flows northward into the Sacramento and San Joaquin Delta, which ultimately discharges into the San Francisco Bay. The City does not pump groundwater for municipal water supplies (City of Antioch 2003b). The state has designated the East Contra Costa Subbasin as a medium-priority basin per the Sustainable Groundwater Management Act. Therefore, preparation of a Groundwater Sustainability Plan (GSP) is required by January 31, 2022. In May 2017, the City formed a Groundwater Sustainability Agency to manage groundwater resources beneath and within City limits. Accordingly, the City is working with other local agencies to prepare a GSP (East Contra Costa Subbasin 2018).

There are no active groundwater wells on the project site; however, a private well is located on the northwestern corner of the project site. The private well provides water to the existing warehouse building's restroom and is not consumed by the existing tenants (Appendix E).

Stormwater

All municipalities in Contra Costa County are required to comply with the requirements of the Municipal Regional Stormwater NPDES Permit. Specifically, municipalities in Contra Costa County are required to comply with provision C.3 to address stormwater runoff pollutant discharges and prevent increase in runoff flows from new development and redevelopment projects. The City has adopted the County C.3 requirements (Chapter 6-9, Stormwater Management Discharge Control, in the Antioch Municipal Code), which requires new development projects that create or alter 10,000 or more square feet of impervious area to prepare a Stormwater Control Plan to demonstrate how compliance with these requirements would be achieved (City of Antioch 2017). As such, the applicant has prepared a preliminary Stormwater Control Plan in conformance with the Contra Costa County Clean Water Program Stormwater C.3 Guidebook (Appendix F).

Flooding

Most flooding within the City is caused by heavy rainfall, high tides from the San Joaquin River, and subsequent runoff volumes that cannot be adequately conveyed by the existing storm drainage system and surface water (City of Antioch 2003b). According to the General Plan EIR and as defined by the Federal Emergency Management Agency (FEMA), most of the City is



located outside of the 100-year flood hazard zone, except for areas adjacent to the San Joaquin River and tributary creeks. The City has implemented several flood prevention measures, including the construction of several detention basins (City of Antioch 2003b).

3.10.2 Methodology

The evaluation of potential hydrologic and water quality impacts was based on a review of the General Plan, General Plan EIR, and the preliminary Stormwater Control Plan (Appendix F). Mapping tools provided by FEMA were also reviewed. The information obtained from these sources are summarized to establish existing conditions and to identify potential environmental effects.

3.10.3 Environmental Impact Analysis

This section discusses potential impacts on hydrology and water quality associated with the proposed project and provides mitigation measures where necessary.

Impact HYD-1	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
---------------------	--

Impact Analysis

Construction activities associated with the proposed project would occur in three phases and consist of site clearing, grading, utility connections, building construction, frontage improvements, and landscaping on the 10.28-acre site. As with all land development, the proposed project could potentially generate polluted runoff during rainfall, both during construction and as a part of operation. The proposed project would include construction of the Phase 2 and Phase 3 warehouse buildings, and surface parking to accommodate the trucks and employee vehicles. The surface parking, which may hold particulate matter, residual hydrocarbons, persistent organic pollutants, and other substances transported to the facility via truck exteriors or tires, could contaminate water that moves across impervious surfaces and generate polluted runoff. The proposed project would be subject to the two statewide general permits related to controlling pollutants in stormwater runoff, one for construction activities and another for completed projects of an industrial nature. These are summarized in the following paragraphs.

Construction of the proposed project would disturb more than 1 acre; therefore, it would be subject to the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2012- 0006-DWQ (Construction General Permit). The Construction General Permit includes the preparation of a SWPPP and incorporation of BMPs to control sedimentation, erosion, and hazardous materials from contacting stormwater, with the intent of preventing polluted runoff from leaving the project site. The proposed project would implement the SWPPP and applicable BMPs as part of Mitigation Measure HYD-1 to reduce potential water quality impacts during construction to a less than significant level.

Once completed, the proposed project would result in the addition of approximately 39,063 square feet of new impervious surface at the project site. Because the proposed project would result in the development of a truck maintenance facility, it would also be subject to the NPDES



Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order No. 2014-0057-DWQ (Industrial General Permit) from the State Water Resources Control Board. As such, the proposed project would obtain coverage under the Industrial General Permit as part of Mitigation Measure HYD-2. The implementation of Mitigation Measure HYD-2 would require the applicant and facility operators to eliminate unauthorized non-stormwater discharges, develop and implement an operational SWPPP, and perform monitoring of stormwater discharges and authorized non-stormwater discharges. For any industrial discharges to the City's wastewater system, review and approval of a separate discharge permit to protect treatment plant functioning and local water quality would be required in accordance with Chapter 6-4, Sewer System, of the Antioch Municipal Code. The City would also include review of the design and treatment of any wastewater generated by the proposed vehicle and equipment wash station before it is approved to connect to the City's wastewater collection system.

In addition, operation of the proposed project would be required to comply with the Contra Costa Clean Water Program Stormwater C.3 requirements by implementing a Stormwater Control Plan in accordance with Chapter 6-9, Stormwater Management and Discharge Control, of the Antioch Municipal Code. The proposed project would provide three bioretention areas on the north and south sides of the project site totaling approximately 9,172 square feet, and approximately 152,452 square feet of landscaping throughout the site. The proposed bioretention areas and landscaped areas would collect, treat, and convey stormwater runoff from the project site to the existing stormwater system. All bioretention areas would be sized based on the design requirements of the Contra Costa County Clean Water Program Stormwater C.3 Guidebook. The Stormwater Control Plan would be submitted to the City for review and approval.

Overall, the proposed project has the potential to affect water quality through pollutant discharges in stormwater runoff during construction and operation, and through discharges to the City wastewater system. The proposed project would implement Mitigation Measures HYD-1 and HYD-2 to ensure that impacts on water quality during construction and operation would be less than significant.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM HYD-1 Prepare and Implement a SWPPP. Coverage shall be obtained for the project under the Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWQ and 20152-006-DWQ). Per the requirements of the State Water Resources Control Board, a SWPPP shall be prepared for the project to reduce the potential for water pollution and sedimentation from proposed project activities. The SWPPP shall address site runoff, assuring that project runoff shall not affect or alter the drainage patterns on the project site. The SWPPP shall comply with the Waste Discharge Requirements of the Central Valley RWQCB Permit.



MM HYD-2 Obtain Industrial General Permit. Prior to operation, the applicant shall obtain coverage under the Industrial General Permit (Order No. 2014-0057-DWQ). Per the requirements of the State Water Resources Control Board, the applicant and facility operators would be required to prepare an operational SWPPP, eliminate unauthorized non-stormwater discharges, and perform monitoring of stormwater discharges and authorized non-stormwater discharges. The post-operational SWPPP shall also include a spill prevention and countermeasure plan that identifies the proper storage, collection, and disposal measures for potential pollutants used onsite, including the use and disposal of petroleum products associated with the onsite truck fueling station. The operational SWPPP shall comply the City's sewer discharge requirements, as specified in Chapter 6-4, of the Antioch Municipal Code, and the Waste Discharge Requirements of the Central Valley RWQCB Permit.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Impact Analysis

The City does not pump groundwater for municipal water supplies (City of Antioch 2003b). There are no active groundwater wells on the project site. However, the project site currently obtains potable water from a private well located on the northwestern corner of the project site. According to the Phase I Environmental Site Assessment prepared for the proposed, the private well was installed in 2008 to provide water to the existing warehouse building's restroom and none of the existing tenants currently consume water produced from the well (Appendix E). The project proposes to connect to the City's existing public water system within Wilbur Avenue. It is estimated that the existing warehouse building would demand approximately 1,280 gpd of water and the Phase 2 and Phase 3 warehouse buildings would each demand approximately 1,860 gpd (5,000 gpd total). As further discussed in Section 3.19, Utilities and Service Systems, there would be adequate water supplies available to serve the proposed project. The proposed project would not rely on groundwater supplies or draw groundwater from the site; therefore, it would not substantially deplete groundwater supplies. Additionally, the geotechnical investigation encountered groundwater at approximately 20 to 25 feet bgs (Appendix E). Construction activities would excavate the project site to a maximum of 5 feet bgs. As such, the proposed project is not expected to encounter groundwater during construction or require dewatering.

The project site currently contains approximately 202,177 square feet of impervious surface. The proposed project would create approximately 207,000 square feet of impervious surface in Phase 1 and approximately 34,240 square feet of impervious surface in Phase 2 (241,240 square feet total). This would result in the addition of approximately 39,063 square feet of new impervious surface at the project site. In accordance with the Contra Costa County C.3 Stormwater Standards, the proposed project would also provide three bioretention areas on the



north and south sides of the project site totaling approximately 9,172 square feet. The bioretention areas would collect impervious surface runoff prior to entering the piped storm drain system, and allow for some groundwater recharge to continue. Therefore, the proposed project would not substantially interfere with local groundwater recharge and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact HYD-3	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?

Impact Analysis

- i. Result in substantial erosion or siltation on- or offsite:
The project site is developed with a warehouse building, surface parking, and a rail spur. Therefore, the proposed project has experienced substantial soil compaction. During project construction, ground-disturbing and earth-moving activities could result in erosion-related impacts. As discussed in Impact HYD-1, the proposed project would implement Mitigation Measure HYD-1 and prepare a SWPPP in accordance with the NPDES General Construction Permit. The SWPPP would include BMPs, which would be implemented during construction activities to reduce the potential of erosion. Once completed, the proposed project would also be subject to the NPDES Industrial General Permit. Therefore, the proposed project would be required to implement Mitigation Measure HYD-2 and obtain coverage under the NPDES Industrial General Permit prior to operation. The implementation of Mitigation Measure HYD-2 would require the applicant to prepare an operational SWPPP, which would eliminate unauthorized non-stormwater discharges and require monitoring of stormwater discharges and authorized non-stormwater discharges. Operation of the proposed project would also be required to comply with the Contra Costa Clean Water Program Stormwater C.3 requirements by implementing a Stormwater Control Plan in accordance with Chapter 6-9, Stormwater Management and Discharge Control, of the Antioch Municipal Code. As such, the proposed project would provide landscaped areas and three bioretention areas totaling



approximately 9,172 square feet. These features would collect impervious surface runoff prior to entering the piped stormwater system and would provide treatment, retention, and/or detention at the project site to reduce the volume of stormwater runoff and erosion impacts. Therefore, compliance with existing regulations and permitting requirements would ensure that the proposed project would not result in substantial erosion on- or offsite, and impacts would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

The proposed project currently contains approximately 202,177 square feet of impervious surface. The proposed project would create approximately 207,000 square feet of impervious surface in Phase 1 and approximately 34,240 square feet of impervious surface in Phase 2 (241,240 square feet total). This would result in the addition of approximately 39,063 square feet of new impervious surface at the project site. This increase in impervious surface at the project site would increase the amount of stormwater runoff from the project site. The project proposes to connect to the existing 18-inch and 24-inch storm drain lines within Wilbur Avenue. In accordance with the Contra Costa County C.3 Stormwater Standards, the proposed project would also provide three bioretention areas on the north and south sides of the project site totaling approximately 9,172 square feet. The bioretention areas would collect impervious surface runoff prior to entering the piped storm drain system and control the volume of stormwater at the project site to reduce the potential for flooding. Therefore, the proposed project would not result in on- or offsite flooding, and the impact 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

As discussed, the proposed project would result in the addition of approximately 39,063 square feet of new impervious surface at the project site. This increase in impervious surface could potentially increase the volume and velocity of surface water runoff at the site. During construction activities, the proposed project would conform to the requirements of the NPDES General Construction Permit, which involves the preparation and implementation of a SWPPP. The SWPPP would specify BMPs to incorporate during construction to prevent, control, and reduce polluted runoff from entering the City's storm drain system and waterways. Implementation of these BMPs would be part of Mitigation Measure HYD-1.

Once completed, the proposed project would be required to comply with the NPDES Industrial General Permit. As such, the proposed project would obtain coverage under the NPDES Industrial General Permit as part of Mitigation Measure HYD-2. The implementation of Mitigation Measure HYD-2 would require the applicant to develop and implement an operational SWPPP, eliminate unauthorized non-stormwater discharges, and perform monitoring of stormwater discharges and authorized non-stormwater discharges. As part of Mitigation Measure HYD-2, the City would also review if any



industrial discharges from the proposed project, such as wastewater generated by the proposed vehicle and equipment was station, would require a separate discharge permit in accordance with Chapter 6-4, Sewer System, of the Antioch Municipal Code.

Operation of the proposed project would comply with the Contra Costa Clean Water Program Stormwater C.3 requirements and implement a Stormwater Control Plan in accordance with Chapter 6-9, Stormwater Management and Discharge Control, of the Antioch Municipal Code. The proposed project would provide three bioretention areas on the north and south sides of the project site totaling approximately 9,172 square feet, and approximately 152,452 square feet of landscaping. The proposed bioretention areas and landscaped areas would collect, treat, and convey stormwater runoff from the project site to the existing stormwater system. All bioretention areas would be sized based on the design requirements of the Contra Costa County Clean Water Program Stormwater C.3 Guidebook. Therefore, stormwater generated by the proposed project would not exceed the capacity of existing or planned stormwater drainage systems, and impacts would be less than significant with Mitigation Measures HYD-1 and HYD-2 incorporated.

iv. Impede or redirect flood flow

According to FEMA Flood Insurance Rate Map #06013C0144G, the project site and the surrounding area are located in Zone X (FEMA 2020). Zone X is defined as areas not within either a 100-year or 500-year flood hazard zone. Therefore, the project site is not located within a FEMA flood zone and would not impede or redirect flood flows. No impact would occur.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measures HYD-1 and HYD-2 are required. Refer to Impact HYD-1 for complete details pertaining to these mitigation measures.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Impact Analysis

Tsunamis typically affect coastlines and areas up to 0.25 mile inland. The project site is more than 50 miles from the coastline and Pacific Ocean and therefore would not be subject to tsunami hazards. A seiche affects locations adjacent to larger water bodies such as lakes or reservoirs. The project site is not located near any such water body. However, the project site is located about 0.4 mile south of the San Joaquin River. As identified in the General Plan EIR, this river is not a closed body of water, and risk from seiche would be low (City of Antioch 2003b). The project site is located within FEMA Flood Zone X, and therefore is not located within a 100-year or 500-year flood zone. As such, no impact would occur related to inundation by seiche, tsunami, or flood flows.



Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Impact Analysis

The State Department of Water Resources identified the East Contra Costa Subbasin as a medium-priority basin. The City formed a Groundwater Sustainability Agency in May 2017 to manage groundwater resources beneath and within City limits. Accordingly, the City is working with other local agencies to prepare a GSP by January 31, 2022 (East Contra Costa Subbasin 2018). The GSP for the East Contra Costa Subbasin is still under development and has not been approved. Therefore, the proposed project would not conflict with or obstruct implementation of a sustainable groundwater management plan.

As discussed above, the proposed project does not plan to draw groundwater from the site and would not substantially deplete groundwater supplies. The proposed project is required to comply with the policies and objectives of the Water Quality Control Plan for the Central Valley RWQCB. As required by Mitigation Measures HYD-1 and HYD-2 the proposed project would obtain coverage under the NPDES General Construction Permit and Industrial General Permit. Compliance with these regulations would require the proposed project to prepare a construction SWPPP and post-operation SWPPP that includes BMPs that meet the requirements of the Central Valley RWQCB's Water Quality Control Plan. The implementation of Mitigation Measures HYD-1 and HYD-2 would reduce potential impacts to water quality to a less than significant level, and ensure that the proposed project would not conflict with or obstruct implementation of the Water Quality Control Plan for the Central Valley RWQCB.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure HYD-1 is required. Refer to Impact HYD-1 for complete details pertaining to this mitigation measure.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.



This page left intentionally blank.



3.11 LAND USE AND PLANNING

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.11.1 Environmental Setting

The proposed project is in an industrial part of the City, approximately 0.4 mile south of the San Joaquin River Delta. The project site is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. Other land uses surrounding the project site include industrial uses to the north and single-family residences and vineyards to the south. The project site is within the City's Eastern Waterfront Employment Focus Area, which is intended to provide employment opportunities and to assist the City in achieving its goal of a balance between local housing and employment. It is currently designated Industrial by the General Plan and zoned Heavy Industrial (M-2).

The 10.28-acre project site consists of a single parcel identified as APN 051-032-009. It is developed with a 9,730-square-foot metal warehouse building that is surrounded by approximately 10,000 square feet of paved surface parking. The existing warehouse building was constructed in 2010 to serve as a storage facility and is now vacant. The remaining portion of the site is undeveloped, but is leased by multiple tenants to store equipment, park company trucks and employee vehicles, and for towing or impounding vehicles.

The project site is also bisected by a rail spur, which previously provided rail access for the parcel north of the site. Rail access to the main line has been terminated, and the southwest portion of the rail spur has been removed. The rail spur is within a 30-foot-wide reserve easement (Grant Deed 2006-00906-00). The use provisions of the reserve easement allow the proposed uses onsite and crossing access.

3.11.2 Methodology

The evaluation of potential land use impacts was based on a review of applicable land use documents, including the City's General Plan, the General Plan EIR, and the Antioch Municipal Code.

3.11.3 Environmental Impact Analysis

This section discusses potential impacts concerning land use and planning associated with the proposed project and provides mitigation measures where necessary.



Impact LU-1 Physically divide an established community?

Impact Analysis

The project site is in a fully developed and urbanized area. It is adjacent to commercial uses to the east and west, Wilbur Avenue to the north, and the railroad to the south. The project site is developed with an existing metal warehouse, surface parking, and a rail spur. Rail access to the main line has been terminated, and the southwest portion of the rail spur has been removed. The rail spur is within a 30-foot-wide reserve easement (Grant Deed 2006-00906-00). The proposed project would construct a two-way 40-foot-wide paved interior access road, which would cross over the north portion of the rail spur easement via a 30-foot-wide crossing so that trucks could access the parking area on the east side of the project site. The proposed paved interior access road and crossing would not result in modification to the existing roadway network or preclude access to the surrounding area. Additionally, the proposed crossing would be allowed under the use provisions of the reserve easement for the rail spur. The proposed project would initially use the existing warehouse building as an interim truck repair and maintenance facility until the new 18,533-square-foot warehouse is constructed. The proposed project would also include construction of surface parking for trucks and employee vehicles and utility improvements. Construction of the proposed project would increase development on the project site; however, these improvements would be supported by use of the existing onsite warehouse. As such, the proposed project would not physically divide an established community, and no impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact LU-2 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?

Impact Analysis

The primary land use planning documents that govern the project site are the City's General Plan and Zoning Code. The project site is within the City's Eastern Waterfront Employment Focus Area. It is designated Industrial by the General Plan and zoned Heavy Industrial (M-2). The proposed project is consistent with the Industrial land use designation, which is intended for a range of industrial businesses, including uses, which, for reasons of potential environmental effects are best segregated from other, more sensitive, land uses, such as residential neighborhoods. . Additionally, the proposed project would be consistent with the intent of the Eastern Waterfront Employment Focus Area as it would provide new employment opportunities in this part of the City.

The proposed project would be subject to the development standards for the Heavy Industrial (M-2) zoning district. The Heavy Industrial (M-2) zoning district allows heavy industrial uses,



which may generate adverse impacts on health or safety. Truck terminal facilities are conditionally allowed uses in the Heavy Industrial (M-2) zoning district; therefore, the proposed project would require approval of a Use Permit. According to the City's Zoning Code, the maximum height for buildings within the Heavy Industrial (M-2) zoning district is 70 feet. In Phase 2, the proposed project would construct a new warehouse building that is 30 feet tall and 18,533 square feet. As part of Phase 3, the proposed project may also construct an additional 18,500-square-foot warehouse building that would provide truck parking and would be similar in design, appearance, and building height as the Phase 2 building. Therefore, the proposed project would meet the maximum height of the Heavy Industrial (M-2) zoning district and would not vary from the zoning code requirements relative to height. The proposed project would be consistent with the existing onsite warehouse building and development surrounding the project site. As such, with approval of the Use Permit, the proposed project would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding an environmental effect, and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



This page left intentionally blank.



3.12 MINERAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Environmental Setting

The California Geological Survey classifies lands into Aggregate and Mineral Resource Zones (MRZ) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1977. These MRZs identify whether known or inferred significant mineral resources are present in an area. Local governments are required to incorporate identified MRZs delineated by the state into their general plans.

The project site is in an industrial area and developed with a 9,730-square-foot metal warehouse building that is surrounded by approximately 10,000 square feet of paved surface parking. The remaining portion of the site is undeveloped, includes some sparse vegetation, and is covered with asphalt and concrete pavement and compacted rock and gravel. According to the City's General Plan EIR, none of the areas identified in the General Plan as available for new development contain known mineral resources that would be of value to the region and residents of the state (City of Antioch 2003b).

3.12.2 Methodology

The following analysis is based on review of the General Plan, General Plan EIR, and the DOC's Division of Mine Reclamation mineral lands classification map.

3.12.3 Environmental Impact Analysis

This section discusses potential impacts on mineral resources associated with the proposed project and provides mitigation measures where necessary.

Impact MIN-1	Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the State?
---------------------	--

Impact Analysis

According to the DOC's Mineral Lands Classification map of Aggregate Resources, the project site is in an area designated MRZ-3, indicating that the site contains mineral deposits, but the significance of the deposits cannot be evaluated using current data (DOC 1997). The project



site is developed, with a metal warehouse building and paved surface parking. No mineral extraction operations exist on the project site, and mineral extraction is not included as part of the proposed project. Furthermore, according to the City's General Plan EIR, areas in the City that have been identified for new development do not contain known mineral resources that would be of value to the region or residents of the state (City of Antioch 2003b). Therefore, the proposed project would not result in the loss of availability of a known mineral resource, and no impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact MIN-2	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?
---------------------	--

Impact Analysis

The project site has not been delineated as a locally important mineral recovery site by the General Plan or EIR, or by any specific plan or other land use plan (City of Antioch 2003b). Therefore, the proposed project would not result in the loss of availability of a locally important mineral resource recovery site, and no impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.



3.13 NOISE

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Environmental Setting

Noise Fundamentals and Terminology

Noise is generally defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an existing sound level.

Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written as dB(A) and referred to as A-weighted decibels. There is a strong correlation between A-weighted sound levels and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. Table 3.13-1 summarizes typical A-weighted sound levels for different common noise sources.



Table 3.13-1: Typical A-Weighted Sound Levels

Common Outdoor Activities	Noise Level (dB(A))	Common Indoor Activities
Jet flyover at 1,000 Feet	-110-	Rock band
Gas lawnmower at 3 Feet	-100-	
Diesel truck at 50 Feet at 50 MPH	-90-	Food blender at 3 Feet
Noisy urban area, daytime	-80-	Garbage Disposal at 3 Feet
Gas lawnmower, 100 Feet	-70-	Vacuum Cleaner at 10 Feet
Commercial area	-60-	Normal Speech at 3 Feet
Heavy traffic at 300 Feet	-50-	Large business office
Quiet urban daytime	-40-	Dishwasher in next room
Quiet urban nighttime	-30-	Theater, large conference room (Background)
Quiet suburban nighttime	-20-	Library
Quiet rural nighttime	-10-	Bedroom at night, concert hall (Background)
	-0-	Broadcast/recording studio

Source: Caltrans 2013

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (Leq), the minimum and maximum sound levels (Lmin and Lmax, respectively), percentile-exceeded sound levels (such as L10, L20), the day-night sound level (Ldn), and the community noise equivalent level (CNEL). Ldn and CNEL values often differ by less than 1 dB. As a matter of practice, Ldn and CNEL values are equivalent and are treated as such in this assessment. Table 3.13-2 defines sound measurements and other terminology used in this report.

Table 3.13-2: Definition of Sound Measurement

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.



Sound Measurements	Definition
A-Weighted Decibel (dB(A))	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
C-Weighted Decibel (dB(C))	The sound pressure level in decibels as measured using the C-weighting filter network. The C-weighting is very close to an unweighted or flat response. C-weighting is only used in special cases when low-frequency noise is of particular importance. A comparison of measured A- and C-weighted level gives an indication of low frequency content.
Maximum Sound Level (Lmax)	The maximum sound level measured during the measurement period.
Minimum Sound Level (Lmin)	The minimum sound level measured during the measurement period.
Equivalent Sound Level (Leq)	The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.
Percentile-Exceeded Sound Level (Lxx)	The sound level exceeded xx % of a specific time period. L10 is the sound level exceeded 10% of the time. L90 is the sound level exceeded 90% of the time. L90 is often considered to be representative of the background noise level in a given area.
Day-Night Level (Ldn)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Peak Particle Velocity (Peak Velocity or PPV)	A measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches/second.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

Source: FHWA 2006

With respect to how humans perceive and react to changes in noise levels, a 1 dB(A) increase is imperceptible, a 3 dB(A) increase is barely perceptible, a 5 dB(A) increase is clearly noticeable, and a 10 dB(A) increase is subjectively perceived as approximately twice as loud. These subjective reactions to changes in noise levels were developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broadband noise and to changes in levels of a given noise source. These statistical indicators are thought to be most



applicable to noise levels in the range of 50 to 70 dB(A), as this is the usual range of voice and interior noise levels. Numbers of agencies and municipalities have developed or adopted noise level standards, consistent with these and other similar studies to help prevent annoyance and to protect against the degradation of the existing noise environment.

For a point source such as a stationary compressor or construction equipment, sound attenuates based on geometry at a rate of 6 dB per doubling of distance. For a line source such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance. Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface, such as grass, attenuates at a slightly greater rate than sound that travels over a hard surface, such as pavement. The increased attenuation is typically in the range of 1–2 dB per doubling of distance. Barriers, such as buildings and topography that block the line of sight between a source and receiver, also increase the attenuation of sound over distance.

Decibel Addition

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one source produces a sound pressure level of 70 dB(A), two identical sources would combine to produce 73 dB(A). The cumulative sound level of any number of sources can be determined using decibel addition.

Vibration Standards

Vibration is like noise such that noise involves a source, a transmission path, and a receiver. While related to noise, vibration differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system that is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of inches per second (in/sec) of peak particle velocity (PPV). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of in/sec PPV.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.13-3 notes the general threshold at which human annoyance could occur is 0.1 in/sec PPV. Table 3.13-4 indicates the threshold for damage to typical residential and commercial structures ranges from 0.3 to 0.5 in/sec PPV.



Table 3.13-3: Guideline Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.1
Severe	2.0	0.4

Notes:

Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seal equipment, vibratory pile drivers, and vibratory compaction equipment.

in/sec = inches per second

PPV = peak particle velocity

Source: Caltrans 2020b

Table 3.13-4: Guideline Vibration Damage Potential Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.12
Historic and some old buildings	0.5	0.25
Older residential structure	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes:

Transient sources again create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seal equipment, vibratory pile drivers, and vibratory compaction equipment.

in/sec = inches per second

PPV = peak particle velocity

Source: Caltrans 2020b

Operation of heavy construction equipment, particularly pile driving and other impact devices, such as pavement breakers, create seismic waves that radiate along the surface of the ground and downward into the earth. These surface waves can be felt as ground vibration. Vibration



from the operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance will result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes will decrease with increasing distance. Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. Table 3.13-5 summarizes typical reference vibration levels generated by select construction equipment.

Table 3.13-5: Vibration Source Levels for Select Construction Equipment

Equipment	PPV at 25 Feet
Vibratory roller	0.210
Large bulldozer	0.089
Loaded trucks	0.076
Small bulldozer	0.003

Note:

PPV = peak particle velocity

Source: FTA 2018

Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil conditions through which the vibration is traveling. The following equation can be used to estimate the vibration level at a given distance for typical soil conditions (FTA 2018). PPVref is the reference PPV from Table 3.13-5:

$$PPV = PPV_{ref} \times (25/Distance)^{1.5}$$

Noise Regulatory Framework

Federal, state, and local agencies regulate different aspects of environmental noise. Generally, the federal government sets noise standards for transportation-related noise sources closely linked to interstate commerce. These include aircraft, locomotives, and trucks. No federal or state noise standards are directly applicable to this project. The state government sets noise standards for transportation noise sources such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies. Local general plans identify general principles intended to guide and influence development plans.

Local Regulations

City of Antioch General Plan

Section 11.6 “Noise Objectives and Policies” in the General Plan identifies noise standards for noise-sensitive land uses affected by transportation and non-transportation noise sources.

Paragraph 11.6.1 “Noise Objective” states the following:



“Achieve and maintain exterior noise levels appropriate to planned land uses throughout Antioch, as described below:

- *Residential*
Single Family: 60 dB(A) CNEL within rear yards
Multi Family: 60 dB(A) CNEL within interior open space
- *Schools*
Classrooms: 65 dB(A) CNEL
Play and Sports Areas: 70 dB(A) CNEL
- *Hospitals, Libraries: 60 dB(A) CNEL*
- *Commercial/Industrial: 70 dB(A) CNEL at the front setback”*

The General Plan also lists several policies relating to noise including the following:

- b. *“Maintain a pattern of land uses that separates noise-sensitive land uses from major noise sources to the extent possible, and guide noise-tolerant land uses into the noisier portions of the Planning Area.*
- c. *Minimum motor vehicle noise in residential areas through property route location and sensitive roadway design:*
 - *Provide planned industrial areas with truck access routes separate from residential areas to the maximum feasible extent.*
- d. *Where new development (including construction and improvement of roadways) is proposed in areas exceeding the noise levels identified in the General Plan Noise Objective, or where the development of proposed uses could result in a significant increase in noise, require a detailed noise attenuation study to be prepared by a qualified acoustical engineer to determine appropriate mitigation and ways to incorporate such mitigation into project design and implementation.*
- e. *When new development incorporating a potentially significant noise generator is proposed, require noise analyses to be prepared by a qualified acoustical engineer. Require the implementation of appropriate noise mitigation when the proposed project will cause new exceedances of General Plan noise objectives, or an audible (3.0 dB(A)) increase in noise in areas where General Plan noise objectives are already exceeded as the result of existing development.*
- f. *In reviewing noise impacts, utilize site design and architectural design features to the extent feasible to mitigate impacts on residential neighborhoods and other uses that are sensitive to noise. In added to sound barriers, design techniques to mitigate noise impacts may include, but are not limited to:*
 - *Increased building setbacks to increase the distance between the noise source and sensitive receptor.*



- *Orient buildings which are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise sensitive areas and uses.*
- *Orient delivery, loading docks, and outdoor work areas away from noise-sensitive uses.*
- *Place noise tolerant uses, such as parking areas, and noise tolerant structures, such as garages, between the noise source and sensitive receptors.*
- g. *Where feasible, require the use of noise barriers (walls, berms, or a combination thereof) to reduce significant noise impacts.*
- i. *Ensure that construction activities are regulated as to hours of operation in order to avoid or mitigate noise impacts on adjacent noise-sensitive land uses.*
- j. *Require proposed development adjacent to occupied noise sensitive land uses to implement a construction-related noise mitigation plan. This plan would depict the location of construction equipment storage and maintenance areas, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses.*
- k. *Require that all construction equipment utilize noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.*
- m. *Prior to the issuance of any grading plans, the City shall condition approval of subdivisions and non-residential development adjacent to any developed/occupied noise-sensitive land uses by requiring applicants to submit a construction-related noise mitigation plan to the City for review and approval. The plan should depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project through the use of such methods as:*
 - *The construction contractor shall use temporary noise-attenuation fences, where feasible, to reduce construction noise impacts on adjacent noise sensitive land uses.*
 - *During all project site excavation and grading on site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.*
 - *The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.*
 - *The construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 7:00 a.m. and 7:00 p.m.*



Monday through Saturday. No construction shall be allowed on Sundays and public holidays.

- n. The construction-related noise mitigation plan required shall also specify that haul truck deliveries be subject to the same hours specified for construction equipment. Additionally, the plan shall denote any construction traffic haul routes where heavy trucks would exceed 100 daily trips (counting those both to and from the construction site). To the extent feasible, the plan shall denote haul routes that do not pass sensitive land uses or residential dwellings. Lastly, the construction-related noise mitigation plan shall incorporate other restrictions imposed by the City.”*

City of Antioch Municipal Code

Chapter 5, Article 19 “Noise Attenuation Requirements” in the Antioch Municipal Code states the following regarding stationary noise sources in Paragraph (A):

“(A) Stationary noise sources. Uses adjacent to outdoor living areas (e.g., backyards for single-family homes and patios for multi-family units) and parks shall not cause an increase in background ambient noise which will exceed 60 CNEL.”

Paragraph (D) in the same Article states the following:

“(D) Noise attenuation. The city may require noise attenuation measures be incorporated into a project to obtain compliance with this section. Measures outlined in the noise policies of the General Plan should be utilized to mitigate noise to the maximum feasible extent.”

Paragraphs 5.17.04 “Heavy Construction Equipment Noise” and 5.17.05 “Construction Activity Noise” within the Antioch Municipal Code states the following:

“5-17.04 HEAVY CONSTRUCTION EQUIPMENT NOISE.

(A) For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

HEAVY CONSTRUCTION EQUIPMENT. Equipment used in grading and earth moving, including diesel engine equipped machines used for that purpose, except pickup trucks of one ton or less.

OPERATE. Includes the starting, warming up, and idling of heavy construction equipment engines or motors.

(B) It shall be unlawful for any person to operate heavy construction equipment during the hours specified below:

(1) On weekdays prior to 7:00 a.m. and after 6:00 p.m.

(2) On weekdays within 300 feet of occupied dwelling space, prior to 8:00 a.m. and after 5:00 p.m.



(3) On weekends and holidays, prior to 9:00 a.m. and after 5:00 p.m., irrespective of the distance from the occupied dwelling.

§ 5-17.05 CONSTRUCTION ACTIVITY NOISE.

(A) As used in this section, CONSTRUCTION ACTIVITY means the process or manner of constructing, building, refurbishing, remodeling or demolishing a structure, delivering supplies thereto and includes, but is not limited to, hammering, sawing, drilling, and other construction activities when the noise or sound therefrom can be heard beyond the perimeter of the parcel where such work is being performed. The term CONSTRUCTION ACTIVITY also includes the testing of any audible device such as a burglar or fire alarm or loudspeaker. CONSTRUCTION ACTIVITY does not include floor covering installation or painting when done with non-powered equipment.

(B) It shall be unlawful for any person to be involved in construction activity during the hours specified below:

(1) On weekdays prior to 7:00 a.m. and after 6:00 p.m.

(2) On weekdays within 300 feet of occupied dwellings, prior to 8:00 a.m. and after 5:00 p.m.

(3) On weekends and holidays, prior to 9:00 a.m. and after 5:00 p.m., irrespective of the distance from the occupied dwellings.

(C) In addition to the penalties provided by this code, authorized employees may issue "Stop Work Orders" when a violation of this section or § 5-17.04 has occurred. If such a Stop Work Order is issued, it shall not be released until the holder of the building permit provides assurance that future violations will not occur."

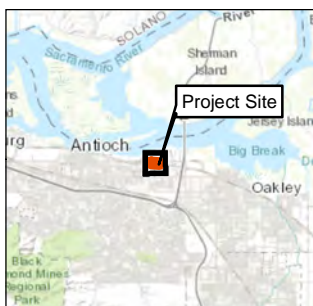
The City Council delegates to the City Manager or designee the authority to grant a waiver of the restrictions in 5-17.04 and 5-17.05 for a specific project for a specific period of time."

Sensitive Receptors

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are considered to be more sensitive to noise intrusion than are commercial or industrial activities. Ambient noise levels can also affect the perceived desirability or livability of a development.

As shown in Figure 3-1, the project site is in an industrial part of the City, approximately 0.4-mile south of the San Joaquin River Delta. The project site is bordered by commercial uses to the east and west; Wilbur Avenue to the north; and the Atchison, Topeka, and Santa Fe Railroad to the south. Other land uses surrounding the project site include industrial uses to the north, and single-family residential and vineyards to the south. There is currently an 8 foot tall solid metal fence separating the project site from the rail lines and various fencing materials separating the residential homes from the rail lines. The existing warehouse building is located in the northeast corner of the site as noted by the blue pin in Figure 3-1.

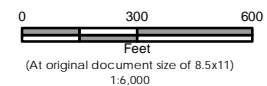




Notes
 1. Coordinate System: NAD 1983 StatePlane
 California III FIPS 0403 Feet

Legend

- Project Site
- Single-Family Residential



Project Location

Antioch, CA

Client/Project

City of Antioch
 Mt. Diablo Resource Recovery Truck Maintenance
 Facility Project

Figure No.

3-1

Title

Sensitive Receptors

This page left intentionally blank.



The closest noise-sensitive receptors are the single-family residential homes shown in the hatched orange outline in Figure 3-1. In particular, the homes at 1887-1957 Santa Fe Avenue will be located across the railroad tracks from the project site, with the north edge of the residential backyards approximately 100 feet from the south edge of the project site. The existing warehouse building is about 540' from the backyard edge of the single-family home at 1957 Santa Fe Avenue.

Existing Ambient Noise Levels

The existing noise environment in a project area is characterized by the area's general level of development because the level of development and ambient noise levels tend to be closely correlated. Areas that are not urbanized are relatively quiet, while areas that are more urbanized are noisier as a result of roadway traffic, industrial activities, and other human activities.

In the City of Antioch, major sources include "mobile sources" such as traffic along State Route 4 and State Route 160 freeways, rail lines, and major arterial roadways. Significant "stationary" sources of noise within Antioch include heavier industrial development in the northern portion of the City, and commercial development adjacent to residential neighborhoods and construction activities (City of Antioch 2003a).

Stantec reviewed the noise contours contained in the Contra Costa County Noise Element to provide baseline noise conditions at nearby sensitive receptors within the vicinity of the project site (Contra Costa County 2005). As shown in Figure 11-5 E "Noise Contours Antioch North" in the Contra Costa County Noise Element, the project site is located outside of any 60 dB(A) Ldn / CNEL contours. In addition, Table 11-2 "Future Noise Levels Along Freeways and Major Arterials" in the Contra Costa County Noise Element lists all major roadways in Contra Costa County and shows the Ldn level at 100 feet and the distance to the 60 dB(A) Ldn contour line. The Ldn at 100 feet for SR-160 is listed at 70 dB(A). The distance from SR-160 to the 60 Ldn contour is 425 feet. The east edge of the project site is located about 739 feet from the southbound lanes of SR-160; or outside the 60 dB(A) Ldn contour. East 18th Street is not included in the list of freeways and major arterials.

3.13.2 Methodology

In accordance with the requirements of CEQA, the noise analysis evaluates the project's noise sources to determine the impact of the proposed project on the existing ambient noise environment.

Because the City of Antioch does not have noise contours available, the Contra Costa County General Plan noise contours were used to provide baseline noise conditions at nearby sensitive receptors and within the project site vicinity. For the purpose of this analysis, potential sensitive receptors were determined by reviewing current aerial photography.



Operational Noise and Vibration

Impacts from future project-related traffic were estimated using predicted traffic counts for the project prepared by Stantec.

The proposed project's mechanical systems and operational activities would be required to comply with the maximum noise limits listed in Chapter 9-5, Article 19 of the Antioch Municipal Code and all General Plan requirements.

Construction Noise and Vibration

The Federal Highway Administration Roadway Construction Noise Model (RCNM) was used to determine noise generated from construction activities. The RCNM is used as the Federal Highway Administration's national standard for predicting noise generated from construction activities. The RCNM analysis includes the calculation of noise levels (Lmax and Leq) at incremental distances for a variety of construction equipment. The spreadsheet inputs include acoustical use factors, Lmax values, and Leq values at various distances depending on the ambient noise measurement location. Construction noise levels were calculated for each phase of construction based on the equipment list provided in Section 2.2.2 "Construction Equipment, Access, and Staging Areas" in the Project Description. Additionally, the construction noise modeling outputs can be found in Appendix G.

Vibration from construction equipment is analyzed at the surrounding sensitive receptors and compared to the applicable California Department of Transportation building damage criteria to determine whether construction activities would generate vibration at levels that could result in building damage.

USEPA Guidelines

The Environmental Protection Agency has established guidelines (USEPA 1973) for assessing the impact of an increase in noise levels. These guidelines have been used as industry standard for several years to determine the potential impact of noise increases on communities. Most people will tolerate a small increase in background noise (up to about 5 dB(A)) without complaint, especially if the increase is gradual over a period of years (such as from gradually increasing traffic volumes). Increases greater than 5 dB(A) may cause complaints and interference with sleep. Increases above 10 dB(A) (heard as a doubling of judged loudness) are likely to cause complaints and should be considered a serious increase. Table 3.13-6 defines each of the traditional impact descriptions, their quantitative range, and the qualitative human response to changes in noise levels.

Table 3.13-6: USEPA Impact Guidelines

Increase over Existing or Baseline Sound Levels	Impact Per USEPA Region Guidelines	Qualitative Human Perception of Difference in Sound Levels
0 dB to 5 dB	Minimum Impact	Imperceivable or Slight Difference
6 dB to 10 dB	Significant Impact	Significant Noticeable Difference – Complaints Possible



Increase over Existing or Baseline Sound Levels	Impact Per USEPA Region Guidelines	Qualitative Human Perception of Difference in Sound Levels
Over 10 dB	Serious Impact	Loudness Changes by a Factor of Two or Greater. Clearly Audible Difference – Complaints Likely

3.13.3 Environmental Impact Analysis

This section discusses the potential impacts on noise associated with the proposed project and provides mitigation measures where necessary.

Impact NOI-1	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?
---------------------	---

Impact Analysis

Exterior Traffic Noise Level Impacts

To describe future noise levels due to traffic added from the project, the December 19, 2020 “Mt. Diablo Resource Recovery Truck Maintenance Facility Project LOS Traffic Analysis Screening and VMT Analysis Screening” memo from Stantec and the “Access and Circulation” section of the Project Description were used as a reference.

The Project would result in a total of 63 employees at the project site consisting of 65 solid waste and recycling truck drivers and 5 truck mechanics. All vehicles and trucks would arrive to the project site via SR-160 and westbound Wilbur Avenue. The solid waste and recycling truck drivers would operate Monday through Friday from 4:00 AM to 2:00 PM, and on Saturday from 5:00 AM to 2:00 PM. The trucks would be parked at the project site overnight and leave on weekday mornings to complete daily routes to pick-up and dispose of all recycling materials at the Mt. Diablo Resource Recovery's facility. On weekdays, trucks would leave the site between 4:00 AM and 5:00 AM and would return sometime between 11:00 AM and 2:00 PM, depending on the length of their route. On Saturdays, a nominal number of truck trips would occur. Thereafter, the trucks would return to the project site to park overnight where maintenance inspections and servicing would be completed.

The truck mechanics would work in two shifts Monday through Friday (from 5:00 AM to 11:00 PM) and would also work for one shift on Saturday from 7:00 AM to 4:00 PM. The proposed facility would not operate on Sunday. Typically, all 65 trucks would receive a standard visual safety inspection by mechanics prior to the next day's route. Trucks with noted inspection discrepancies or are due for scheduled routine service would be brought into the maintenance building. It is estimated that 8 to 10 trucks would, on average, require service each working day.

The project's AM peak hour would occur between 4:00 AM and 5:00 AM when employees would be arriving at the project site in their personal vehicle, then leave the project site in a solid waste



or recycling truck. During the AM peak hour, a total of 132 trips (67 employee vehicles and 65 trucks) would occur.

As stated above, all vehicles and trucks would arrive to the project site via SR-160 and westbound Wilbur Avenue. This vehicle route does not pass through any noise-sensitive residential neighborhoods. Therefore, the impact of any increases of traffic volume on Wilbur Avenue would be less than significant.

Noise from vehicle and truck traffic would also be generated within the project site itself when employees drive in the site to park and trucks leave the facility. All 132 AM peak hour trips would not occur at exactly the same time. Assuming a total of 5 personal vehicles (pickup trucks) and 5 waste/recycle trucks operating simultaneously, noise levels from the 10 vehicles could reach a noise level of 75.8 dB(A) at 100 feet from the equipment (see Appendix G for calculation).

Noise generated from vehicle and truck traffic within the project site itself would be shielded from the single-family residential homes across the rail line along Santa Fe Avenue by the existing solid fence along the south edge of the project site. Assuming an 8 foot high solid metal fence along the south edge of the project site and all 10 trucks operating simultaneously at 30 feet from the solid fence, noise levels at the north backyard edge of the closest residential receptors along Santa Fe Avenue are estimated at 63 dB(A). This level would be slightly above the requirements for residential outdoor spaces described in Paragraph 11.6.1 "Noise Objective" in the General Plan. Considering the fencing installed at the north backyard edge of the single-family residences, noise levels from the trucks would be reduced to at or below the requirements for residential outdoor spaces described in Paragraph 11.6.1 "Noise Objective" in the General Plan for the backyard of the single-family residences. Therefore, the impact of vehicular noise within the project site on the adjacent noise-sensitive receptors would be less than significant.

Project Fixed-Source Noise

Typical warehouse and maintenance facility building construction would involve new mechanical equipment, such as exhaust fans, condensing units, and make-up air units. This equipment would generate noise that would radiate to the neighboring properties. The noise from this equipment would be required to comply with the maximum noise levels listed in Paragraph 11.6.1 "Noise Objective" in the General Plan and Chapter 9-5, Article 19 "Noise Attenuation Requirements", Paragraph (A) in the Antioch Municipal Code.

Thus, the onsite equipment would incorporate Mitigation Measure NOI-1 and be designed to incorporate measures such as shielding and/or appropriate attenuators to reduce noise levels that may affect the nearby single-family residential properties. Therefore, the impact of fixed-source noise on the neighboring properties would be less than significant with incorporation of Mitigation Measure NOI-1.

Project Operational Noise

Once the project is operational, noise associated with maintenance activities would be generated from the existing warehouse building in Phase 1 and the new maintenance building in



the center of the project site in Phase 2. There is also a possibility maintenance activity would be conducted with the building doors open.

Under Phase 1, the center of the existing warehouse/maintenance building would be about 635 feet from the north backyard edge of the closest single-family residential home along Santa Fe Avenue. When the new maintenance building is constructed in Phase 2, the center of the building would be approximately 350 feet from the north backyard edge of the closest single-family residential home.

Reference Sound Exposure Levels (SEL) in dB(A) at 50 feet from the center of an operating bus facility are listed in Table 4-13 in the 2018 Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual. The FTA Assessment Manual lists an SEL level of 114 dB(A) at 50 feet from the center of an operating bus facility with 100 total buses accessing the facility and 30 buses serviced and cleaned in a peak activity hour.

The project's maintenance facilities are anticipated to service approximately 8 to 10 trucks per working day. An activity hour of 10 total trucks was assumed as a worst-case scenario. A reduction in peak hour activity from 100 buses to 10 buses, represents a reduction in noise levels of 10 dB(A). Therefore, the short-term instantaneous worst-case SEL noise level generated from the project's truck maintenance facility was assumed to reach 104 dB(A) at 50 feet from the center of the building.

Taking into account attenuation from distance and losses from the solid metal fence at the south perimeter of the project site, and assuming the maintenance building doors are open, short-term instantaneous noise levels from the maintenance buildings could reach approximately 74 dB(A) during Phase 1 and 78 dB(A) with the Phase 2 building (see calculations in Appendix G) at the closest single-family residential homes. Both levels are expected to be above the requirements for residential outdoor spaces in Paragraph 11.6.1 "Noise Objective" in the General Plan and Chapter 9-5, Article 19 "Noise Attenuation Requirements", Paragraph (A) in the Antioch Municipal Code.

To reduce worst-case instantaneous noise levels from the maintenance buildings to the closest residential receptors, the doors on the south side of the maintenance buildings would need to remain closed. If it is desired to leave the doors open, the proposed project would be required to implement Mitigation Measure NOI-2 and have a qualified acoustical consultant perform a more detailed noise study of the maintenance buildings. The detailed noise study would take into account actual measured noise levels from an existing company maintenance building and the conditions and finishes within the buildings themselves. The detailed noise study may recommend absorptive finishes or shielding inside or outside the building, which would allow the doors to remain open. Therefore, the noise impact from the operation of the maintenance buildings on the closest single-family residential homes along Santa Fe Avenue would be less than significant with the incorporation of Mitigation Measure NOI-2.

Short-Term Construction Noise

Two types of short-term noise impacts could occur during construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to



the project site would incrementally increase noise levels on access roads leading to the project site. This increased traffic would be composed of vehicles, medium trucks, and heavy trucks.

Existing traffic on SR-160 and Wilbur Avenue already includes a component of construction vehicles and commercial vehicles to service the existing commercial and agricultural facilities. Therefore, noise levels along these streets are not expected to increase due to project-related construction traffic.

It is anticipated construction vehicles would not use the local roads, such as Viera Avenue, as a travel path to and from the project site. Therefore, noise levels along the local roads, which are directly adjacent to the single-family residential homes, are not expected to increase due to project-related construction traffic.

Construction activities would include site preparation, grading, building construction, and paving. Each construction stage has its own mix of equipment, and consequently, its own noise characteristics. The various construction operations would change the character of the noise generated at the project site and therefore, the noise level as construction progresses. The loudest stages of construction include the building construction and grading stages, as the noisiest construction equipment is typically earthmoving and grading equipment.

The construction of the proposed project would be conducted in two phases with three to five stages each and each stage would use different construction equipment. The main types of noise-producing equipment for each construction stage are shown in Table 3.13-7.

Table 3.13-7: Construction Phase/Stage Equipment

Construction Phase/Stage	Construction Equipment	
Phase 1 Equipment		
Site Preparation	<ul style="list-style-type: none">• Rubber-Tired Dozers (3)• Tractors (2)	<ul style="list-style-type: none">• Front End Loader• Backhoe
Grading	<ul style="list-style-type: none">• Excavators (2)• Rubber-Tired Dozer	<ul style="list-style-type: none">• Grader• Scrapers (2)
Paving	<ul style="list-style-type: none">• Pavers (2)	
Phase 2 and Phase 3 Equipment		
Site Preparation	<ul style="list-style-type: none">• Grader	<ul style="list-style-type: none">• Tractor
Grading	<ul style="list-style-type: none">• Concrete Saw• Tractor	<ul style="list-style-type: none">• Rubber-Tired Dozer• Front End Loader
Building Construction	<ul style="list-style-type: none">• Crane• Tractor	<ul style="list-style-type: none">• Forklifts (2)• Front End Loader
Paving	<ul style="list-style-type: none">• Cement Mixers (4)• Roller	<ul style="list-style-type: none">• Paver• Tractor



Construction Phase/Stage	Construction Equipment
Architectural Coating	<ul style="list-style-type: none"> Air Compressor

Source: Appendix B

Table 3.13-8 lists the types of construction equipment and the maximum and average operational noise level as measured at 100 feet from the operating equipment. The 100-foot distance represents the approximate distance between the south edge of the project site and the closest single-family residential homes along Santa Fe Avenue.

Table 3.13-8: Summary of Federal Highway Administration Roadway Construction Noise Model at Closest Noise-Sensitive Receptor

Source	Distance to Nearest Sensitive Receptor	Sound Level at Nearest Residence		
		Lmax, dB(A)	Acoustical Use Factor (%)	Leq, dB(A)
Grader	100 feet	79.0	40%	75.0
Tractor	100 feet	78.0	40%	74.0
Concrete Saw	100 feet	83.6	20%	76.6
Rubber-Tired Dozer	100 feet	75.6	40%	71.7
Front-End Loader	100 feet	73.1	40%	69.1
Crane	100 feet	74.5	16%	66.6
Forklift ¹	100 feet	73.1	40%	69.1
Cement Mixer	100 feet	72.8	40%	68.8
Paver	100 feet	71.2	50%	68.2
Roller	100 feet	74.0	20%	67.0
Air Compressor	100 feet	71.6	40%	67.7
Scraper	100 feet	77.6	40%	73.6
Backhoe	100 feet	71.5	40%	67.6
Excavator	100 feet	74.7	40%	70.7

Source: Federal Highway Administration RCNM v1.1 2008

Notes:

1. The RCNM program does not have sound levels for a forklift. Therefore, the noise levels from a front-end loader were used in the analysis to simulate the forklift.



A worst-case condition for construction activity would assume all noise-generating equipment were operating at the same time and at the same distance from the closest noise-sensitive receptor. Using this assumption, the RCNM program calculated the following combined Leq and Lmax noise levels from each phase and stage of construction as shown in Table 3.13-9:

Table 3.13-9: Calculated Noise Level from Each Construction Phase/Stage

Construction Phase/Stage	Distance to Closest Noise Sensitive Receptor, ft	Calculated Lmax, dB(A)	Calculated Leq, dB(A)
Phase 1 Equipment			
Site Preparation	100 Feet	84.3	80.3
Grading	100 Feet	84.6	80.6
Paving	100 Feet	74.2	71.2
Phase 2 and Phase 3 Equipment			
Site Preparation	100 Feet	81.5	77.5
Grading	100 Feet	85.4	79.7
Building Construction	100 Feet	81.8	77.3
Paving	100 Feet	82.5	78.3
Architectural Coating	100 Feet	71.6	67.7

Source: Federal Highway Administration RCNM v1.1 2008

Although noise levels from construction could exceed the maximum noise levels listed in Paragraph 11.6.1 “Noise Objective” in the General Plan and Chapter 9-5, Article 19 “Noise Attenuation Requirements”, Paragraph (A) in the Antioch Municipal Code, increases in noise levels from construction activities would be temporary and construction activities would be limited to the restrictions set by the General Plan and Antioch Municipal Code, as described in Section 3.13.1, Environmental Setting.

In conclusion, construction noise would be short-term and intermittent. Furthermore, implementation of Mitigation Measure NOI-3 would ensure compliance with the City’s construction noise standards; therefore, impacts would be less than significant with mitigation incorporated.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM NOI-1 Fixed-Source Noise Attenuation. The noise from all mechanical equipment associated with the proposed project shall comply with Paragraph 11.6.1 “Noise Objective” in the General Plan and Article 19 “Noise Attenuation Requirements” in the Antioch Municipal Code.

MM NOI-2 Operations Noise Reduction. To reduce worst-case instantaneous operations noise levels from the maintenance buildings to the closest residential receptors,



the doors on the south side of the maintenance buildings would need to remain closed. If it is desired to leave the doors open, a qualified acoustical consultant could perform a more detailed noise study of the maintenance buildings taking into account actual measured noise levels from an existing company maintenance building and accounting for the conditions and finishes within the buildings themselves. The detailed noise study may recommend absorptive finishes or shielding inside or outside the building which would allow the doors to remain open.

MM-NOI-3 Construction Noise Reduction. Follow all construction noise requirements listed in the General Plan and Paragraphs 5.17.04 "Heavy Construction Equipment Noise" and 5.17.05 "Construction Activity Noise" within the Antioch Municipal Code.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.

Impact NOI-2 Generation of excessive groundborne vibration or groundborne noise levels?

Impact Analysis

During construction of the project, equipment such as rollers, bulldozers, and loaded trucks may be used as close as 100 feet from the nearest sensitive receptor. Construction equipment that would be used during project construction would generate vibration levels between 0.0004 PPV and 0.026 PPV at 100 feet, as shown below in Table 3.13-10. All calculated groundborne vibration levels are below the Federal Transit Administration vibration threshold at which human annoyance could occur of 0.10 PPV. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours as per the General Plan and Antioch Municipal Code. Therefore, construction vibrations are not predicted to cause damage to existing buildings or cause annoyance to sensitive receptors. As such, implementation of the proposed project would have a less than significant impact related to vibration.

Table 3.13-10: Vibration Source Levels for Construction Equipment

Type of Equipment	Peak Particle Velocity at 25 Feet	Peak Particle Velocity at 50 Feet	Peak Particle Velocity at 100 Feet	Threshold at which Human Annoyance Could Occur	Potential for Project to Exceed Threshold
Vibratory roller	0.210	0.074	0.026	0.10	No
Large bulldozer	0.089	0.032	0.011	0.10	No
Loaded trucks	0.076	0.027	0.010	0.10	No
Small bulldozer	0.003	0.001	0.0004	0.10	No

Source: FTA 2018



Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact NOI-3	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
---------------------	---

Impact Analysis

The nearest public airports to the project site are the Byron Airport and the Buchanan Field Airport, located about 14 miles southeast and 16 miles west of the project site, respectively. Additionally, there are no private airstrips or helipads are located within the proximity of the project site. The closest helipad is located at the Kaiser Permanente Antioch Medical Center, about 4.25 miles to the south of the project site. As such, the proposed project is not located within a land use plan for a public airport or private use airport, and therefore would not expose people residing or working in the project area to excessive noise levels. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.



3.14 POPULATION AND HOUSING

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Environmental Setting

Antioch is the second largest city in Contra Costa County. According to the California Department of Finance, the City had a population of 102,372 in 2010 (California Department of Finance 2020a). As of January 1, 2020, the City's population has increased by 9 percent to 112,520 (California Department of Finance 2020b). By the year 2040, it is estimated the City's population would increase to 130,725 (ABAG 2017). Antioch's economy functions as a small part of the Bay Area economy and makes up 1.1 percent of the Bay Area labor force (City of Antioch 2003b). One of the objectives of the General Plan is to create a larger employment base within the City by 2030. The General Plan includes policies to provide for a mix of employment generating uses and ample employment opportunities for City residents (City of Antioch 2003b). According to the City's Economic Development Department website, there are 23,800 jobs in Antioch (City of Antioch 2020b). ABAG projected the total number of jobs in the City would increase to 25,745 by 2040 (ABAG 2017).

The project site is in an industrial part of the City and is developed with a warehouse building, rail spur, and surface parking. There are no residential dwelling units onsite. The existing warehouse building was constructed in 2010 to serve as a storage facility and is now vacant. The remaining portion of the project site is undeveloped but is leased by multiple tenants to store equipment, park company trucks and employee vehicles, and for towing or impounding vehicles.

3.14.2 Methodology

The following evaluation of potential population, housing, and employment impacts associated with the proposed project was based on data obtained from the California Department of Finance, ABAG population projections, and applicable planning documents from the City.

3.14.3 Environmental Impact Analysis

This section discusses potential impacts on population and housing associated with the proposed project and provides mitigation measures where necessary.



Impact POP-1 Induce substantial 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)?

Impact Analysis

The proposed project involves the development of a truck maintenance facility on a 10.28-acre site that is developed with a 9,730 square foot metal warehouse building and approximately 10,000 square feet of paved surface parking. The proposed project would initially use the existing warehouse building as an interim truck repair and maintenance facility until the new 18,533 square foot warehouse is constructed. The proposed project would not involve any residential development. It would be constructed in three phases and require an average of 8 temporary onsite workers during each construction phase, but there would be a maximum of 12 construction workers during peak hours. Construction of the proposed project would not affect the population of the City because the construction workforce is available from nearby areas. In addition, the project site is within commuting distance of the greater San Francisco Bay Area, so construction workers would not be expected to relocate. Therefore, temporary construction activities would not be expected to increase the demand for housing.

Operation of the proposed project would create new jobs and increase the demand for new employees. When construction is complete, operation of the proposed project would result in 70 employees at the project site consisting of 65 solid waste and recycling truck drivers and 5 truck mechanics. The proposed project would provide new employment opportunities for City residents and would be consistent with the General Plan's projected employment growth and objectives of providing additional jobs to city residents. It is expected employees generated by the proposed project would already reside in or near the City and would not substantially increase the City's population. Furthermore, as the unemployment rate in Contra Costa County was 9.3 percent in September 2020, it is expected the proposed project's construction- and operation-related employment would be absorbed by the regional labor force and would not attract new workers to the City (EDD 2020). The proposed project would not directly or indirectly induce the City's population, and this impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact POP-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Impact Analysis

The project site is developed with a warehouse building, rail spur, and surface parking. There are no residential dwelling units onsite. Prior to the commencement of Phase 1, the existing lease agreements for the project site would end to allow for completion of all site improvements proposed under Phases 1 and 2. However, the west portion of the project site would still be



leased by an existing tenant and would be used as a storage yard to park, tow, and impound vehicles until the design for Phase 3 is finalized. Therefore, the proposed project would not result in the displacement of people or housing that would necessitate the construction of replacement housing elsewhere. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.



This page left intentionally blank.



3.15 PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Environmental Setting

Fire Protection

The City is served by the Contra Costa County Fire Protection District (CCCYPD), which is responsible for providing fire suppression, fire prevention, emergency medical, rescue, ambulance transport, and public education programs. It serves more than a million people across the 304-square-mile service area (CCFPD 2018). The CCCYPD operates 25 fire stations and has 288 professional firefighters. The nearest fire station is Station No. 81, which is located about 2.5 miles west of the project site at 315 W 10th Street.

In 2018, CCCYPD responded to 60,000 fire, rescue, and medical emergency calls (CCCYPD 2018). Minimum response times are established by the county, which requires that 90 percent of all calls be responded to in an average of between 10 and 11 minutes and 45 seconds. Additionally, the City's General Plan has a response time goal of 80 percent for all City emergencies within 5 minutes (City of Antioch 2003b). In 2018, CCCYPD's average response time was 4 minutes and 38 seconds. CCCYPD is meeting the County and City General Plan requirements by responding to 95 to 97 percent of calls (CCCYPD 2018).

According to Chapter 3-7 of the Antioch Municipal Code, new development projects are required to pay fees for fire protection facilities as a condition of approval. Collection of these fees is the primary source of revenue to fund fire and emergency medical services. The development impact fees would be imposed and collected at the time the building permit for the new development is issued (City of Antioch 2020a).



Police Protection

The Antioch Police Department (APD) provides police services for the City. APD is located at 300 L Street about 2.7 miles west of the project site. APD currently has a sworn staff of 120 police officers (Antioch Herald 2020). The City is divided into six “beats,” or patrol zones based on geographical area. The project site would be served by Beat 2 (northeastern area). Additionally, each service call is categorized as a Priority 1, Priority 2, or Priority 3 call. Priority calls are classified below.

- Priority 1 designates in-progress crimes or life-threatening situations.
- Priority 2 designates calls demanding immediate attention, but are not life threatening or crimes in progress.
- Priority 3 designates calls that do not require immediate response and can be handled as soon as is practical.

APD response times are measured from the moment a dispatcher picks up the phone, to the moment an officer arrives on scene. In October 2020, APD’s average response time to emergency calls is down to 7 minutes and 35 seconds (Antioch Herald 2020). APD is meeting the City’s General Plan objective of providing an average response time to emergency calls of between 7 and 8 minutes from the time the call is received to the time an officer arrives.

Schools

The City is served by the Antioch Unified School District, which provides kindergarten through high school education in the City. The Kimball Elementary School, Antioch Middle School, and Antioch High School serve the area surrounding the project site (AUSD 2020).

Parks

The City Recreation Department and the Parks and Recreation Commission maintain the City’s 34 local parks, recreational facilities, and open space areas (City of Antioch 2017). Additionally, the East Bay Regional Park District maintains the City’s four regional parks. There are three parks within approximately 1 mile of the project site, including the Youth Sports Complex and Jacobsen Park located to the southwest, and Almondridge Park located to the southeast (City of Antioch 2020c). The City’s General Plan sets a standard of 5 acres of parks and open space per 1,000 residents (City of Antioch 2003b).

3.15.2 Methodology

The following analysis is based on a review of documents pertaining to the project site, including the City’s General Plan, General Plan EIR, and Antioch Municipal Code.

3.15.3 Environmental Impact Analysis

This section discusses potential impacts on public services associated with the proposed project and provides mitigation measures where necessary.



Impact PUB-1 **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:**

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

Impact Analysis

Fire Protection

Fire service is currently provided to the project site by the CCCFPD. The proposed project does not involve a residential component. The proposed project would result in 70 employees consisting of 65 solid waste and recycling truck drivers and 5 truck mechanics. The addition of new employees at the project site could increase demand for fire protection services. As discussed in Section 3.14, Population and Housing, the proposed project would not affect the population of the City, because the proposed project's operation-related employment is expected to be absorbed by the regional labor force and would not attract new workers to the City.

The proposed project would comply with the California Fire Code and include site-specific design features such as providing water for fire suppression, ensuring adequate emergency access to the project site, and requiring structures to be built with approved building materials. Conformance with the California Fire Code would reduce risks associated with fire hazards. The two 26-foot-wide driveways at the west and east ends of the project site on Wilbur Avenue would provide access in case of an emergency. Additionally, a 30-foot-wide crossing would be constructed over the north portion of the rail spur easement for trucks to access the parking area on the east side of the project site. The proposed crossing would be lighted and delineated with standard reflective traffic-rated railroad crossing signage. Pursuant to the provisions of the existing reserve easement (Grant Deed 2006-00906-00), security fencing may be installed around the perimeter of the onsite rail spur; however, it would not be required. To provide unimpeded emergency access throughout the site, the proposed project would not place fencing around the rail spur and instead would place reflective delineators (traffic cones) along the boundary of the easement.

The proposed project would also be subject to Chapter 3-7 of the Antioch Municipal Code and required to pay fees for fire protection facilities as a condition of approval. Payment of the Fire Protection Facilities Fees would offset the cost of fire protection and emergency service demands associated with the proposed project. Therefore, the proposed project would not be



anticipated to substantially increase CCCFPD response times to the project site, nor would it require the construction of new or physically altered fire protection facilities. The impact would be less than significant.

Police Protection

Law enforcement services for the project site are provided by APD. The proposed project would not include a residential use that would induce population growth. The proposed project would result in 70 new employees consisting of 65 solid waste and recycling truck drivers and 5 truck mechanics. The addition of new employees could result in an increased demand for police protection services at the project site; however, APD is currently meeting the City's General Plan response time objective and responding to emergency calls within 7 minutes and 35 seconds. Additionally, the proposed project would be monitored and secured via onsite maintenance staff and an after-hours security guard. Security cameras would also be installed to monitor all traffic entering and exiting the project site and onsite movement. Therefore, the proposed project would not be anticipated to substantially increase APD response times to the project site, nor would it require the construction of new or physically altered police protection facilities. The impact would be less than significant.

Schools

The proposed project would involve construction of a truck maintenance facility. No residential uses are proposed, and therefore the proposed project would not directly increase the demand on school facilities. Furthermore, it is anticipated employees generated by the proposed project would already reside in or near the City and would not directly or indirectly increase demand for new or expanded school facilities. Therefore, the proposed project would have no impact on school facilities.

Parks

The proposed project would not involve a residential component and would not introduce a new population that would directly create additional demands on existing or planned park facilities. It is expected employees generated by the proposed project would already reside in or near the City, and therefore would not directly or indirectly increase the use of nearby park facilities. Therefore, the proposed project would not significantly affect the City's parkland ratios and would not result in the need for new or expanded park facilities. No impact would occur.

Other Public Facilities

As discussed, the proposed project would not generate a residential population that would substantially increase the demand for libraries or other public facilities. Additionally, it is expected employees generated by the proposed project would already reside in or near the City and would not directly or indirectly increase the demand on other public facilities. No impact would occur.

Level of Significance Before Mitigation

Less Than Significant Impact.



Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



This page left intentionally blank.



3.16 RECREATION

Would the Project:	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Environmental Setting

The City Recreation Department and the Parks and Recreation Commission maintain the City's 34 local parks, recreational facilities, and open space areas (City of Antioch 2017). Additionally, the East Bay Regional Park District maintains the City's four regional parks. More than 400 acres of parks and open space areas are in the City, 200 of which are developed, and the remaining 200 acres consist of land awaiting development or are areas managed for open space (City of Antioch 2017). There are three parks within approximately 1 mile of the project site, including the Youth Sports Complex and Jacobsen Park located to the southwest, and Almondridge Park located to the southeast (City of Antioch 2020c).

3.16.2 Methodology

The following analysis is based on data obtained from the City's Parks Directory, General Plan, and General Plan EIR.

3.16.3 Environmental Impact Analysis

This section discusses potential impacts related to recreational facilities associated with the proposed project and provides mitigation measures where necessary.

Impact REC-1 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?

Impact Analysis

The proposed project would involve development of a new truck maintenance facility. It would not include a residential component that would directly increase the City's population growth. Operation of the proposed project would result in 70 employees at the project site consisting of 65 solid waste and recycling truck drivers and 5 truck mechanics. It is expected project employees would already reside in or near the City and would not indirectly increase the use of



any existing recreational facilities or the demand for new, or the expansion of existing recreational facilities. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact REC-2	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?
---------------------	--

Impact Analysis

The proposed project involves the development of a truck maintenance facility on a 10.28-acre site that is developed with a 9,730-square-foot metal warehouse building and approximately 10,000 square feet of paved surface parking. The scope of the proposed project would not include the construction or expansion of recreational facilities. Therefore, the proposed project would not result in an adverse physical effect on the environment related to recreation facilities. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.



3.17 TRANSPORTATION

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

3.17.1 Environmental Setting

The following describes the existing conditions for the major transportation facilities in the vicinity of the project site, including the roadway network, bicycle and pedestrian facilities, and transit service. Additionally, Stantec prepared a LOS traffic analysis screening and VMT screening for the proposed project on December 16, 2020. The results of the LOS and VMT screening analyses are summarized herein and provided in Appendix H.

Existing Roadway Network

The project site is located along Wilbur Avenue, which would provide primary access to the project site via a 40-foot wide driveway on the western end of the project site. The existing entrance on the eastern end of the project site would remain locked but functional to accommodate emergency vehicles and truck mechanic staff exiting the facility. Regional access to the project area would be provided primarily by SR-160. The surrounding street network is discussed below.

Wilbur Avenue provides east-west access in northeastern Antioch and becomes a major arterial between “A” Street and SR-160.

East 18th Street is classified by the City as a Primary arterial. It runs in an east-west direction from L Street to SR-160. It is a four-lane roadway located south of the project site. East 18th Street is designated as a route of regional significance between A Street and SR-160.

Viera Avenue runs in a north-south direction from Oakley Road to Wilbur Avenue. It is a two-lane roadway with a Class II bicycle lane that extends to Wilbur Avenue.

SR-160 freeway is located east of the project site. It generally runs in a north-south direction and provides regional access with a connection to SR-4 about 1.5 mile south of the project site.



Bicycle and Pedestrian Facilities

The project site is in an industrial part of the City. There are no existing sidewalks along the project frontage, except for a short half mile segment on the north side of Wilbur Avenue adjacent to the project site. As discussed in the City's General Plan EIR, many outlying areas are still rural in character, and do not have sidewalks, including Wilbur Avenue between Viera Avenue and SR-160 (City of Antioch 2003b).

A Class II bike lane is present along the westbound lane of Wilbur Avenue that extends from A Street to SR-160 (City of Antioch 2003b). There is also a Class II bike lane along both sides of Viera Avenue that extends between East 18th Street and Wilbur Avenue. Class II facilities are designated bike lanes that provide a space in the road for bicycle travel.

Transit Services

The Eastern Contra Costa Transit Authority operates fixed-route and paratransit service under Tri Delta Transit and contracts with First Transit for the operation of buses. Tri Delta provides transit service near the project site. The nearest bus stop is located near the corner of Viera Avenue and East 18th Street, about 0.5 mile away. The bus stop provides service for routes 383, 391, and 393.

3.17.2 Methodology

The following analysis is based on a review of documents pertaining to the project site, including the City's General Plan, General Plan EIR, and Antioch Municipal Code. Additionally, the analysis is based on the LOS traffic analysis screening and VMT screening prepared for the proposed project by Stantec on December 16, 2020 (Appendix H). The VMT analysis screening completed for the proposed project complies with the updated CEQA guidelines that incorporates the requirements of SB 743. Generally, SB 743 moves away from using delay-based LOS as the metric for identifying a project's significant impact and to instead use VMT.

3.17.3 Environmental Impact Analysis

This section discusses potential impacts on traffic and transportation associated with the proposed project and provides mitigation measures where necessary.

Impact TRANS-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Impact Analysis

The proposed project would generate traffic through the transport of workers, equipment, and materials to and from the project site. The proposed project would be constructed in three phases, starting in June 2021 and ending in October 2026. There would be an average of 8 temporary onsite workers during each construction phase, but there would be a maximum of 12 construction workers during peak hours. Construction activities would generally be anticipated to occur within the project site; however, work may extend into Wilbur Avenue to connect to existing utility lines and other necessary improvements. Any construction traffic, lane closures,



or street staging would require an approved TCP and an encroachment permit from the City. Project construction hours would be in accordance with the City of Antioch noise ordinance. Since construction traffic would be temporary and would be spread across the duration of construction, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Therefore, the project construction activities would be less than significant.

The project trip generation is provided in Table 3.17-1. Based on the size of the proposed warehouse buildings (net increase of 26,770 square feet), and Institute of Transportation Engineers (ITE) trip generation rates, approximately 5 trips would occur during the AM peak hour of the adjacent roadway (typically one hour between 7:00 AM and 9:00 AM), 5 trips would occur during the PM peak hour of the adjacent roadway (typically one hour between 4:00 PM and 6:00 PM), and there would be 47 average daily trips (ADT). ITE does not have a trip generation rate for the three-hour midday period, which is estimated as 10 trips (double the highest peak hour) for the purpose of this analysis.

Table 3.17-1: Project Trip Generation

Category	AM Project Peak Hour (4:00-5:00am)			AM Roadway Peak Hour			Midday Project 3-Hour Peak Period (11:00am-2:00pm)			PM Roadway Peak Hour			ADT
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Trip Rate													
Warehousing (ITE 150)	na	na	na	0.13	0.04	0.17	na	na	na	0.05	0.14	0.19	1.74
Trip Generation													
Employee vehicles ¹	67	0	67	0	0	0	4	67	71	0	0	0	138
Trucks ¹	0	65	65	0	0	0	65	0	65	0	0	0	130
Visitors/Deliveries ²	0	0	0	4	1	5	5	5	10	1	4	5	47
Total	67	65	132	4	1	5	74	72	146	1	4	5	315

Notes:

¹ Based on number of employees, employee shifts and truck schedule

² Assumes Project net 26,770 s.f. (Phase 2 = 18,000 s.f. + Phase 3 = 18,500 s.f.- Existing 9,730 s.f.)

na = not available

s.f. = square feet

Source: Appendix H

As shown in Table 3.17-1, the project's AM peak hour would occur between 4:00 AM and 5:00 AM when employees would be arriving at the project site in their personal vehicle, then leave the project site in a solid waste or recycling truck. The project's midday peak period would occur between 11:00 AM and 2:00 PM when trucks return to the project site and employees leave in their personal vehicle. During this three-hour period, approximately 146 project trips would occur. There would be a nominal volume of trips that occur in the AM and PM peak hours of the adjacent roadways when off-site traffic impacts would generally occur. Specifically, based on ITE trip generation rates approximately 5 trips are anticipated for the peak hour of the adjacent



roadways. Overall, there would be an estimated 315 daily trips generated by the project for a typical weekday.

As described, Class II bicycle facilities are provided along the westbound lane of Wilbur Avenue. There are no public transit facilities adjacent to the project site. The proposed project would not modify or interfere with the bicycle facilities along the westbound lane of Wilbur Avenue during construction or operation. During construction, project activities would be confined to the project. Any construction traffic, lane closures, or street staging would require an approved TCP and an encroachment permit from the City. As a result, the proposed project would not create hazards or barriers for pedestrians, bicyclists, or local transit service. Therefore, operation of the proposed project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. This impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact TRANS-2 Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impact Analysis

CEQA Guidelines Section 15064.3(b) indicates that land use projects would have a significant impact if the project resulted in VMT exceeding an applicable threshold of significance. The Governor's Office of Planning and Research (OPR) *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory* (Technical Advisory), published in December 2018, recommends methodologies for quantifying VMT, significance thresholds for identifying a transportation impact, and screening criteria to quickly identify if a project can be presumed to have a less than significant impact without conducting a full VMT analysis. Lead agencies are to adopt local guidelines appropriate for their jurisdiction. At the time of this report, the City has not formally adopted VMT guidelines. In July 2020, the Contra Costa Transportation Authority (CCTA) released a draft VMT Analysis Methodology for Land Use Project in Contra Costa but is in the process of developing VMT guidance. Therefore, this VMT analysis has been prepared in accordance with OPR's Technical Advisory guidance and CCTA's draft methodology.

OPR's Technical Advisory indicates that employment-generating projects located within a low VMT generating area can be presumed to have a less than significant impact. However, since OPR's Technical Advisory defers to lead agencies for the preparation of low-VMT area screening maps, CCTA's VMT draft methodology criteria is utilized. CCTA recommends that for the analysis of employment-generating projects, the cities and unincorporated portions of CCTA's five subregions with existing home-based VMT per worker that is 15 percent below the existing regional average are presumed to have a less than significant impact for any development within those areas (CCTA 2020). According to CCTA, development projects may



assume that the project's VMT output would be similar in nature to the existing Citywide average home-based work VMT per worker (CCTA 2020). The regional area is defined as the Bay Area region. VMT statistics were obtained from CCTA. Table 3.17-2 summarizes the average home-based work VMT per worker for the City and the average home-based work VMT per worker for the Bay Area region.

Table 3.17-2: Low VMT Area Summary

Analysis Metrics: Employment-Generating	VMT
Citywide Average Home-Based Work per Worker	10.7
Bay Area Average Home-Based Work per Worker	15.8
Bay Area Average Home-Based Work per Worker minus 15%	13.4
Is Citywide average above or below the regional average minus 15%?	Below
Is Project in a low VMT area?	Yes

VMT= vehicle miles travelled

Source: Appendix H

As shown in Table 3.17-2, the Citywide average home-based work per worker VMT of 10.7 is below the regional average home-based work per worker significance threshold of 13.4. Therefore, the proposed project is in one of CCTA's cities that is considered a "low VMT area" and therefore is presumed to have a less than significant impact on VMT.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact TRANS-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact Analysis

During construction, the proposed project would use heavy construction equipment on local roadways and major arterials. The use of roadways by heavy construction equipment can increase the risk to drivers, cyclists, and pedestrians in the project area. Construction activities would generally be anticipated to occur within the project site; however, work may extend into Wilbur Avenue to connect to existing utility lines and other necessary improvements. The proposed project includes preparation of a TCP that would include detours, emergency access, and appropriate traffic controls during construction. An encroachment permit would be obtained from the City for any staging/construction-vehicle parking on adjacent streets, if necessary. Notices regarding closure to the public of street parking would be posted in compliance with City



regulations in advance of use. Therefore, project construction would not create a transportation hazard, and the impact would be less than significant.

Operation of the proposed project would not result in changes to a roadway that would create road hazards or alter design features developed to mitigate such hazards. Access to the project site would primarily be from the 40-foot wide driveway on the western end of the project site, which would meet the City's design standards for minimum driveway width of 20 feet. The existing entrance on the eastern end of the project site would remain locked but functional to accommodate emergency vehicles and truck mechanic staff exiting the facility. Internal access would be provided by a two-way 40-foot-wide paved access road, which would cross over the north portion of the rail spur easement via a 30-foot-wide crossing so that trucks could access the parking area on the east side of the project site. Additionally, to provide unimpeded emergency access throughout the site, the proposed project would not place fencing around the rail spur and instead would place reflective delineators (traffic cones) along the boundary of the easement. The proposed crossing would also be lighted and delineated with standard reflective traffic rated railroad crossing signage. The proposed crossing would also be lighted and delineated with standard reflective traffic rated railroad crossing signage. All trucks, employee vehicles, and pedestrian traffic would be directed to cross the rail spur at the designated crossing point. All employees would receive safety training pertaining to the use of the rail spur crossing. The City and CCCFD would review all site plans to ensure that all project driveways would provide clear sight lines, adequate access for emergency vehicles, and pedestrian safety features. Therefore, operation of the proposed project would not substantially increase hazards due to a design feature, and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact TRANS-4 Result in inadequate emergency access?

Impact Analysis

During the construction phase, temporary and/or partial street closures may be needed. However, access to the project site and the surrounding area would be maintained in accordance with a TCP. The TCP would identify all detours and appropriate traffic controls and would ensure adequate circulation and emergency access are provided during the construction phase.

Operation of the proposed project would not result in the permanent modification to any existing roadways, and therefore would not physically interfere with any existing emergency routes. As shown in Figure 2-1, access to the project site would primarily be from the proposed double-gated entrance on the western end of the project site. The existing entrance on the eastern end of the project site would remain locked but functional to accommodate emergency vehicles and truck mechanic staff exiting the facility. Internal access would be provided by a two-way 40-foot-



wide paved interior access road, which would cross over the north portion of the rail spur easement via a 30-foot-wide crossing so that trucks could access the parking area on the east side of the project site. Additionally, to provide unimpeded emergency access throughout the site, the proposed project would not place fencing around the rail spur and instead would place reflective delineators (traffic cones) along the boundary of the easement. The proposed crossing would also be lighted and delineated with standard reflective traffic rated railroad crossing signage. Therefore, the project site would have adequate emergency access and impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



This page left intentionally blank.



3.18 TRIBAL CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined by Public Resources Code section 21047 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

This section describes potential tribal cultural resources at the project site and includes a preliminary analysis of potential impacts to these resources from the construction and operation of project facilities. Local tribes or tribal representatives are the authority on identifying tribal cultural resources, and a NAHC Sacred Lands File Search was requested on September 17, 2020, to identify the appropriate tribal contacts for the purposes of identifying tribal cultural resources. The City also initiated AB 52 tribal consultation as stipulated in CEQA.

3.18.2 Methodology

To identify previously recorded cultural resources within the project area, a records search was conducted at the NWIC for the project site and a 0.25-mile radius around the site. In addition, archival and background literature research (i.e., archaeological, historic, and ethnographic information) was conducted to determine the potential for cultural resources being encountered within the project area. A pedestrian survey of the project site was conducted on September 25,



2020, to identify any cultural resources not previously recorded within the site boundaries (Appendix C).

Stantec sent a Sacred Lands File and Native American contacts list request to the NAHC on September 17, 2020. The NAHC responded on September 18, 2020 stating that the results of the search were negative. Thirteen individuals and tribes affiliated with the area were identified for further consultation regarding known tribal resources within or immediately adjacent to the project area.

On October 2, 2020, Stantec sent a certified letter with a project description, location map, and invitation to consult on the project to each of the tribal representatives identified by the NAHC. No responses to written notification were received. Follow-up phone calls were made to each of the contacts on October 22, 2020. At that time, Chairperson Zwierlein of the Amah Mutsun Tribal Band of Mission San Juan Bautista stated that she is not aware of any known tribal cultural resources at the project location but recommended that construction personnel be given cultural sensitivity training prior to the commencement of project activities and that an archaeologist assess any potential resources identified during construction.

On November 2, 2020, Stantec emailed a project description and invitation to consult to all remaining Native American individuals and organizations on the NAHC contact list. No additional responses were received. Through AB 52 outreach efforts, the City received a response from representatives of Wilton Rancheria. Wilton Rancheria did not identify any specific tribal cultural resources within or adjacent to the project area.

3.18.3 Environmental Impact Analysis

This section discusses potential impacts on tribal cultural resources associated with the proposed project and provides mitigation measures where necessary.



Impact TRIB-1	<p>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined by Public Resources Code Section 21047 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:</p> <ul style="list-style-type: none">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), orii) 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?
----------------------	---

Impact Analysis

The archival records search performed as part of the cultural resources analysis did not identify any prehistoric or tribal cultural resources within or immediately adjacent to the project area. A field review of the project area noted that the project site is heavily disturbed and does not exhibit any evidence of prehistoric archaeological sites or subsurface cultural deposits. No tribal cultural resources were identified through consultation with local tribal representatives. Thus, the proposed project is not anticipated to impact any known or potential tribal cultural resources.

However, subsurface construction activities such as trenching, and grading associated with the proposed project could potentially damage or destroy previously undiscovered unique tribal cultural resources. In the event undiscovered unique tribal cultural resources are identified, the proposed project would be required to implement Mitigation Measures CUL-1, CUL-2, and CUL-3. These mitigation measures would require implementation of standard inadvertent discovery procedures and worker awareness training to reduce potential impacts to previously undiscovered subsurface unique tribal cultural resources. Therefore, impacts on tribal cultural resources would be less than significant with implementation of Mitigation Measures CUL-1 through CUL-3.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

Mitigation Measure CUL-1, Mitigation Measure CUL-2, and Mitigation Measure CUL-3 are required. Refer to Section 3.5, Cultural Resources, for complete details pertaining to these mitigation measures.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation.



This page left intentionally blank.



3.19 UTILITIES AND SERVICE SYSTEMS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the 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 impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, State, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.19.1 Environmental Setting

Water Supply

The existing warehouse building is currently served by a 6-inch water main for fire protection. There is also a private well in the northwest corner of the project site that provides water to the existing warehouse building's restroom. The project proposes to connect to the City's existing public water system within Wilbur Avenue. According to the City's 2015 Urban Water Management Plan, the City's water system provides service to 31,798 customers (City of Antioch 2016). The service area covers 28.8 square miles and includes the area within the City limits and some adjacent land to the northeast and the west (City of Antioch 2016). The primary source of the City's surface water is from the Sacramento-San Joaquin Delta and the water purchased from the Contra Costa Water District (CCWD) through the Contra Costa Canal and Los Vauqueros Reservoir. The water from the CCWD is treated at the City's Water Treatment Plant that has a capacity of 38 million gallons per day (mgd) (City of Antioch 2016). There are six water pressure zones in the City, and the project site lies within Zone II. Zone II primarily serves residential and commercial uses with some industrial uses along the eastern end of Wilbur Avenue (City of Antioch 2016). The CCWD's water supply reliability goal is to meet 100 percent of demand in normal years and at least 85 percent of demand during a drought.



According to the City's Urban Water Management Plan, the single dry year supply would be the same as normal year demand, and multiple dry year supply would reduce by 15 percent (City of Antioch 2016).

Wastewater

The City maintains and owns the local sewage collection system and is responsible for the collection and conveyance of wastewater to the Delta Diablo Wastewater Treatment Plant (WWTP). Delta Diablo Sanitation District (DDSD) owns and operates the regional interceptors and the WWTP. DDSD is located on the Pittsburg-Antioch border and serves 213,000 residents in the communities of Pittsburg, Antioch, and Bay Point (DDSD 2020). The WWTP operates under the San Francisco Bay Regional Water Quality Control Board and is permitted to treat up to 19.5 mgd. In 2016, the average daily wastewater flow for the WWTP was 13.5 mgd (DDSD 2017).

The project site is currently served by an onsite septic system. The project proposes to disconnect and remove the existing septic system and connect to the City's public sewer system. The proposed project would construct a 4-inch sanitary sewer line at the existing warehouse building and at the proposed truck maintenance facility, which would connect to an 8-inch lateral and ultimately to the 15-inch sanitary sewer line within Wilbur Avenue.

Solid Waste

Solid waste services are currently provided at the project site by Republic Services, which is the only authorized hauler of waste for the City of Antioch (City of Antioch 2020d). Solid waste and recyclables from the city are taken to the Contra Costa Transfer and Recovery Station in Martinez. Solid waste is transferred from the Transfer and Recovery Station to the Keller Canyon Landfill in the City of Pittsburg. The Keller Canyon Landfill is 1,399 acres, 244 of which make up the actual current disposal acreage (CalRecycle 2020a). The landfill is permitted to accept 3,500 tons of waste per day and has a total estimated permitted capacity of approximately 75 million cubic yards. The remaining capacity at the landfill is currently 63 million cubic yards (CalRecycle 2020a).

Stormwater System

Stormwater collection in the City is overseen by the Contra Costa County Flood Control and Water Conservation District (Flood Control District). The City has more than 110 miles of trunk lines to collect stormwater. These trunk lines are independent from the wastewater collection system. The stormwater trunk lines discharge to channels owned and maintained by both the City and the Flood Control District. The Flood Control District releases stormwater from the channels to the San Joaquin River and is the holder of a NPDES permit. Contra Costa County Clean Water Program staff monitors the quality of the released water to comply with the specifications of the NPDES permit.

3.19.2 Methodology

The following analysis is based on a review of documents pertaining to the project site, including the General Plan, the General Plan EIR, 2015 Urban Water Management Plan (UWMP), the



2018 Draft Wastewater Facilities Master Plan, and the 2018 Draft Water Supply Master Plan. The following impact discussions consider the impacts of the proposed project related to utilities and service systems in the City.

3.19.3 Environmental Impact Analysis

This section discusses potential impacts on utilities and service systems associated with the proposed project and provides mitigation measures where necessary.

Impact UTIL-1	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
----------------------	--

Impact Analysis

Water Treatment

The existing warehouse building is currently served by a 6-inch water main for fire protection. Additionally, there is an onsite well in the northwest corner of the project site that was installed in 2008 to provide water to the existing warehouse building's restroom. The project proposes to connect to the City's existing public water system within Wilbur Avenue. All water distribution improvements would be constructed in accordance with the current version of the City's Construction Details. It is estimated that the existing warehouse building would demand approximately 1,280 gpd of water and the Phase 2 and Phase 3 warehouse buildings would each demand approximately 1,860 gpd (5,000 gpd total). Based on the City's 2015 UWMP, the future water supply would be adequate to offset future water demands from planned development during normal, single-dry, and multi-dry years through 2040 (City of Antioch 2016). Therefore, the proposed project would be adequately served by the City's existing infrastructure and would not require the construction of new water treatment facilities or expansion of existing facilities. Impacts would be less than significant.

Wastewater Treatment

The existing warehouse building is currently served by an onsite septic system. The project proposes to disconnect and remove the existing septic system and connect to the City's public sewer system. The proposed project would construct a 4-inch sanitary sewer line at the existing warehouse building and at the proposed truck maintenance facility, which would connect to an 8-inch lateral and ultimately to the 15-inch sanitary sewer line within Wilbur Avenue. All sewer distribution improvements would be constructed and designed in accordance with the current version of the City's Construction Details. Based on the City's General Plan wastewater generation rate of 1,000 gpd per acre, the 10.28-acre project site would generate approximately 10,280 gpd of wastewater (City of Antioch 2003b). As discussed in Section 3.19.1, Environmental Setting, the average dry weather flow for the WWTP is 13.5 mgd and has a remaining capacity of 6 mgd. Wastewater generated by the proposed project would represent approximately 0.08 percent of the 13.5 mgd that is currently being treated. The amount of wastewater generated by the proposed project would likely be less as the proposed truck wash



station would use a water filtration system to recycle and reuse wash water. Therefore, wastewater generated by the proposed project would be accommodated by the existing capacity of the WWTP. The proposed project would not result in the relocation or construction of new or expanded wastewater facilities, and impacts would be less than significant.

Stormwater Drainage

The proposed project would connect to the existing 18-inch and 24-inch storm drain lines within Wilbur Avenue, which connect to an existing 42-inch storm drainpipe northeast of the project site that drains to the San Joaquin River Delta. The project site currently contains approximately 202,177 square feet of impervious surface. The proposed project would create approximately 207,000 square feet of impervious surface in Phase 1 and approximately 34,240 square feet of impervious surface in Phase 2 (241,240 square feet total). This would result in the addition of approximately 39,063 square feet of new impervious surface at the project site. In accordance with the Contra Costa County C.3 Stormwater Standards, the proposed project would implement a Stormwater Control Plan as required by Chapter 6-9 of the Antioch Municipal Code. As part of the Stormwater Control Plan, the proposed project would provide approximately 152,452 square feet of landscaping and three bioretention areas on the north and south sides of the project site totaling approximately 9,172 square feet. The proposed bioretention areas and landscaped areas would collect, treat, and convey stormwater runoff from the project site to the existing stormwater system. All bioretention areas would be sized based on the design requirements of the Contra Costa County Clean Water Program Stormwater C.3 Guidebook. The Stormwater Control Plan would be submitted to the City for review and approval. Therefore, impacts associated with the construction of stormwater facilities would be less than significant.

Electric Power and Natural Gas

PG&E provides electricity and natural gas service to the project site. During Phase 1, upgrades would be made to the building's existing electrical system. Although the proposed project would demand additional electricity and natural gas, the City's 2017 General Plan Update found that buildout of the General Plan would not exceed the demand for electricity and natural gas estimated in its 2003 General Plan. The proposed project would also be subject to more stringent energy efficiency standards through updates of the California Green Building Code and Title 24. While the proposed project's electrical demand does not indicate the need for rooftop solar, the maintenance facility proposed under Phase 2 and the warehouse building anticipated under Phase 3 would also be designed to support rooftop solar panels. All electrical and natural gas improvements for the proposed project would occur in accordance with PG&E standards. Therefore, impacts related to the construction of electrical and natural gas facilities would be less than significant.

Telecommunications

During Phase 1, the proposed project would install a fiber optic cable to provide telecommunication service to the existing building. The fiber optic cable would connect to existing facilities along Wilbur Avenue. Any additional connections that are deemed necessary during final site design would be placed within utility easements. No expanded capacity would be required for telecommunication facilities, and impacts would be less than significant.



Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact UTIL-2	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
----------------------	---

Impact Analysis

The proposed project would connect to the City's municipal water supply system. The 2015 UWMP calculates the City's past, current, and projected water use and water supply through 2040. According to the UWMP, the future water supply would be adequate to offset future water demands from planned development during normal, single-dry, and multi-dry years through 2040 (City of Antioch 2016). It is estimated that the existing warehouse building would demand approximately 1,280 gpd of water, and the Phase 2 and Phase 3 warehouse buildings would each demand approximately 1,860 gpd (5,000 gpd total). By 2040, the 2015 UWMP estimates that total potable water use for the City would be 7,504 million gallons per year (City of Antioch 2016). The proposed project would represent a less than 1 percent increase in the total water supply available to the City. Additionally, the proposed project would be required to comply with the water conservation requirements codified in Chapter 6-10 of the Antioch Municipal Code. Therefore, the impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact UTIL-3	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?
----------------------	---

Impact Analysis

The project proposes to disconnect and remove the existing septic system and connect to the City's public sewer system. The proposed project would construct a 4-inch sanitary sewer line at the existing warehouse building and at the proposed truck maintenance facility, which would connect to an 8-inch lateral and ultimately to the 15-inch sanitary sewer line within Wilbur Avenue. Wastewater generated by the proposed project would be treated at the WWTP, which has a permitted capacity of 19.5 mgd and is currently treating 13.5 mgd (Delta Diablo 2017).



Based on the City's General Plan wastewater generation rate of 1,000 gpd per acre, the 10.28-acre project site would generate approximately 10,280 gpd of wastewater (City of Antioch 2003b). Wastewater generated by the proposed project would represent approximately 0.08 percent of the 13.5 mgd that is currently being treated. The amount of wastewater generated by the proposed project would likely be less as the proposed truck wash station would use a water filtration system to recycle and reuse wash water. Therefore, the WWTP would have sufficient capacity to serve the proposed project's estimated wastewater demand and existing commitments. Impacts related to wastewater treatment facilities would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact UTIL-4	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?
----------------------	---

Impact Analysis

Solid waste and recyclables from the city are taken to the Contra Costa Transfer and Recovery Station in Martinez, which is then transferred to the Keller Canyon Landfill in the City of Pittsburg. The Keller Canyon Landfill is 1,399 acres, 244 of which make up the actual current disposal acreage (CalRecycle 2020a). The landfill is permitted to accept 3,500 tons of waste per day and has a total estimated permitted capacity of approximately 75 million cubic yards. The remaining capacity at the landfill is currently 63 million cubic yards (CalRecycle 2020a).

The proposed project would result in the construction of a truck maintenance facility with 65 solid waste and recycling truck drivers and 5 truck mechanics. According to the 2019 Diversion/Disposal Rate Summary for the City of Antioch, it is estimated that employees would generate 4.4 pounds of solid waste per day (CalRecycle 2020b). Assuming the proposed project would result in 70 employees total, it is estimated the proposed project would generate approximately 308 pounds of solid waste per day or approximately 0.15 tons per day. As discussed, the Keller Canyon Landfill is permitted to accept 3,500 tons of waste per day. Therefore, the addition of 308 pounds per day of solid waste (0.15 tons per day) would represent less than 1 percent of the permitted capacity. However, this amount of solid waste would likely be lower as the 65 solid waste and recycling truck drivers would not be permanently stationed on the project site and would not work 365 days per year. The proposed project would also include recycling and green waste services as required by state and local objectives to reduce solid waste. Therefore, the proposed project contribution to solid waste facilities would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.



Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact UTIL-5	Comply with federal, state, and local statutes and regulations related to solid waste?
----------------------	---

Impact Analysis

The proposed project would be served by curbside solid waste and recycling services. Solid waste disposal must follow the requirements of the contracted waste hauler and disposal facility, which follows local, state, and federal statutes and regulations related to the collection and disposal of solid waste. Additionally, the proposed project would be required to comply with the City's Construction and Demolition Recycling Ordinance (Chapter 6-3 of the Antioch Municipal Code). This ordinance requires construction projects to divert 65 percent of construction waste materials away from landfills (City of Antioch 2020d). In accordance with the City's Construction and Demolition Recycling Ordinance, the proposed project would be required to prepare a Waste Management Plan that identifies the types of construction and demolition debris materials that would be generated for disposal and recycling. As such, the proposed project would comply with all applicable local, state, and federal statutes and regulations related to solid waste. Impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



This page left intentionally blank.



3.20 WILDFIRE

Would the Project:	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.20.1 Environmental Setting

According to the General Plan EIR, the areas of potential wildland fire hazard exist within the southern and unincorporated portions of the City, including rural, hilly terrain as well as the areas adjacent to or covered by natural grassland or brush (City of Antioch 2003b). The project site is in the northeast portion of the City and is developed with a metal warehouse building, rail spur, and surface parking. Land uses surrounding the project site include a mix of industrial, commercial, and residential uses. CAL FIRE does not identify the City in a local or state very high fire hazard severity zone (CAL FIRE 2020). Additionally, the U.S. Forest Service Wildfire Hazard Potential map classifies the potential for wildfire as low to very low at the project site and surrounding area (USFS 2018).

3.20.2 Methodology

The following analysis is based on a review of documents pertaining to the project site, including the General Plan, General Plan EIR, and review of CAL FIRE's Fire Hazard Severity Zone Map and the U.S. Forest Service Wildfire Hazard Potential Map.



3.20.3 Environmental Impact Analysis

This section discusses potential wildfire impacts on the proposed project and provides mitigation measures where necessary.

Impact WF-1	Substantially impair an adopted emergency response plan or emergency evacuation plan?
--------------------	--

Impact Analysis

The project site is not in a local or state very high fire hazard severity zone (CAL FIRE 2020). As discussed in Section 3.9, Hazards and Hazardous Materials, the Contra Costa County Emergency Operations Plan does not identify specific emergency evacuation routes. However, the proposed project would not result in the permanent modification to any existing roadways, and therefore would not physically interfere with any existing emergency routes. During the construction phase, access to the project site and the surrounding area would be maintained in accordance with a TCP. The TCP would identify all detours, appropriate traffic controls, and ensure adequate circulation and emergency access are provided during the construction phase.

During operation, access to the project site would be primarily from the proposed double-gated entrance on the western end of the project site. The existing entrance on the eastern end of the project site would remain locked but functional to accommodate emergency vehicles and truck mechanic staff exiting the facility. Additionally, there is a rail spur in the center of the project site. The proposed project would construct a two-way 40-foot-wide paved interior access road, which would cross over the north portion of the rail spur easement via a 30-foot-wide crossing so that trucks could access the parking area on the east side of the project site. Pursuant to the provisions of the existing reserve easement (Grant Deed 2006-00906-00) for the rail spur, security fencing may be installed around the perimeter of the onsite rail spur; however, it is not required. To provide unimpeded emergency access throughout the site, the proposed project would not place fencing around the rail spur and instead would place reflective delineators (traffic cones) along the boundary of the easement. The proposed crossing would also be lighted and delineated with standard reflective traffic-rated railroad crossing signage. All trucks, employee vehicles, and pedestrian traffic would be directed to cross the rail spur at the designated crossing point. All employees would receive safety training pertaining to the use of the rail spur crossing. As such, project construction and operation activities would not interfere with an emergency evacuation or response plan, and this impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



Impact WF-2	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?
--------------------	---

Impact Analysis

The project site and the surrounding area are relatively flat and in an urban area surrounded by existing development including buildings, roadways, and associated infrastructure. The project site is not in a local or state very high fire hazard severity zone (CAL FIRE 2020). Additionally, the potential for wildfire to occur in this portion of the City is classified as low to very low (USFS 2018). As such, the proposed project would not exacerbate wildfire risks and expose employees to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.

Impact WF-3	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?
--------------------	--

Impact Analysis

The project site is not in a local or state very high fire hazard severity zone (CAL FIRE 2020). The project site is in an industrial part of the city and surrounded by a mix of industrial, commercial, and residential uses. The proposed project would initially use the existing onsite warehouse building as an interim truck repair and maintenance facility until the new 18,533 square foot warehouse is constructed. The proposed project would also involve the construction of surface parking, a fueling station, and an equipment wash station to support the truck maintenance facility. The proposed project would be required to comply with all applicable building and safety codes, including the California Building Code and California Fire Code, and all applicable fire safety standards set forth by the City regarding fire protection to protect the proposed structures from possible wildfires. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure that would exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. No impact would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.



Level of Significance After Mitigation

No Impact.

Impact WF-4	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?
--------------------	---

Impact Analysis

The project site is not in a local or state very high fire hazard severity zone (CAL FIRE 2020). As discussed in Section 4.6, Geology and Soils, the project site and surrounding area is relatively flat and not in an area subject to landslides or flooding. Therefore, the proposed project would not 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 would occur.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No Impact.



3.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

MFS-1 Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Impact Analysis

As evaluated in this ISMND, the proposed project would not 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; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory. Mitigation Measures BIO-1, BIO-2, BIO-3, CUL-1, CUL-2, and CUL-3 have been included herein to reduce the significance of potential impacts to special-status species and habitats, and inadvertent discovery of cultural and tribal cultural resources to a less than significant level.



MFS-2 Does the project have impacts that are individually limited, but cumulative considerable? (“Cumulative considerable” means that the incremental impacts of a project are considerable when viewed in connection with the effects of past projects, the impacts of other current projects, and the impacts of probable future projects)?

Impact Analysis

As described in the impact analysis in Sections 3.1 through 3.20 of this ISMND, any potentially significant impacts of the project would be reduced to a less than significant level following incorporation of the mitigation measures listed herein. Projects completed in the past have also implemented mitigation as necessary. Future projects would similarly be required to mitigate potential impacts. Accordingly, the project would not otherwise combine with impacts of related development to add considerably to any cumulative impacts in the region, and impacts would be considered less than significant.

MFS-3 Does the project have environmental impacts which will cause substantial adverse impacts on human beings, either directly or indirectly?

Impact Analysis

The project would not directly or indirectly cause substantial adverse effects on human beings. Air quality, greenhouse gases, hazardous materials, and/or noise would have the only potential effects through which the project could have a substantial effect on human beings. However, all potential effects of the project related to air quality, greenhouse gases, noise, and hazardous materials are identified as less than significant or less than significant with the implementation of mitigation. The impact analysis included in this ISMND indicates that for all other resource areas, the project would either have no impact, no significant impact, or—for impacts that would not affect human beings—less than significant impact with mitigation incorporated.



4.0 REFERENCES

Multi-Section

City of Antioch. 2003a. City of Antioch General Plan. https://www.antiochca.gov/fc/community-development/planning/Antioch_Adopted_General_Plan.pdf. Accessed October 2020.

_____. 2003b. Antioch General Plan Update EIR. <https://www.antiochca.gov/fc/community-development/planning/Draft-General-Plan-EIR.pdf>. Accessed October 2020.

City of Antioch. 2017. Citywide General Plan Land Use Element Update. <https://www.antiochca.gov/community-development-department/planning-division/environmental-documents/>. Accessed October 2020

City of Antioch. 2020a. City of Antioch Municipal Code. [http://library.amlegal.com/nxt/gateway.dll/California/antioch/cityofantiochcaliforniacodeofordinances?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:antioch_ca](http://library.amlegal.com/nxt/gateway.dll/California/antioch/cityofantiochcaliforniacodeofordinances?f=templates$fn=default.htm$3.0$vid=amlegal:antioch_ca). Accessed October 2020.

Section 3.1: Aesthetics

California Department of Transportation (Caltrans). 2020a. California Scenic Highway Mapping System. <https://www.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983>. Accessed November 2020.

Section 3.2: Agriculture and Forestry Resources

California Department of Conservation (DOC). 2020. California Important Farmland Finder map. Accessed October 1, 2018. <https://maps.conservation.ca.gov/DLRP/CIFF/>.

Section 3.3: Air Quality

Bay Area Air Quality Management District (BAAQMD). 2020. About Air Quality. Available online at: <https://www.baaqmd.gov/about-air-quality>. Accessed December 2020.

_____. 2017a. Spare the Air Cool the Climate. Final 2017 Clean Air Plan. Available online at: https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-_proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed December 2020.

_____. 2017b. Air Quality Standards and Attainment Status. Available online at: <https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status>. Accessed December 2020.

_____. 2017c. California Environmental Quality Act Air Quality Guidelines. Available online at: https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed December 2020.



References

- California Air Resources Board (CARB). 2016. Ambient Air Quality Standards. Available online at: <https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf>. Accessed December 2020.
- _____. 2020 California Greenhouse Gas Emissions from 2000 to 2018 Trends of Emissions and Other Indicators. Available online at: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf. Accessed December 9, 2020.
- United States Geological Survey. 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Available online at: <https://pubs.usgs.gov/of/2011/1188/>. Accessed December 2020.

Section 3.4: Biological Resources

- Beier, P. and S. Loe. 1992. "In my experience" a checklist for evaluating impacts to wildlife movement corridors. *Wildlife Society Bulletin* Vol. 20(4): 6.
- California Department of Fish and Wildlife (CDFW). 2020. Special Plant and Animals Lists. Available online at: <https://www.dfg.ca.gov/wildlife/nongame/list.html>. Accessed January 2020.
- California Natural Diversity Data Base (CNDDDB). 2019. RareFind 3. Computer printout for special-status species within a 3-mile radius of the project site. California Natural Heritage Division, California Department of Fish and Wildlife, Sacramento, CA.
- California Native Plant Society (CNPS). 2001. Inventory of rare and endangered plants of California (sixth edition). Rare plant scientific advisory committee, David P. Tibor, convening editor. California Native Plant Society. Sacramento, CA. 338 pps.
- East Contra Costa County Habitat Conservancy. 2006. Final East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan. October 2007. http://www.co.contra-costa.ca.us/depart/cd/water/HCP/archive/final-hcp-rev/final_hcp_nccp.html. Accessed October 2020.

Section 3.5: Cultural Resources

- California Geological Survey (CGS). 2002. California Geomorphic Provinces. California Department of Conservation.
- Meyer, Jack, and Jeffrey S. Rosenthal. 2007. Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4. Prepared by Far Western Anthropological Research Group, Inc.
- National Resource Conservation Service (NRCS). 2020. Map Unit Description, Delhi Sands. United States Department of Agriculture. Online resource. https://casoilresource.lawr.ucdavis.edu/soil_web/ssurgo.php?action=explain_component&mukey=455786&cokey=19823789, accessed September 30, 2020.



Strand, R. G., and James B. Koenig. 1965. Geologic Map of California, Olaf P. Jenkins edition, Sacramento Sheet, 1:250,000. California Division of Mines and Geology. (Second printing, 1971)

United States Geological Survey (USGS). 2003. Hydrogeologic Provinces for California Based upon Established Groundwater Basins and Watershed Polygons (Map).

_____. 2020. National Geologic Map Database Project (TopoView), Antioch North, CA. Online database. <https://ngmdb.usgs.gov/topoview/viewer/#13/38.0117/-121.7691>, accessed September 30, 2020.

Section 3.6: Energy

Pacific Gas and Electric (PG&E). 2020. PG&E makes progress toward 33 percent renewables goal. Available online at: https://www.pge.com/en_US/residential/solar-and-vehicles/newsroom/all-news/clean-energy-ca/renewables-goal.page#:~:text=PG%26E%20makes%20progress%20toward%2033%20percent%20renewables%20goal&text=The%20utility%20is%20on%20track,percent%20renewable%20electricity%20by%202020. Accessed December 2020.

Section 3.7: Geology and Soils

California Geologic Survey (CGS). 2020. Alquist-Priolo Earthquake Fault Zones. <https://mtc.maps.arcgis.com/home/item.html?id=a1f74ce1577e4e98854df287d2e84b9d>. Accessed November 2020.

University of California Museum of Paleontology (UCMP). 2020. Neogene Mammal Mapping Portal (Neomap). Electronic document. https://berkeleymapper.berkeley.edu/?ViewResults=tab&tabfile=http://miomap.berkeley.edu/all_miomap.xls&configfile=http://miomap.berkeley.edu/miomap.xml#. Accessed October 2020.

Section 3.8: Greenhouse Gases

CARB. 2018. California Greenhouse Gas Emissions for 2000 to 2018. Available online at: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf. Accessed December 2020.

Section 3.9: Hazards and Hazardous Materials

California Department of Forestry and Fire Protection (CAL FIRE). 2020. California Fire Hazard Severity Zone Viewer. <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed October 2020.

Contra Costa County. 2015 Contra Costa County Emergency Operations Plan. <https://www.cocosherriff.org/home/showdocument?id=168>. Accessed November 2020.



Tollfree Airline. 2020. Contra Costa County Public and Private Airports, California.
<http://www.tollfreeairline.com/california/contracosta.htm>. Accessed October 2020.

Section 3.10: Hydrology and Water Quality

East Contra Costa Subbasin. 2018. East Contra Costa Subbasin Sustainable Groundwater Management Act, Communications Plan.
https://static1.squarespace.com/static/5ca391a8a87b100001fc6975/t/5d0d4f73a71ad0001ecc67d/1561153400709/SGMA+ECC+Subbasin+Communications+Plan_Dec+2018.pdf. Accessed November 2020.

East County Water Management Association (ECWMA). 2019. East Contra Costa County Integrated Regional Water Management.
https://static1.squarespace.com/static/5ca391a8a87b100001fc6975/t/5d362997dd4834001dfa60a/1563830701976/Plan_East+County+IRWM_March+2019+Update-with+App+A-H-reduced.pdf. Accessed November 2020.

Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center: Flood Insurance Rate Map #06013C0144G.
<https://msc.fema.gov/portal/search?AddressQuery=antioch>. Accessed November 2020.

Section 3.11: Land Use

References are listed under Multi-Section.

Section 3.12: Mineral Resources

California Department of Conservation (DOC). 1997. DOC Mineral Land Classification map of Aggregate Resources, USGS 7.5 Minute Antioch North Quadrangle map. Accessed October 2, 2018. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_146-2/SR-146_Plate_2.25.pdf.

Section 3.13: Noise

California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.
http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf. Accessed November 2020.

_____. 2020b. Transportation and Construction Vibration Guidance Manual, April 2020.
<https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed November 2020.

Contra Costa County. 2005. Contra Costa County General Plan, Noise Element.
<https://www.contracosta.ca.gov/DocumentCenter/View/30921/Ch11-Noise-Element?bidId=>. Accessed November 2020.



- ### Section 3.14: Population and Housing

- [illegible]



Section 3.15: Public Services

Antioch Herald. 2020. Antioch Police Chief Brooks gives video update on increase in staffing, improvements in public safety, October 26, 2020.
<https://antiochherald.com/category/crime/>. Accessed November 2020.

Antioch Unified School District (AUSD). 2020. Antioch Unified School District – My School Locator. <https://betalocator.decisioninsite.com/?studyID=85002>. Accessed, November 2020.

City of Antioch. 2020c. City of Antioch Park Amenities. https://www.antiochca.gov/fc/public-works/parks/park_amenities.pdf. Access November 2020.

Contra Costa County Fire Protection District (CCCFPD). 2018. Contra Costa County Fire Protection District Annual Report 2018. <https://www.cccfpd.org/deputy-chiefs-message.php>. Accessed November 2020.

Section 3.16: Recreation

City of Antioch. 2020c. City of Antioch Park Amenities. https://www.antiochca.gov/fc/public-works/parks/park_amenities.pdf. Access November 2020.

Section 3.17: Transportation and Traffic

References are listed under Multi-Section.

Contra Costa Transportation Authority (CCTA). 2020. VMT Analysis Methodology for Land Use Projects in Contra Costa, GMTF Review Draft. July.

Section 3.18: Tribal Cultural Resources

Refer to references listed under Section 3.5, Cultural Resources.

Section 3.19: Utilities and Service Systems

CalRecycle. 2020a. SWIS Facility/Site Activity Details, Keller Canyon Landfill (07-AA-0032). <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4407?siteID=228>. Accessed November 2020.

_____. 2020b. Disposal Rate Calculator, City of Antioch 2019 Annual Report. <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator>. Accessed November 2020.

City of Antioch. 2016. Final 2015 Urban Water Management Plan, May 2016. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/Antioch/Antioch_104.pdf. Accessed November 2020.

_____. 2020d. Construction and Demolition Recycling. <https://www.antiochca.gov/environmental-resources/business/c-and-d/>. Accessed November 2020.



Delta Diablo Sanitation District (DDSD). 2017. General Delta Diablo Brochure.
<https://www.deltadiablo.org/files/3a23e9a5b/GeneralDeltaDiabloBrochure+%284%29.pdf>
. Accessed November 2020.

_____. 2020. DDSD, About Us. <https://www.deltadiablo.org/about-us>. Accessed November 2020.

Section 3.20: Wildfire

California Department of Forestry and Fire Protection (CAL FIRE). 2020. California Fire Hazard Severity Zone Viewer.
<https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed October 2020.

U.S. Forest Service (USFS). 2018. Wildfire Hazard Potential, Version 2018 Classified.
<https://usfs.maps.arcgis.com/home/webmap/viewer.html?layers=fc7f208f4bf34cf3ad34ef72261b140>. Accessed October 2020.



This page left intentionally blank.



5.0 LIST OF PREPARERS

Principal in Charge.....	Trevor Macenski
Project Manager/Senior Planner.....	Elena Nuño
Deputy Project Manager/Environmental Planner.....	Kaela Johnson
Cultural Resources Lead	Alisa Reynolds
Archaeologist	Leven Kraushaar
Senior Environmental Noise Analyst.....	Tracie Ferguson
Principal Traffic Engineer	Daryl Zerfass
Senior Transportation Planner.....	Maria Morris
Environmental Planner.....	Zoryana Pope
Technical Editor	Chris Broderick



This page left intentionally blank.

