

**CITY OF ANTIOCH
COMMUNITY DEVELOPMENT DEPARTMENT**



**Contra Costa Farms Project
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

July 2019



1501 SPORTS DRIVE, SUITE A, SACRAMENTO, CA 95834

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INITIAL STUDY

July 2019

A. BACKGROUND

1. Project Title: Contra Costa Farms Project
2. Lead Agency Name and Address: City of Antioch
Community Development Department
P.O. Box 5007
Antioch, CA 94531
3. Contact Person and Phone Number: Zoe Merideth
Associate Planner
(925) 779-7035
4. Project Location: 3400 Wilbur Avenue
Antioch, CA 94509
Assessor's Parcel Number (APN): 051-051-021
5. Project Sponsor's Name and Address: Contra Costa Farms, LLC
420 South 2nd Street
Rio Vista, CA 94571
(480) 225-1167
6. Existing General Plan Designation: Industrial
7. Existing Zoning Designation: Heavy Industrial (M-2)
8. Surrounding Land Uses and Setting:

The project site is currently developed with three vacant industrial buildings. Portions of the site are paved, while the remainder of the site consists of ruderal vegetation. The site is identified by APN 051-051-021. The project site is bordered by Wilbur Avenue to the north, industrial use to the east, agricultural land the west, and the Burlington Northern Santa Fe (BNSF) Railroad to the south. An additional industrial building and a storage facility are located beyond the railroad to the south, and a yacht harbor is located to the north of the site beyond Wilbur Avenue.

9. Project Description Summary:

The proposed project would consist of demolition of one of the existing on-site buildings and renovations to the other two existing structures, as well as construction of four new warehouse buildings ranging from 32,000 square feet (sf) to 58,000-sf. Each of the new buildings would be two stories. Upon buildout of the proposed project, operations would include cultivation, manufacturing, distribution, and retail sales of cannabis products.

10. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the Indian Canyon Mutsun Band of Costanoan, the Ohlone Indian Tribe, the Wilton Rancheria, and the Ione Band of Miwok Indians. The letters were distributed on April 17, 2019 and one request for consultation was received from the Indian Canyon Mutsun Band of Costanoan Ohlone People. The City responded to the tribe and consultation was resolved.

B. SOURCES

All the technical reports and modeling results used for the purposes of this analysis are available upon request at the City of Antioch Community Development Department, Planning Division located on the second floor of City Hall at Third & “H” Streets in Antioch, California, Monday through Friday between 8:00 AM and 5:00 PM. The following documents are referenced information sources used for the purposes of this Initial Study:

1. Bay Area Air Quality Management District. *Air Quality Plans*. Available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans.aspx>. Accessed September 2018.
2. Bay Area Air Quality Management District. *Air Quality Standards and Attainment Status*. Available at: <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>. Accessed September 2018.
3. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
4. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.
5. California Department of Conservation. *Contra Costa County Important Farmland Map 2016*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Published August 2018.
6. California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.
7. California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed May 2019.
8. City of Antioch. *2015 Urban Water Management Plan*. May 2016.

9. City of Antioch. *About APD*. Available at: <http://www.antiochca.gov/police/about-apd/>. Accessed May 2019.
10. City of Antioch. *Antioch General Plan Update EIR*. July 2003.
11. City of Antioch. *Citywide Design Guidelines Manual*. October 2009.
12. City of Antioch. *Citywide Engineering and Traffic Survey*. February 6, 2015.
13. City of Antioch. *Community Climate Action Plan*. 2011.
14. City of Antioch. *General Plan Update EIR*. July 2003.
15. Delta Diablo. *Quick Facts*. Available at: <https://www.deltadiablo.org/about-us/organization/quick-facts>. Accessed March 2018.
16. Geocon Consultants. *Phase I Environmental Site Assessment Report 3400 Wilbur Avenue*. June 17, 2019.
17. Institute of Transportation Engineers. *Trip Generation Handbook – 9th Edition*. September 2012.
18. Northwest Information Center. *Record search results for the proposed Contra Costa Farms Project*. May 23, 2019.
19. San Francisco Bay Regional Water Quality Control Board. *Order No. R2-2014-0030, NPDES No. CA00.8547*. Adopted August 13, 2014.
20. SWT Engineering. *Joint Technical Document, Keller Canyon Landfill (SWIS NO. 07-AA-0032)*. May 2016.
21. U.S. Department of Agriculture Natural Resources Conservation Service. *Web Soil Survey*. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed June 2019.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Potentially Significant Impact” as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forest Resources	<input 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 and Soils	<input checked="" type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Hazards and Hazardous Materials
<input checked="" type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Mineral Resources
<input type="checkbox"/> Noise	<input type="checkbox"/> Population and Housing	<input type="checkbox"/> Public Services
<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation	<input checked="" type="checkbox"/> Tribal Cultural Resources
<input type="checkbox"/> Utilities and Service Systems	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Mandatory Findings of Significance

D. DETERMINATION

On the basis of this initial study:

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

Signature

Zoe Merideth, Associate Planner

Printed Name

Date

City of Antioch

For

E. BACKGROUND AND INTRODUCTION

This Initial Study identifies and analyzes the potential environmental impacts of the Contra Costa Farms Project (proposed project). The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures are prescribed.

The mitigation measures prescribed for environmental effects described in this Initial Study would be implemented in conjunction with the project, as required by CEQA. The mitigation measures would be incorporated into the project through project conditions of approval. The City would adopt findings and a Mitigation Monitoring/Reporting Program for the project in conjunction with approval of the project.

In 2003, the City of Antioch completed a comprehensive update of the City's General Plan and adopted an Environmental Impact Report (EIR) for the updated General Plan. The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 *et seq.*). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan.

F. PROJECT DESCRIPTION

The following provides a description of the project site's current location and setting, as well as the proposed project components and the discretionary actions required for the project.

Project Location and Setting

The project site consists of approximately 9.2 acres located at 3400 Wilbur Avenue in the City of Antioch, California (see Figure 1 and Figure 2). Regional access to the site area is provided by State Route (SR) 160, located approximately 0.2-mile east of the project site. The site is identified by APN 051-051-021. The City Zoning Code designates the site as Heavy Industrial (M-2). The site is located within the Eastern Waterfront Employment Focus Area of the General Plan and is designated Industrial per the City's General Plan. The site is also included in the Cannabis Business Zoning Overlay District.

The project site was historically used for agricultural purposes until 1990, when the site was converted to an industrial power plant. The facility ceased operations in February 2012 and all equipment was removed; however, three buildings associated with such operations remain on-site. One 2,400 sf building is located towards the south side of the project site, one 500-sf building is located on the western side of the site, and one 5,000-sf building is located in the middle of the site. The remainder of the site consists of paved surfaces and ruderal vegetation.

Figure 1
Regional Project Location

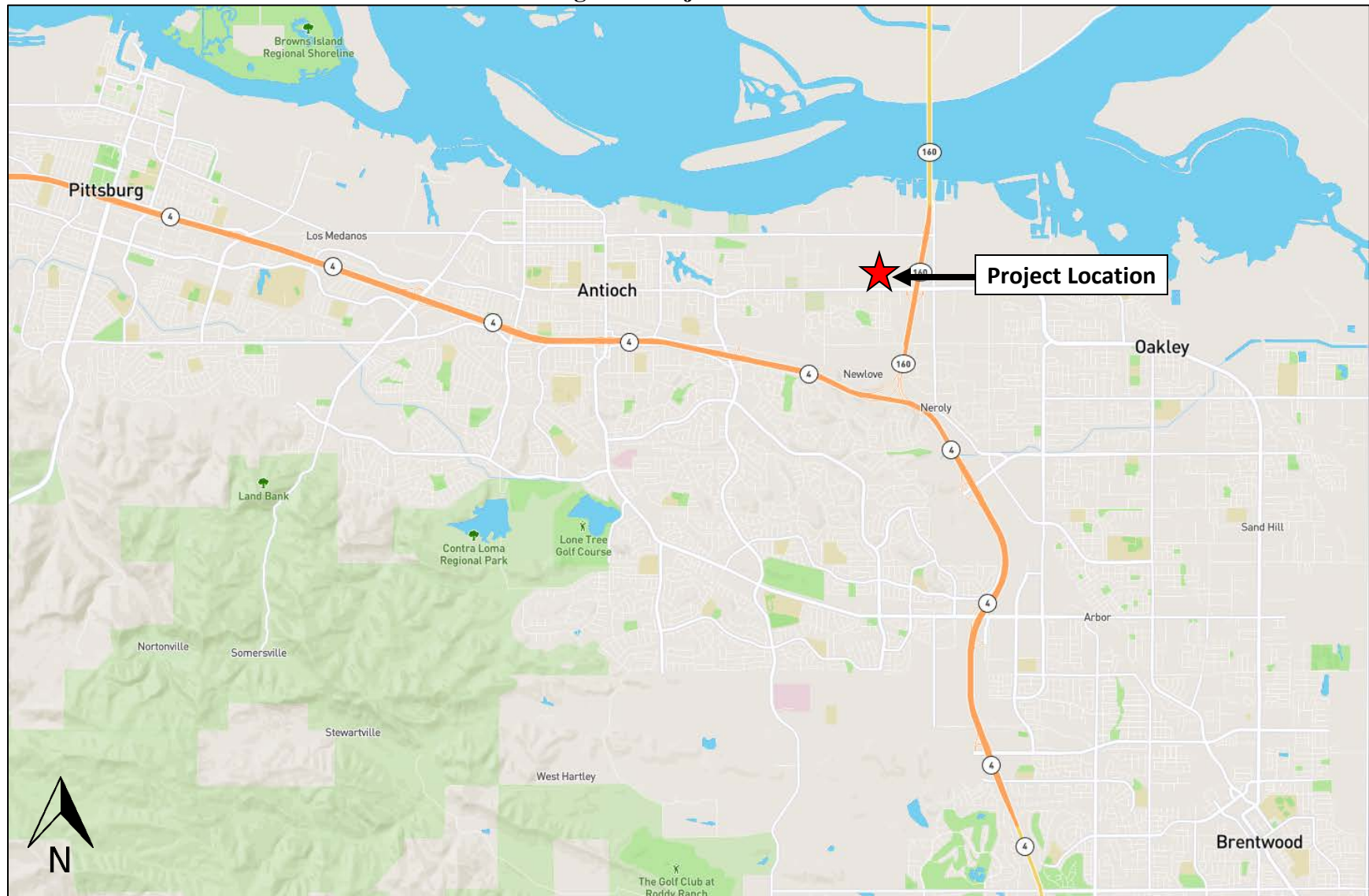


Figure 2
Project Site Boundaries



Access to the project site is provided by a driveway off of Wilbur Avenue near the northeastern portion of the site. A drive aisle extends southward from the driveway into the site. A chain link fence currently surrounds the entirety of the project site. The site includes a total of 11 existing trees, including one tree located along the western side of the site and 10 trees at the project frontage along Wilbur Avenue.

The project site is bordered by Wilbur Avenue to the north, industrial development to the east, agricultural land to the west, and the BNSF Railroad to the south. Industrial buildings also exist around the site to the north and south beyond Wilbur Avenue and the railroad, respectively.

Project Components

The proposed project would consist of demolition of the existing 500-sf structure and renovations to the other two existing structures, as well as construction of four new warehouse buildings ranging from 32,000 sf to 58,000-sf (see Figure 3). Each of the new buildings would be two stories. Upon buildout of the proposed project, operations would include cultivation, manufacturing, distribution, and retail sales of cannabis products. In addition, the project would include new parking areas, landscaping features, drive aisles, and various associated improvements. The sections below describe the following project components: buildings and construction; access and parking; landscaping; security; utility improvements; operations; and required entitlements/approvals.

Buildings and Construction

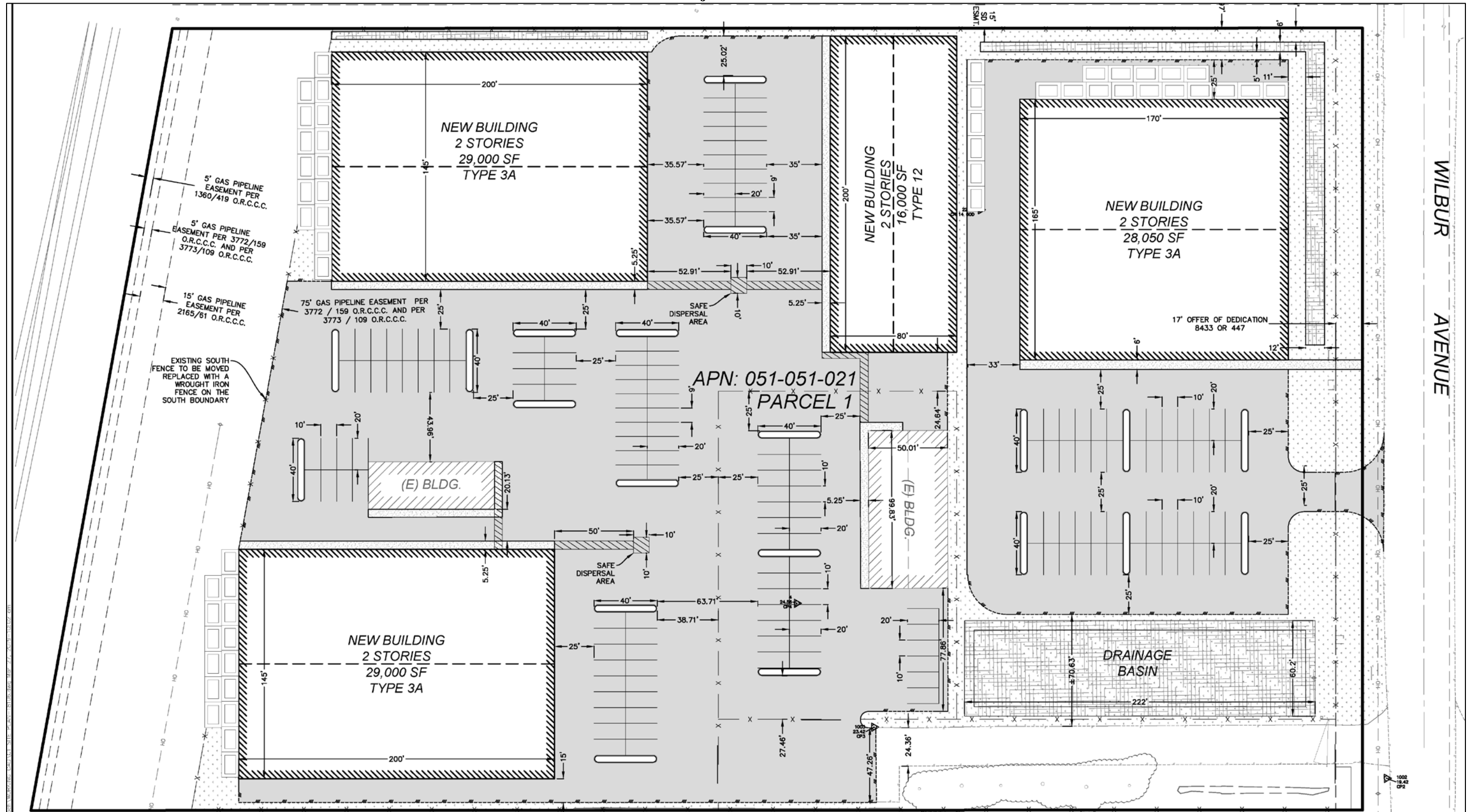
The proposed project would include demolition of the existing 500-sf building and renovations and improvements to the 5,000 sf and 2,400 sf existing buildings (Buildings #5 and #3, respectively). In addition, the proposed project would include construction of four new warehouse buildings. Two of the proposed new buildings would each include 58,000 sf and be located on the south side of the project site (Buildings #4 and #6). The other two new buildings would consist of 56,440 sf and 32,000 sf, respectively, and would be located within the northwestern portion of the site (Buildings #1 and #2). At buildout, the proposed project would include a total of 211,840 sf of building space.

Each new building would have a painted metal finish with a metal roof and eight-foot high faux stone exterior veneer panels. All exterior non-storefront doors would be constructed of metal clad and painted to match the buildings. All buildings would also have a glass storefront, and Building #1 would have a metal trellis on the façade facing Wilbur Avenue.

Access and Parking

The proposed project would include improvements to the existing driveway on Wilbur Avenue, as well as construction of a new driveway entrance from Wilbur Avenue at the midpoint of the site frontage. A 24-foot-wide remote-controlled sliding gate would be installed at both entrances on Wilbur Avenue, as well as at the access to the Building #3 parking area. Paved drive aisles and parking areas would be constructed to provide vehicle access to all six buildings.

Figure 3
Project Site Plan



Parking would be provided outside of each building and would properly accommodate all patrons, employees, and deliveries associated with the project operations. Specifically, 186 parking spaces would be provided as follows:

- 152 employee spaces;
- 19 retail parking spaces;
- 13 retail delivery spaces; and
- 2 extra parking spaces.

Landscaping and Fencing

Figure 4 below provides an overview of the proposed landscaping improvements. As shown in Figure 4, landscaped areas would be provided along the north, east, and west site boundaries. All existing trees along Wilbur Avenue would be removed and replaced with Chinese pistache trees and various shrubs. Landscaping around the perimeter of the site would include shrubs, trees, and groundcover. Throughout the site, five-foot-wide planters would be installed with trees and shrubbery to provide shaded parking. In addition, shrubs and trees would be provided at the project access points.

The proposed project would remove the existing fencing and install a new eight-foot wrought iron fence along the site perimeter. In addition, new fencing would be provided along the perimeter of the existing 5,000-sf building (Building #3).

Security

Per City Council Resolution Number 2018/117, the proposed project is required to provide adequate security on the premises, including security guards, lighting, and alarms, to ensure the public safety and the safety of persons within the proposed facilities. As such, ADT/Protection 1 has created a security plan for the proposed project. Per the Security Plan, all areas of the project site would be monitored with cameras, both indoors and outdoors. Employee access to the premises would be regulated with Controlled Access Cards, and customers would be identified prior to entrance to the retail facilities. All buildings would be equipped with a Security Alarm System which would detect entry, glass breakage, and/or motion. The site would be equipped with motion-detected lighting to capture movements at night, and would be staffed by a 24-hour armed security guard service.

Utilities

Figure 5 below provides an overview of the proposed utility improvements. As shown in the figure, the proposed project would include connection of a new six-inch sanitary sewer line to an existing six-inch sewer line within the northern portion of the project site. The project would also include installation of a sanitary sewer manhole that would be fitted per the City's standards and connected to the new sanitary sewer lines. The City maintains and owns the local sewage collection system and is responsible for the collection and conveyance of wastewater for the project site.

**Figure 4
Landscape Plan**

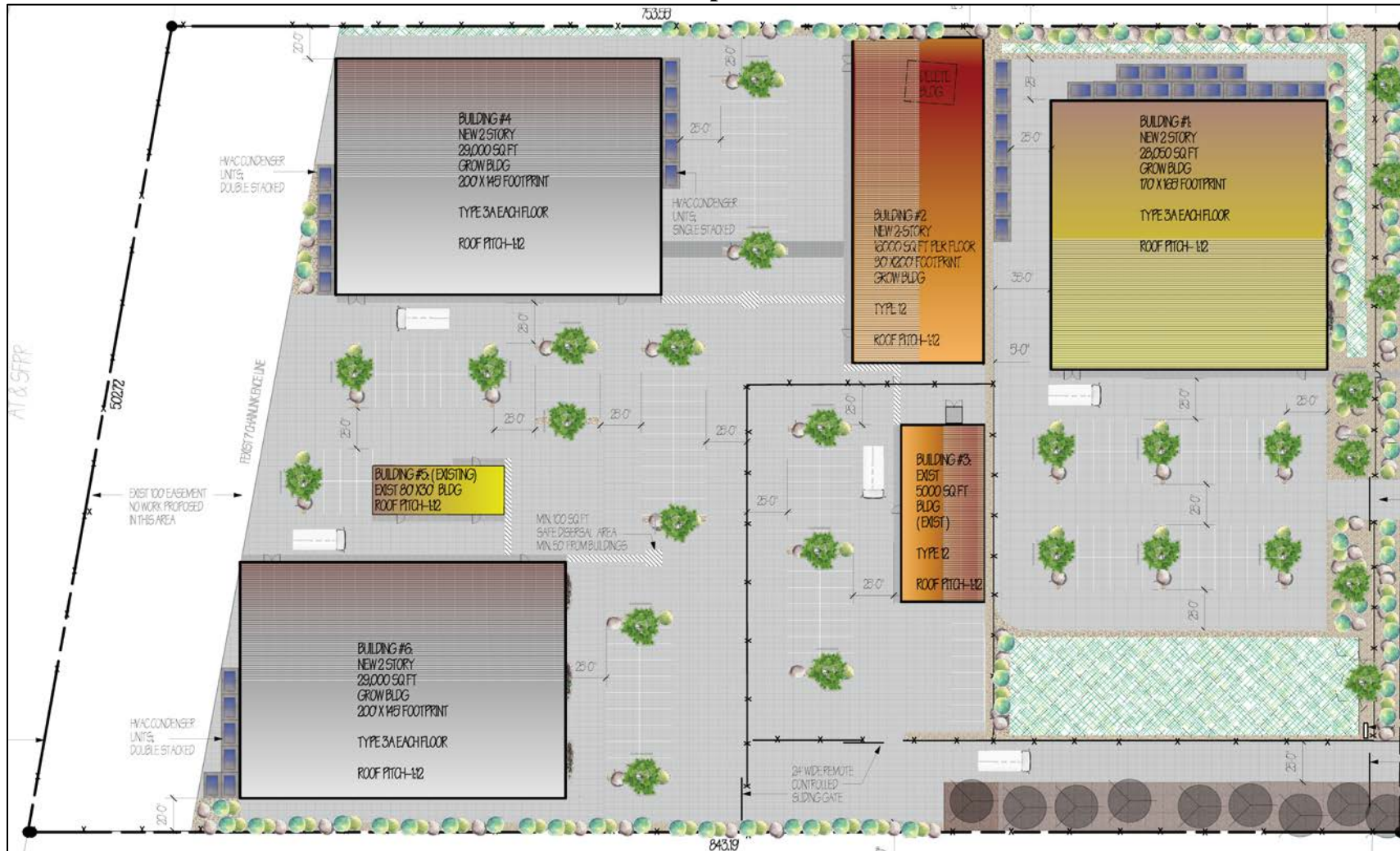
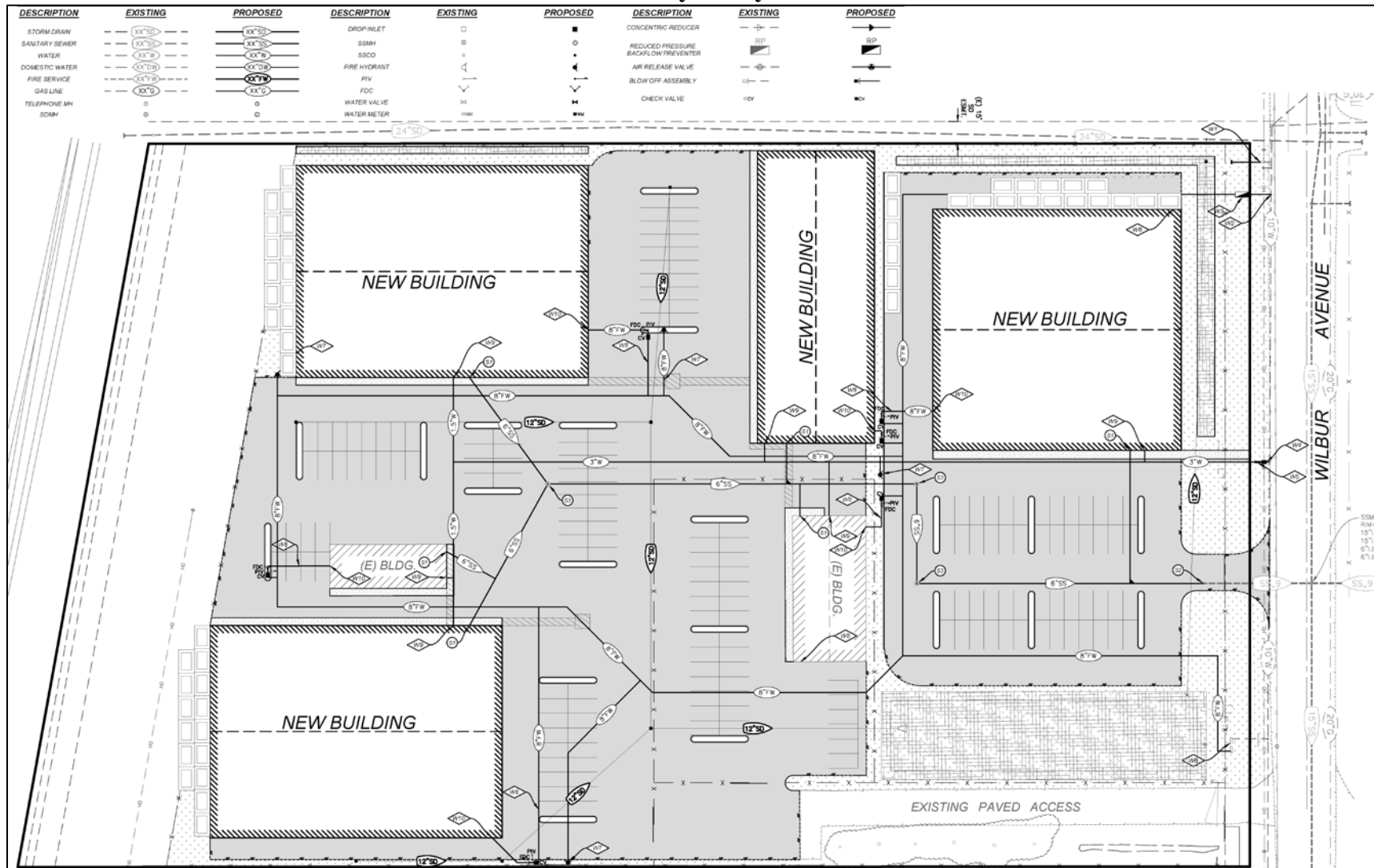


Figure 5
Preliminary Utility Plan



Stormwater runoff from on-site impervious surfaces would be captured by new drain inlets and routed through a series of new 12-inch storm drain pipes. The new storm drains would route runoff to three bio-retention basins at the northeastern and western portions of the project site. The bio-retention basins would be sized to treat runoff before discharging to the City's existing 24-inch storm drain to the west of the site.

A three-inch water main would be constructed to connect to an existing 10-inch water line and distribute water throughout the project site. All water supplies would be provided by the City. Additionally, an eight-inch fire service connection would be installed throughout the project site with a single check valve and connection to the fire department. The proposed project would install three fire hydrants per City standards around the project site. Fire sprinkler points of connection would also be included on each building.

Natural gas would be provided to the project site through an existing easement with Pacific Gas and Electric by way of a new connection to an existing 20-inch gas line within Wilbur Avenue.

Construction Phasing

Construction of the buildings would occur over two phases. Phase I would include removal of the 500-sf building and renovations to the existing 5,000 sf building (Building #3) for, manufacturing, distribution, and retail sales. Renovations to the existing buildings would include weather-proofing, installing utilities, landscaping, and installing a security system. Additionally, Phase I would include construction of Building #2. During Phase II, the proposed project would develop Buildings # 4, #5, and #6 to house six indoor grow facilities.

Operations

Upon buildout of the proposed project, operations would include cultivation, manufacturing, distribution, and retail sales of cannabis products. Cultivation space would total 142,000 sf, manufacturing would total 11,700 sf, distribution 3,200 sf, and retail 2,000 sf. Additionally, 52,940 sf of office and service space would be constructed. Cultivation and manufacturing would occur entirely indoors and would be subject to the applicable California Department of Public Health regulations. Hours of operation for the cannabis facility would be 24 hours per day, seven days per week. Employees at the project site would operate during one of two shifts. Employee shifts, as well as employee arrival and departure times, would be staggered to avoid concentration of trips during peak traffic periods.

Use Permit and Design Review

According to Section 9-5.3845 of the Antioch Municipal Code, establishment of a cannabis business in the Cannabis Business Overlay Zone requires a Use Permit. In addition, per Section 9-5.2607 of the Municipal Code, all new development within the City is subject to Design Review approval. The purpose of the Design Review process is to promote the orderly development of the City, encourage high quality site design and planning, protect the stability of land values and investments, and ensure consistency with the Citywide Design Guidelines.

Discretionary Actions

Implementation of the proposed project would require a Use Permit and Design Review for the development of a commercial cannabis facility.

G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented 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, as part of the proposed project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

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

No Impact: The project would not have any impact.

I. AESTHETICS. <i>Would the project:</i>		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 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"/>
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 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 type="checkbox"/>

Discussion

- a,b. Examples of typical scenic vistas would include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The City's General Plan does not specifically identify any scenic vistas.

According to the California Scenic Highway Mapping System, the project site is located approximately 17 miles northeast of Interstate 680, which is the nearest Officially Designated State Scenic Highway. It should be noted that while not officially designated, SR 160, located approximately 0.2-mile east of the site, is an Eligible State Scenic Highway.¹ However, the project site has been previously developed and does not currently contain any high-quality visual resources. The proposed project would include redevelopment of the project site with a commercial and industrial facility, consistent with the surrounding uses. Thus, the project would not result in damages to scenic resources visible from SR 160.

The project site is not located within the vicinity of a designated scenic vista. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a *less-than-significant* impact would occur.

¹ California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed May 2019.

- c. General Plan Policy 5.4.2.c states that view corridors from public spaces to natural ridgelines and landmarks, such as Mt. Diablo and distant hills, local ridgelines, the San Joaquin River, and other water bodies (such as Sand Creek), should be preserved. Specific view corridors identified in Policy 5.4.2.c include Somersville Road, Lone Tree Way, Hillcrest Avenue, SR 4, SR 160, James Donlon Boulevard, Deer Valley Road, and Empire Mine Road. However, Policy 5.4.2.c also recognizes that new development will inevitably result in some loss of existing views.

None of the above-mentioned scenic resources are visible from the project site. Thus, while the proposed project would change the visual character and quality of the site from a disturbed and low-intensity development to a commercial and industrial facility with four additional structures, the height and nature of the buildings would not obscure any views of surrounding resources. The proposed project would include drought-tolerant trees, shrubbery, and groundcover along the project frontage and within the site in order to provide for an aesthetically pleasing streetscape. In addition, an eight-foot-tall steel fence would shield some views of the site along the north side of the proposed buildings. Considering the existing development and disturbed nature of the site, views of the site from Wilbur Avenue would not be substantially degraded.

The potential for future development within the City to result in the substantial degradation of the visual character or quality of the City and the surrounding area was analyzed in the City's General Plan EIR. The City's General Plan EIR concluded that General Plan policies related to the protection of visual resources and future development design would ensure that buildout of the City would result in less-than-significant impacts related to the degradation of the existing visual character or quality of the City.

Furthermore, the project site is located within an urbanized area, and the proposed project would not conflict with applicable zoning standards and other regulations governing scenic quality. In addition, the project would be subject to Design Review by the City of Antioch per Section 9-5.2607 of the City's Code of Ordinances. The purpose of the Design Review process is to promote the orderly development of the City, encourage high quality site design and planning, protect the stability of land values and investments, and ensure consistency with the Citywide Design Guidelines. The Design Review process would help to ensure that the proposed commercial cannabis facility would be visually compatible with the existing environment.

Based on the above, impacts related to degrading the existing visual character of the site and its surroundings or a conflict with applicable zoning and other regulations governing scenic quality would be *less-than-significant*.

- d. The project site is currently unmaintained and consists of vacant, abandoned buildings. Thus, the site does not contain any existing sources of light or glare. Implementation of the proposed project would include redevelopment of the site with a commercial cannabis facility, including construction of four new buildings and updates to two of the existing on-site buildings. Thus, the project would introduce some new sources of light and glare where none currently exists. Potential sources of light and glare associated with the proposed

project would include interior light spilling through windows, exterior lighting on buildings, street lighting on the internal circulation system, and light reflected off windows.

The site is bordered by agricultural and industrial land uses, which would not be sensitive to the introduction of new sources of light or glare. While security lighting could be triggered past dark, the lighting system would be motion censored and would adhere to all applicable City standards. Citywide Design Guidelines for landscaping, common space, and lighting prohibit the use of flood lights to light entire structures or yards and state that any exterior night lighting installed shall be of a low intensity, low-glare design, and shall be hooded to direct light downward onto the subject parcel and prevent spillover onto adjacent parcels.² Compliance with such standards would ensure that on-site lighting would be directed within the project site and would not substantially illuminate adjacent properties. In addition, new landscaping along the eastern site boundary would help to further screen the proposed exterior light fixtures. Based on a photometric plan prepared for the proposed project, the project would result in relatively minimal light spillage beyond the project boundaries.

Given the consistency of the proposed project with surrounding industrial development, and the added assurance of the Design Review process, implementation of the project would result in a ***less-than-significant*** impact with respect to creating a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

² City of Antioch. *Citywide Design Guidelines Manual* [pg 6-43]. October 2009

II. AGRICULTURE AND FOREST RESOURCES. <i>Would the project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	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 Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a.e. The project site is currently unmaintained and developed with three abandoned buildings. While the project site was historically used for agricultural purposes, the site has not been used recently for agricultural production and is currently designated as “Urban and Built-Up Land” on the Contra Costa County Important Farmland Map.³ Furthermore, the site is not zoned or designated in the General Plan for agriculture uses. While the area to the west of the site is currently used for agricultural production, implementation of the proposed project would not limit the viability of such existing uses.

Given the Urban and Built-Up Land designation of the site, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, the proposed project would have a ***less-than-significant*** impact.

- b. The proposed project site is not under a Williamson Act contract and is not designated or zoned for agricultural uses. Therefore, buildout of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and ***no impact*** would occur.

³ California Department of Conservation. *Contra Costa County Important Farmland Map 2016*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Published August 2018.

- c,d. The project area is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). In addition, the site is designated Industrial, which is not compatible with timberland production. Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

III. AIR QUALITY. <i>Would the project:</i>		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 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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c.	Expose sensitive receptors to substantial pollutant concentrations?	<input 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 type="checkbox"/>
a,b.	The City of Antioch is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter (PM _{2.5}), and State respirable particulate matter 10 microns in diameter (PM ₁₀) ambient air quality standards (AAQS). Both the federal and State government maintain AAQS, referred to herein as NAAQS and CAAQS, respectively. The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour PM _{2.5} federal NAAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal PM _{2.5} NAAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.				

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the CAAQS/NAAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan (CAP), adopted on April 19, 2017. The 2017 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM₁₀ standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM₁₀, and PM_{2.5}, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. Thus, by exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_x, PM₁₀, or PM_{2.5} a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1			
BAAQMD Thresholds of Significance			
Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ (exhaust)	82	82	15
PM _{2.5} (exhaust)	54	54	10
<i>Source: BAAQMD, CEQA Guidelines, May 2017.</i>			

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 - a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's modeling assumed the following:

- Construction would commence in August of 2019;
- Construction would occur over an approximately 23-month period;
- 500 sf of building would be removed during demolition;
- A total of 4.45 acres of land would be disturbed during grading; and
- 3,000 cubic yards of soil would be imported during construction.

Although construction of the proposed project would occur over several phases, construction activity from all phases was added together to provide a conservative construction timeline. The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is

provided below as well. All CalEEMod results are included in the appendix to this Initial Study.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG, NO_x, PM₁₀, and PM_{2.5}.

Table 2			
Maximum Construction Emissions (lbs/day)			
Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	10.15	54	NO
NO _x	45.63	54	NO
PM ₁₀ (exhaust)	2.39	82	NO
PM ₁₀ (fugitive)	18.21	None	N/A
PM _{2.5} (exhaust)	2.20	54	NO
PM _{2.5} (fugitive)	9.97	None	N/A
<i>Source: CalEEMod, June 2019 (see appendix).</i>			

Although thresholds of significance for mass emissions of fugitive dust PM₁₀ and PM_{2.5} have not been identified by the City of Antioch or BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
2. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
3. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
4. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
6. 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.
7. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take

corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's Basic Construction Mitigation Measures listed above would help to further minimize construction-related emissions. Therefore, a less-than-significant impact would occur.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. As such, the proposed project would not result in a significant air quality impact during operations.

Table 3 Unmitigated Maximum Operational Emissions					
Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	8.00	1.38	54	10	NO
NO _x	13.51	2.27	54	10	NO
PM ₁₀ (exhaust)	0.39	0.06	82	15	NO
PM ₁₀ (fugitive)	5.96	1.04	None	None	N/A
PM _{2.5} (exhaust)	0.37	0.06	54	10	NO
PM _{2.5} (fugitive)	1.59	0.28	None	None	N/A
<i>Source: CalEEMod, June 2019 (see appendix).</i>					

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would not result in emissions below the applicable threshold of significance for ROG, NO_x, PM₁₀, or PM_{2.5} the project would not result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 CAP. Because the proposed project would not result in construction-related or operational emissions of criteria air pollutants in excess of BAAQMD's thresholds of significance, conflicts with or obstruction of the implementation of the applicable regional air quality plans would not occur. In addition, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state AAQS. Thus, a *less-than-significant* impact would result.

- c. 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. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the mobile home park located approximately 1,300 feet southeast of the project site in the City of Oakley.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below. In addition, a discussion of health effects related to criteria pollutants is provided.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- 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;

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- 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, underpass, etc.).

As discussed in Section XVII, Transportation, of this Initial Study, the proposed project would not conflict with the Contra Costa Transportation Authority (CCTA) Congestion Management Program (CMP). Additionally, traffic counts completed for the City of Antioch as part of a Citywide Engineering and Traffic Survey showed that all of the City roadways experienced traffic volumes far below 44,000 vehicles per hour.⁴ Thus, the proposed project would not increase traffic volumes at an affected intersection to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist within the project area. As such, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

While the proposed project would involve some deliveries from heavy-duty trucks, deliveries would not be frequent and are not expected to reach a maximum of 10 truck deliveries per week. The CARB considers land uses that involve 100 or more truck trips per day to be significant sources of DPM. Because the project would only involve up to 10 deliveries per week, the proposed project would not generate a substantial amount of DPM due to heavy-duty trucks. Project operations would not include any other activities that would involve substantial emissions of TACs.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, as noted above, construction

⁴ City of Antioch. *Citywide Engineering and Traffic Survey* [pg. 7]. February 6, 2015.

would occur over an approximately 23-month period. Mass grading of the project site, when emissions would be most intensive, would occur over the period of approximately 1.75 months. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would be limited to approximately 23 months.

Furthermore, as noted previously, the nearest existing sensitive receptors would be the mobile home park located approximately 1,300 feet southeast of the project site. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere and is reduced by 70 percent at a distance of approximately 500 feet. Thus, emissions at the project site would be substantially dispersed at the nearest sensitive receptor.⁵

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. In addition, construction equipment would operate intermittently throughout the day and only on portions of the site at a time, and construction activity would be limited to the hours of 7:00 AM to 6:00 PM, Monday through Friday, and 9:00 AM to 5:00 PM on weekends and holidays, per Section 5-17.04 of the City's Code of Ordinances. Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a permanent or substantially extended period of time would be low. Therefore, construction of the proposed project would not be expected to expose the nearest sensitive receptors to substantial pollutant concentrations.

Criteria Pollutants

The BAAQMD thresholds of significance were established with consideration given to the health-based air quality standards established by the NAAQS and CAAQS, and are designed to aid the district in achieving attainment of the NAAQS and CAAQS.⁶ The BAAQMD's thresholds of significance are intended to aid achievement of the NAAQS and CAAQS for which the SFBAAB is in nonattainment, but the thresholds of significance do not represent a level above which individual project-level emissions would directly result in public health impacts. Rather, the thresholds of significance represent emissions levels that would ensure that project-specific emissions would not inhibit attainment of regional NAAQS and CAAQS. As noted previously, the proposed project would not result

⁵ California Environmental Protection Agency, California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

⁶ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

in short-term construction-related or long-term operational emissions of criteria pollutants that would exceed BAAQMD standards. Thus, the project would not inhibit attainment of regional NAAQS and CAAQS. Accordingly, the proposed project would not expose sensitive receptors to excess concentrations of criteria pollutants.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to excess concentrations of localized CO, TACs, or criteria pollutants during construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

- d. Emissions such as those leading to odors have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in section “a” through “c” above. Therefore, the following discussion focuses on emissions of odors and dust.

Per the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.⁷ Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses; however, the cultivation and processing of cannabis would have the potential to create objectionable odors.

Although the cultivation and processing of cannabis could be considered to create objectionable odors, the Cannabis Guidelines adopted by Resolution No. 2018/117 require an odor control plan to be included in the application and is a condition of approval. The proposed project’s current odor control plan includes use of HEPA filters and recycled air through an HVAC system. In addition, all uses would be conducted indoors. Considering the requirements of Resolution No. 2018/117, operation of the proposed project would not be permitted to result in the emission of objectionable odors detectable outside of the project site.

⁷ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

Construction activities often include diesel fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, as discussed above, construction activities would be temporary, and operation of construction equipment would be restricted to the hours of 7:00 AM to 6:00 PM, Monday through Friday, and 9:00 AM to 5:00 PM on weekends and holidays per the City's Code of Ordinances. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

Because the nearest sensitive receptor is located 1,300 feet from the project site, any objectionable odors associated with construction or operation of the project would not be likely be perceivable at the receptor. Nonetheless, it should be noted that BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

As noted previously, all projects under the jurisdiction of BAAQMD are required to implement the BAAQMD's Basic Construction Mitigation Measures. The aforementioned measures would act to reduce construction related dust, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, the project site would not include any exposed topsoil or other potential sources of dust. Thus, project operations would not include any substantial sources of dust.

For the aforementioned reasons, construction and operation of the proposed project would not result in other emissions, such as those leading to odors, which would affect a substantial number of people, and a *less-than-significant* impact would result.

IV. BIOLOGICAL RESOURCES. <i>Would the project:</i>	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 identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife 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 and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a. Currently, the project site is developed with three vacant industrial structures and associated improvements. The western portion of the site contains a limited amount of sparse weedy growth that appears to be regularly disked. The remainder of the site is paved. One tree exists on the western border of the site, and several trees line the project frontage along Wilbur Avenue. All existing on-site trees present would be removed as part of the proposed project. The site does not contain any wetland features or waterways.

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and State Endangered Species Acts. Both acts afford protection to listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of

Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

A search of published records of special-status plant and wildlife species was conducted for the Antioch North USGS 7.5" quadrangle, in which the project site occurs, and for the eight surrounding quadrangles (Antioch South, Honker Bay, Jersey Island, Brentwood, Clayton, Birds Landing, Rio Vista, and Denverton), using the California Natural Diversity Data Base (CNDDB) Rarefind 5 application. The intent of the database review was to identify documented occurrences of special-status species in the vicinity of the project area, to determine their locations relative to the project site, and for use in the field assessment of habitats suitable for special-status species within the site. Additional sources of information used for the analysis include the USFWS's *Endangered and Threatened Wildlife and Plants* and the CDFW's 2018 *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants*. It should be noted that plant and wildlife species that are not considered special-status, as defined above, were excluded from consideration, as such species are not protected under CEQA.

The results of the CNDDB search and other queries are discussed below.

Special-Status Plants

Based on the results of the CNDDB search, a total of 61 special-status plant species have been recorded within the project region. Of the 61 species, most are considered absent from or unlikely to occur on the site due to a lack of suitable habitat, such as vernal pools and serpentine or alkaline soils. In addition, a number of species for which the site provides marginal habitat have never been observed in the project vicinity or have not been observed for many decades. While historic records indicate two special-status species, including Hoover's cryptantha (*Cryptantha hooveri*) and Antioch dunes evening primrose (*Oenothera deltoides ssp. Howellii*), are found in the project region, both are considered to be either extirpated or possibly extirpated from the area. Additionally, due to the unsuitable habitat and disturbed conditions of the site, neither species is likely to occur. Thus, the proposed project would have a less-than-significant impact on special-status plants.

Special-Status Wildlife

Based on the results of the CNDDB search, a total of 45 special-status wildlife species have been recorded within the project region. Of the 45 species, 42 species would be absent from or unlikely to occur on the site due to a lack of suitable habitat. The remaining three special-status wildlife species may potentially be foragers or transients to the site, may be resident to the site, or may occur within areas adjacent to the site. Such species include the

following: Townsend's big-eared bat (*Corynorhinus townsendii*), burrowing owl (*Athene cunicularia*), and Swainson's hawk (*Buteo swainsoni*). In addition, ground-nesting raptors and nesting migratory birds protected under the MBTA have the potential to occur within the trees present on-site and adjacent to the site. Such special-status bird species include, but are not limited to, white-tailed kite (*Elanus leucurus*), golden eagle (*Aquila chrysaetos*), and loggerhead shrike (*Lanius ludovicianus*).

Townsend's Big-Eared Bat

The Townsend's big-eared bat is considered a California Species of Special Concern. Habitat distribution for the species is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and hollow trees. Foraging habitat is generally edge habitats along streams adjacent to and within a variety of wooded habitats. The existing buildings and trees at the project frontage could provide potential roosting habitat. Therefore, based on the habitat types currently present on the project site and the surrounding area, Townsend's big-eared bat could occur on-site.

Burrowing Owls

Burrowing owls inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. Burrowing owl occurrences have been documented within 0.5-mile of the site. Should site grading occur during the nesting season for the species (February 1 through August 31), nests and nestlings that may be present could be destroyed. Over-wintering burrowing owls may also be buried in their roost burrows outside of the nesting season (September 1 through January 31). It should be noted that burrowing owls or their sign have not been observed on the project site. Nonetheless, the potential exists for the species to occur on-site. Thus, in the absence of preconstruction surveys for burrowing owls, a potentially significant impact could occur.

Swainson's Hawk

Swainson's hawk is a State Threatened species and is a federal Bird of Conservation Concern. The species nests in western North America from March to July and migrates to South America for the winter. The species generally nests in riparian areas or in large isolated trees adjacent to, or within easy flying distance to, agricultural areas providing suitable foraging habitat. The CNDDB reports one record of Swainson's hawk within approximately 0.5-mile of the site. The existing on-site trees and small grassy area provides marginal breeding and foraging habitat for this particular species. Though not probable, ground-disturbing activities associated with the proposed project could result in a potentially significant impact to Swainson's hawk habitat in the absence of preconstruction surveys.

Nesting and Migratory Birds

The existing on-site trees located at the project frontage and shrubs in the surrounding area could provide suitable nesting habitat for nesting and migratory birds whose nests are afforded protection under the MBTA. Site construction activities, including tree removal during the active nesting season (February 1 to August 31) have the potential to cause the failure or abandonment of active nests of migratory birds. Impacts to nesting birds, their eggs, and/or young caused by implementation of the project would be regarded as a potentially significant impact.

Conclusion

Based on the above, implementation of the proposed project could potentially affect Townsend's big-eared bat, burrowing owls, Swainson's hawk, and nesting birds and migratory birds protected by the MBTA. Thus, the proposed project could have an adverse effect, either directly or through habitat modifications, on species identified as special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS. Therefore, a *potentially significant* impact could result.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level. It should be noted that in July 2007, the East Contra Costa County (ECCC) Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) was adopted by Contra Costa County, other member cities, the USFWS, and the CDFW. The City of Antioch, however, declined to participate in the HCP/NCCP. Nonetheless, the mitigation measures include language to reflect the possibility that the City may, in the future, enter into an agreement with the Conservancy for coverage of impacts to ECCC HCP/NCCP covered species or otherwise adopt a different HCP/NCCP.

Townsend's Big Eared Bat

- IV-1. Prior to the initiation of any ground disturbing activities, a qualified biologist shall conduct preconstruction roosting bat surveys for all suitable roosting habitat (i.e., trees and manmade structures) that would be impacted during construction activities. If impacted suitable roosting habitat is identified for Townsend's big eared bat, a qualified biologist shall conduct an evening bat emergence survey that may include acoustic monitoring to determine whether bats are present. If Townsend's big eared bat or other special-status bat species are found, consultation with CDFW shall be required prior to the initiation of any construction activities. If special-status bats are not found during the preconstruction surveys, further measures pertaining to special-status bats are not necessary. All survey results shall be submitted to the City of Antioch Planning Division prior to the initiation of any construction activities or when construction has been halted for 30 days or more.*

Alternatively, the project applicant could comply with one of the following conditions:

- 1. Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the Conservancy, provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCC HCP/NCCP Covered Species; or*
- 2. Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and USFWS have approved the conservation plan.*

Burrowing Owl

IV-2. Prior to the initiation of any ground disturbing activities for each phase, burrowing owl surveys shall be conducted by a qualified biologist walking the entire project site, including all off-site improvement areas, and (where possible) in areas within 150 meters (approx. 500 feet) of the proposed project impact zone. The 150-meter buffer zone is surveyed to identify burrows and owls outside of the proposed project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction. If the qualified biologist does not find evidence of burrowing owls, further mitigation is not required. All survey results shall be submitted to the City of Antioch Planning Division prior to the initiation of any construction activities or where construction has been halted for 30 days or more.

If the qualified biologist finds evidence of burrowing owls during the burrowing owl breeding season (February 1 through August 31), all project-related activities shall avoid nest sites during the remainder of the breeding season or while the nest remains occupied by adults or young (nest occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance is establishment of a minimum 300-foot buffer zone around nests. Construction and other project-related activities may occur outside of the 300-foot buffer zone. Construction and other project-related activities may be allowed inside of the 300-foot non-disturbance buffer during the breeding season if the nest is not disturbed, and the project activities are monitored by a qualified biologist and subject to review and approval by the appropriate resource agencies (i.e., CDFW, USFWS, and the City of Antioch Planning Division).

If monitoring by the qualified biologist indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use, the non-disturbance buffer zone may be removed if approved by CDFW. The qualified biologist shall excavate the burrow in accordance with the latest

CDFW guidelines for burrowing owl to prevent reoccupation subject to review and approval from CDFW.

As an alternative to completion of MM IV-1, the project applicant could comply with one of the following conditions:

- 1. Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the Conservancy, provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCC HCP/NCCP Covered Species; or*
- 2. Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and USFWS have approved the conservation plan.*

IV-3. If pre-construction surveys required by Mitigation Measure IV-2 determine that burrowing owls occupy the site during the non-breeding season (September 1 through January 31), then a passive relocation effort (e.g., blocking burrows with one-way doors and leaving them in place for a minimum of three days) shall be necessary to ensure that the owls are not harmed or injured during construction. Once it has been determined that owls have vacated the site, the burrows shall be collapsed and ground disturbance may proceed.

Swainson's Hawk

IV-4. Prior to any project-related ground disturbance that occurs during the nesting season (March 15th to September 15th), a qualified biologist shall conduct a preconstruction survey at least two survey periods prior to the start of construction. Surveys shall follow the protocol in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000), including the survey period lengths identified therein. A written summary of the survey results shall be submitted to the City of Antioch Community Development Department.

If an active nest is found within any off-site trees, a minimum buffer distance of 600 feet shall be established for a nest that is already active prior to construction, and a minimum buffer distance of 150 feet shall be used for a nest that starts after construction has already initiated. Such minimum distances are based on potential impact distances stated in the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (2000). Appropriate buffer distances shall be determined on the ground by a qualified biologist and shall be based on actual observations

of the nest and parent behavior, the stage of nesting, and level of potential disturbance. The buffer(s) shall be identified on the ground with flagging or fencing, and shall be maintained until a qualified biologist has determined that the young have fledged and the nest is inactive. The biologist shall have the authority to stop construction if construction activities are likely to result in nest abandonment.

IV-5. *Alternatively, the project applicant could comply with one of the following:*

- 1. Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCC HCP/NCCP Covered Species; or*
- 2. Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and USFWS have approved the conservation plan.*

Nesting and Migratory Birds

IV-6. *Pre-construction surveys for nesting birds shall be conducted by a qualified biologist within on-site nesting habitat and a 250-foot buffer around the project site boundaries, if feasible, not more than 14 days prior to site disturbance during the breeding season (February 1st to August 31st). If site disturbance commences outside the breeding season, pre-construction surveys for nesting birds are not required. If active nests of migratory birds are not detected within approximately 250 feet of the project site, further mitigation is not required.*

If nesting raptors or other migratory birds are detected on or adjacent to the site during the survey, an appropriate construction-free buffer shall be established around all active nests. Actual size of the buffer would be determined by the project biologist, and would depend on species, topography, and type of activity that would occur in the vicinity of the nest. Typical buffers are 25 feet for non-raptors and up to 250 feet for raptors. The project buffer would be monitored periodically by the project biologist to ensure compliance. After the nesting is completed, as determined by the biologist, the buffer would no longer be required. Buffers shall remain in place for the duration of the breeding season or until a qualified biologist has confirmed that all chicks have fledged and are independent of their parents.

Alternatively, the project applicant could comply with one of the following:

- 1. Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCC HCP/NCCP Covered Species; or*
- 2. Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and USFWS have approved the conservation plan.*

- b,c. Existing vegetation on the project site is limited to annual non-native grasses and ruderal vegetation, as well as a total of 11 on-site trees. Jurisdictional waters, streambeds, and sensitive plant communities do not exist on or near the site. The project site does not contain riparian habitat or other sensitive natural communities, including wetlands. Therefore, the proposed project would not have a substantial adverse effect on riparian habitat, sensitive natural communities, or State or federally protected wetlands, and ***no impact*** would occur.
- d. The project site is surrounded by an existing chain-link fence and is not expected to act as a movement corridor. As noted above, the project does not contain streams or other waterways that could be used by migratory fish or as a wildlife corridor for other wildlife species. As such, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Thus, a ***less-than-significant*** impact would occur.
- e. Currently, the frontage of the project site contains 10 olive trees and one palm tree, all of which would require removal as part of the proposed project. Per Title 9, Chapter 5, Article 1205 of the Antioch Code of Ordinances, a request for tree removal would be included in the development application submitted by the applicant. The development application would 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. Adherence to the requirements set forth in the Code of Ordinances would ensure that the proposed project would be in compliance with the City's Tree Preservation and Regulation Ordinance. In accordance with Section 9-5.1205, the project must include replacement of trees that have been removed as part of the proposed project. As a result, the proposed project would conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a ***potentially-significant*** impact could occur.

Mitigation Measure(s):

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

IV-7 All trees that are legally removed as part of the proposed project shall be replaced according to the following schedule:

- 1. Each established tree: two 24-inch box trees.*
- 2. Each mature tree: two 48-inch box trees.*

Legally removed indigenous and land-mark 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.

- f. In July 2007, the ECCC HCP/NCCP was adopted by Contra Costa County, other member cities, the USFWS, and the CDFW. The City of Antioch, however, declined to participate in the HCP/NCCP. While the City is currently considering drafting a new HCP/NCCP, the document has not yet been finalized or adopted. Therefore, the project site is not located in an area with an approved HCP/NCCP, or local, regional, or State habitat conservation plan. As a result, ***no impact*** would occur regarding a conflict with the provisions of such a plan.

V. CULTURAL RESOURCES. <i>Would the project:</i>		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 defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
c.	Disturb any human remains, including those interred outside of dedicated cemeteries.	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a. Historical resources are features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources within the City range from landmark commercial buildings to Victorian, Craftsman, and Modern-style homes. According to the General Plan EIR, the City contains multiple historical sites. Currently, the project site contains three vacant industrial structures, including a 500-sf metal shed. The metal shed, which would be demolished as part of the proposed project, does not exhibit any architecturally significant features and is generally in a state of disrepair. Thus, the shed would not be considered a significant historical resource. Based on the City's General Plan EIR, 32 historical resources have been defined within the City. However, none of the structures on the project site nor the site itself are considered historical resources based on the City's analysis. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource, and a *less-than-significant* impact would occur.
- b-c. A records search of the California Historic Resources Information System (CHRIS) was performed by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the proposed project area.⁸ According to the records search, the project site has been subject to two previous cultural resource studies that covered approximately 100 percent of the project site. The results of the search indicated that the site does not contain any recorded archaeological resources nor does the State Office of Historic Preservation Historic Property Directory list any historic buildings or structures within or adjacent to the project site. In addition to the search of the CHRIS, a Sacred Lands File search was performed for the proposed project and did not yield any information regarding the presence of cultural resources within the project site or the immediate area.

However, the CHRIS results determined that Native American resources have been found in similar environments as the project site. Thus, the search determined a moderate

⁸ Northwest Information Center. *Record search results for the proposed Contra Costa Farms Project*. May 23, 2019.

potential exists of identifying Native American resources and a low potential of identifying historic-period archaeological resources in the project area.

Based on the age of the site landform, the existing environmental setting, and archaeological data for the project region, unknown archaeological resources, including human remains, have the potential to be uncovered during ground-disturbing activities at the proposed project site. If previously unknown resources are encountered during construction activities, the proposed project could cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries, during construction. Therefore, impacts could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

- V-1. *In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 48 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City's Community Development Department.*
- V-2. *In the event any potentially significant prehistoric or historic artifacts, or other indications of cultural deposits, such as historic privy pits or trash*

deposits, are found once ground disturbing activities are underway, all work within the vicinity of the find(s) shall cease, the City shall be notified, and the find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined to be a historical or unique archaeological resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation shall be made available (CEQA Guidelines Section 15064.5). Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place (Public Resources Code Sections 21083 and 21087).

VI. ENERGY. <i>Would the project:</i>	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 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 type="checkbox"/>

Discussion

- a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2016 California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which became effective with the rest of the CBSC on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and

Building Energy Efficiency Standards

The 2016 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy-efficiency measures from the 2013 Building Energy Efficiency Standards

resulting in a five percent reduction in energy consumption from the 2013 standards for non-residential structures. Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the sites where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., demolition, site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has recently prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),⁹ which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulations described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

⁹ California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of industrial operations, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed industrial development.

The proposed commercial cannabis project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance walls, and high efficacy lighting. All exterior lighting included in the proposed project would be LED-type.

While cannabis operations require lighting for cannabis plants, which may require more energy than is typical of a commercial and industrial facility, the proposed project would be required to adhere to all applicable energy regulations. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. Overall, based on electricity consumption rates associated with a similar cannabis cultivation/processing facility, the proposed project would result in a total of 3,236,590 kilowatt hours (kW) of electricity consumption per month, or approximately 14.75 kW/sf per month. In addition, electricity supplied to the project by PG&E would comply with the State's Renewables Portfolio Standard, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. Thus, a substantial portion of the energy consumed during project operations would originate from renewable sources.

Conclusion

Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or

obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

VII. 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:				
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 based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input 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 type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	<input 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 type="checkbox"/>	✗
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- ai-ii. According to the City of Antioch General Plan, seismicity at the proposed project site is influenced by the San Andreas Fault System, as well as the proximate Great Valley Fault System located at the eastern foot of the Coast Ranges. The Marsh Creek-Greenville-Clayton Fault is the closest active fault, located approximately five miles south of the site. Active or potentially active faults are not known to intersect with the project site. In addition, the site is not mapped within an Alquist-Priolo Earthquake Fault Zone. Thus, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development would be low.

Due to the site's proximity to the nearest active fault, the potential exists for the proposed industrial buildings to be subject to seismic ground shaking. However, the proposed

buildings would be properly engineered in accordance with the California Building Code, which includes engineering standards appropriate for the seismic area in which the project site is located. Conformance with the design standards is enforced through building plan review and approval by the City of Antioch Building Division prior to the issuance of building permits. Proper engineering of the proposed project would ensure that seismic-related effects would not cause adverse impacts. Therefore, a *less-than-significant* impact would occur related to seismic surface rupture and strong seismic ground shaking.

aiii,aiv,

c,d. The proposed project's potential effects related to liquefaction, landslides, lateral spreading/subsidence, and expansive soils are discussed in detail below.

Liquefaction

Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary loss of shear strength due to pore pressure buildup under the cyclic shear stresses associated with intense earthquakes. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater).

Severe ground shaking during an earthquake can cause loose to medium dense granular soils to densify. If the granular soils are below the groundwater table, their densification can cause increases in pore water pressure, which can lead to soil softening, liquefaction, and ground deformation. Soils most prone to liquefaction are saturated, loose to medium dense, silty sands and sandy silts with limited drainage, and, in some cases, sands and gravels that are interbedded with, or that contain, seams or layers of impermeable soil. The General Plan EIR indicates that the project site is in an area of moderate liquefaction risk. However, the design plans would be reviewed by the City Engineer to ensure that any appropriate measures such as design foundations and placement of engineered fill are incorporated in order to minimize any risk of liquefaction.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. According to the General Plan EIR, the project site is located on a stable slope and would not be at risk for impacts related to landslides. Thus, landslides are not likely to occur on- or off-site as a result of the proposed project.

Lateral Spreading/Subsidence

Lateral spreading is associated with terrain near free faces such as excavations, channels, or open bodies of water. Because the project site is relatively flat and not near any open body of water, lateral spreading would not be likely. Subsidence occurs when loose, sandy soils settle during earthquake shaking. In order to reduce risks associated with unstable soils vulnerable to potential failure or collapse under seismic loading, such as lateral

spreading and/or compressible soils, site-specific engineering measures would be required. The City of Antioch Code of Ordinances Section 9-4.513 and the City of Antioch General Plan Policy 11.3.2 require the preparation of site-specific geology and soils reports for all new developments, and require that the findings and recommendations of these studies be incorporated into project development. Compliance with such is verified by the City of Antioch Building Division as part of the building permit process. Compliance with the aforementioned requirements would ensure that the proposed project would be adequately designed to minimize any effects of unstable soils, including lateral spreading, subsidence, liquefaction, and collapse.

Expansive Soils

Per the U.S. Department of Agriculture Natural Resources Conservation Service, the existing on-site soils have a Plasticity Index of zero.¹⁰ According to the 2016 CBC, soils are considered expansive if the Plasticity Index is above 15. Thus, the project site does not contain expansive soil, as defined in Table 18-1B of the Uniform Building Code.

Conclusion

Based on the above discussion, the proposed project would not result in on- or off-site landslides, lateral spreading, or subsidence and would not result in risks related to expansive soils. However, the project would be located on soils that are at risk for liquefaction and may be considered unstable. Without implementation of appropriate design measures, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

- VII-2. *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City of Antioch Building Division prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the Geotechnical Investigation prepared for the proposed project are properly incorporate and utilized in the project design in order to minimize any potential impacts related to liquefaction.*
- b. During grading activities associated with development of the proposed project, and prior to overlaying of the ground with impervious surfaces and landscaping elements, topsoil would temporarily be exposed. Thus, the potential exists for wind and water to erode portions of the exposed topsoil during construction, which could adversely affect downstream storm drainage facilities. Impacts related to substantial soil erosion or the loss of topsoil during construction of the proposed project would be ***potentially significant***.

¹⁰ U.S. Department of Agriculture Natural Resources Conservation Service. *Web Soil Survey*. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed June 2019.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VII-2. *Prior to issuance of grading and building permits, the project applicant shall submit, for the review and approval by the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Measures shall include, but are not limited to, the following:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with “filter fabric” (a specific type of geotextile fabric);*
- *The placement of straw wattles along slope contours;*
- *Directing subcontractors to a single designation “wash-out” location (as opposed to allowing them to wash-out in any location they desire);*
- *The use of siltation fences; and*
- *The use of sediment basins and dust palliatives.*

- e. The proposed project would include connection of a new sanitary sewer line to an existing six-inch sanitary sewer lateral located on the north side of the project site. The construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the proposed project. Therefore, ***no impact*** regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.
- f. Per the City of Antioch General Plan, numerous fossils have been collected from the Antioch Planning Area. A fossil locality search at the Cultural Access Services identified marine fossils collected from almost all of the sedimentary formations located in Antioch. Literature review indicated that all of the formations north of Mt. Diablo contain fossils. At least eight fossil localities occur within and immediately adjacent to the City’s Planning Area and another five are within a one-mile radius of the Planning Area. Fossils in the Planning Area identified by California Museum of Paleontology, UC Berkeley include mammoths, primitive horses, bison, rats, beaver-type creatures, and sloths. As noted in the General Plan EIR, buildout of vacant parcels within the City’s Planning Area will involve ground-disturbing activities and, thus, could potentially destroy, directly or indirectly, unique paleontological resources or sites.

The City has not identified any unique geologic features within the Planning Area, and thus, the project site does not contain any known unique geologic features. However, based on the above, paleontological resources could exist within the project site. Should previously unknown paleontological resources exist within the project site, ground-disturbing activity, such as grading, trenching or excavating, associated with

implementation of the proposed project would have the potential to disturb or destroy such features. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

- VII-3. *Prior to initiation of ground-disturbing activities, the applicant shall retain the services of a professional paleontologist to educate the construction crew that will be conducting grading and excavation at the project site. The education shall consist of an introduction to the geology of the project site and the kinds of fossils that may be encountered, as well as what to do in case of a discovery. Should any vertebrate fossils (e.g., teeth, bones), an unusually large or dense accumulation of intact invertebrates, or well-preserved plant material (e.g., leaves) be unearthed by the construction crew, then ground-disturbing activity shall be diverted to another part of the project site and the paleontologist shall be called on-site to assess the find and, if significant, recover the find in a timely matter. Finds determined significant by the paleontologist shall then be conserved and deposited with a recognized repository, such as the University of California Museum of Paleontology. The alternative mitigation would be to leave the significant finds in place, determine the extent of significant deposit, and avoid further disturbance of the significant deposit. Proof of the construction crew awareness training shall be submitted to the City's Community Development Department in the form of a copy of training materials and the completed training attendance roster.*

VIII. GREENHOUSE GAS EMISSIONS.

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 type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>

- a,b. Emissions of greenhouse gases (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. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO₂) and, to a lesser extent, other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO₂ equivalents (MTCO_{2e}/yr).

A number of regulations currently exist related to GHG emissions, predominantly AB 32, Executive Order S-3-05, and Senate Bill (SB) 32. AB 32 sets forth a statewide GHG emissions reduction target of 1990 levels by 2020. Executive Order S-3-05 sets forth a transitional reduction target of 2000 levels by 2010, the same target as AB 32 of 1990 levels by 2020, and further builds upon the AB 32 target by requiring a reduction to 80 percent below 1990 levels by 2050. SB 32 also builds upon AB 32 and sets forth a transitional reduction target of 40 percent below 1990 levels by 2030.

The proposed project is located within the jurisdictional boundaries of BAAQMD. BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 MTCO_{2e}/yr.

It should be noted that the City of Antioch approved the Community and Municipal Climate Action Plans, which include city-wide goals and strategies for the reduction of GHG emissions. However, a quantitative threshold of significance for GHG emissions for individual development projects has not been established by the City and is not set forth in the Climate Action Plans.

The proposed project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in the Air Quality section of this Initial Study, and compared to the applicable thresholds of significance. The proposed project's required compliance with the current California Building Energy Efficiency Standards Code was assumed in the modeling. In addition, the CO₂ intensity factor within the model was adjusted to reflect the Pacific Gas & Electric Company's anticipated progress towards statewide renewable portfolio standard goals. All CalEEMod results are included in the appendix to this Initial Study.

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Nonetheless, the proposed project's construction-related GHG emissions have been estimated and are presented in Table 4 below. The construction modeling assumptions are described in the Air Quality section of this Initial Study and included in the appendix.

Table 4	
Unmitigated Annual Project Construction GHG Emissions	
Year	Annual GHG Emissions (MTCO_{2e}/yr)
2019	198.56
2020	568.67
2021	298.59
<i>Source: CalEEMod, June 2019 (see Appendix).</i>	

Emissions modeling for construction showed that the most intensive year of construction of the proposed development would result in GHG emission of 568.67 MTCO_{2e}/yr. Neither the City nor BAAQMD has adopted a threshold of significance for construction-related emissions. However, even if the combined total construction emissions of 1,065.82 MTCO_{2e} such emissions would be below BAAQMD's operational threshold of 1,100 MTCO_{2e}/yr, and would occur over three years, as shown in Table 4. Thus, construction of the proposed project would not be considered to result in significant GHG emissions.

The proposed project is located within the jurisdictional boundaries of the BAAQMD. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 MTCO_{2e}/yr or 4.6 MTCO_{2e}/yr per service populations (population + employees). As shown in Table 5, the total unmitigated annual GHG emissions from operations of the proposed project, were estimated to be approximately 1,947.65 MTCO_{2e}/yr, which equates to 7.24 MTCO_{2e}/yr per service population (1,947.65 MTCO_{2e}/yr, / 269 employees = 7.24MTCO_{2e}/yr/SP). The service population would include employees working on the project site, and is assumed to be 269 based on the estimates for buildout of the project. Thus, implementation of the proposed project would result in emissions above the annual

1,100 MTCO₂e/yr and 4.6 MTCO₂e/yr per service population thresholds, and thus, could create a conflict with AB 32.

Table 5	
Maximum Unmitigated Project GHG Emissions	
	Annual GHG Emissions
Area	0.01 (MTCO ₂ e/yr)
Energy	535.36 (MTCO ₂ e/yr)
Mobile	1,120.53 (MTCO ₂ e/yr)
Offroad ¹	52.80 (MTCO ₂ e/yr)
Solid Waste	136.63 (MTCO ₂ e/yr)
Water	102.33 (MTCO ₂ e/yr)
Total Annual GHG Emissions	1,947.65 (MTCO₂e/yr)
Total Annual GHG Emissions Per Service Population²	7.24 MTCO₂e/SP/yr
BAAQMD Threshold	4.6 MTCO ₂ e/SP/yr
Exceeds Threshold?	YES
¹ Offroad category represents the use of forklifts within the project site during project operations. ² Service population for the project calculated to be 269 employees based on the proposed project application.	
<i>Source: CalEEMod, June 2019.</i>	

It should be noted that the City's Climate Action Plans were established to ensure the City's compliance with the statewide GHG reduction goals required by AB 32. Although the Climate Action Plans do not include quantitative thresholds to assess a project's compliance, projects that are in compliance with the Climate Action Plans would be considered compliant with the GHG reduction goals required by AB 32. For instance, projects showing emissions reductions as required by the Climate Action Plans, or projects incorporating reduction strategies from the Climate Action Plans are understood to be in compliance with the Climate Action Plans' GHG emissions reductions goals, and, thus, in compliance with AB 32.

The proposed project would comply with several emissions reductions strategies included in the City's Community Climate Action Plan. For instance, the proposed project would include renovation of some of the existing structures within the project site. Such renovations are anticipated to improve the energy efficiency of the existing facilities in compliance with Strategy E3 and E14 of the Community Climate Action Plan. Furthermore, the proposed project would include planting of low-maintenance landscaping, including trees throughout the project site, which would be generally consistent with policy E4 and L5 of the Community Climate Action Plan.

While the proposed project would be compliant with various policies of the City's Community Climate Action Plan, the exceedance of the operational GHG emissions would result in conflict with AB 32. Thus, based on the above, the proposed project would be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or

regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered *potentially significant*.

Mitigation Measure(s)

Implementation of the following mitigation measure would result in the reduction of total GHG emissions from 1,947.65 MTCO₂e/yr to an acceptable level of 1,237.4 MTCO₂e/yr (a total reduction of 710.25 MTCO₂e/yr), resulting in emissions of 4.6 MTCO₂e/yr/SP. Thus, upon implementation of the following mitigation measure, the impact would be *less-than-significant*.

VIII-1. Prior to issuance of a certificate of occupancy for any buildings constructed within the project site, the project applicant shall demonstrate a reduction in GHG emissions of 6.46 MTCO₂e/yr per 1,000 sf of building area proposed (equating to a project-wide total of 710.25 MTCO₂e/yr). Examples of measures that may be used by the project applicant include, but are not limited to, the following:

- *Exceedance of Title 24 Energy Efficiency requirements;*
- *Inclusion of on-site renewable energy;*
- *Indoor water use efficiency;*
- *Institution of a composting and recycling program in excess of local standards;*
- *Use of energy efficient lighting fixtures;*
- *Inclusion of Electric Vehicle parking infrastructure; and*
- *Purchase of off-site mitigation credits.¹¹*

Thus, as development progresses within the project site, each individual phase of development would be required to show GHG emissions reductions in keeping with the project-wide reduction requirement.

¹¹ Purchase of off-site credits shall be negotiated with the City and BAAQDM at the time that credits are sought.

IX. HAZARDS AND HAZARDOUS MATERIALS. <i>Would the project:</i>	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 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 likely release of hazardous materials into the environment?	<input 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 type="checkbox"/>	<input type="checkbox"/>	✗
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input 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"/>	✗
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. The proposed project would involve the cultivation, manufacturing, distribution, and retail sales of cannabis. Cultivation and manufacturing of cannabis at the site would be entirely organic and would not require the use of pesticides or hazardous materials. Cannabis manufacturing is controlled by the California Department of Public Health which regulates practices to ensure the operation occurs within a safe manufacturing environment and results in safe products for the public. Only non-volatile manufacturing would be conducted, which would not involve the use of hazardous materials. As such, routine transport of hazardous materials associated with cultivation and manufacturing would not occur.

Operations associated with the proposed project could include limited use of small amounts of hazardous materials related to cleaning and site maintenance. However, such materials would be handled in small quantities and would be used in accordance with label

instructions. Therefore, the use of such products and the amount utilized on site would not represent a substantial risk to the public through routine transport, use, or disposal.

Finally, per Public Resources Code Section 42649.8(c), cannabis waste is considered organic waste, and the disposal and transport of such is permitted through any facility that normally accepts organic waste. Thus, the disposal and transport of cannabis waste would not be considered hazardous. Based on the above, the proposed project would not create a significant hazard to the public or environment through routine transport, use, or disposal of hazardous materials and a *less-than-significant* impact would occur.

- b. A Phase I Environmental Site Assessment (ESA) was performed for the project site by Geocon Consultants on May 3, 2019, for the purpose of identifying potential recognized environmental conditions (RECs) associated with the project site.¹²

Existing On-Site Hazardous Conditions

The Phase I ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and environmental site radius reports. Historical sources reviewed as part of the Phase I ESA indicate that the project site was developed with orchards from at least 1937 to 1984. The historical presence of orchards on the site, and the adjacent properties, for over 50 years suggests a possible REC related to past pesticide use. The orchards appeared to have been cleared by 1993.

As of 1993, a power plant was constructed on the site with three buildings and power generating equipment. During operations of the power plant, aboveground storage tanks (ASTs) containing sulfuric acid, diesel, turbine lube oil, ammonia, and transformers were present. However, the power plant was closed in 2012, and by 2016, all power plant equipment and features had been removed. Since the closing of the power plant in February 2012, the site has been used for storage of equipment and other materials.

The Phase I ESA also identified a documented Historical REC on the project site from January 14, 1998. The records report that a purifier system malfunctioned and pumped 100 gallons of lube oil on to the ground. The release was reported to Contra Costa County Health Services Department and the material was cleaned and put into containers for proper disposal. An unknown amount of lube oil entered the on-site storm drain system which emptied to the on-site collection pond; however, the leak was stopped, booms were placed on the drains and absorbent material was used on the collection basin. The cleanup of the spill was deemed sufficient by the Contra Costa County Health Services Department.

In addition to the review of documents, a site assessment was performed as part of the Phase I ESA. Features such as stressed vegetation, wells, ASTs, underground storage tanks (USTs), or other obvious field indications of potential hazardous impacts were not identified on the site. However, a septic system was observed and would require abandonment prior to development of the proposed project in accordance with applicable regulations by the Contra Costa County Health Services Department.

¹² Geocon Consultants. *Phase I Environmental Site Assessment Report 3400 Wilbur Avenue*. June 17, 2019.

Asbestos and Lead-based Paint

The proposed project would include demolition of the existing shed on the western boundary of the project site and renovation to the two remaining buildings. For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation and surface materials must be designated as “presumed asbestos-containing material” (PACM) unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. ACMs were banned in the mid-1970s. ACMs could include, but are not limited to resilient floor coverings, drywall joint compounds, acoustic ceiling tiles, piping insulation, electrical insulation and fireproofing materials. Furthermore, the use of lead-based paint was not banned until 1978 by the Federal Government. Typically, exposure to lead from older vintage paint is possible when the paint is in poor condition or is being removed. Lead-based paints were phased out of production in the early 1970s. Although the exact construction date of the existing buildings is unknown, the Phase I ESA approximated construction of at least one building as early as 1949. Therefore, given the age of the structures, ACMs and lead-based paint may be present within the structures. Because implementation of the proposed project would include demolition and renovation of the existing on-site structures, exposure of workers to ACMs or lead-based paint could occur.

Construction Activities

Construction activities associated with the proposed project would involve the use of heavy-duty equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Thus, project construction would not be likely to create a significant hazard to the public through the release of hazardous materials.

Conclusion

Based on the above discussion and the results of the Phase I ESA, the proposed project would not be subject to risks related to wells, ASTs, or USTs. Nonetheless, the historical presence of orchards on the project site and adjacent properties for over 50 years suggests a possible REC on the site, as well as potential hazards related to exposure of lead-based paint and asbestos-containing material. In addition, proper abandonment of the existing on-site septic system would be necessary to ensure that risks to future employees and patrons do not occur. Therefore, the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a *potentially significant* impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a less-than-significant level.

- IX-1. *Prior to the issuance of grading permits and removal of existing structures on the project site, a surficial soil sample laboratory analysis shall be conducted in areas around existing structures on the project site. Once the soils are collected, the soils are to be tested for pesticides, including chlordane. If soil contaminants are not found, further action is not required; however, if concentrations of pesticides are detected in excess of established thresholds, the assessment shall include the appropriate mitigation including, but not limited to, soil remediation to an acceptable total threshold limit concentration (TTL) level per applicable State and federal regulations. All recommended mitigation measures shall be implemented by the project applicant, subject to review and approval by the Contra Costa County Health Services Department, as well as the City of Antioch Community Development Department.*
- IX-2. *Prior to initiation of construction or demolition activities, the existing on-site septic system shall be abandoned in an approved manner as determined by the Contra Costa County Health Services Department. Proof of abandonment shall be provided to the City of Antioch Community Development Department.*
- IX-3. *Prior to issuance of a demolition permit for any on-site structures, the Developer shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Community Development Department an asbestos and lead survey. If asbestos-containing materials ACMs or lead-containing materials are not discovered during the survey, further mitigation related to ACMs or lead containing materials will not be required.*
- If ACMs and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 California Code of Regulations (CCR) 1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the City and the Contra Costa County Health Services Department for review and approval. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing*

more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.

- c. The project site is not located within a quarter mile of any existing or proposed schools. The nearest school is Orchard Park Elementary School, located approximately 1.2 miles southeast of the site. Therefore, the proposed project would have **no impact** related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- d. Per the Phase I ESA, the proposed project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.¹³ Therefore, the project would not create a significant hazard to the public or the environment associated with such, and **no impact** would occur.
- e. The nearest airport to the site is the Funny Farm Airport, located approximately 7.5 miles southeast of the site. Thus, the project site is not located within two miles of any public airports or private airstrips, and does not fall within an airport land use plan area, and **no impact** related to a safety hazard for people residing or working in the project area would occur.
- f. In 1996, the City of Antioch approved an Emergency Plan that addresses response to disasters, including, but not limited to, earthquakes, floods, fires, hazardous spills or leaks, major industrial accidents, major transportation accidents, major storms, airplane crashes, environmental response, civil unrest, and national security emergencies. The plan outlines the general authority, organization, and response actions for City of Antioch staff when disasters happen. Implementation of the proposed project would not result in any substantial modifications to the existing roadway system and, thus, would not physically interfere with the Emergency Plan, particularly with identified emergency routes. Furthermore, the proposed project would not include land uses or operations that could impair implementation of the plan. Therefore, would not interfere with an emergency evacuation or response plan, and a **less-than-significant** impact would occur.
- g. Issues related to wildfire hazards are discussed in Section XX, Wildfire, of this Initial Study. As noted therein, according to the City of Antioch General Plan EIR, the areas of the City most susceptible to wildland fire hazards exist within the southern, unincorporated portions of the General Plan study area.¹⁴ The project site is surrounded by existing development to the north, east, and south, and is located within a developed area. Thus, the potential for wildland fires to reach the project site would be relatively limited. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a Very High Fire Hazard Severity Zone.¹⁵ Therefore, the proposed project would not expose people or

¹³ Geocon Consultants. *Phase I Environmental Site Assessment Report 3400 Wilbur Avenue*. June 17, 2019.

¹⁴ City of Antioch. *General Plan Update EIR* [pg. 4.6-9]. July 2003.

¹⁵ California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires, and a *less-than-significant* impact would occur.

X. HYDROLOGY AND WATER QUALITY. <i>Would the project:</i>	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 ground water quality?	<input 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 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:				
i. Result in substantial erosion or siltation on- or off-site;	<input 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 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 type="checkbox"/>	✗	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input 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"/>	✗
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. The following discussion provides a summary of construction and operational water quality impacts and is primarily based on a Preliminary Stormwater Control Plan (SWCP) that was prepared for the proposed project.

Construction

During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. The City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project. Because the proposed project would disturb greater than one acre of land, the proposed project would be subject to the requirements of the State's General Construction Permit.

Operation

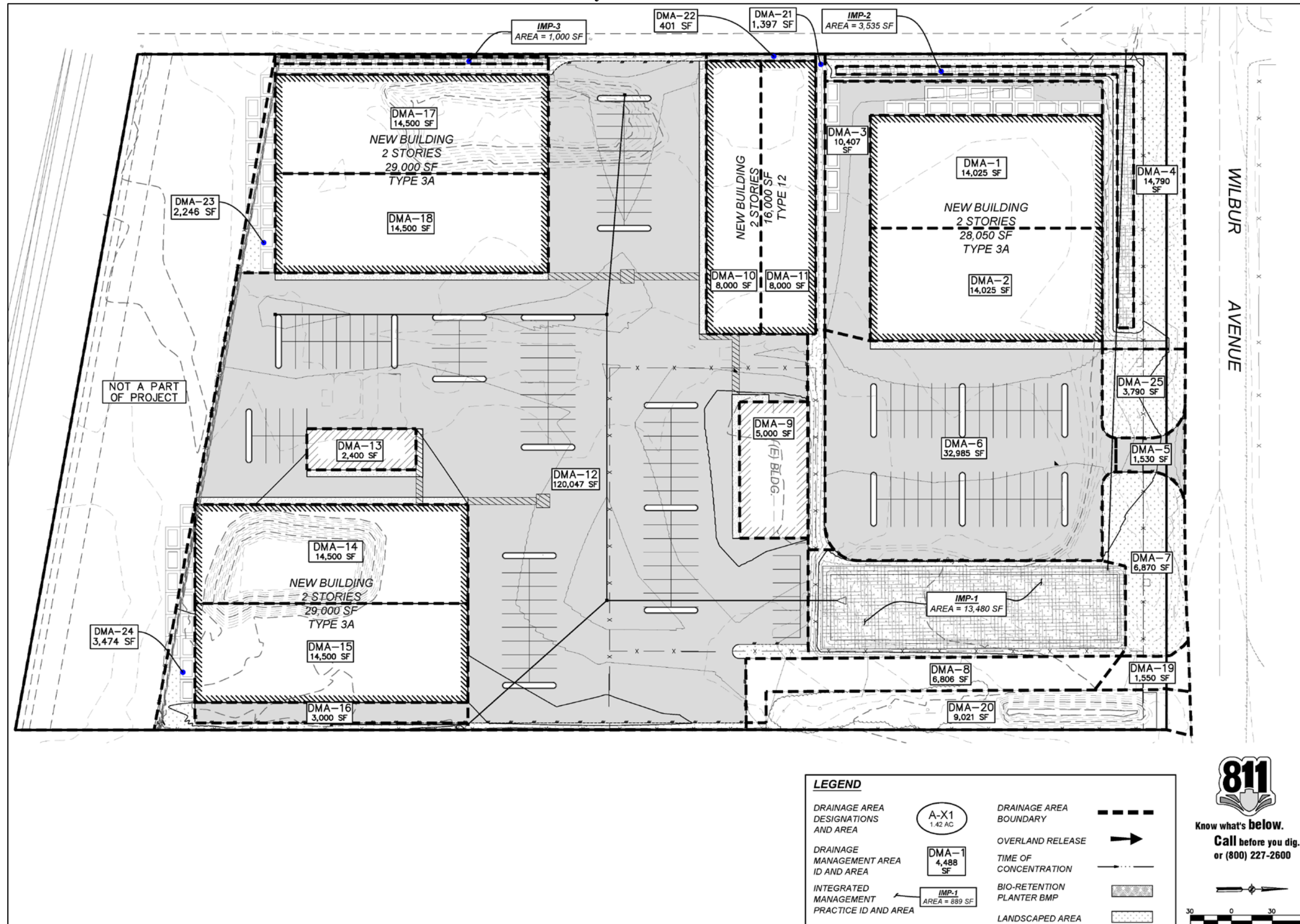
Upon development of the proposed project, the site would be primarily covered in impervious surfaces and landscaping. The proposed impervious surfaces would generate urban runoff, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides. All municipalities within Contra Costa County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit.

The City of Antioch has adopted the County C.3 Stormwater Standards, which require new development and redevelopment projects that create or alter 10,000 or more sf of impervious area to contain and treat all stormwater runoff from the project site. Thus, the proposed project would be subject to the requirements of the SWRCB and the Regional Water Quality Control Board (RWQCB), including the C.3 Standards, which are included in the City's NPDES General Permit. Compliance with such requirements would ensure that impacts to water quality standards or waste discharge requirements would not occur during operation of the proposed project.

The Stormwater Management Plan (SWMP) prepared for the proposed project must conform with the most recent Contra Costa Clean Water Program Stormwater C.3 Guidebook and verify that the proposed project would comply with all City stormwater requirements. In compliance with the C.3 Guidebook, the proposed project would divide the site into 25 drainage management areas (DMAs) (see Figure 6).

Runoff within each DMA would be captured by a series of new inlets and flow, by way of new underground storm drain piping, to one of three bio-retention basins. The bio-retention basins would remove pollutants primarily by filtering runoff slowly through an active layer of soil. Treated runoff would be captured by perforated underdrains, which would route flows to the City's existing stormwater drain located on the western portion of the site.

Figure 6
Preliminary Stormwater Control Plan



The bio-retention basins would encompass 16,000 sf and would be sized to meet or exceed the minimum volume requirements necessary to adequately handle all runoff from the proposed impervious surfaces and landscaping.

In addition to urban runoff, the proposed project would require water for irrigation of the cannabis plants in the cultivation rooms, which would result in some runoff from watering practices. Each plant would receive up to two gallons of water on watering days, and about 0.5 cup of treated irrigation water would be deposited into a runoff bucket. 90 percent of the runoff water would be recycled and stored for future watering. The remaining 10 percent would be disposed of and would total approximately 10 gallons per day for all cultivation activity. Thus, the proposed project would not result in the direct discharge of irrigation water to storm drain system. The runoff water for disposal would be applied to the plants, trees shrubs, and landscaping outside of the building.

Based on the above, the proposed project would comply with the requirements of the SWRCB and the RWQCB, and would meet or exceed C.3 Standards. Therefore, during operation, the project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality.

Conclusion

Based on the SWMP prepared for the proposed project, the project would comply with all applicable regulations during operation and would be designed to adequately treat stormwater runoff from the site prior to discharge. However, disturbance of the on-site soils during construction activities could result in a ***potentially significant*** with regard to violation of water quality standards and degradation of water quality should adequate BMPs not be incorporated during construction in accordance with SWRCB regulations.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

- X-1. *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. The SWPPP shall be submitted to the Director of Public Works/City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

- b,e. According to the 2015 Urban Water Management Plan, the City of Antioch currently does not rely on groundwater for water supplies.¹⁶ Therefore, any water demand associated with the proposed project would not result in a depletion of groundwater in the project area. In addition, the proposed bio-retention facilities would allow for treated stormwater to infiltrate underlying soils in a manner similar to what currently occurs on-site. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, a *less-than-significant* impact would occur.
- ci-iii. Development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site. However, as discussed above, the project is required to comply with C.3 Standards and is proposed to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures to limit the rate and amount of stormwater runoff leaving the site. Compliance with C.3 Standards would be sufficient to ensure that the proposed project does not exceed the capacity of existing storm drain infrastructure, and that the project would not result in off-site erosion or siltation.

The proposed project has been designed to incorporate operational design features that would provide on-site stormwater treatment to limit the rate and amount of stormwater leaving the site. As discussed above, runoff from the impervious areas of the site would be collected and conveyed to the proposed bio-retention basins. Per the SWMP prepared for the project, and as shown in Figure 6, the bio-retention facilities would be designed to exceed the minimum volume needed to treat and control runoff from all proposed impervious surfaces.

In conclusion, the proposed project would not 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 result in erosion, siltation, or flooding on- or off-site, 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. Consequently, the proposed project would result in a *less-than-significant* impact.

- civ. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map number 06013C0144G, the project site is located within Zone X. FEMA defines Zone X as an area not within a 100-year or 500-year floodplain. The Contra Loma Dam is the closest dam to the project site, located approximately four miles southwest of the site. The citywide inundation map for the failure of Contra Loma Dam and Dike No. 2 (Figure 4.7-3 of the General Plan EIR) indicates that the project site is located outside of the areas that would be impacted by dam failure. It should be noted that, according to the General Plan

¹⁶ City of Antioch. 2015 Urban Water Management Plan [pg. 6-12]. May 2016.

EIR, dam failure would be an unlikely event.¹⁷ As a result, the project would not impede or redirect flood flows, and a ***less-than-significant*** impact would result.

- d. As discussed under question ‘civ’ above, the project site is not located within a flood hazard zone. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project area is located over 40 miles from the Pacific Ocean and tsunamis typically affect coastlines and areas up to one-quarter mile inland. Due to the project’s distance from the coast, the project site would not be exposed to flooding risks associated with tsunamis. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to a large closed body of water. Furthermore, as noted above, the project site is not located within a flood hazard zone. Based on the above, the proposed project would not pose a risk related to the release of pollutants due to project inundation due to flooding, tsunami, or seiche, and ***no impact*** would occur.

¹⁷ City of Antioch. *General Plan Update EIR* [pg. 4.7-4]. July 2003.

XI. LAND USE AND PLANNING. <i>Would the project:</i>		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"/>
b.	Cause a significant environmental impact due to a conflict with any land use plans, policies, or regulation adopted for the purpose of avoiding or mitigating on environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. The project site does not contain existing housing or other development, and the proposed project would be consistent with the surrounding uses. The proposed project would not alter the existing general development trends in the area or isolate an existing land use. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

- b. According to the Antioch General Plan, the project site is designated Industrial. The site is zoned M-2. The site is located within the City's Cannabis Business Overlay Zone, and cannabis-related activities including cultivation, manufacturing, distribution, and retail would be permitted under a Use Permit. Furthermore, industrial activities associated with the proposed project would be consistent with the surrounding land uses in the project area. Thus, the proposed project would not cause a significant environmental impact due to a conflict with any land use plans, policies, or regulation, and a ***less-than-significant*** impact would occur.

XII. MINERAL RESOURCES. <i>Would the project:</i>		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 that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	✗

Discussion

- a,b. According to the City of Antioch's General Plan EIR, areas identified in the General Plan for new development do not contain known mineral resources that would be of value to the region or residents of the State.¹⁸ Therefore, ***no impact*** to mineral resources would occur as a result of development of the project.

¹⁸ City of Antioch. *General Plan Update EIR* [pg. 5-9]. July 2003.

XIII. NOISE.

Would the project result in:

	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 type="checkbox"/>	✗	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input 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"/>	✗

Discussion

- a. The City of Antioch General Plan EIR establishes a noise level limit of 70 dBA for commercial and industrial uses. The site is immediately surrounded by existing industrial developments on three sides and an agricultural field on the remaining side. The nearest sensitive residential receptor to the project site is located over 1,300 feet southeast of the site, on the eastern side of SR 160.

During the construction of the proposed project, heavy equipment would be used for grading, excavation, paving, and building construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and trucks, would be used on-site.

The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 6. The noise values represent maximum noise generation, or full-power operation of the equipment. As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources.

The nearest existing noise-sensitive receptor to the project site is the mobile home park located 1,300 feet southeast of the site. As shown in Table 6, construction activities typically generate noise levels ranging from approximately 76 to 85 dB L_{max} at a reference distance of 50 feet from the construction activities. The noise levels from construction operations decrease at a rate of approximately 6 dB per doubling of distance from the source. Thus, the mobile home park would not be exposed to more than 57 dB L_{max} .

Accordingly, construction noise would not exceed the City's 60 dB exterior noise level threshold at the nearest sensitive receptor.

Table 6 Construction Equipment Noise	
Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Pneumatic Tools	85
<i>Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.</i>	

Although the proposed project would not be anticipated to expose any residential receptors to excess noise during project operations, commercial and industrial uses exist within closer proximity to the project site. However, as noted in the City's General Plan EIR,¹⁹ compliance with the City's noise control ordinance would sufficiently reduce construction related noise to a less-than-significant level. In particular, per Section 5-17.04 of the City's Code of Ordinances, construction noise may only occur from 7:00 AM to 6:00 PM, Monday through Friday, and from 9:00 AM to 5:00 PM on weekends and holidays. Construction activity occurring during such times is conditionally exempt from the City's noise requirements. In addition, noise associated with construction activities would be temporary in nature, and would be anticipated to occur during normal daytime working hours. Consequently, implementation of the proposed project would not result in significant short-term noise related to project construction.

Operational noise resulting from the proposed project would be typical of commercial and industrial uses and would primarily be defined by traffic noise from employee, patron, and delivery vehicle trips. Hours of operation would be 24 hours per day, seven days per week. As discussed in Section XVII, Transportation, of this Initial Study, the proposed project would not generate excessive traffic or significantly impact the transportation and circulation system in the area. Thus, traffic noise would not significantly increase the existing noise environment. Additionally, a maximum of 10 delivery trucks would arrive on the project site per week. The small number of deliveries per week would not generate noise in excess of the levels generally anticipated for industrial uses. Given that the project site is surrounded by industrial and agricultural uses, is over 1,000 feet from the nearest sensitive receptor, and is consistent with the land use designations for the project site, the project would not generate noise in excess of any applicable standards.

¹⁹ City of Antioch. *General Plan Update EIR* [pgs. 4.9-9 through 4.9-12]. July 2003.

Conclusion

Based on the above, construction noise is not expected to exceed the City threshold at the nearest sensitive receptor, and would be required to adhere to the City's requirements for such activities. In addition, operational noise of the proposed project would be consistent with the industrial and commercial surroundings and would not generate noise in excess of standards established by the City or change the existing noise environment. Thus, a ***less-than-significant*** impact would occur related to 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.

- b. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. The threshold of 0.25 in/sec PPV is used by the California Department of Transportation as the threshold for distinctly perceptible to strongly perceptible detection by humans. Therefore, activities creating vibrations exceeding 0.25 in/sec PPV would impact sensitive receptors in nearby residences.

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of construction. The nearest existing structure is located approximately 25 feet from construction activities that would occur on the project site. The range of vibration source levels for construction equipment commonly used in similar projects are shown in Table 7.

Table 7	
Vibration Levels for Various Construction Equipment	
Equipment Type	Vibration Level at 25 feet (in/sec PPV)
Vibratory Roller	0.210
Loaded Truck	0.076
Excavator	0.051
Front Loader	0.035
Water Truck	0.001
<i>Source: Caltrans, Transportation and Construction Vibration: Guidance Manual. September 2013.</i>	

Based on the distance of the project site to the mobile home park located over 1,000 feet away, construction-generated vibration levels associated with the proposed project are predicted to be less than the 0.25 in/sec PPV threshold at which vibration levels become distinctly perceptible. Therefore, the project would not result in the exposure of persons to or generation of excessive groundborne vibration levels at the project site. Additionally, construction activities would be temporary in nature and would be limited to normal daytime working hours in accordance with Section 5-17.04 of the City Zoning Ordinance. Therefore, a ***less-than-significant*** impact would occur related to exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

- c. The nearest airport to the site is the Funny Farm Airport, located approximately 7.5 miles southeast of the site. Given the substantial distance between the airport and the project site, noise levels resulting from aircraft at the nearest airport would be negligible at the proposed project site. Therefore, *no impact* would occur.

XIV. POPULATION AND HOUSING. <i>Would the project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input 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"/>	✗

Discussion

- a. The 9.2-acre project site is currently developed with three industrial buildings and is surrounded by existing commercial and agricultural developments on all sides. The proposed project would include development of a commercial cannabis facility to conduct manufacturing, cultivation, and distribution of cannabis products. As such, the project would not directly induce population growth in the area. While the project would require connections to nearby water and sanitary sewer lines, the improvements would not constitute extension of major infrastructure. Employees of the operation would likely live in the surrounding area and would not require relocation or induce substantial population growth indirectly.

The proposed project would be consistent with the project site's current General Plan land use designation and zoning designation, including the requirements of the Cannabis Business Overlay Zone. In addition, the project site is located within an urbanized area within the City of Antioch and is bordered by existing development to the north, east, and south. Consequently, the proposed project would be consistent with the levels of growth previously anticipated for the project site. The project would not include extension of major infrastructure. Therefore, the proposed project would not result in substantial unplanned population growth directly or indirectly beyond what has been previously analyzed for the site, and a *less than significant* impact would occur.

- b. The proposed project site is currently vacant, and does not include existing housing or other habitable structures. As such, the proposed project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere. Therefore, *no impact* would occur.

XV. PUBLIC SERVICES.

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>
e. Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✖	<input type="checkbox"/>

Discussion

- a. Fire protection services for the project area are provided by the Contra Costa County Fire Protection District (CCCFPD). The CCCFPD is an “all-hazards” organization providing fire suppression, paramedic emergency medical services (EMS), technical rescue, water rescue, and fire prevention/investigation services to more than 600,000 residents across a 304 square mile coverage area. The CCCFPD operates 25 fire stations and responds to approximately 45,000 incidents annually. Four of the fire stations are located within the City of Antioch. Station 81 is located approximately three miles east of the project site.

ADT/Protection 1 and Fahrenheit Inc. would create a Fire Prevention and Alarm System plan which would provide a plan for independent water flow from the City’s water main as well as water flow alarms. The implementation of the project specific Fire Prevention and Alarm System plan would ensure that project operations minimize the likelihood of incidental fire within the project site to the maximum extent feasible, which would reduce the operational demand on the CCCFPD resulting from project implementation. The project would be required to pay applicable fire protection fees per the City’s Master Fee Schedule. In addition, the proposed buildings would be constructed in accordance with the fire protection requirements of the most recent California Fire Code. The CCCFPD and the City’s Building Inspection Services Division would review the project building plans to ensure compliance with all code requirements. Therefore, the proposed project would have a ***less-than-significant*** impact related to the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts.

- b. The Antioch Police Department (APD) currently provides police protection services to the project site and the surrounding area. The APD operates out of the police headquarters at 300 L Street, and is currently staffed with 99 sworn and 33 non-sworn employees.²⁰ According to the Antioch General Plan EIR, population growth has created an increased demand for police-related services, and consequently a need for additional APD staff. Site-

²⁰ City of Antioch. *About APD*. Available at: [http:// www.antiochca.gov/police/about-apd/](http://www.antiochca.gov/police/about-apd/). Accessed May 2019.

specific security measures would be designed to ensure emergency access is provided to the APD, and the APD would be allowed remote access to the proposed security cameras. The security plan created in accordance with City Council Resolution Number 2018/117 would ensure that all areas of the project site are monitored by cameras and motion-detected lighting. Additionally, all restricted areas would be regulated with Controlled Access Cards and all customers would be identified prior to any purchases. As such, the proposed project would adhere to all rules and regulations regarding police protection on the site. Additionally, the proposed project would be evaluated prior to issuance of a Use Permit to ensure that operation of the proposed facility would not create excessive demands for police service. Finally, the project applicant would be required to pay any applicable Development Impact Fees for police facilities per Section 9-3.50 of the City Municipal Code. Therefore, the project would have a *less-than-significant* impact related to the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts.

- c-e. Development of the proposed commercial cannabis facility would not induce significant population growth, as the project would not include the construction of housing. As such, the proposed project would not introduce new residents to the area that would use local schools, parks, or other public facilities. Thus, the proposed project would result in *no impact* regarding any substantial increase in demand for public facilities such as parks, schools, and government facilities.

XVI. RECREATION. <i>Would the project:</i>	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"/>	✗
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"/>	✗

Discussion

- a,b. The proposed project would include the development of a commercial cannabis facility and would not include park facilities. However, because the project would not directly or indirectly increase population growth, the project would not likely result in an increase in the use of existing neighborhood, regional, parks and/or other recreational facilities. Therefore, ***no impact*** to park facilities would occur.

XVII. 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, taking into account all modes of transportation, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. The proposed project includes the development of a cannabis facility for the purposes of manufacturing, cultivating, and distributing cannabis products at 3400 Wilbur Avenue.

Roadway Traffic

The Institute of Traffic Engineer's (ITE) *Trip Generation Handbook*²¹ was used to estimate automotive trip generation rates for the proposed project. Based on 9.2 acres of general light industrial space and 2,000 sf of retail space, the proposed project would generate 30 trips during the AM peak hour of 8 AM to 9 AM, and 45 trips occurring during the PM peak hour of 5 PM to 6 PM, which is below the CCTACMP standard (100 peak hour trips) and City of Antioch General Plan Policy 7.3.2h (50 peak hour trips) requiring the preparation of a traffic impact study. Therefore, the proposed project does not require the preparation of a traffic impact study.

The City of Antioch General Plan establishes a Level of Service (LOS) standard of "High D" for all arterial roadways during peak periods. Nearby arterial roadways that would provide access to the site include Wilbur Avenue and SR 160. The GPU EIR identified the arterial roadway segments nearest the project site as LOS C in the year 2000 and estimated that the roadways would be maintained as LOS C with buildout of the General Plan. Because the proposed project would be consistent with land use designations in the Eastern Waterfront Employment Focus Area and General Plan, the increase in traffic due to buildout of the project site has already been anticipated by the City. Furthermore, employee shifts, as well as employee arrival and departure times, would be staggered to avoid concentration of trips during peak traffic periods. Therefore, development of the project would not be expected to cause roadway segments to exceed the LOS "High D" standard.

²¹ Institute of Transportation Engineers. *Trip Generation Handbook – 9th Edition*. September 2012.

Alternative Transportation

The project site is located within proximity of several public transit access points. Lines 383, 391, and 393 of the Tri Delta Transit bus system include service along East 18th Street, which is located approximately 0.5-mile from Wilbur Avenue. The nearest Tri Delta Transit bus stop is located 0.5-mile away at the intersection of Main Street and East 18th Street. The nearest Bay Area Rapid Transit (BART) stop is located approximately 1.7 mile away along SR 4 at the Antioch Station. The proposed project would not include alterations to the surrounding circulation system or current transit options available to the area. Therefore, the proposed project would not conflict with alternative transportation routes or policies resulting in a *less-than-significant* impact.

Conclusion

Overall, the proposed project's increase in traffic to the nearby transportation and circulation network would not be considered substantial in relation to the existing traffic load or capacity of the street and public transportation system, and would not exceed any LOS standard. Therefore, impacts would be considered *less than significant*.

- b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of vehicle miles traveled (VMT) attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in Section 15064.3(b)(2) regarding roadway capacity, a project's effect on automobile delay does not constitute a significant environmental impact under CEQA. It should be noted that currently, the provisions of Section 15064.3 apply only prospectively; determination of impacts based on VTM is not required Statewide until July 1, 2020.

Per Section 15064.3(b)(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. The project site is currently located one mile from the nearest transit stop, which provides three routes to the area: Local Route 383, Local Route 391, and Local Route 393. Combined, the three routes provide service between the Brentwood Park & Ride, the Pittsburg/Bay Point BART Station, the Antioch BART Station, and the Tri Delta Transit Station. In addition, substantial amounts of residential development exist within the cities of Antioch and Oakley. The proposed project would serve to increase the amount of employment opportunities existing within the City, which would allow existing residents to work in closer proximity to their residences. The proposed project would generate several employment opportunities in close proximity to residences, which could reduce VMT associated with the proposed commercial facility.

Based on the above, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a *less-than-significant* impact would occur.

- c,d. Site access would be provided by up to two proposed driveways along Wilbur Avenue. As part of the project, existing trees along the site frontage would be removed and replaced with well-pruned Chinese pistache trees and medium sized shrubs, thereby reducing existing sight obstructions from the project access and increasing safety for customers and employees entering and leaving the site. Additionally, the internal circulation system and driveways would be adequately sized to allow for emergency vehicle access.

While the ultimate location of the driveways along Wilbur Avenue have not yet been determined, the proposed project would be required to comply with the Municipal Code and General Plan policies that require the driveways to be located in a manner that would limit any potential hazards. Final improvement plans for the proposed project would be subject to review by the CCCFPD to ensure that emergency vehicles are capable of responding to incidents at the site. As such, the project would not substantially increase hazards due to design features or incompatible uses, and emergency access to the site would be adequate. Therefore, the project would result in a *less-than-significant* impact.

XVIII. TRIBAL CULTURAL RESOURCES.

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

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a,b. As discussed in Section V, Cultural Resources, of this Initial Study, the proposed project site does not contain any existing permanent structures or any other known resources 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), and does not contain known resources that could be considered historic pursuant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. A search of the NAHC Sacred Lands File did not yield any information regarding the presence of Tribal Cultural Resources within the project site or the immediate area.

In compliance with AB 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the Indian Canyon Mutsun Band of Costanoan, the Ohlone Indian Tribe, the Wilton Rancheria, and the Ione Band of Miwok Indians. The letters were distributed on April 17, 2019. One request for consultation was received from the Indian Canyon Mutsun Band of Costanoan Ohlone People. The City responded to the tribe and consultation was resolved.

Based on the above, known Tribal Cultural Resources do not exist within the proposed project site. Nevertheless, the possibility exists that construction of the proposed project could result in a substantial adverse change in the significance of a Tribal Cultural Resource if previously unknown cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a ***potentially significant*** impact to tribal cultural resources could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XVIII-1. Implement Mitigation Measures V-1 and V-2.

XIX. UTILITIES AND SERVICE SYSTEMS. <i>Would the project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. 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?	<input type="checkbox"/>	<input 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 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 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 type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a-c. Water supply, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities necessary to serve the proposed project are described in the following sections.

Water Supply

Principal sources of raw water supply to the City of Antioch are the Sacramento/San Joaquin Rivers Delta and the Contra Costa Canal; raw water from both sources is stored in the Antioch Municipal Reservoir. Domestic water and fire water supply for the proposed development would be provided by the City by way of new connections to the City's existing 10-inch water main located in Wilbur Avenue. Per the City's 2015 Urban Water Management Plan (UWMP), adequate water supplies will be available to accommodate buildout of the City under normal year, single year, and multiple-dry year demand scenarios, accounting for mandatory measures included in the City's Water Shortage Contingency Plan. Therefore, adequate facilities exist to serve the City's water demand, and the relocation or construction of new or expanded off-site water facilities, the construction or relocation of which could cause significant environmental effects, would not be required. Furthermore, sufficient water supplies would be available to serve the

proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Given the nature of the operations of the proposed project, water supply would be integral to the development of the project. Based on the square footage and projected volume of cannabis plants in the cultivation facilities, the project would require 599,935 gallons of water monthly. While the anticipated water use may be above what is expected of a commercial use, the proposed project is located within the Cannabis Business Overlay Zone and water use above normal has been anticipated by the City. Additionally, the proposed project would recapture up to 90 percent of irrigation runoff for reuse in cannabis plants, while the remaining ten percent would be used for landscape irrigation. The reuse of irrigation runoff would serve to minimize the operational water demand to the extent feasible. Because the project is consistent with the site's General Plan and zoning designations as well as the Cannabis Business Overlay Zone designation, would include reuse of irrigation water to the maximum extent feasible, and adequate water supply exists to serve the City's anticipated demand, existing water supplies would be sufficient to serve the proposed project.

Wastewater Treatment

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 (DD) provides sewer service to the City. The City of Antioch is responsible for the wastewater collection system from the project site to the designated DD regional wastewater conveyance facility. An EIR for the expansion of the WWTP capacity to an average dry weather flow of 22.7 million gallons per day (mgd) was completed in April 1988. However, the current WWTP NPDES Permit limits average dry weather flow to 19.5 mgd.²² The average daily flow influent to the treatment plant is 12.4 mgd.²³ Sewage flow to the plant does not fluctuate seasonally, as sewer and storm water systems are separate.²⁴ Funds for future plant expansion are collected by the City on behalf of DD from sewer connection fees.

In addition to the cultivation uses discussed above, the proposed project would also include commercial activity associated with the manufacturing process and retail dispensary. The General Plan EIR bases anticipated wastewater demand on a generation rate of 1,000 gallons per day per acre for commercial uses. The proposed project would include the construction of two acres of commercial area, and, thus, would be anticipated to generate approximately 2,000 gallons per day of wastewater. The wastewater generated by the project would be collected by an internal sewer system which would connect to the City's existing six-inch sewer line located within Wilbur Avenue.

²² San Francisco Bay Regional Water Quality Control Board. *Order No. R2-2014-0030, NPDES No. CA00.8547*. Adopted August 13, 2014.

²³ Delta Diablo. *Quick Facts*. Available at: <https://www.deltadiablo.org/about-us/organization/quick-facts>. Accessed March 2018.

²⁴ City of Antioch. *Antioch General Plan Update EIR* [pg. 4.12-2]. July 2003.

An increase of 2,000 gallons per day would not have a substantial impact on the available capacity of the WWTP. The project applicant would be required to pay sewer connection fees, which work to fund needed sewer system improvements. Because the project applicant would pay sewer connection fees, and adequate long-term wastewater treatment capacity is available to serve full build-out of the project, the project would not require or result in the relocation or construction of new or expanded off-site wastewater facilities, the construction or relocation of which could cause significant environmental effects. In addition, adequate wastewater treatment capacity is available to serve the project's projected demand in addition to the provider's existing commitments

Water Runoff

The project site currently contains three existing buildings and ruderal vegetation. Completion of the proposed project could increase site runoff due to the introduction of impervious surfaces to the site. As discussed in further detail in Section X, Hydrology and Water Quality, of this Initial Study, the SWMP for the proposed project conforms with the most recent Contra Costa Clean Water Program Stormwater C.3 Guidebook and verifies that the proposed project would comply with all City stormwater requirements. In compliance with the C.3 Guidebook, the proposed project would include on-site bio-retention facilities sized to exceed the minimum volume requirement necessary to adequately manage all runoff from the proposed impervious surfaces. Because the proposed bio-retention facilities would be designed with adequate capacity to capture and treat runoff from proposed impervious surfaces, the proposed project would not generate runoff in excess of the City's existing stormwater system's capacity.

As noted above, operation of the proposed project is anticipated to result in the consumption 599,935 gallons of water monthly. However, the vast majority of water consumed will be taken up by plants in the grow room, and evapotranspiration. The project applicant anticipates that only 10 gallons of runoff water from the irrigation activities would be generated per day. Runoff from the irrigation water would be used on proposed landscaping and would not be discharged to the wastewater treatment system. However, should discharge of irrigation water to the wastewater treatment system be required, all of the proposed cultivation would be organic, and, thus, would not contain any pesticides and only minimal amounts of organic fertilizers could potentially be discharged. Considering the proposed operations, cultivation activity would not represent a significant source of wastewater.

Electric Power, Natural Gas, and Telecommunications

The project site is located within a developed area of the City of Antioch and is situated within close proximity to existing electric power, natural gas, and telecommunications facilities. Thus, substantial expansion of such off-site utilities would not be required to serve the proposed project, and associated environmental effects would not occur.

Conclusion

Based on the above, the proposed project would not 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. In addition, sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and adequate wastewater treatment capacity is available to serve the project's projected demand in addition to the provider's existing commitments. Thus, a *less-than-significant* impact would occur.

- d,e. Republic Services provides solid waste collection, disposal, recycling, and yard waste services to the City, including the project site. 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 Pittsburg. The Keller Canyon Landfill site is 1,399 acres, 244 of which comprise the actual current disposal acreage. 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. As of March 31, 2016, the most recent date for which capacity information is available, the total remaining capacity of the landfill was 52.93 million cubic yards (approximately 71 percent of total capacity).²⁵ As discussed in Section IX, Hazards and Hazardous Materials, of this Initial Study, cannabis waste is considered organic waste and may be disposed in the same manner as other organic waste. Due to the substantial amount of available capacity remaining at Keller Canyon Landfill, sufficient capacity would be available to accommodate the project's solid waste disposal needs. Therefore, a *less-than-significant* impact related to solid waste would occur as a result of the proposed project.

²⁵ SWT Engineering. *Joint Technical Document, Keller Canyon Landfill (SWIS NO. 07-AA-0032)* [pg. B.3-1]. May 2016.

XX. WILDFIRE.

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

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input 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"/>
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"/>
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"/>

Discussion

- a-d. According to the CAL FIRE Fire and Resource Assessment Program, the proposed project site is not located within a Very High Fire Hazard Severity Zone.²⁶ In addition, the site is not located in or near a State Responsibility Area. Thus, the proposed project would not be expected to be subject to or result in substantial adverse effects related to wildfires, and a *less-than-significant* impact would occur.

²⁶ California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

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

Discussion

- a. As discussed in Section IV, Biological Resources, of this Initial Study, implementation of the proposed project would have the potential to result in adverse effects to special-status wildlife species. In addition, while unlikely, the project could result in impacts related to eliminating important examples of major periods of California history or prehistory associated with undiscovered archeological and/or paleontological resources during project construction. However, the proposed project would be required to comply with applicable City of Antioch General Plan and Municipal Code policies related to biological and cultural resources. In addition, this Initial Study includes mitigation measures that would reduce any potential impacts to less-than-significant levels. With implementation of the mitigation measures required by this Initial Study, as well as compliance with General Plan policies and all applicable sections of the Municipal Code, development of the proposed project would reduce any potential impacts associated with the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, a ***less-than-significant*** impact would occur.
- b. The proposed project in conjunction with other development within the City of Antioch could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this Initial Study, all potential environmental impacts that could occur as

a result of project implementation would be reduced to a less-than-significant level through compliance with the mitigation measures included in this Initial Study, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations. In addition, the project would be consistent with the site's existing land use and zoning designations. The project site is bordered by existing development on three sides and has been previously used for industrial activities. Accordingly, buildout of the site for industrial uses was generally considered in the cumulative analysis of buildout of the General Plan within the General Plan EIR.

As noted in Section 21083.3 of the CEQA Guidelines, where a project is consistent with zoning and general plan designations for the site, and an EIR has been certified with respect to that general plan, the analysis of potential environmental impacts resulting from the individual project should focus on those effects that are peculiar to the proposed project. As demonstrated throughout this Initial Study, the proposed project would not result in any significant environmental impacts peculiar to the project, and, thus, the proposed project would not contribute any new or additional impacts not previously analyzed in the General Plan EIR. Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts in the City of Antioch, and the project's incremental contribution to cumulative impacts would be *less than significant*.

- c. As described in this Initial Study, implementation of the proposed project could result in hazards related to chemicals from agricultural production and asbestos and lead-based paint exposure. In addition, the project could expose humans to hazards relating to liquefaction. However, the proposed project would be required to implement the project-specific mitigation measures within this Initial Study, as well as applicable policies of the City of Antioch General Plan, to reduce any potential direct or indirect impacts to human beings. With implementation of the identified mitigation measures, all project-specific impacts would be reduced to less-than-significant levels. Therefore, the proposed project's impact would be *less than significant*.

APPENDIX

AIR QUALITY AND GHG MODELING RESULTS

Contra Costa Farms - Bay Area AQMD Air District, Annual

Contra Costa Farms

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	217.40	1000sqft	4.99	217,400.00	0
Parking Lot	176.00	Space	4.78	70,400.00	0
Strip Mall	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	269.5	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Contra Costa Farms - Bay Area AQMD Air District, Annual

Project Characteristics - PG&E RPS

Land Use - applicant provided

Construction Phase - applicant provided

Demolition -

Grading - applicant provided

Vehicle Trips - traffic trip gen

Energy Use -

Mobile Land Use Mitigation -

Operational Off-Road Equipment - applicant provided

Stationary Sources - Emergency Generators and Fire Pumps -

Contra Costa Farms - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	328.00
tblConstructionPhase	NumDays	230.00	328.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	39.00
tblConstructionPhase	NumDays	10.00	67.00
tblGrading	AcresOfGrading	10.00	4.48
tblGrading	MaterialImported	0.00	3,000.00
tblLandUse	LotAcreage	1.58	4.78
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	269.5
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	CO_EF	5.97	5.97
tblStationaryGeneratorsPumpsEF	NOX_EF	5.32	5.32
tblStationaryGeneratorsPumpsEF	PM10_EF	0.60	0.60
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.60	0.60
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	12.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	720.00
tblVehicleTrips	ST_TR	1.32	2.47
tblVehicleTrips	ST_TR	42.04	420.00
tblVehicleTrips	SU_TR	0.68	2.47
tblVehicleTrips	SU_TR	20.43	420.00
tblVehicleTrips	WD_TR	6.97	2.47
tblVehicleTrips	WD_TR	44.32	420.00

2.0 Emissions Summary

Contra Costa Farms - Bay Area AQMD Air District, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2148	2.2545	1.1814	2.1900e-003	0.6769	0.1142	0.7912	0.3673	0.1053	0.4726	0.0000	197.1614	197.1614	0.0561	0.0000	198.5628
2020	1.0510	3.2757	2.8553	6.3400e-003	0.2158	0.1551	0.3709	0.0737	0.1460	0.2197	0.0000	566.4225	566.4225	0.0898	0.0000	568.6668
2021	0.6433	1.5069	1.4311	3.3300e-003	0.0916	0.0669	0.1585	0.0248	0.0633	0.0881	0.0000	297.5628	297.5628	0.0409	0.0000	298.5856
Maximum	1.0510	3.2757	2.8553	6.3400e-003	0.6769	0.1551	0.7912	0.3673	0.1460	0.4726	0.0000	566.4225	566.4225	0.0898	0.0000	568.6668

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2148	2.2545	1.1814	2.1900e-003	0.6769	0.1142	0.7912	0.3673	0.1053	0.4726	0.0000	197.1612	197.1612	0.0561	0.0000	198.5626
2020	1.0510	3.2757	2.8553	6.3400e-003	0.2158	0.1551	0.3709	0.0737	0.1460	0.2197	0.0000	566.4222	566.4222	0.0898	0.0000	568.6664
2021	0.6433	1.5069	1.4311	3.3300e-003	0.0916	0.0669	0.1585	0.0248	0.0633	0.0881	0.0000	297.5626	297.5626	0.0409	0.0000	298.5854
Maximum	1.0510	3.2757	2.8553	6.3400e-003	0.6769	0.1551	0.7912	0.3673	0.1460	0.4726	0.0000	566.4222	566.4222	0.0898	0.0000	568.6664

Contra Costa Farms - Bay Area AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2019	10-31-2019	1.5187	1.5187
2	11-1-2019	1-31-2020	1.2978	1.2978
3	2-1-2020	4-30-2020	0.7425	0.7425
4	5-1-2020	7-31-2020	1.2041	1.2041
5	8-1-2020	10-31-2020	1.2060	1.2060
6	11-1-2020	1-31-2021	1.1789	1.1789
7	2-1-2021	4-30-2021	1.0802	1.0802
8	5-1-2021	7-31-2021	0.6983	0.6983
		Highest	1.5187	1.5187

Contra Costa Farms - Bay Area AQMD Air District, Annual

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9776	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003
Energy	0.0310	0.2814	0.2363	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	531.4356	531.4356	0.0301	0.0106	535.3551
Mobile	0.3296	1.5924	3.5550	0.0124	1.0649	0.0113	1.0762	0.2858	0.0106	0.2964	0.0000	1,140.3927	1,140.3927	0.0432	0.0000	1,141.4714
Offroad	0.0443	0.4114	0.4500	6.0000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	52.3736	52.3736	0.0169	0.0000	52.7971
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	55.1486	0.0000	55.1486	3.2592	0.0000	136.6283
Water						0.0000	0.0000		0.0000	0.0000	15.9965	33.3908	49.3873	1.6466	0.0395	102.3345
Total	1.3824	2.2852	4.2450	0.0147	1.0649	0.0600	1.1249	0.2858	0.0571	0.3429	71.1451	1,757.5998	1,828.7449	4.9960	0.0502	1,968.5939

Contra Costa Farms - Bay Area AQMD Air District, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9776	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003
Energy	0.0310	0.2814	0.2363	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	531.4356	531.4356	0.0301	0.0106	535.3551
Mobile	0.3274	1.5764	3.5049	0.0122	1.0436	0.0111	1.0547	0.2801	0.0104	0.2905	0.0000	1,119.4595	1,119.4595	0.0426	0.0000	1,120.5236
Offroad	0.0443	0.4114	0.4500	6.0000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	52.3736	52.3736	0.0169	0.0000	52.7971
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	55.1486	0.0000	55.1486	3.2592	0.0000	136.6283
Water						0.0000	0.0000		0.0000	0.0000	15.9965	33.3908	49.3873	1.6466	0.0395	102.3345
Total	1.3802	2.2692	4.1948	0.0145	1.0436	0.0598	1.1034	0.2801	0.0569	0.3370	71.1451	1,736.6665	1,807.8117	4.9954	0.0502	1,947.6461

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.16	0.70	1.18	1.56	2.00	0.33	1.91	2.00	0.33	1.72	0.00	1.19	1.14	0.01	0.00	1.06

3.0 Construction Detail**Construction Phase**

Contra Costa Farms - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2019	9/2/2019	5	23	
2	Site Preparation	Site Preparation	9/3/2019	12/4/2019	5	67	
3	Grading	Grading	12/5/2019	1/27/2020	5	20	
4	Paving	Paving	1/28/2020	3/20/2020	5	39	
5	Building Construction	Building Construction	3/23/2020	6/23/2021	5	328	
6	Architectural Coating	Architectural Coating	4/6/2020	7/7/2021	5	328	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.48

Acres of Paving: 4.78

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 329,100; Non-Residential Outdoor: 109,700; Striped Parking Area: 4,224 (Architectural Coating – sqft)

OffRoad Equipment

Contra Costa Farms - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Contra Costa Farms - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	297.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	122.00	47.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5000e-004	0.0000	2.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0404	0.4115	0.2537	4.5000e-004		0.0206	0.0206		0.0192	0.0192	0.0000	39.8203	39.8203	0.0111	0.0000	40.0972
Total	0.0404	0.4115	0.2537	4.5000e-004	2.5000e-004	0.0206	0.0209	4.0000e-005	0.0192	0.0192	0.0000	39.8203	39.8203	0.0111	0.0000	40.0972

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3.2 Demolition - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.1000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0775	0.0775	0.0000	0.0000	0.0776
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.6000e-004	4.7200e-003	1.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2330	1.2330	3.0000e-005	0.0000	1.2338
Total	6.4000e-004	7.7000e-004	4.7800e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.6000e-004	1.0000e-005	3.8000e-004	0.0000	1.3104	1.3104	3.0000e-005	0.0000	1.3114

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5000e-004	0.0000	2.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0404	0.4115	0.2537	4.5000e-004		0.0206	0.0206		0.0192	0.0192	0.0000	39.8202	39.8202	0.0111	0.0000	40.0972
Total	0.0404	0.4115	0.2537	4.5000e-004	2.5000e-004	0.0206	0.0209	4.0000e-005	0.0192	0.0192	0.0000	39.8202	39.8202	0.0111	0.0000	40.0972

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3.2 Demolition - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.1000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0775	0.0775	0.0000	0.0000	0.0776
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.6000e-004	4.7200e-003	1.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2330	1.2330	3.0000e-005	0.0000	1.2338
Total	6.4000e-004	7.7000e-004	4.7800e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.6000e-004	1.0000e-005	3.8000e-004	0.0000	1.3104	1.3104	3.0000e-005	0.0000	1.3114

3.3 Site Preparation - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6052	0.0000	0.6052	0.3327	0.0000	0.3327	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1452	1.5267	0.7391	1.2700e-003		0.0801	0.0801		0.0737	0.0737	0.0000	114.4651	114.4651	0.0362	0.0000	115.3705
Total	0.1452	1.5267	0.7391	1.2700e-003	0.6052	0.0801	0.6853	0.3327	0.0737	0.4064	0.0000	114.4651	114.4651	0.0362	0.0000	115.3705

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3.3 Site Preparation - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1900e-003	1.6200e-003	0.0165	5.0000e-005	4.7600e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3101	4.3101	1.2000e-004	0.0000	4.3130
Total	2.1900e-003	1.6200e-003	0.0165	5.0000e-005	4.7600e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3101	4.3101	1.2000e-004	0.0000	4.3130

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6052	0.0000	0.6052	0.3327	0.0000	0.3327	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1452	1.5267	0.7391	1.2700e-003		0.0801	0.0801		0.0737	0.0737	0.0000	114.4650	114.4650	0.0362	0.0000	115.3704
Total	0.1452	1.5267	0.7391	1.2700e-003	0.6052	0.0801	0.6853	0.3327	0.0737	0.4064	0.0000	114.4650	114.4650	0.0362	0.0000	115.3704

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3.3 Site Preparation - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1900e-003	1.6200e-003	0.0165	5.0000e-005	4.7600e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3101	4.3101	1.2000e-004	0.0000	4.3130
Total	2.1900e-003	1.6200e-003	0.0165	5.0000e-005	4.7600e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	4.3101	4.3101	1.2000e-004	0.0000	4.3130

3.4 Grading - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0617	0.0000	0.0617	0.0319	0.0000	0.0319	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0245	0.2693	0.1548	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.3102	25.3102	8.0100e-003	0.0000	25.5104
Total	0.0245	0.2693	0.1548	2.8000e-004	0.0617	0.0133	0.0750	0.0319	0.0122	0.0441	0.0000	25.3102	25.3102	8.0100e-003	0.0000	25.5104

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3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2900e-003	0.0442	8.6300e-003	1.1000e-004	2.4800e-003	1.7000e-004	2.6400e-003	6.8000e-004	1.6000e-004	8.4000e-004	0.0000	10.9268	10.9268	5.8000e-004	0.0000	10.9412
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.8000e-004	3.9000e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0186	1.0186	3.0000e-005	0.0000	1.0192
Total	1.8100e-003	0.0446	0.0125	1.2000e-004	3.6100e-003	1.8000e-004	3.7700e-003	9.8000e-004	1.7000e-004	1.1500e-003	0.0000	11.9454	11.9454	6.1000e-004	0.0000	11.9604

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0617	0.0000	0.0617	0.0319	0.0000	0.0319	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0245	0.2693	0.1548	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.3101	25.3101	8.0100e-003	0.0000	25.5103
Total	0.0245	0.2693	0.1548	2.8000e-004	0.0617	0.0133	0.0750	0.0319	0.0122	0.0441	0.0000	25.3101	25.3101	8.0100e-003	0.0000	25.5103

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3.4 Grading - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2900e-003	0.0442	8.6300e-003	1.1000e-004	2.4800e-003	1.7000e-004	2.6400e-003	6.8000e-004	1.6000e-004	8.4000e-004	0.0000	10.9268	10.9268	5.8000e-004	0.0000	10.9412
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.8000e-004	3.9000e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0186	1.0186	3.0000e-005	0.0000	1.0192
Total	1.8100e-003	0.0446	0.0125	1.2000e-004	3.6100e-003	1.8000e-004	3.7700e-003	9.8000e-004	1.7000e-004	1.1500e-003	0.0000	11.9454	11.9454	6.1000e-004	0.0000	11.9604

3.4 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0617	0.0000	0.0617	0.0319	0.0000	0.0319	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0231	0.2507	0.1525	2.8000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9560
Total	0.0231	0.2507	0.1525	2.8000e-004	0.0617	0.0121	0.0738	0.0319	0.0111	0.0431	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9560

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3.4 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1800e-003	0.0413	8.2900e-003	1.1000e-004	2.4800e-003	1.3000e-004	2.6100e-003	6.8000e-004	1.3000e-004	8.1000e-004	0.0000	10.8116	10.8116	5.6000e-004	0.0000	10.8255
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.4000e-004	3.5000e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.9865	0.9865	2.0000e-005	0.0000	0.9871
Total	1.6500e-003	0.0416	0.0118	1.2000e-004	3.6100e-003	1.4000e-004	3.7400e-003	9.8000e-004	1.4000e-004	1.1200e-003	0.0000	11.7981	11.7981	5.8000e-004	0.0000	11.8126

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0617	0.0000	0.0617	0.0319	0.0000	0.0319	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0231	0.2507	0.1525	2.8000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9559
Total	0.0231	0.2507	0.1525	2.8000e-004	0.0617	0.0121	0.0738	0.0319	0.0111	0.0431	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9559

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3.4 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1800e-003	0.0413	8.2900e-003	1.1000e-004	2.4800e-003	1.3000e-004	2.6100e-003	6.8000e-004	1.3000e-004	8.1000e-004	0.0000	10.8116	10.8116	5.6000e-004	0.0000	10.8255
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.4000e-004	3.5000e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.9865	0.9865	2.0000e-005	0.0000	0.9871
Total	1.6500e-003	0.0416	0.0118	1.2000e-004	3.6100e-003	1.4000e-004	3.7400e-003	9.8000e-004	1.4000e-004	1.1200e-003	0.0000	11.7981	11.7981	5.8000e-004	0.0000	11.8126

3.5 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2743	0.2857	4.4000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	39.0550	39.0550	0.0126	0.0000	39.3708
Paving	6.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0327	0.2743	0.2857	4.4000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	39.0550	39.0550	0.0126	0.0000	39.3708

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3.5 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	6.9000e-004	7.1800e-003	2.0000e-005	2.3100e-003	2.0000e-005	2.3300e-003	6.1000e-004	1.0000e-005	6.3000e-004	0.0000	2.0249	2.0249	5.0000e-005	0.0000	2.0262
Total	9.7000e-004	6.9000e-004	7.1800e-003	2.0000e-005	2.3100e-003	2.0000e-005	2.3300e-003	6.1000e-004	1.0000e-005	6.3000e-004	0.0000	2.0249	2.0249	5.0000e-005	0.0000	2.0262

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2743	0.2857	4.4000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	39.0550	39.0550	0.0126	0.0000	39.3708
Paving	6.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0327	0.2743	0.2857	4.4000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	39.0550	39.0550	0.0126	0.0000	39.3708

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3.5 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	6.9000e-004	7.1800e-003	2.0000e-005	2.3100e-003	2.0000e-005	2.3300e-003	6.1000e-004	1.0000e-005	6.3000e-004	0.0000	2.0249	2.0249	5.0000e-005	0.0000	2.0262
Total	9.7000e-004	6.9000e-004	7.1800e-003	2.0000e-005	2.3100e-003	2.0000e-005	2.3300e-003	6.1000e-004	1.0000e-005	6.3000e-004	0.0000	2.0249	2.0249	5.0000e-005	0.0000	2.0262

3.6 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2162	1.9570	1.7186	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2422	236.2422	0.0576	0.0000	237.6831
Total	0.2162	1.9570	1.7186	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2422	236.2422	0.0576	0.0000	237.6831

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3.6 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0186	0.5531	0.1391	1.3100e-003	0.0314	2.7000e-003	0.0341	9.0900e-003	2.5800e-003	0.0117	0.0000	125.5162	125.5162	6.4700e-003	0.0000	125.6781
Worker	0.0412	0.0295	0.3056	9.5000e-004	0.0983	6.6000e-004	0.0990	0.0262	6.1000e-004	0.0268	0.0000	86.1474	86.1474	2.0900e-003	0.0000	86.1995
Total	0.0598	0.5826	0.4447	2.2600e-003	0.1298	3.3600e-003	0.1331	0.0353	3.1900e-003	0.0384	0.0000	211.6636	211.6636	8.5600e-003	0.0000	211.8776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2162	1.9570	1.7185	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2419	236.2419	0.0576	0.0000	237.6828
Total	0.2162	1.9570	1.7185	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2419	236.2419	0.0576	0.0000	237.6828

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3.6 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0186	0.5531	0.1391	1.3100e-003	0.0314	2.7000e-003	0.0341	9.0900e-003	2.5800e-003	0.0117	0.0000	125.5162	125.5162	6.4700e-003	0.0000	125.6781
Worker	0.0412	0.0295	0.3056	9.5000e-004	0.0983	6.6000e-004	0.0990	0.0262	6.1000e-004	0.0268	0.0000	86.1474	86.1474	2.0900e-003	0.0000	86.1995
Total	0.0598	0.5826	0.4447	2.2600e-003	0.1298	3.3600e-003	0.1331	0.0353	3.1900e-003	0.0384	0.0000	211.6636	211.6636	8.5600e-003	0.0000	211.8776

3.6 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6151	143.6151	0.0347	0.0000	144.4813
Total	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6151	143.6151	0.0347	0.0000	144.4813

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3.6 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.2500e-003	0.3044	0.0760	7.9000e-004	0.0191	6.6000e-004	0.0198	5.5300e-003	6.3000e-004	6.1600e-003	0.0000	75.5728	75.5728	3.7200e-003	0.0000	75.6657
Worker	0.0232	0.0160	0.1697	5.6000e-004	0.0598	3.9000e-004	0.0602	0.0159	3.6000e-004	0.0163	0.0000	50.5268	50.5268	1.1300e-003	0.0000	50.5551
Total	0.0325	0.3204	0.2456	1.3500e-003	0.0789	1.0500e-003	0.0799	0.0214	9.9000e-004	0.0224	0.0000	126.0996	126.0996	4.8500e-003	0.0000	126.2208

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6149	143.6149	0.0347	0.0000	144.4811
Total	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6149	143.6149	0.0347	0.0000	144.4811

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3.6 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.2500e-003	0.3044	0.0760	7.9000e-004	0.0191	6.6000e-004	0.0198	5.5300e-003	6.3000e-004	6.1600e-003	0.0000	75.5728	75.5728	3.7200e-003	0.0000	75.6657
Worker	0.0232	0.0160	0.1697	5.6000e-004	0.0598	3.9000e-004	0.0602	0.0159	3.6000e-004	0.0163	0.0000	50.5268	50.5268	1.1300e-003	0.0000	50.5551
Total	0.0325	0.3204	0.2456	1.3500e-003	0.0789	1.0500e-003	0.0799	0.0214	9.9000e-004	0.0224	0.0000	126.0996	126.0996	4.8500e-003	0.0000	126.2208

3.7 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6853					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1633	0.1777	2.9000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	24.7666	24.7666	1.9200e-003	0.0000	24.8145
Total	0.7088	0.1633	0.1777	2.9000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	24.7666	24.7666	1.9200e-003	0.0000	24.8145

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3.7 Architectural Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7200e-003	5.5200e-003	0.0572	1.8000e-004	0.0184	1.2000e-004	0.0185	4.8900e-003	1.1000e-004	5.0100e-003	0.0000	16.1163	16.1163	3.9000e-004	0.0000	16.1261
Total	7.7200e-003	5.5200e-003	0.0572	1.8000e-004	0.0184	1.2000e-004	0.0185	4.8900e-003	1.1000e-004	5.0100e-003	0.0000	16.1163	16.1163	3.9000e-004	0.0000	16.1261

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6853					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1633	0.1777	2.9000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	24.7665	24.7665	1.9200e-003	0.0000	24.8145
Total	0.7088	0.1633	0.1777	2.9000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	24.7665	24.7665	1.9200e-003	0.0000	24.8145

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3.7 Architectural Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7200e-003	5.5200e-003	0.0572	1.8000e-004	0.0184	1.2000e-004	0.0185	4.8900e-003	1.1000e-004	5.0100e-003	0.0000	16.1163	16.1163	3.9000e-004	0.0000	16.1261
Total	7.7200e-003	5.5200e-003	0.0572	1.8000e-004	0.0184	1.2000e-004	0.0185	4.8900e-003	1.1000e-004	5.0100e-003	0.0000	16.1163	16.1163	3.9000e-004	0.0000	16.1261

3.7 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1023	0.1218	2.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	17.1068	17.1068	1.1700e-003	0.0000	17.1362
Total	0.4881	0.1023	0.1218	2.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	17.1068	17.1068	1.1700e-003	0.0000	17.1362

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3.7 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9300e-003	3.4000e-003	0.0361	1.2000e-004	0.0127	8.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	10.7413	10.7413	2.4000e-004	0.0000	10.7473
Total	4.9300e-003	3.4000e-003	0.0361	1.2000e-004	0.0127	8.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	10.7413	10.7413	2.4000e-004	0.0000	10.7473

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1023	0.1218	2.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	17.1068	17.1068	1.1700e-003	0.0000	17.1361
Total	0.4881	0.1023	0.1218	2.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	17.1068	17.1068	1.1700e-003	0.0000	17.1361

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3.7 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9300e-003	3.4000e-003	0.0361	1.2000e-004	0.0127	8.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	10.7413	10.7413	2.4000e-004	0.0000	10.7473
Total	4.9300e-003	3.4000e-003	0.0361	1.2000e-004	0.0127	8.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	10.7413	10.7413	2.4000e-004	0.0000	10.7473

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3274	1.5764	3.5049	0.0122	1.0436	0.0111	1.0547	0.2801	0.0104	0.2905	0.0000	1,119.4595	1,119.4595	0.0426	0.0000	1,120.5236
Unmitigated	0.3296	1.5924	3.5550	0.0124	1.0649	0.0113	1.0762	0.2858	0.0106	0.2964	0.0000	1,140.3927	1,140.3927	0.0432	0.0000	1,141.4714

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	536.98	536.98	536.98	1,567,713	1,536,359
Parking Lot	0.00	0.00	0.00		
Strip Mall	840.00	840.00	840.00	1,293,628	1,267,755
Total	1,376.98	1,376.98	1,376.98	2,861,341	2,804,114

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Strip Mall	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	225.1406	225.1406	0.0242	5.0100e-003	227.2399
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	225.1406	225.1406	0.0242	5.0100e-003	227.2399
NaturalGas Mitigated	0.0310	0.2814	0.2363	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.2950	306.2950	5.8700e-003	5.6200e-003	308.1152
NaturalGas Unmitigated	0.0310	0.2814	0.2363	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.2950	306.2950	5.8700e-003	5.6200e-003	308.1152

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	5.73501e+006	0.0309	0.2811	0.2362	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.0421	306.0421	5.8700e-003	5.6100e-003	307.8607
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	4740	3.0000e-005	2.3000e-004	2.0000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2529	0.2529	0.0000	0.0000	0.2545
Total		0.0310	0.2814	0.2364	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.2950	306.2950	5.8700e-003	5.6100e-003	308.1152

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	5.73501e+006	0.0309	0.2811	0.2362	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.0421	306.0421	5.8700e-003	5.6100e-003	307.8607
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	4740	3.0000e-005	2.3000e-004	2.0000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2529	0.2529	0.0000	0.0000	0.2545
Total		0.0310	0.2814	0.2364	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.2950	306.2950	5.8700e-003	5.6100e-003	308.1152

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.79572e+006	219.5150	0.0236	4.8900e-003	221.5619
Parking Lot	24640	3.0121	3.2000e-004	7.0000e-005	3.0402
Strip Mall	21380	2.6136	2.8000e-004	6.0000e-005	2.6379
Total		225.1406	0.0242	5.0200e-003	227.2399

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.79572e+006	219.5150	0.0236	4.8900e-003	221.5619
Parking Lot	24640	3.0121	3.2000e-004	7.0000e-005	3.0402
Strip Mall	21380	2.6136	2.8000e-004	6.0000e-005	2.6379
Total		225.1406	0.0242	5.0200e-003	227.2399

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9776	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003
Unmitigated	0.9776	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003
Total	0.9776	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003
Total	0.9776	3.0000e-005	3.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0700e-003	7.0700e-003	2.0000e-005	0.0000	7.5300e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Contra Costa Farms - Bay Area AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	49.3873	1.6466	0.0395	102.3345
Unmitigated	49.3873	1.6466	0.0395	102.3345

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	50.2738 / 0	49.2035	1.6418	0.0394	101.9947
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.148145 / 0.0907986	0.1838	4.8400e-003	1.2000e-004	0.3398
Total		49.3873	1.6466	0.0395	102.3345

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	50.2738 / 0	49.2035	1.6418	0.0394	101.9947
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.148145 / 0.0907986	0.1838	4.8400e-003	1.2000e-004	0.3398
Total		49.3873	1.6466	0.0395	102.3345

8.0 Waste Detail

8.1 Mitigation Measures Waste

Contra Costa Farms - Bay Area AQMD Air District, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	55.1486	3.2592	0.0000	136.6283
Unmitigated	55.1486	3.2592	0.0000	136.6283

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	269.58	54.7223	3.2340	0.0000	135.5722
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.1	0.4263	0.0252	0.0000	1.0561
Total		55.1486	3.2592	0.0000	136.6283

Contra Costa Farms - Bay Area AQMD Air District, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	269.58	54.7223	3.2340	0.0000	135.5722
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.1	0.4263	0.0252	0.0000	1.0561
Total		55.1486	3.2592	0.0000	136.6283

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	3	8.00	260	89	0.20	Diesel

Contra Costa Farms - Bay Area AQMD Air District, Annual

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0443	0.4114	0.4500	6.0000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	52.3736	52.3736	0.0169	0.0000	52.7971
Total	0.0443	0.4114	0.4500	6.0000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	52.3736	52.3736	0.0169	0.0000	52.7971

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	0	12	720	0	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (0 - 11 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

11.0 Vegetation

Contra Costa Farms - Bay Area AQMD Air District, Summer

Contra Costa Farms

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	217.40	1000sqft	4.99	217,400.00	0
Parking Lot	176.00	Space	4.78	70,400.00	0
Strip Mall	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	269.5	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Contra Costa Farms - Bay Area AQMD Air District, Summer

Project Characteristics - PG&E RPS

Land Use - applicant provided

Construction Phase - applicant provided

Demolition -

Grading - applicant provided

Vehicle Trips - traffic trip gen

Energy Use -

Mobile Land Use Mitigation -

Operational Off-Road Equipment - applicant provided

Stationary Sources - Emergency Generators and Fire Pumps -

Contra Costa Farms - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	328.00
tblConstructionPhase	NumDays	230.00	328.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	39.00
tblConstructionPhase	NumDays	10.00	67.00
tblGrading	AcresOfGrading	10.00	4.48
tblGrading	MaterialImported	0.00	3,000.00
tblLandUse	LotAcreage	1.58	4.78
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	269.5
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	CO_EF	5.97	5.97
tblStationaryGeneratorsPumpsEF	NOX_EF	5.32	5.32
tblStationaryGeneratorsPumpsEF	PM10_EF	0.60	0.60
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.60	0.60
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	12.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	720.00
tblVehicleTrips	ST_TR	1.32	2.47
tblVehicleTrips	ST_TR	42.04	420.00
tblVehicleTrips	SU_TR	0.68	2.47
tblVehicleTrips	SU_TR	20.43	420.00
tblVehicleTrips	WD_TR	6.97	2.47
tblVehicleTrips	WD_TR	44.32	420.00

2.0 Emissions Summary

Contra Costa Farms - Bay Area AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4035	45.6156	22.5997	0.0429	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	4,340.600 7	4,340.600 7	1.1957	0.0000	4,365.547 0
2020	10.1130	30.6711	23.8748	0.0549	6.6526	1.2881	7.9408	3.4422	1.1935	4.6278	0.0000	5,403.872 7	5,403.872 7	0.9952	0.0000	5,422.398 7
2021	9.8004	24.0903	23.1243	0.0543	1.5175	1.0708	2.5883	0.4097	1.0124	1.4221	0.0000	5,349.178 0	5,349.178 0	0.7249	0.0000	5,367.301 0
Maximum	10.1130	45.6156	23.8748	0.0549	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	5,403.872 7	5,403.872 7	1.1957	0.0000	5,422.398 7

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4035	45.6156	22.5997	0.0429	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	4,340.600 7	4,340.600 7	1.1957	0.0000	4,365.547 0
2020	10.1130	30.6711	23.8748	0.0549	6.6526	1.2881	7.9408	3.4422	1.1935	4.6278	0.0000	5,403.872 7	5,403.872 7	0.9952	0.0000	5,422.398 7
2021	9.8004	24.0903	23.1243	0.0543	1.5175	1.0708	2.5883	0.4097	1.0124	1.4221	0.0000	5,349.178 0	5,349.178 0	0.7249	0.0000	5,367.300 9
Maximum	10.1130	45.6156	23.8748	0.0549	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	5,403.872 7	5,403.872 7	1.1957	0.0000	5,422.398 7

Contra Costa Farms - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Energy	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348
Mobile	2.0831	8.5037	20.1588	0.0722	6.0790	0.0621	6.1410	1.6264	0.0581	1.6845		7,306.9674	7,306.9674	0.2619		7,313.5139
Offroad	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	7.9522	13.2105	24.9555	0.0861	6.0790	0.3890	6.4680	1.6264	0.3683	1.9947		9,601.1873	9,601.1873	0.4412	0.0339	9,622.3242

Contra Costa Farms - Bay Area AQMD Air District, Summer

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Energy	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348
Mobile	2.0707	8.4211	19.8477	0.0709	5.9574	0.0610	6.0184	1.5939	0.0571	1.6510		7,172.6322	7,172.6322	0.2582		7,179.0862
Offroad	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	7.9399	13.1278	24.6444	0.0847	5.9574	0.3879	6.3453	1.5939	0.3673	1.9612		9,466.8521	9,466.8521	0.4375	0.0339	9,487.8964

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.15	0.63	1.25	1.55	2.00	0.28	1.90	2.00	0.27	1.68	0.00	1.40	1.40	0.84	0.00	1.40

3.0 Construction Detail**Construction Phase**

Contra Costa Farms - Bay Area AQMD Air District, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2019	9/2/2019	5	23	
2	Site Preparation	Site Preparation	9/3/2019	12/4/2019	5	67	
3	Grading	Grading	12/5/2019	1/27/2020	5	20	
4	Paving	Paving	1/28/2020	3/20/2020	5	39	
5	Building Construction	Building Construction	3/23/2020	6/23/2021	5	328	
6	Architectural Coating	Architectural Coating	4/6/2020	7/7/2021	5	328	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.48

Acres of Paving: 4.78

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 329,100; Non-Residential Outdoor: 109,700; Striped Parking Area: 4,224 (Architectural Coating – sqft)

OffRoad Equipment

Contra Costa Farms - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Contra Costa Farms - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	297.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	122.00	47.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0214	0.0000	0.0214	3.2400e-003	0.0000	3.2400e-003			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.0214	1.7949	1.8163	3.2400e-003	1.6697	1.6729		3,816.8994	3,816.8994	1.0618		3,843.4451

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.2 Demolition - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.8000e-004	0.0267	5.1400e-003	7.0000e-005	1.5200e-003	1.0000e-004	1.6200e-003	4.2000e-004	1.0000e-004	5.1000e-004		7.4758	7.4758	3.8000e-004		7.4854
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	0.0578	0.0624	0.4524	1.3500e-003	0.1247	9.2000e-004	0.1257	0.0331	8.5000e-004	0.0340		134.5885	134.5885	3.7600e-003		134.6825

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0214	0.0000	0.0214	3.2400e-003	0.0000	3.2400e-003			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.0214	1.7949	1.8163	3.2400e-003	1.6697	1.6729	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.2 Demolition - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.8000e-004	0.0267	5.1400e-003	7.0000e-005	1.5200e-003	1.0000e-004	1.6200e-003	4.2000e-004	1.0000e-004	5.1000e-004		7.4758	7.4758	3.8000e-004		7.4854
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	0.0578	0.0624	0.4524	1.3500e-003	0.1247	9.2000e-004	0.1257	0.0331	8.5000e-004	0.0340		134.5885	134.5885	3.7600e-003		134.6825

3.3 Site Preparation - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298		3,766.4529	3,766.4529	1.1917		3,796.2445

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.3 Site Preparation - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0429	0.5367	1.5300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		152.5352	152.5352	4.0600e-003		152.6366
Total	0.0685	0.0429	0.5367	1.5300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		152.5352	152.5352	4.0600e-003		152.6366

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.3 Site Preparation - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0429	0.5367	1.5300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		152.5352	152.5352	4.0600e-003		152.6366
Total	0.0685	0.0429	0.5367	1.5300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		152.5352	152.5352	4.0600e-003		152.6366

3.4 Grading - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	6.2596	1.3974	7.6570	3.3359	1.2856	4.6215		2,936.8068	2,936.8068	0.9292		2,960.0361

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1340	4.5535	0.8779	0.0120	0.2698	0.0176	0.2873	0.0736	0.0168	0.0904		1,276.681 2	1,276.681 2	0.0653		1,278.313 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	0.1910	4.5893	1.3252	0.0132	0.3930	0.0184	0.4114	0.1063	0.0176	0.1239		1,403.793 9	1,403.793 9	0.0687		1,405.510 8

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.806 8	2,936.806 8	0.9292		2,960.036 1
Total	2.5805	28.3480	16.2934	0.0297	6.2596	1.3974	7.6570	3.3359	1.2856	4.6215	0.0000	2,936.806 8	2,936.806 8	0.9292		2,960.036 1

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.4 Grading - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1340	4.5535	0.8779	0.0120	0.2698	0.0176	0.2873	0.0736	0.0168	0.0904		1,276.681 2	1,276.681 2	0.0653		1,278.313 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	0.1910	4.5893	1.3252	0.0132	0.3930	0.0184	0.4114	0.1063	0.0176	0.1239		1,403.793 9	1,403.793 9	0.0687		1,405.510 8

3.4 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.2596	1.2734	7.5331	3.3359	1.1716	4.5074		2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.4 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1225	4.2537	0.8454	0.0118	0.2698	0.0139	0.2837	0.0736	0.0133	0.0869		1,263.4136	1,263.4136	0.0632		1,264.9936
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	0.1747	4.2853	1.2479	0.0131	0.3930	0.0147	0.4077	0.1063	0.0140	0.1204		1,386.5301	1,386.5301	0.0662		1,388.1843

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	2.4288	26.3859	16.0530	0.0297	6.2596	1.2734	7.5331	3.3359	1.1716	4.5074	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.4 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1225	4.2537	0.8454	0.0118	0.2698	0.0139	0.2837	0.0736	0.0133	0.0869		1,263.4136	1,263.4136	0.0632		1,264.9936
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	0.1747	4.2853	1.2479	0.0131	0.3930	0.0147	0.4077	0.1063	0.0140	0.1204		1,386.5301	1,386.5301	0.0662		1,388.1843

3.5 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3211					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6777	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.5 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3211					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6777	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.5 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907

3.6 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345

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3.6 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1782	5.3562	1.2777	0.0130	0.3181	0.0263	0.3444	0.0916	0.0251	0.1167		1,371.0278	1,371.0278	0.0675		1,372.7157
Worker	0.4240	0.2567	3.2733	0.0101	1.0022	6.4900e-003	1.0087	0.2658	5.9800e-003	0.2718		1,001.3474	1,001.3474	0.0241		1,001.9506
Total	0.6022	5.6130	4.5510	0.0230	1.3203	0.0328	1.3531	0.3574	0.0311	0.3885		2,372.3752	2,372.3752	0.0917		2,374.6664

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.6 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1782	5.3562	1.2777	0.0130	0.3181	0.0263	0.3444	0.0916	0.0251	0.1167		1,371.0278	1,371.0278	0.0675		1,372.7157
Worker	0.4240	0.2567	3.2733	0.0101	1.0022	6.4900e-003	1.0087	0.2658	5.9800e-003	0.2718		1,001.3474	1,001.3474	0.0241		1,001.9506
Total	0.6022	5.6130	4.5510	0.0230	1.3203	0.0328	1.3531	0.3574	0.0311	0.3885		2,372.3752	2,372.3752	0.0917		2,374.6664

3.6 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.6 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1458	4.8570	1.1453	0.0128	0.3182	0.0105	0.3287	0.0916	0.0101	0.1017		1,358.105 2	1,358.105 2	0.0637		1,359.698 7
Worker	0.3923	0.2293	2.9967	9.6900e-003	1.0022	6.3100e-003	1.0085	0.2658	5.8100e-003	0.2716		966.1906	966.1906	0.0216		966.7306
Total	0.5380	5.0863	4.1420	0.0225	1.3204	0.0168	1.3372	0.3574	0.0159	0.3733		2,324.295 8	2,324.295 8	0.0853		2,326.429 3

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.6 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1458	4.8570	1.1453	0.0128	0.3182	0.0105	0.3287	0.0916	0.0101	0.1017		1,358.105 2	1,358.105 2	0.0637		1,359.698 7
Worker	0.3923	0.2293	2.9967	9.6900e-003	1.0022	6.3100e-003	1.0085	0.2658	5.8100e-003	0.2716		966.1906	966.1906	0.0216		966.7306
Total	0.5380	5.0863	4.1420	0.0225	1.3204	0.0168	1.3372	0.3574	0.0159	0.3733		2,324.295 8	2,324.295 8	0.0853		2,326.429 3

3.7 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	7.3075	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.7 Architectural Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0834	0.0505	0.6439	1.9800e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		196.9864	196.9864	4.7500e-003		197.1050
Total	0.0834	0.0505	0.6439	1.9800e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		196.9864	196.9864	4.7500e-003		197.1050

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	7.3075	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.7 Architectural Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0834	0.0505	0.6439	1.9800e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		196.9864	196.9864	4.7500e-003		197.1050
Total	0.0834	0.0505	0.6439	1.9800e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		196.9864	196.9864	4.7500e-003		197.1050

3.7 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	7.2843	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.7 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0451	0.5895	1.9100e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		190.0703	190.0703	4.2500e-003		190.1765
Total	0.0772	0.0451	0.5895	1.9100e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		190.0703	190.0703	4.2500e-003		190.1765

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	7.2843	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Contra Costa Farms - Bay Area AQMD Air District, Summer

3.7 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0451	0.5895	1.9100e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		190.0703	190.0703	4.2500e-003		190.1765
Total	0.0772	0.0451	0.5895	1.9100e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		190.0703	190.0703	4.2500e-003		190.1765

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

Contra Costa Farms - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0707	8.4211	19.8477	0.0709	5.9574	0.0610	6.0184	1.5939	0.0571	1.6510		7,172.632 2	7,172.632 2	0.2582		7,179.086 2
Unmitigated	2.0831	8.5037	20.1588	0.0722	6.0790	0.0621	6.1410	1.6264	0.0581	1.6845		7,306.967 4	7,306.967 4	0.2619		7,313.513 9

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	536.98	536.98	536.98	1,567,713	1,536,359
Parking Lot	0.00	0.00	0.00		
Strip Mall	840.00	840.00	840.00	1,293,628	1,267,755
Total	1,376.98	1,376.98	1,376.98	2,861,341	2,804,114

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Contra Costa Farms - Bay Area AQMD Air District, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Strip Mall	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348
NaturalGas Unmitigated	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348

Contra Costa Farms - Bay Area AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	15712.4	0.1695	1.5404	1.2940	9.2400e-003		0.1171	0.1171		0.1171	0.1171		1,848.5131	1,848.5131	0.0354	0.0339	1,859.4979
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	12.9863	1.4000e-004	1.2700e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5278	1.5278	3.0000e-005	3.0000e-005	1.5369
Total		0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	15.7124	0.1695	1.5404	1.2940	9.2400e-003		0.1171	0.1171		0.1171	0.1171		1,848.5131	1,848.5131	0.0354	0.0339	1,859.4979
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0129863	1.4000e-004	1.2700e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5278	1.5278	3.0000e-005	3.0000e-005	1.5369
Total		0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348

6.0 Area Detail

Contra Costa Farms - Bay Area AQMD Air District, Summer

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Unmitigated	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7600e-003	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Total	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922

Contra Costa Farms - Bay Area AQMD Air District, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7600e-003	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Total	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	3	8.00	260	89	0.20	Diesel

Contra Costa Farms - Bay Area AQMD Air District, Summer

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832
Total	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	0	12	720	0	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Contra Costa Farms - Bay Area AQMD Air District, Summer

10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (0 - 11 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

11.0 Vegetation

Contra Costa Farms - Bay Area AQMD Air District, Winter

Contra Costa Farms

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	217.40	1000sqft	4.99	217,400.00	0
Parking Lot	176.00	Space	4.78	70,400.00	0
Strip Mall	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	269.5	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Contra Costa Farms - Bay Area AQMD Air District, Winter

Project Characteristics - PG&E RPS

Land Use - applicant provided

Construction Phase - applicant provided

Demolition -

Grading - applicant provided

Vehicle Trips - traffic trip gen

Energy Use -

Mobile Land Use Mitigation -

Operational Off-Road Equipment - applicant provided

Stationary Sources - Emergency Generators and Fire Pumps -

Contra Costa Farms - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	328.00
tblConstructionPhase	NumDays	230.00	328.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	39.00
tblConstructionPhase	NumDays	10.00	67.00
tblGrading	AcresOfGrading	10.00	4.48
tblGrading	MaterialImported	0.00	3,000.00
tblLandUse	LotAcreage	1.58	4.78
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	269.5
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	CO_EF	5.97	5.97
tblStationaryGeneratorsPumpsEF	NOX_EF	5.32	5.32
tblStationaryGeneratorsPumpsEF	PM10_EF	0.60	0.60
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.60	0.60
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	12.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	720.00
tblVehicleTrips	ST_TR	1.32	2.47
tblVehicleTrips	ST_TR	42.04	420.00
tblVehicleTrips	SU_TR	0.68	2.47
tblVehicleTrips	SU_TR	20.43	420.00
tblVehicleTrips	WD_TR	6.97	2.47
tblVehicleTrips	WD_TR	44.32	420.00

2.0 Emissions Summary

Contra Costa Farms - Bay Area AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4074	45.6257	22.5698	0.0426	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	4,309.598 1	4,309.598 1	1.1955	0.0000	4,334.627 1
2020	10.1516	30.7830	23.8206	0.0536	6.6526	1.2884	7.9410	3.4422	1.1940	4.6280	0.0000	5,274.704 6	5,274.704 6	0.9982	0.0000	5,293.321 5
2021	9.8369	24.1966	23.0644	0.0531	1.5175	1.0712	2.5887	0.4097	1.0127	1.4225	0.0000	5,223.583 0	5,223.583 0	0.7284	0.0000	5,241.792 8
Maximum	10.1516	45.6257	23.8206	0.0536	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	5,274.704 6	5,274.704 6	1.1955	0.0000	5,293.321 5

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4074	45.6257	22.5698	0.0426	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	4,309.598 1	4,309.598 1	1.1955	0.0000	4,334.627 1
2020	10.1516	30.7830	23.8206	0.0536	6.6526	1.2884	7.9410	3.4422	1.1940	4.6280	0.0000	5,274.704 6	5,274.704 6	0.9982	0.0000	5,293.321 5
2021	9.8369	24.1966	23.0644	0.0531	1.5175	1.0712	2.5887	0.4097	1.0127	1.4225	0.0000	5,223.583 0	5,223.583 0	0.7284	0.0000	5,241.792 8
Maximum	10.1516	45.6257	23.8206	0.0536	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	5,274.704 6	5,274.704 6	1.1955	0.0000	5,293.321 5

Contra Costa Farms - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Energy	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348
Mobile	1.7952	8.8918	20.5398	0.0676	6.0790	0.0626	6.1416	1.6264	0.0586	1.6850		6,839.5355	6,839.5355	0.2689		6,846.2587
Offroad	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	7.6643	13.5986	25.3365	0.0814	6.0790	0.3895	6.4685	1.6264	0.3688	1.9952		9,133.7555	9,133.7555	0.4483	0.0339	9,155.0689

Contra Costa Farms - Bay Area AQMD Air District, Winter

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Energy	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348
Mobile	1.7830	8.8006	20.2631	0.0664	5.9574	0.0615	6.0189	1.5939	0.0576	1.6515		6,713.5096	6,713.5096	0.2654		6,720.1445
Offroad	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	7.6522	13.5073	25.0598	0.0802	5.9574	0.3884	6.3458	1.5939	0.3678	1.9616		9,007.7296	9,007.7296	0.4447	0.0339	9,028.9548

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.16	0.67	1.09	1.52	2.00	0.28	1.90	2.00	0.27	1.68	0.00	1.38	1.38	0.79	0.00	1.38

3.0 Construction Detail**Construction Phase**

Contra Costa Farms - Bay Area AQMD Air District, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2019	9/2/2019	5	23	
2	Site Preparation	Site Preparation	9/3/2019	12/4/2019	5	67	
3	Grading	Grading	12/5/2019	1/27/2020	5	20	
4	Paving	Paving	1/28/2020	3/20/2020	5	39	
5	Building Construction	Building Construction	3/23/2020	6/23/2021	5	328	
6	Architectural Coating	Architectural Coating	4/6/2020	7/7/2021	5	328	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.48

Acres of Paving: 4.78

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 329,100; Non-Residential Outdoor: 109,700; Striped Parking Area: 4,224 (Architectural Coating – sqft)

OffRoad Equipment

Contra Costa Farms - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Contra Costa Farms - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	297.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	122.00	47.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0214	0.0000	0.0214	3.2400e-003	0.0000	3.2400e-003			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.0214	1.7949	1.8163	3.2400e-003	1.6697	1.6729		3,816.8994	3,816.8994	1.0618		3,843.4451

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.2 Demolition - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1000e-004	0.0273	5.5700e-003	7.0000e-005	1.5200e-003	1.0000e-004	1.6200e-003	4.2000e-004	1.0000e-004	5.2000e-004		7.3529	7.3529	4.0000e-004		7.3630
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	0.0611	0.0715	0.4279	1.2500e-003	0.1247	9.2000e-004	0.1257	0.0331	8.5000e-004	0.0340		124.4477	124.4477	3.5800e-003		124.5373

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0214	0.0000	0.0214	3.2400e-003	0.0000	3.2400e-003			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.0214	1.7949	1.8163	3.2400e-003	1.6697	1.6729	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.2 Demolition - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1000e-004	0.0273	5.5700e-003	7.0000e-005	1.5200e-003	1.0000e-004	1.6200e-003	4.2000e-004	1.0000e-004	5.2000e-004		7.3529	7.3529	4.0000e-004		7.3630
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	0.0611	0.0715	0.4279	1.2500e-003	0.1247	9.2000e-004	0.1257	0.0331	8.5000e-004	0.0340		124.4477	124.4477	3.5800e-003		124.5373

3.3 Site Preparation - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298		3,766.4529	3,766.4529	1.1917		3,796.2445

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.3 Site Preparation - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0724	0.0530	0.5068	1.4100e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		140.5138	140.5138	3.8200e-003		140.6092
Total	0.0724	0.0530	0.5068	1.4100e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		140.5138	140.5138	3.8200e-003		140.6092

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.3 Site Preparation - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0724	0.0530	0.5068	1.4100e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		140.5138	140.5138	3.8200e-003		140.6092
Total	0.0724	0.0530	0.5068	1.4100e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		140.5138	140.5138	3.8200e-003		140.6092

3.4 Grading - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	6.2596	1.3974	7.6570	3.3359	1.2856	4.6215		2,936.8068	2,936.8068	0.9292		2,960.0361

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1378	4.6688	0.9507	0.0118	0.2698	0.0179	0.2877	0.0736	0.0171	0.0908		1,255.6966	1,255.6966	0.0688		1,257.4166
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	0.1981	4.7130	1.3730	0.0129	0.3930	0.0187	0.4117	0.1063	0.0179	0.1242		1,372.7914	1,372.7914	0.0720		1,374.5909

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	6.2596	1.3974	7.6570	3.3359	1.2856	4.6215	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.4 Grading - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1378	4.6688	0.9507	0.0118	0.2698	0.0179	0.2877	0.0736	0.0171	0.0908		1,255.696 6	1,255.696 6	0.0688		1,257.416 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	0.1981	4.7130	1.3730	0.0129	0.3930	0.0187	0.4117	0.1063	0.0179	0.1242		1,372.791 4	1,372.791 4	0.0720		1,374.590 9

3.4 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.2596	1.2734	7.5331	3.3359	1.1716	4.5074		2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.4 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1259	4.3581	0.9101	0.0116	0.2698	0.0142	0.2839	0.0736	0.0135	0.0872		1,242.1930	1,242.1930	0.0664		1,243.8525
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	0.1810	4.3971	1.2881	0.0128	0.3930	0.0150	0.4079	0.1063	0.0143	0.1206		1,355.6028	1,355.6028	0.0692		1,357.3316

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2596	0.0000	6.2596	3.3359	0.0000	3.3359			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	2.4288	26.3859	16.0530	0.0297	6.2596	1.2734	7.5331	3.3359	1.1716	4.5074	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.4 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1259	4.3581	0.9101	0.0116	0.2698	0.0142	0.2839	0.0736	0.0135	0.0872		1,242.1930	1,242.1930	0.0664		1,243.8525
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	0.1810	4.3971	1.2881	0.0128	0.3930	0.0150	0.4079	0.1063	0.0143	0.1206		1,355.6028	1,355.6028	0.0692		1,357.3316

3.5 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3211					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6777	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.5 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3211					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6777	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.5 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792

3.6 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.6 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1875	5.4162	1.4617	0.0126	0.3181	0.0267	0.3448	0.0916	0.0255	0.1171		1,336.338 0	1,336.338 0	0.0730		1,338.163 7
Worker	0.4485	0.3172	3.0743	9.2600e-003	1.0022	6.4900e-003	1.0087	0.2658	5.9800e-003	0.2718		922.3998	922.3998	0.0226		922.9638
Total	0.6360	5.7333	4.5359	0.0219	1.3203	0.0332	1.3535	0.3574	0.0315	0.3889		2,258.737 8	2,258.737 8	0.0956		2,261.127 6

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.6 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1875	5.4162	1.4617	0.0126	0.3181	0.0267	0.3448	0.0916	0.0255	0.1171		1,336.3380	1,336.3380	0.0730		1,338.1637
Worker	0.4485	0.3172	3.0743	9.2600e-003	1.0022	6.4900e-003	1.0087	0.2658	5.9800e-003	0.2718		922.3998	922.3998	0.0226		922.9638
Total	0.6360	5.7333	4.5359	0.0219	1.3203	0.0332	1.3535	0.3574	0.0315	0.3889		2,258.7378	2,258.7378	0.0956		2,261.1276

3.6 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.6 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1544	4.8988	1.3164	0.0125	0.3182	0.0109	0.3290	0.0916	0.0104	0.1020		1,323.6476	1,323.6476	0.0690		1,325.3716
Worker	0.4156	0.2832	2.8037	8.9300e-003	1.0022	6.3100e-003	1.0085	0.2658	5.8100e-003	0.2716		890.0347	890.0347	0.0201		890.5382
Total	0.5700	5.1820	4.1201	0.0214	1.3204	0.0172	1.3376	0.3574	0.0162	0.3736		2,213.6823	2,213.6823	0.0891		2,215.9098

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.6 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1544	4.8988	1.3164	0.0125	0.3182	0.0109	0.3290	0.0916	0.0104	0.1020		1,323.6476	1,323.6476	0.0690		1,325.3716
Worker	0.4156	0.2832	2.8037	8.9300e-003	1.0022	6.3100e-003	1.0085	0.2658	5.8100e-003	0.2716		890.0347	890.0347	0.0201		890.5382
Total	0.5700	5.1820	4.1201	0.0214	1.3204	0.0172	1.3376	0.3574	0.0162	0.3736		2,213.6823	2,213.6823	0.0891		2,215.9098

3.7 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	7.3075	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.7 Architectural Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0882	0.0624	0.6048	1.8200e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		181.4557	181.4557	4.4400e-003		181.5667
Total	0.0882	0.0624	0.6048	1.8200e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		181.4557	181.4557	4.4400e-003		181.5667

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	7.3075	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.7 Architectural Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0882	0.0624	0.6048	1.8200e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		181.4557	181.4557	4.4400e-003		181.5667
Total	0.0882	0.0624	0.6048	1.8200e-003	0.1972	1.2800e-003	0.1984	0.0523	1.1800e-003	0.0535		181.4557	181.4557	4.4400e-003		181.5667

3.7 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	7.2843	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.7 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0818	0.0557	0.5516	1.7600e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		175.0888	175.0888	3.9600e-003		175.1878
Total	0.0818	0.0557	0.5516	1.7600e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		175.0888	175.0888	3.9600e-003		175.1878

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	7.2843	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Contra Costa Farms - Bay Area AQMD Air District, Winter

3.7 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0818	0.0557	0.5516	1.7600e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		175.0888	175.0888	3.9600e-003		175.1878
Total	0.0818	0.0557	0.5516	1.7600e-003	0.1972	1.2400e-003	0.1984	0.0523	1.1400e-003	0.0534		175.0888	175.0888	3.9600e-003		175.1878

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

Contra Costa Farms - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7830	8.8006	20.2631	0.0664	5.9574	0.0615	6.0189	1.5939	0.0576	1.6515		6,713.5096	6,713.5096	0.2654		6,720.1445
Unmitigated	1.7952	8.8918	20.5398	0.0676	6.0790	0.0626	6.1416	1.6264	0.0586	1.6850		6,839.5355	6,839.5355	0.2689		6,846.2587

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	536.98	536.98	536.98	1,567,713	1,536,359
Parking Lot	0.00	0.00	0.00		
Strip Mall	840.00	840.00	840.00	1,293,628	1,267,755
Total	1,376.98	1,376.98	1,376.98	2,861,341	2,804,114

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Contra Costa Farms - Bay Area AQMD Air District, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Strip Mall	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348
NaturalGas Unmitigated	0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348

Contra Costa Farms - Bay Area AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	15712.4	0.1695	1.5404	1.2940	9.2400e-003		0.1171	0.1171		0.1171	0.1171		1,848.5131	1,848.5131	0.0354	0.0339	1,859.4979
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	12.9863	1.4000e-004	1.2700e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5278	1.5278	3.0000e-005	3.0000e-005	1.5369
Total		0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	15.7124	0.1695	1.5404	1.2940	9.2400e-003		0.1171	0.1171		0.1171	0.1171		1,848.5131	1,848.5131	0.0354	0.0339	1,859.4979
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0129863	1.4000e-004	1.2700e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5278	1.5278	3.0000e-005	3.0000e-005	1.5369
Total		0.1696	1.5417	1.2950	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.0409	1,850.0409	0.0355	0.0339	1,861.0348

6.0 Area Detail

Contra Costa Farms - Bay Area AQMD Air District, Winter

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Unmitigated	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7600e-003	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Total	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922

Contra Costa Farms - Bay Area AQMD Air District, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7600e-003	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922
Total	5.3588	3.7000e-004	0.0404	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0865	0.0865	2.3000e-004		0.0922

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	3	8.00	260	89	0.20	Diesel

Contra Costa Farms - Bay Area AQMD Air District, Winter

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832
Total	0.3408	3.1647	3.4612	4.5800e-003		0.2096	0.2096		0.1929	0.1929		444.0925	444.0925	0.1436		447.6832

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	0	12	720	0	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Contra Costa Farms - Bay Area AQMD Air District, Winter

10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (0 - 11 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

11.0 Vegetation

Contra Costa Farms
Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	4	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	10	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	3.81600E-002	2.65630E-001	2.99420E-001	4.90000E-004	1.70700E-002	1.70700E-002	0.00000E+000	4.18734E+001	4.18734E+001	3.09000E-003	0.00000E+000	4.19507E+001
Concrete/Industrial Saws	5.31000E-003	4.12700E-002	4.25800E-002	7.00000E-005	2.64000E-003	2.64000E-003	0.00000E+000	6.18306E+000	6.18306E+000	4.40000E-004	0.00000E+000	6.19394E+000
Cranes	6.28700E-002	7.44270E-001	2.96370E-001	8.30000E-004	3.05200E-002	2.80800E-002	0.00000E+000	7.27413E+001	7.27413E+001	2.35300E-002	0.00000E+000	7.33295E+001
Excavators	1.38000E-002	1.40920E-001	1.74630E-001	2.80000E-004	6.80000E-003	6.26000E-003	0.00000E+000	2.47123E+001	2.47123E+001	7.85000E-003	0.00000E+000	2.49085E+001
Forklifts	6.81200E-002	6.16350E-001	5.78380E-001	7.50000E-004	4.51500E-002	4.15300E-002	0.00000E+000	6.60713E+001	6.60713E+001	2.13700E-002	0.00000E+000	6.66055E+001
Generator Sets	6.28600E-002	5.51120E-001	6.06420E-001	1.08000E-003	3.04200E-002	3.04200E-002	0.00000E+000	9.26940E+001	9.26940E+001	5.03000E-003	0.00000E+000	9.28199E+001
Graders	9.14000E-003	1.22600E-001	3.47000E-002	1.30000E-004	3.93000E-003	3.61000E-003	0.00000E+000	1.12067E+001	1.12067E+001	3.58000E-003	0.00000E+000	1.12963E+001
Pavers	1.02400E-002	1.09600E-001	1.13030E-001	1.80000E-004	5.33000E-003	4.90000E-003	0.00000E+000	1.61076E+001	1.61076E+001	5.21000E-003	0.00000E+000	1.62379E+001
Paving Equipment	8.09000E-003	8.35100E-002	9.88400E-002	1.60000E-004	4.18000E-003	3.84000E-003	0.00000E+000	1.39585E+001	1.39585E+001	4.51000E-003	0.00000E+000	1.40714E+001
Rollers	8.12000E-003	8.11600E-002	7.38400E-002	1.00000E-004	5.17000E-003	4.76000E-003	0.00000E+000	8.98892E+000	8.98892E+000	2.91000E-003	0.00000E+000	9.06160E+000
Rubber Tired Dozers	1.61160E-001	1.71355E+000	6.09040E-001	1.21000E-003	8.35700E-002	7.68900E-002	0.00000E+000	1.09136E+002	1.09136E+002	3.45800E-002	0.00000E+000	1.10000E+002
Tractors/Loaders/Backhoes	1.30370E-001	1.31201E+000	1.41740E+000	1.93000E-003	8.29800E-002	7.63500E-002	0.00000E+000	1.70596E+002	1.70596E+002	5.48600E-002	0.00000E+000	1.71967E+002
Welders	5.36600E-002	2.53830E-001	2.86800E-001	4.20000E-004	1.34600E-002	1.34600E-002	0.00000E+000	3.08682E+001	3.08682E+001	4.36000E-003	0.00000E+000	3.09771E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	3.81600E-002	2.65630E-001	2.99420E-001	4.90000E-004	1.70700E-002	1.70700E-002	0.00000E+000	4.18733E+001	4.18733E+001	3.09000E-003	0.00000E+000	4.19506E+001
Concrete/Industrial Saws	5.31000E-003	4.12700E-002	4.25800E-002	7.00000E-005	2.64000E-003	2.64000E-003	0.00000E+000	6.18305E+000	6.18305E+000	4.40000E-004	0.00000E+000	6.19393E+000
Cranes	6.28700E-002	7.44270E-001	2.96370E-001	8.30000E-004	3.05200E-002	2.80800E-002	0.00000E+000	7.27412E+001	7.27412E+001	2.35300E-002	0.00000E+000	7.33294E+001
Excavators	1.38000E-002	1.40920E-001	1.74630E-001	2.80000E-004	6.80000E-003	6.26000E-003	0.00000E+000	2.47123E+001	2.47123E+001	7.85000E-003	0.00000E+000	2.49085E+001
Forklifts	6.81200E-002	6.16350E-001	5.78380E-001	7.50000E-004	4.51500E-002	4.15300E-002	0.00000E+000	6.60713E+001	6.60713E+001	2.13700E-002	0.00000E+000	6.66055E+001
Generator Sets	6.28600E-002	5.51120E-001	6.06420E-001	1.08000E-003	3.04200E-002	3.04200E-002	0.00000E+000	9.26939E+001	9.26939E+001	5.03000E-003	0.00000E+000	9.28198E+001
Graders	9.14000E-003	1.22600E-001	3.47000E-002	1.30000E-004	3.93000E-003	3.61000E-003	0.00000E+000	1.12067E+001	1.12067E+001	3.58000E-003	0.00000E+000	1.12963E+001
Pavers	1.02400E-002	1.09600E-001	1.13030E-001	1.80000E-004	5.33000E-003	4.90000E-003	0.00000E+000	1.61076E+001	1.61076E+001	5.21000E-003	0.00000E+000	1.62378E+001
Paving Equipment	8.09000E-003	8.35100E-002	9.88400E-002	1.60000E-004	4.18000E-003	3.84000E-003	0.00000E+000	1.39585E+001	1.39585E+001	4.51000E-003	0.00000E+000	1.40713E+001
Rollers	8.12000E-003	8.11600E-002	7.38400E-002	1.00000E-004	5.17000E-003	4.76000E-003	0.00000E+000	8.98891E+000	8.98891E+000	2.91000E-003	0.00000E+000	9.06159E+000
Rubber Tired Dozers	1.61160E-001	1.71355E+000	6.09030E-001	1.21000E-003	8.35700E-002	7.68900E-002	0.00000E+000	1.09136E+002	1.09136E+002	3.45800E-002	0.00000E+000	1.10000E+002
Tractors/Loaders/Balckhoes	1.30370E-001	1.31201E+000	1.41740E+000	1.93000E-003	8.29800E-002	7.63500E-002	0.00000E+000	1.70596E+002	1.70596E+002	5.48600E-002	0.00000E+000	1.71967E+002
Welders	5.36600E-002	2.53830E-001	2.86800E-001	4.20000E-004	1.34600E-002	1.34600E-002	0.00000E+000	3.08682E+001	3.08682E+001	4.36000E-003	0.00000E+000	3.09771E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19408E-006	1.19408E-006	0.00000E+000	0.00000E+000	1.19188E-006
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.61732E-006	1.61732E-006	0.00000E+000	0.00000E+000	1.61448E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23726E-006	1.23726E-006	0.00000E+000	0.00000E+000	1.22734E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21397E-006	1.21397E-006	0.00000E+000	0.00000E+000	1.20441E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.05946E-006	1.05946E-006	0.00000E+000	0.00000E+000	1.05096E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18670E-006	1.18670E-006	0.00000E+000	0.00000E+000	1.18509E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.92323E-007	8.92323E-007	0.00000E+000	0.00000E+000	1.77049E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.24165E-006	1.24165E-006	0.00000E+000	0.00000E+000	1.23169E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.43282E-006	1.43282E-006	0.00000E+000	0.00000E+000	1.42133E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11248E-006	1.11248E-006	0.00000E+000	0.00000E+000	1.10356E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	1.64193E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19118E-006	1.19118E-006	0.00000E+000	0.00000E+000	1.18181E-006
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23098E-006	1.23098E-006	0.00000E+000	0.00000E+000	1.16301E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.71875E-007	9.71875E-007	0.00000E+000	0.00000E+000	9.68457E-007

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	PM2.5 Reduction	
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	PM2.5 Reduction	
No	Water Exposed Area	PM10 Reduction	PM2.5 Reduction	Frequency (per day)

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.03	0.01	0.03	0.01	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.21	0.06	0.21	0.06	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.12	0.06	0.12	0.06	0.00	0.00
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.61	0.33	0.61	0.33	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.66	1.00	1.41	1.85	1.77	1.79	0.00	1.84	1.84	1.34	0.00	1.84
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.06	0.24		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.02			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00			2.00
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.02		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed	
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