CITY OF ANTIOCH
COMMUNITY DEVELOPMENT DEPARTMENT

Vineyard Self-Storage

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

August 2016

RANEY PLANNING & MANAGEMENT, INC.

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Appendices

INITIAL STUDY

August 2016

A. BACKGROUND

1. Project Title: Vineyard Self-Storage

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: Alexis Morris
Senior Planner
(925) 779-7035

4. Project Location: Directly northwest of the intersection of East 18th Street and Vineyard Drive
Assessor Parcel Numbers (APNs) 051-052-074, -075, -076, and -077
Antioch, CA

5. Project Sponsor's Name and Address: Larry Thom, General Manager
Hamilton Solar
85 Keystone Avenue, Suite E
Reno, Nevada 89503
(775) 813-6887

6. Existing General Plan Designation: Business Park (BP)

8. Existing Specific Plan Designation: East 18th Street Specific Plan
Office and Light Industry (O/LI)

9. Existing Zoning Designation: Planned Business Center (PBC)

10. Proposed Zoning Designation: Planned Development (PD)

11. Project Description Summary:

The proposed project would include the construction and operation of one 1,390-square-foot (sf) office building, six self-storage buildings totaling 100,943 sf, and approximately 70,600 sf of outdoor boat and RV storage on a 6.68-acre site located in the City of Antioch, CA. Access to the site would be provided from Vineyard Drive. The proposed project also includes off-site sewer improvements.

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 at Third & "H" Streets in Antioch, California, Monday through Friday between 8:00 – 11:30 am. The following documents are referenced information sources utilized by this analysis:

1. Bay Area Air Quality Management District. *Air Quality Plans*. Available at: http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans.aspx. Accessed July 2016.
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 July 2016.
3. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2010.
4. Bellecci & Associates. *Stormwater Control Plan for Vineyard Self Storage.* April, 2016.
5. California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
6. California Department of Conservation. *Contra Costa County Important Farmland Map.* July, 2011.
7. California Department of Resources Recycling and Recovery (CalRecycle). *Solid Waste Information System*. www.calrecycle.ca.gov/SWFacilities/. Accessed July, 2016.
8. California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List.* Accessed July, 2016.
9. Caltrans. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed on July 26, 2016.
10. Caltrans. *Transportation and Construction Vibration Guidance Manual*. September 2013.
11. City of Antioch. City *of Antioch, California Code of Ordinances.* Current through September 22, 2015.
12. City of Antioch. *East 18th Street Specific Plan*. September 2001.
13. City of Antioch. *General Plan*. November 24, 2003.
14. City of Antioch. *General Plan Update EIR*. July 2003.
15. Contra Costa Transportation Authority. *2011 Contra Costa Congestion Management Program*. Adopted November 16, 2011.
16. Delta Diablo. *Proposed Tuscany Meadows Subdivision Letter Addressed to Nick Pappani, Vice President Raney Planning and Management.* October 3, 2013.
17. Institute of Transportation Engineers. *Trip Generation Handbook – 9th Edition*. September 2012.
18. Krazan & Associates. *Phase I Environmental Site Assessment.* September 2003.
19. *Personal Communication with Alexis Morris, Senior Planner, City of Antioch Community Development Department.* August 16, 2016.

20. Rincon Consultants, Inc. *East 18th Street and Vineyard Drive Project Biological Resources Assessment.* March, 2016.
21. Rincon Consultants, Inc. *East 18th Street and Vineyard Drive Project Phase I Cultural Resources Study.* March, 2016.
22. Sacramento Metropolitan Air Quality Management District. *Road Construction Emissions Model (Version 8.1.0).* Updated May, 09, 2016.
23. United States Department of Agriculture. *Web Soil Survey.* Accessed July, 2016.

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.

☐ **Aesthetics**	☐ **Agriculture and Forest Resources**	✖ **Air Quality**
✖ **Biological Resources**	✖ **Cultural Resources**	✖ **Geology and Soils**
☐ **Greenhouse Gas Emissions**	✖ **Hazards and Hazardous Materials**	☐ **Hydrology and Water Quality**
☐ **Land Use and Planning**	☐ **Mineral Resources**	✖ **Noise**
☐ **Population and Housing**	☐ **Public Services**	☐ **Recreation**
☐ **Transportation & Circulation**	☐ **Utilities and Service Systems**	☐ **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	Date
Alexis Morris, Senior Planner	City of Antioch
Printed Name	For

E. BACKGROUND AND INTRODUCTION

This Initial Study identifies and analyzes the potential environmental impacts of the Vineyard Self-Storage 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 will be implemented in conjunction with the project, as required by CEQA. The mitigation measures will be incorporated into the project through project conditions of approval. The City will adopt findings and a Mitigation Monitoring/Reporting Program for the project in conjunction with approval of the project.

The project site is located within the Eastern Waterfront Employment Focus Area of the City of Antioch General Plan. In 2001 the City of Antioch adopted the East 18th Street Specific Plan and an associated Initial Study/Mitigated Negative Declaration (IS/MND) to guide future development of the Eastern Waterfront Employment Focus Area.

An Environmental Impact Report (EIR) was prepared for the 2003 General Plan Update (GPU), which included the Eastern Waterfront Employment Focus Area as one of the 10 designated Focus Areas in the General Plan. The GPU 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 Antioch GPU EIR analyzed full implementation of the Antioch GPU and identified measures to mitigate the significant adverse impacts associated with the General Plan.

Per Section 15152 of the CEQA Guidelines, a project which is consistent with the General Plan and zoning of the City may tier from the analysis contained in the General Plan EIR, incorporating by reference the general discussions from the broader EIR. The proposed project would be consistent with the City Council-adopted 2001 East 18th Street Specific Plan and the Eastern Waterfront Employment Focus Area land use designations. Because the proposed project is consistent with the Antioch General Plan land use designations for the project site, this Initial Study will tier from the Antioch GPU EIR, where appropriate. Applicable mitigation measures identified in the GPU EIR will be required to be implemented as part of the project. In some cases, project-specific mitigation measures for potentially significant impacts that were not identified in the GPU EIR will also be required to be implemented as part of the proposed project.

F. PROJECT DESCRIPTION

The following sections will provide a detailed description of the location, setting, and components of the proposed project.

Project Location

The proposed project site is located at the northwest corner of the East 18th Street and Vineyard Drive intersection in the City of Antioch, Contra Costa County, California (see Figure 1). The 6.68-acre site includes APNs 051-052-074, -075, -076, and -077.

Project Setting and Surrounding Land Uses

The proposed project is surrounded by a storage facility to the west, a construction business to the south, a gymnastics studio to the east, and agricultural land to the north (see Figure 2). The site currently consists of undeveloped vacant land with ruderal vegetation. The site is split into multiple terraced levels that reflect previous agricultural uses of the site. Access to the site would be provided by Vineyard Drive.

Project Components

The proposed property is comprised of four separate parcels. The parcels are titled in the same name(s), are in the same jurisdictional boundary (city limits), and are contiguous. The proposed project would require approval of a lot merger of four parcels into one from the City of Antioch.

The proposed project would include the construction and operation of a 1,390 sf office building, six structures totaling 100,943 sf of self-storage space, and approximately 70,600 sf of outdoor boat and RV storage space (see Figure 3). The square footage of each self-storage building is as follows:

- Building A – 36,522 sf;
- Building B – 17,300 sf;
- Building C – 5,363 sf;
- Building D – 9,788 sf;
- Building E – 12,902 sf; and
- Building F – 19,068 sf.

The office and main storage building (identified as "Building A" in Figure 3), which would be located adjacent to East 18th Street, would be two-stories tall and serviced by a freight elevator with an internal mast. Four of the self-storage facility buildings would be single-story structures, and one would be a split-level structure intended to maximize usable space on the existing terraced landscape that would be constructed on an existing slope. The number of self-storage units has not been finalized, but would be based on a final configuration and unit mix, not to exceed 999 units. The outdoor boat and RV storage would accommodate 95 to 100 parking stalls on the northern end of the property; however, a reconfiguration of the space based on the size and ratio of boats to RVs could result in a maximum of 150 boat and RV parking stalls.

Figure 1
Regional Project Location

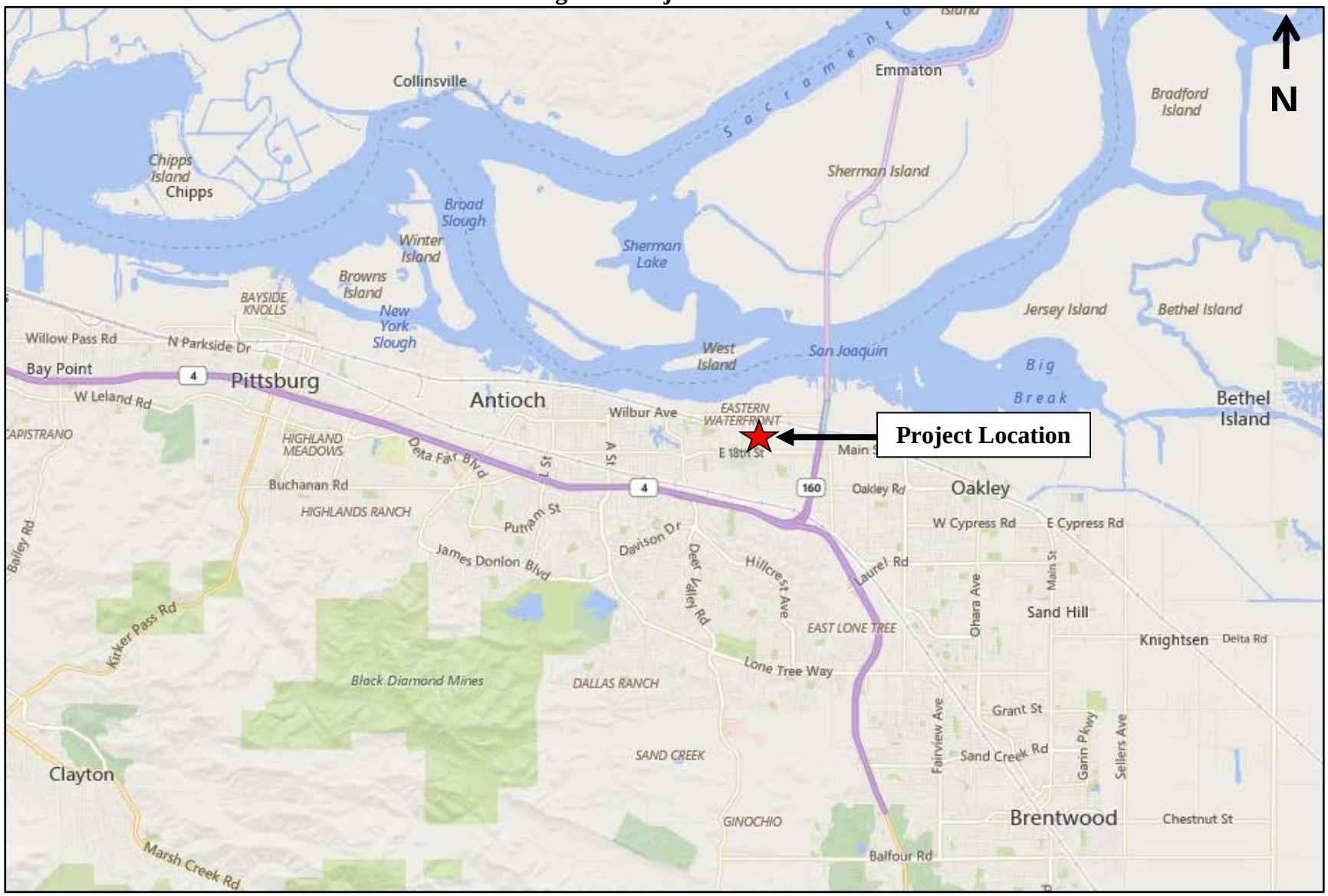


Figure 2
Project Vicinity Map

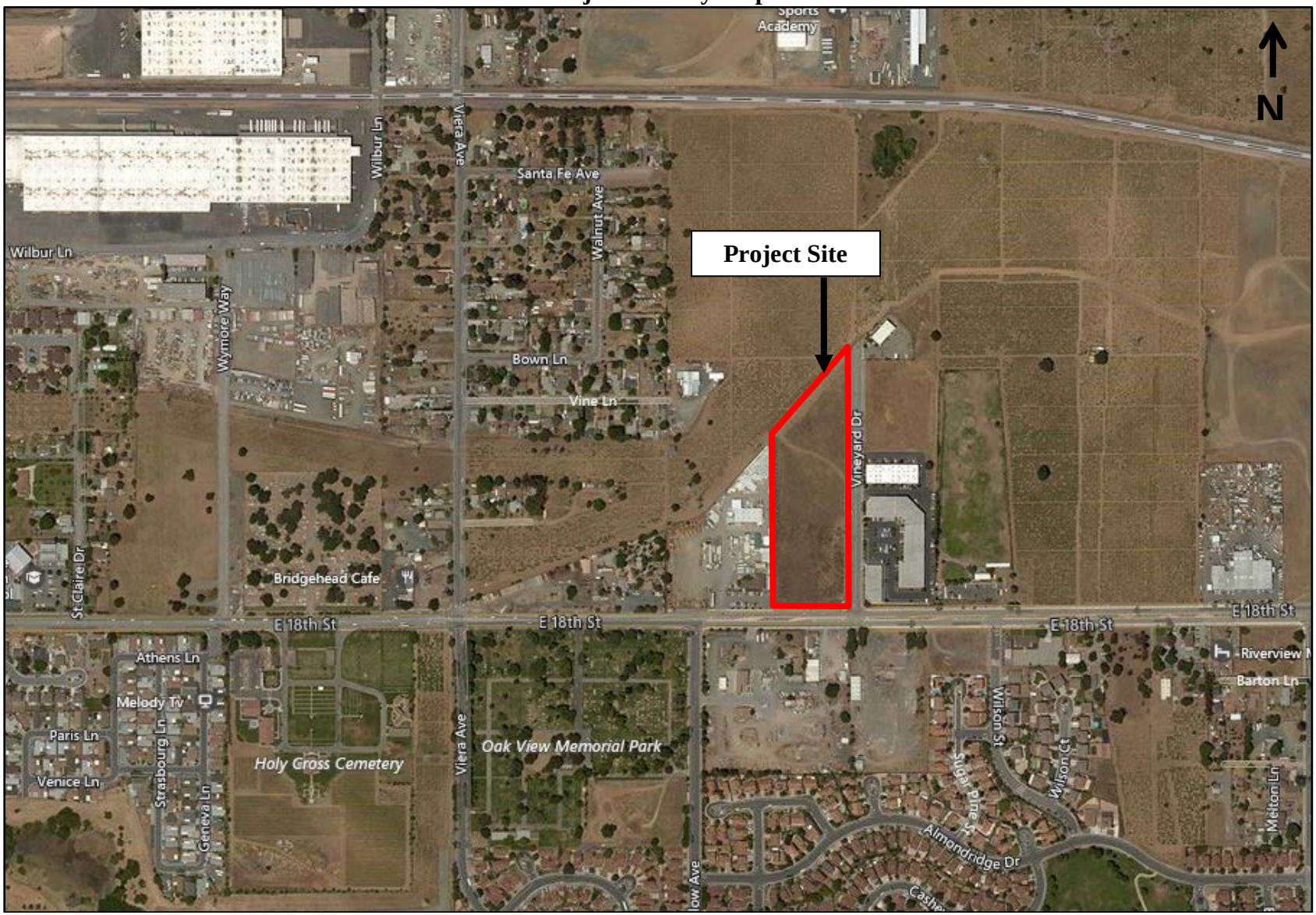
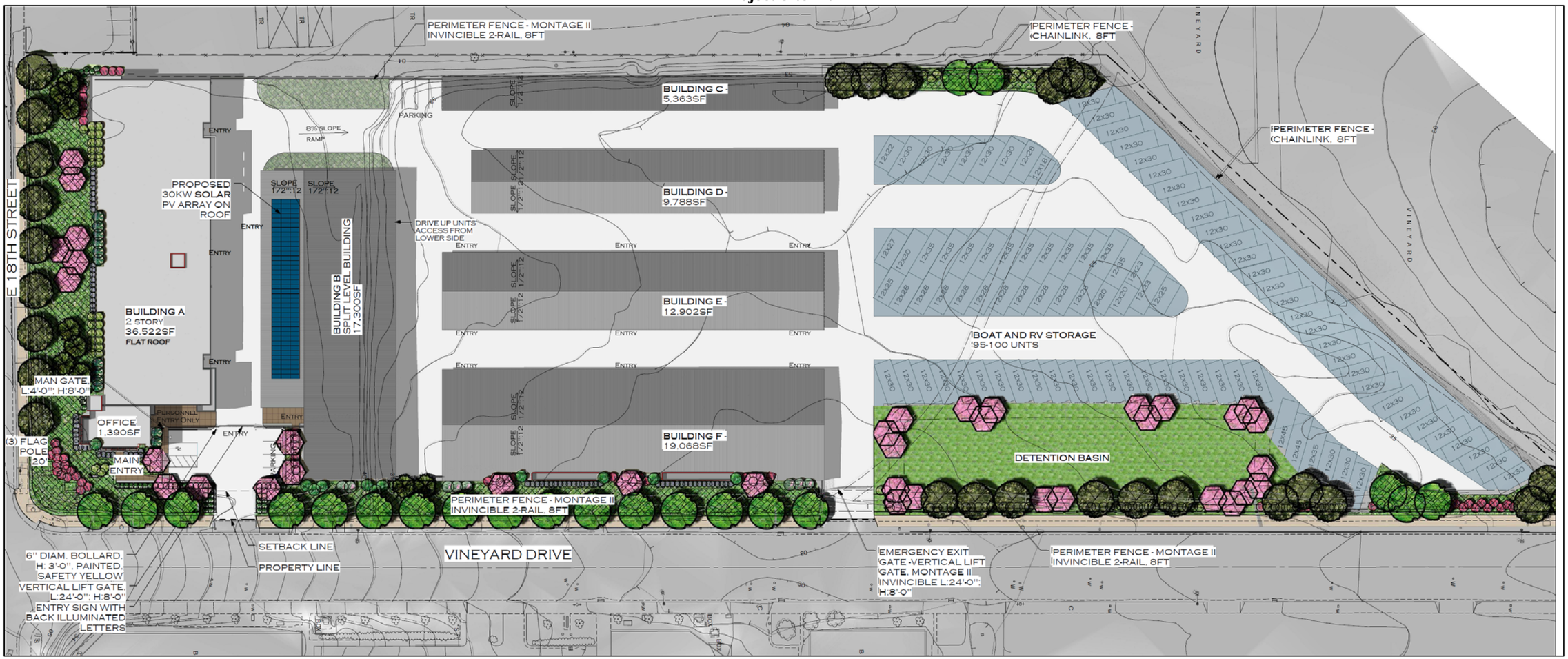


Figure 3
Project Site Plan



The perimeter of the property would be enclosed by eight-foot tall fencing and access to the site would be through a private motorized gate. Designated parking spaces would be provided outside the manager's office and main two-story storage building. Drive-up parking would be provided for the remaining five storage buildings.

The proposed project would include a 30 kW solar photovoltaic array, consisting of 114 south-facing solar panels with a 2.4-degree tilt connected to one 24 kW inverter to be installed on the split-level storage building, designated as "Building B" in Figure 3. The proposed water line would connect to the existing water line in Vineyard Drive. In addition, the proposed stormwater system would include a bio-retention facility on the eastern edge of the site that would filter and release the majority of all on-site runoff. Any additional stormwater would flow through existing stormwater lines located in Vineyard Drive.

The East 18th Street Specific Plan requires the construction of a new sewer line within Vineyard Drive right-of-way, which would connect with the existing stubbed sewer line within the future Sakurai Street alignment (see Figure 4). The City of Antioch Engineering Division provided an alternate alignment for the sewer line known as Alternate "A" (see Appendix C). The final sewer alignment for the proposed project has not yet been determined; therefore, both alignments are discussed throughout this IS/MND. The East 18th Street Specific Plan IS/MND included the sewer line within the Vineyard Drive right-of-way; thus, the potential environmental impacts that could occur from the construction of the Specific Plan sewer line alignment have been previously analyzed. This IS/MND includes the applicable mitigation from the Specific Plan IS/MND and analyzes the potential environmental impacts that could occur from the Alternate "A" sewer line construction.

The project site is currently zoned Planned Business Center (PBC), which does not allow for self-storage usage. However, in 2001 the City of Antioch adopted the East 18th Street Specific Plan to guide future development of the Eastern Waterfront Employment Focus Area, which designated the site Office and Light Industry (O/LI). The East 18th Street Specific Plan determined the uses allowed in O/LI are consistent with the Citywide Light Manufacturing Zoning District (M-1). Self-storage and RV/boat storage are conditionally permitted uses within the M-1 district of the Antioch Zoning Code.[1] Therefore, the proposed project's uses would be conditionally permitted with approval of a Conditional Use Permit (CUP).[2]

Additionally, consistent with the requirements of the East 18th Street Specific Plan, the proposed project includes a request for a Planned Development (PD) Rezone. PD districts encourage the use of flexible development standards designed to appropriately integrate a project into its natural and/or man-made setting and the City of Antioch uses the PD process to implement the various Specific Plans adopted by the City.

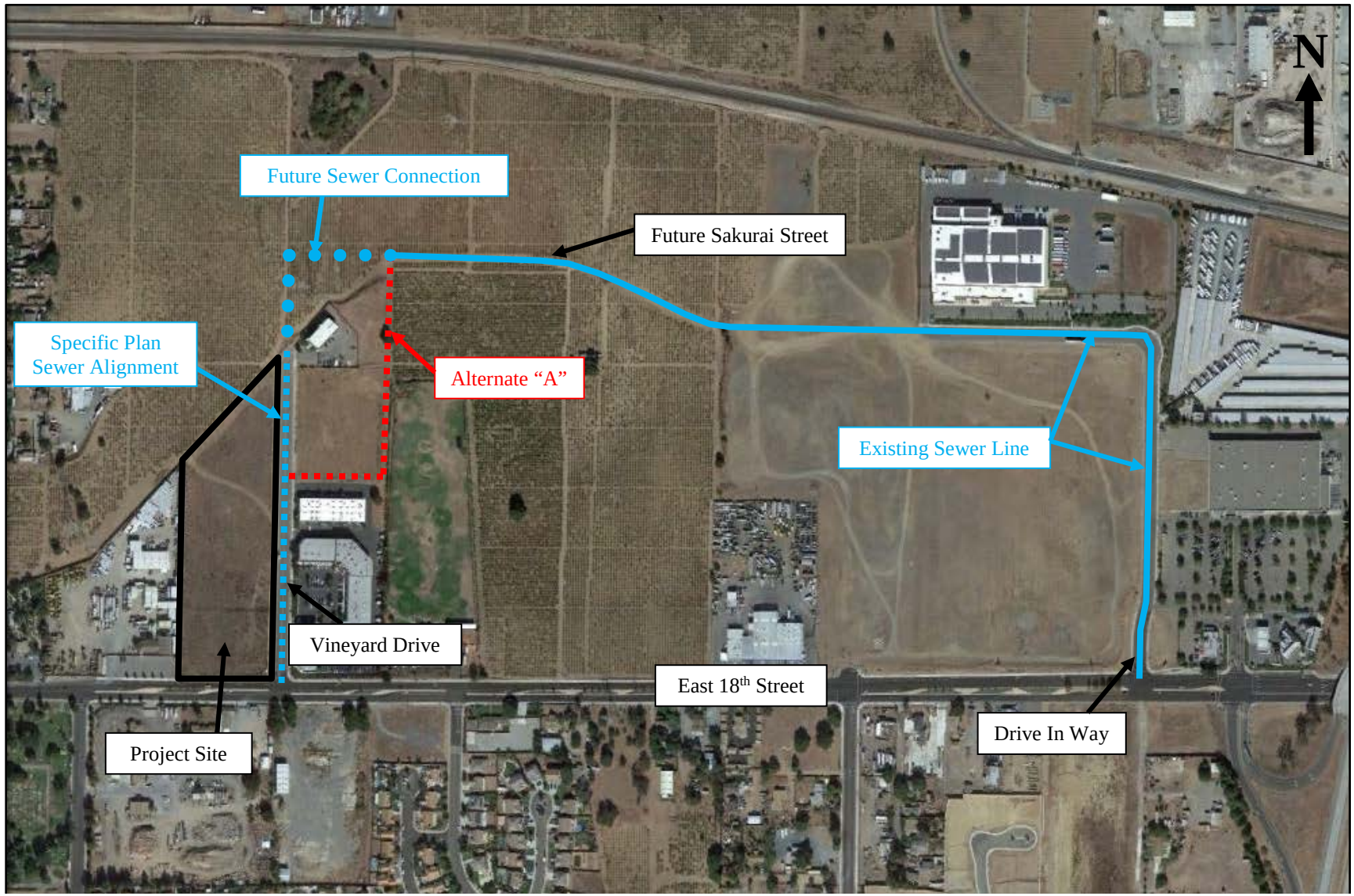
The discretionary entitlements, for the proposed project include the following:

- Rezone from Planned Business Center (PBC) to Planned Development District (PD);

1 City of Antioch. *East 18th Street Specific Plan* [pg. 19]. September 2001.

2 City of Antioch. City *of Antioch, California Code of Ordinances Table of Land Use Regulations § 9-5.3803.* Current through September 22, 2015.

Figure 4
Off-Site Sewer Line Alternatives



- Conditional Use Permit to allow self-storage and RV/boat storage uses;
- Design Review; and
- Lot Merger.

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. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	✖	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	✖	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	✖	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	✖	☐

Discussion

a,b. The GPU EIR determined views of Mt. Diablo, the ridgelines south of State Route (SR) 4, and the San Joaquin River as scenic vistas within the City of Antioch. Views of the City's three scenic vistas are either blocked by existing developments or are located too far away to be seen from the site. Furthermore, according to the California Scenic Highway Mapping System, the nearest State Scenic Highway, Interstate 680 (I-680), is located approximately 17 miles southwest of the site, and SR 160 is an Eligible State Scenic Highway – Not Officially Designated, which is located approximately 0.75 mile east of the project site.[3] Both I-680 and SR 160 do not have views of the project site. Therefore, the project site is not located within the vicinity of any scenic vistas, as described by the GPU EIR, or a State Scenic Highway. As a result, construction of the proposed project including the off-site sewer improvement would not have an adverse effect on any scenic vista and impacts related to such would be ***less than significant.***

c. The project site is currently vacant with ruderal vegetation and is surrounded by existing commercial development. Construction of the proposed project would change the site's existing visual character from ruderal vegetation to 102,333 sf of office, self-storage, and RV/boat storage facilities. Construction of such would be consistent with surrounding land uses and would improve the existing visual character of the site by developing vacant land that is dominated by ruderal vegetation. According to Section 9-5.2607 of the Antioch Municipal Code, the project is subject to Design Review by the City of Antioch. 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 Alternate "A" alignment for the sewer improvement consists of disturbed ruderal lands within an existing 10-foot easement; however, an existing mature indigenous tree, as

[3] 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 on July 26, 2016.

defined by the Antioch Municipal Code, is located adjacent to the easement. If the Alternate "A" sewer line alignment is chosen for the off-site sewer improvements, the applicant shall, in accordance with Section § 9-5.1205(F)(2) of the Antioch Municipal Code, obtain a bond for the protected prior to grading activities, as discussed in further detail in Section IV of this IS/MND.

Because the proposed project would be consistent with surrounding uses and be subject to the City of Antioch's Municipal Code and Design Review process, impacts related to degrading the existing visual character of the site and its surroundings would be ***less-than-significant***.

d. The project site is surrounded on three sides by existing commercial developments that generate light and glare. The property to the north of the site is used for agricultural purposes and, therefore, is not sensitive to, or a producer of, light and glare. The nearest sensitive receptors to light and glare would be the existing residences located approximately 500 feet to the northwest of the site.

The project site is currently vacant and does not produce light or glare. While construction and operation of the proposed project would generate both light and glare on-site, all components of the proposed project would be subject to Design Review by the City of Antioch that would ensure light and glare do not obstruct day or nighttime views in the area. Due to the consistency of the proposed project with surrounding commercial development, the site's approximate distance of 500 feet from the nearest sensitive receptor, and the added assurance of the Design Review process, implementation of the project including the off-site sewer improvement 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.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	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?	☐	☐	✖	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	☐	✖	☐

Discussion

a, e. The proposed project site consists of ruderal vegetation and is surrounded by existing commercial development. While the project site was historically used for agricultural purposes, the site has not been in agricultural production since at least 1989[4] and is currently designated as "Urban and Built-Up Land" on the Contra Costa County Important Farmland map.[5] Furthermore, the site is not zoned or designated in the GPU Eastern Waterfront Employment Focus Area or East 18th Street Specific Plan for agriculture uses. The off-site sewer improvements would be located within an existing 10-foot sewer easement. As such, development of the proposed project, including the off-site sewer improvement, would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Therefore, the proposed project's impact related to such would be ***less than significant***.

b. The project area is not under any Williamson Act contract and the area is not designated or zoned for agricultural uses. In addition, the project area is surrounded by commercial development. Because buildout of the proposed project, including the off-site sewer improvement, would not conflict with existing zoning for agricultural use or a Williamson Act contract, ***no impact*** would occur.

4 Krazan & Associates. *Phase I Environmental Site Assessment.* September 2003.
5 California Department of Conservation. *Contra Costa County Important Farmland Map*. July, 2011.

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]). Therefore, the proposed project, including the off-site sewer improvement, 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. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	✖	☐	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	✖	☐	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	✖	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	✖	☐

a-c. 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). 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 AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS 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 AAQS, 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 2010 Clean Air Plan (CAP), adopted on September 15, 2010. The 2010 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 PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in

developing the control strategy for the 2010 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 (TCMs) to be implemented in the region to attain the State and federal standards 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 PM_{10}, 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, or PM_{10}, 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

	Construction	Operational	
Pollutant	**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

Source: BAAQMD, CEQA Guidelines, May 2010.

It should be noted that a series of recent court cases have called into question the BAAQMD resolutions adopting and revising their 2010 significance thresholds, asserting that the adoption of such would be considered a project under CEQA, necessitating environmental review. None of the courts have indicated whether the thresholds were valid on their merits or that the thresholds lack evidentiary support. Nonetheless, BAAQMD has withdrawn their revised quantitative significance thresholds for the time being. However, because the BAAQMD's thresholds of significance are supported by substantial evidence and remain the best available option, the City, as lead agency, has chosen to use the BAAQMD's thresholds of significance for evaluation of the proposed project.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2013.2.2 - 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. As such, the proposed project's modeling assumed the following:

- Construction would commence in February 2017 and be completed by September 2017;
- An average daily trip rate of 2.5 trips per 1,000 sf of storage space was assumed in accordance with the Institute of Transportation Engineers Trip Generation Manual;
- Compliance with the current California Building Energy Efficiency Standards Code;
- The proposed project would include a 30 kW roof mounted solar photovoltaic system, which is anticipated to be capable of providing 100 percent of the proposed project's electricity demand;
- A total of 6.3 acres would be disturbed during grading;
- The boat and recreational vehicle storage area would be gravel; and
- The project site is located 0.1-mile away from the East 18th Street and Wilson Street bus stop.

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 Appendix A.

The BAAQMD recommends the use of the Roadway Construction Emissions Model (RoadMod), prepared by the Sacramento Metropolitan Air Quality Management District (SMAQMD), for proposed linear projects such as roadway construction, or pipeline installation. Following BAAQMD's recommendation the RoadMod was used to estimate the additional construction emissions that would occur due to the off-site sewer improvements. To provide a conservative analysis, the area of site disturbance was assumed to occur across a five-foot-wide and 1,749-foot-long area. The off-site improvement was assumed to require the use of two tractor/loader/backhoes and one trencher. The results of the RoadMod are included in Appendix B.

Construction Emissions

According to the CalEEMod and RoadMod 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, PM_{10} (exhaust and fugitive), and $PM_{2.5}$ (exhaust and fugitive). However, the proposed project would exceed the threshold of significance for NO_x emissions.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	24.45	54	**NO**
NO_X	62.77	54	**YES**
PM_{10} (exhaust)	3.22	82	**NO**
PM_{10} (fugitive)	18.24	None	**N/A**
$PM_{2.5}$ (exhaust)	2.96	54	**NO**
$PM_{2.5}$ (fugitive)	10.81	None	**N/A**

Source: CalEEMod, July 2016 (see Appendix A).
RoadMod, August 2016

Although thresholds of significance for mass emissions of fugitive dust PM_{10} and $PM_{2.5}$ have not been identified by the City or BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. All projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. 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.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The contact 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, to the extent that the measures are feasible for the proposed project's construction activities, would help to further minimize any construction-related emissions.

Because the proposed project would be above the applicable threshold of significance for construction emissions of NO_x, the proposed project would be considered to result in a significant air quality impact during construction.

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 operational thresholds of significance. Therefore, the proposed project would not be considered to 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	5.25	0.95	54	10	**NO**
NO_X	2.13	0.37	54	10	**NO**
PM_{10} (exhaust)	0.031	0.0056	82	15	**NO**
PM_{10} (fugitive)	1.25	0.22	None	None	**N/A**
$PM_{2.5}$ (exhaust)	0.03	0.0053	54	10	**NO**
$PM_{2.5}$ (fugitive)	0.33	0.059	None	None	**N/A**

Source: CalEEMod, July 2016 (see Appendix A).

Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis, and, 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 above 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 result in emissions above the applicable threshold of significance for construction related emissions of NO_x, the project would be expected to 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 2010 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project, including the off-site sewer improvement, would result in short-term construction emissions of NO_x, an Ozone precursor, above the applicable thresholds of significance, the project would be considered to conflict with or obstruct implementation of regional air quality plans. Therefore, the proposed project could contribute to the region's nonattainment status of ozone thus contributing to the violation an air quality standard, and a ***potentially significant*** impact associated with construction-related emissions of NO_X would result.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the construction-related emissions of NO_X from the unmitigated maximum daily level of 62.77 lbs/day during construction to the mitigated maximum daily level of 50.24 lbs/day, which would be below the BAAQMD's threshold of significance of 54 lbs/day. Thus implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

III-1 *Prior to issuance of a grading permit, the project applicant shall show on the grading plans via notation that the contractor shall ensure that all diesel-powered equipment larger than 200 horsepower (i.e., rubber tired dozers, scrapers, and trenchers) and diesel-powered graders shall achieve a project wide fleet-average 20 percent NO_X reduction and 45 percent particulate reduction as required by CARB. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.*

d. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The proposed project would not involve the creation of new housing and, thus, would not be considered a sensitive receptor. The nearest existing sensitive receptors would be the single-family residences located approximately 500 feet to the northwest of the site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and TAC emissions, which are addressed in further detail below.

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. CO emissions are particularly related to traffic levels.

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.).

According to the Contra Costa Transportation Authority Congestion Management Program (CCTACMP), any land development application generating less than a maximum of 100 peak hour trips is not required to prepare a study of its traffic impacts on the CCTACMP network.[6] Furthermore, City of Antioch General Plan Policy 7.3.2h requires traffic impact studies for all new development that would generate 50 peak hour trips or more at any intersection in the Circulation Element. Because the proposed project would generate less than 50 peak hour trips, a traffic impact study is not required to be prepared.

According to the ITE Manual, 9th Edition, trip rates for Mini Warehouses are 2.5 weekday trips per storage unit, and 0.02 for AM and PM peak hour trips per storage unit. Based on such, the proposed project would be anticipated to generate a total of 287 Average Daily Trips (ADT), 23 AM peak hour trips, and 23 PM peak hour trips. The General Plan EIR estimated that in 2020 the nearby arterial street of Hillcrest Avenue would experience 20,700 daily vehicle trips, while East 18th Street, the major arterial that borders the southern portion of the project site, would experience 6,900 daily trips. Because the proposed project would only add 287 total daily trips, the proposed project would not increase traffic volumes to above 44,000 vehicles per hour at any intersections or above 24,000 vehicles per hour where air mixing is substantially limited.

[6] Contra Costa Transportation Authority. *2011 Contra Costa Congestion Management Program* [page 62]. Adopted November 16, 2011.

Based on the above, a substantial increase in levels of CO at surrounding intersections would not occur. Therefore, 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, gasoline stations, freeways and high traffic roads, distribution centers, and rail yards. The CARB also identifies diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant heavy diesel semi-truck traffic (such as distribution centers) are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

With regards to TAC emissions, BAAQMD recommends that any project siting a new source or receptor take into consideration impacts associated with TACs located within a 1,000-foot zone. According to the BAAQMD screening tool for stationary TAC sources, three permitted sources of TAC emissions exist within 1,000 feet of the project site. However, the proposed project involves the construction and operation of a self-storage facility, which would not be considered a sensitive receptor. Therefore, the proposed project would not involve siting a new sensitive receptor within any recommended setback distance of any existing source of TACs. In addition, a self-storage facility would not itself be considered a major source of TACs, and therefore would not expose nearby sensitive receptors to TAC emissions.

The CARB handbook identifies significant sources of DPM as land uses accommodating 100 or more heavy diesel trucks per day, and the CARB handbook specifically recognizes that distribution centers may pose a significant hazard as such facilities involved 100 or more heavy duty truck trips per day. Although the self-storage facility would involve increased vehicle traffic in the area, the project would not be expected to attract 100 or more heavy duty trucks to the area per day, and would not be considered a distribution center. As such, the proposed project would not generate a substantial amount of DPM associated with project operations.

Short-term, construction-related activities could result in the generation of DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project, particularly so for the proposed project, as the construction activities would likely occur over a less than a year (based on applicant information). 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 activity would be limited to daytime hours by the City of Antioch's Municipal Code Section 5-17.04.

Because construction equipment on-site would not operate for any periods of time longer than allowed by the City's Municipal Code 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. Health risks associated with TACs are a function of the concentration of emissions, the proximity of receptors to the emissions, and the duration of exposure, where the higher the concentration, closer the receptor is to the emission, and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. Due to the temporary nature of construction, the relatively short duration of potential exposure to associated emissions, and because the nearest sensitive receptor would be approximately 500 feet away, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time.

Considering the short-term nature of construction activities, and the regulated and intermittent nature of the operation of construction equipment, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above, the proposed project, including the off-site sewer improvement, would not cause or be exposed to substantial pollutant concentrations, including localized CO or TACs, and impacts related to such would be ***less than significant***.

e. 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 methodologies to determine the presence of a significant odor impact do not exist. 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 and is not located in the vicinity of any such existing or planned land uses.

Construction activities often include diesel fueled equipment and heavy-duty trucks, which can create odors associated with diesel fumes, which could be found to be objectionable. However, as discussed above, construction activities would be temporary, and operation of construction equipment would be regulated and intermittent. 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 or affect a substantial number of people.

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.

For the aforementioned reasons, construction and operation of the proposed project, including the off-site sewer improvement, would not create objectionable odors, nor would the project site be affected by any existing sources of substantial objectionable odors, and a ***less-than-significant*** impact related to objectionable odors would result.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species 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?	☐	✖	☐	☐
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?	☐	☐	☐	✖
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	✖
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?	☐	✖	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	✖
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	✖

Discussion

a,d. A *Biological Resources Assessment* (BRA) has been prepared for the proposed project by Rincon Consultants that included a site survey and review of results from a California Natural Diversity Database (CNDDB) five-mile radius search of special-status species. The following sections are based on the aforementioned BRA.

The 6.68-acre project site consists of non-native annual grasses and ruderal vegetation. According to CNDDB search conducted as part of the BRA, 81 special-status plant species are known to occur or have occurred within the vicinity of the project site. However, the site's soil type (Delhi sand), partially-disturbed nature, and dominance of non-native grasses preclude the site from supporting any of the aforementioned special-status plant species. Additionally, none of the 81 special-status plant species were identified during the

BRA site survey and were determined in the BRA not to have any potential of occurring on the project site.

According to the BRA, 45 special-status wildlife species are known to have occurred or have the potential to occur within the vicinity of the project site. However, special-status wildlife species were not detected during the BRA site survey or determined in the BRA to have a high likelihood of inhabiting the site due to the dominance of non-native grasses, the soil type of the site, the partially-disturbed status of the site, and the absence of water features and trees on the site. While the project site may not provide optimal habitat for any of the 45 identified special-status species, the BRA determined that burrowing owl (*Athene cunicularia*) and nesting birds which include Swainson's Hawk (*Buteo swainsoni*) and all migratory birds protected under the Federal Migratory Bird Treaty Act (MBTA), have a moderate potential of occurring on the site.

The CNDDB includes 38 records of burrowing owl within five miles of the project site, and the species is known to occur in the region and the vicinity of the project site. All previously recorded occurrences of burrowing owl within five miles of the project were documented in areas containing both suitable vegetation communities with open areas, and abundant ground squirrel burrows. Although the project site consists of non-native annual grassland, the site is heavily overgrown with annual non-native forbs including mustard and other tall cover. The site does not include any open areas or sign of California ground squirrel or other burrows. The lack of suitable habitat and burrows on the site is indicative of a low potential for the species to occur. However, because of the abundance of occurrences within the vicinity of the project, some potential exists for burrowing owls to become present on the project site prior to project construction.

The CNDDB shows four occurrences, from 2006 to 2012, of Swainson's hawk nests within five miles of the project site; however, the project site lacks any suitable nesting habitat features to support the species. Although the grasslands could serve as foraging habitat, the site would be considered marginal for foraging given the abundance of high quality agricultural lands in the vicinity of the project. Marginal quality nesting habitat is present within one-half mile of the project site and, therefore, Swainson's hawk could occur on the project site at the time of construction.

Occupied or unoccupied bird nests were not observed on the project site during the BRA site survey; however, a song sparrow showing site fidelity (indicating possible breeding behavior) was observed. The MBTA makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of any and all nests that are occupied by migratory birds during the nesting season. The non-native annual grassland habitat has potential to support ground nesting birds protected by the federal MBTA. Protected migratory bird nests have the potential to be disturbed if the nests are present on-site during the construction of the proposed project.

Because of the potential for special-status and federally-protected nesting birds to be found on-site, development of the proposed project, including the off-site sewer improvement, could have an adverse effect, either directly or through habitat modifications, on an

established resident or migratory wildlife corridor or on a species identified as a special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (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.

Proposed Project and Alternate "A" Off-Site Sewer Improvement

IV-1. *A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct pre-construction surveys of the permanent and temporary impact areas for burrowing owls and signs of burrowing owls and submit survey results to the City of Antioch Community Development Department for review. Surveys shall be conducted not fewer than 30 days prior to ground-disturbing activities (i.e. vegetation clearance, grading, tilling). The survey methodology shall be consistent with the methods outlined in the 2012 CDFW Staff Report on Burrowing Owl Mitigation and shall consist of walking parallel transects seven to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. If owls or signs of owls are not observed, further mitigation is not required.*

If burrowing owls are detected on-site, ground-disturbing activities, such as vegetation clearance or grading, shall be prohibited within a buffer of no fewer than 100 meters (330 feet) from an occupied burrow during the breeding season (February 1 to August 31), unless otherwise authorized by CDFW. During the non-breeding (winter) season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs further than 50 meters (165 feet) from the burrow. Depending on the level of disturbance, a smaller buffer may be established in consultation with CDFW.

If avoidance of active burrows is not feasible during the non-breeding season, then, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping, a qualified biologist shall implement a passive relocation program in accordance with the CDFW 2012 Staff Report on Burrowing Owl.

If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with CDFWs 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. The Burrowing Owl Exclusion and Mitigation Plan

shall include all necessary measures to minimize impacts to burrowing owls during passive relocation, including all necessary monitoring of owls and burrows during passive relocation efforts. The Mitigation Land Management Plan shall include a requirement for the permanent conservation of off-site Burrowing Owl Passive Relocation Compensatory Mitigation.

IV-2. *Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15 – September 15), a qualified biologist will conduct a preconstruction survey no more than one month prior to construction to establish whether nests of Swainson's hawk or birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act are occupied within 1,000 feet of the project site. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of applicable bird activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below). A written summary of the survey results shall be submitted to the City of Antioch Community Development Department.*

During the nesting season (March 15 – September 15), covered activities within 1,000 feet of occupied Swainson's hawk nests or nests under construction will be prohibited to prevent nest abandonment. If active nests of migratory birds (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer ranging from 50-feet to 300-feet depending on the species and based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the City of Antioch Planning Division for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

b,c. The project site consists of annual non-native grasses and ruderal vegetation. According to the BRA, jurisdictional waters, streambeds, and sensitive plant communities do not exist on or near the site. Therefore, the project site does not contain riparian habitat or other sensitive natural communities, including wetlands. As a result, the proposed project, including the off-site sewer improvement, would have ***no impact*** on riparian habitat or other sensitive natural communities.

e. The project site does not include trees; therefore, the site is not subject to the City of Antioch's Tree Preservation Ordinance. However, an existing mature indigenous tree, as defined by the Antioch Municipal Code, is located adjacent to the Alternate "A" sewer line easement. If the Alternate "A" sewer line alignment is chosen for the off-site sewer improvements, the existing tree shall be avoided during construction activities or the applicant would be required to obtain a tree removal permit from the Antioch Department of Parks, Leisure and Community Services per Title 9, Chapter 5, Article 12 of the Antioch Municipal Code.

As a result, the proposed project could 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 measure would reduce the above impact to a *less-than-significant* level.

Proposed Project

None.

Alternate "A" Off-Site Sewer Improvement

IV-3. *Prior to approval of a grading permit and subject to Community Development Department approval, the improvement/grading plans shall show the construction area for Alternate "A" sewer line alignment would not occur within the dripline of the existing mature indigenous tree.*

Or,

If construction within the dripline of the existing mature indigenous tree cannot be avoided, then the applicant shall, in accordance with Section § 9-5.1205(F)(2) of the Antioch Municipal Code, obtain a bond for the protected tree prior to grading activities. On-going inspections by the City of Antioch shall occur during the course of the grading to assure adherence to approved plans. Should the tree die "during the course of property development" as defined by the Antioch Municipal Code, the bond shall be forfeited to the City and used for tree replacement. A percentage of the bond would be retained in either case to assure tree survival for up to five years after the issuance of a certificate of occupancy. Tree replacement to tree loss ratio shall be 2:1 with a 48-inch box and subject to City of Antioch Community Development Department approval.

f. 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. 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.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	✖	☐	☐
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c. Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	☐	✖	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries.	☐	✖	☐	☐
e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	☐	☐	✖	☐

Discussion

a-d. The 6.68-acre project site and the off-site sewer improvement lands are currently vacant with ruderal vegetation and do not contain any buildings or structures. According to a field survey and records search of the California Historical Resources Information System conducted as part of the *East 18th Street and Vineyard Drive Project Phase I Cultural Resources Study* (Cultural Resources Study) prepared by Rincon Consultants for the project site, the project site does not contain any known historical or cultural resources. However, cultural resources are known to be located within one-half mile of the site and development of the proposed project, including the off-site sewer improvement, could uncover unanticipated cultural resources or human remains. As a result, a ***potentially significant*** impact could occur related to the destruction or adverse change to historical, archeological, paleontological, or geological resources or human remains.

Mitigation Measure(s)

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

Proposed Project and Alternate "A" Off-Site Sewer Improvement

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 24 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. *If any 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 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).*

V-3. *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.

e. Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. On May 31st, 2016, in compliance with Assembly Bill (AB) 52, the City of Antioch distributed project notification letters to the Ohlone Indian Tribe, the Indian Canyon Mutsun Band of Costanoan, Amah Mutsun Tribal Band of Mission San Juan Bautista, and the Wilton Rancheria. Per AB 52, once receiving the project notification letter, the Native American tribe has 30 days to request consultation. The City of Antioch did not receive a request for consultation within the 30 days. Due to the required implementation of Mitigation Measures V-1 though V-3 and the City's compliance with AB 52, the project would result in a ***less-than-significant*** impact to tribal cultural resources.

VI. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Expose people or structures to 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?	☐	☐	✖	☐
ii. Strong seismic ground shaking?	☐	☐	✖	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	✖	☐
iv. Landslides?	☐	☐	✖	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	✖	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	✖	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code?	☐	☐	✖	☐
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?	☐	☐	☐	✖

Discussion

ai, aii,
aiv. According to the Association of Bay Area Governments (ABAG) Resilience Program's interactive hazards map, the site is not located within a designated Alquist-Priolo Earthquake Fault Zone and active or potentially active faults do not occur at the site. The nearest known active fault to the site is the Greenville Fault, which is located approximately six miles southwest of the site. Furthermore, the project site is flat and not surrounded by any hillsides that could be subject to landslides. Due to the site's proximity to the nearest active fault, the potential exists for the proposed self-storage buildings to be subject to seismic ground shaking. However, the proposed buildings would be properly engineered in accordance with the California Building Code, which include engineering standards appropriate for the seismic area in which the project 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, ground shaking, and landslides.

aiii, c,

d. Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands. Empirical evidence indicates that loose to medium-dense gravels, silty sands, and low- to moderate-plasticity silts and clays may be susceptible to liquefaction. In addition, sensitive high-plasticity soils may be susceptible to significant strength loss (cyclic softening) as a result of significant cyclic loading.

Expansive soils can cause foundations to rise each wet season and fall each dry season. Movements may vary under different parts of a building or street, resulting in cracking of foundations and street surfaces, distortion of various structural portions of a building, and warping of doors and windows such that they do not function properly.

According to the ABAG interactive hazards map, the project site is in an area where historic occurrences of liquefaction, or local geologic, geotechnical, or groundwater conditions indicate a moderate potential for liquefaction. Additionally, the United States Department of Agriculture (USDA) interactive Web Soil Survey map indicates that the site is comprised of Delhi sand.[7] Delhi sand is characterized by sand or loamy sand and, according to the City of Antioch General Plan EIR, has a moderate potential for liquefaction and a low potential for expansion due to the soil's low shrink-swell potential.

The City of Antioch Municipal Code Section 9-4.513 and the City of Antioch General Plan Policy 11.3.2-i 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. Because a geology and soils report is required and verified by the City, any impacts related to exposing people or structures to potential risk of loss, injury, or death by the project's location on an unstable geologic or soil unit would be ***less than significant.***

b. 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 National Pollutant Discharge Elimination System (NPDES) permit. The City of Antioch has adopted the County C.3 Stormwater Standards that require all new developments that alter one or more acres of land to minimize impacts related to erosion. Given that the proposed project site consists of approximately 6.68 acres, the proposed project would be subject to the requirements of the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB), including the C.3 Standards, which are included in the City's NPDES General Permit. Furthermore, Section 8-13.01of the City of Antioch Municipal Code requires stormwater control measures be implemented during the construction phases of development.

The proposed project site consists primarily of ruderal vegetation; however, topsoil would be exposed during the grading of the site. After grading and prior to overlaying the ground

[7] United States Department of Agriculture. *Web Soil Survey*. Accessed July, 2016.

surface with impervious surfaces and structures, the potential exists for wind and water to erode portions of the exposed topsoil. Therefore, the construction-related impacts associated with the potential for soil erosion and the loss of topsoil on the project site could be ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

Proposed Project and Alternate "A" Off-Site Sewer Improvement

VI-1. Prior to final project design, 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. As discussed previously, the proposed project includes off-site sewer improvements and would connect with the existing City sanitary sewer lines located in the East 18th Street right-of-way. The construction or operation of septic tanks or other alternative wastewater disposal systems are 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.

VII. 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?	☐	☐	✖	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✖	☐

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 (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) 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 CO_2 equivalents ($MTCO_2e$/yr).

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). 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 City of Antioch, as lead agency, has chosen to use the BAAQMD thresholds of significance for the analysis within this IS/MND, as the thresholds are supported by substantial evidence.

The proposed project's GHG emissions were quantified using CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. The proposed project's required compliance with the current California Building Energy Efficiency Standards Code was assumed in the

modeling as well as the proposed solar energy production to meet 100 percent of the project's operational energy needs. In addition, the CO_2 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.

According to the CalEEMod results, the proposed project would result in unmitigated operational GHG emissions of 353.74 $MTCO_2e$/yr, which is well below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted a threshold of significance for construction-related GHG emissions. However, even if the proposed project's total construction GHG emissions of 242.07 $MTCO_2e$/yr are included with the annual operational GHG emissions, the resultant total GHG emissions of 595.81 $MTCO_2e$/yr would still be well below the 1,100 $MTCO_2e$/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to GHG emissions.

Based on the above, the proposed project would not 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 ***less than significant***.

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✖	☐
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?	☐	✖	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	✖	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	✖
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✖
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✖
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
h. Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	✖	☐

Discussion

a. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would be a commercial self-storage establishment and would not be industrial in nature. Self-storage facilities do not typically involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Construction activities would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials, as overseen by the California EPA and

California Department of Toxic Substance Control. As such, impacts related to the routine transport, use, or disposal of hazardous materials would be ***less-than-significant.***

b. A *Phase I Environmental Site Assessment* (Phase I ESA) was performed for the site by Krazan & Associates, Inc. in September of 2003. The Phase I ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and current environmental sites radius reports.

According to the Phase I ESA, the proposed project site contains one pad-mounted Pacific Gas and Electric (PG&E) transformer. Transformers could be considered a health concern if they utilized Polychlorinated Biphenyls (PCBs). PCBs were used in electrical transformers as a fire retardant; however, a number of adverse health effects are associated with PCBs. Transformers containing PCBs were manufactured between 1929 and 1977. Since the early 1980s, PG&E has initiated a policy of installing PCB-free equipment. According to the site survey conducted by Krazan & Associates, the installation date of the transformer could not be located and, thus, it is unknown whether the transformer contains PCB fluids. The site survey did not find evidence of PBC fluid leakage on the ground surface or transformer casing. As a result, the project site is not expected to be affected by any PCBs associated with the transformers. It should be noted that PG&E is the owner of the aforementioned transformer and is responsible in the case that the transformer requires removal or testing for PCB fluids; however, the transformer is not proposed to be removed as part of the proposed project.

In addition, the Phase I ESA review of historic aerial photography indicated a previous residence was present on the site. As such, the potential exists for a septic system and/or domestic water well to be discovered during construction activities. State and local guidelines require any septic system or water well found during construction to be properly abandoned/closed or destroyed. Therefore, a ***potentially significant*** impact related to 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 could occur.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

Proposed Project and Alternate "A" Off-Site Sewer Improvement

VIII-1. Prior to any ground disturbance activities, the applicant shall hire a qualified geotechnical engineer to identify the location of any domestic water wells. If wells are not identified within the site, further mitigation is not required. However, if wells are identified within the site, prior to any ground disturbance activities within 50 feet of any well, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Contra Costa Environmental Health Department, and properly

abandon the on-site well, pursuant to review and approval by the City Engineer and the Contra Costa Environmental Health Department.

VIII-2. Prior to any ground disturbance activities, the applicant shall hire a qualified geotechnical engineer to identify the location of any septic tanks. If septic tanks are not identified within the site, further mitigation is not required. However, if septic tanks are identified within the site, prior to any ground disturbance activities within 50 feet of a septic tank, the geotechnical engineer shall properly abandon the on-site septic systems, pursuant to review and approval by the City Engineer and the San Joaquin County Environmental Health Department.

c. The proposed project site is not located within one-quarter mile of an existing or proposed school. The nearest existing school to the site, Cornerstone Christian School, is located approximately 0.6 mile west of the site. Furthermore, hazardous materials would not be emitted as part of the construction or operation of the proposed site. Therefore, the project would have a ***less-than-significant*** 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. The 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.[8] Therefore, the project would not create a significant hazard to the public or the environment, and ***no impact*** associated with such would occur.

e, f. The project site is not located within the vicinity of a public airport or private airstrip as the nearest airstrip to the site is the Funny Farm airstrip in Byron, located approximately 7.6 miles southeast of the site. As such, 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. Therefore, ***no impact*** would occur.

g. 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 modifications to the existing roadway system and therefore, would not interfere with an emergency evacuation or response plan. As a result, a ***less-than-significant*** impact would occur.

h. The proposed project site consists of ruderal vegetation and is surrounded by existing commercial development on three sides and an agricultural field on the remaining side. Dry, potentially-flammable, vegetation currently exists on the site; however, the existing

[8] California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List.* Accessed July, 2016.

vegetation would be removed as part of the proposed project. Due to the nature of self-storage facilities, the project would not be expected to attract many people for any extended period of time. 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.[9] Much of the threat is due to open grasslands abutting residential developments. Because the proposed project would not involve the presence of many individuals for any extended period of time or the development of structures near areas of high-susceptibility to wildland fires, the project would have a ***less than significant*** impact with respect to exposing people or structures to the risk of loss, injury or death involving wildland fires.

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

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	✖	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	✖	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	✖	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	✖	☐
e. 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?	☐	☐	✖	☐
f. Otherwise substantially degrade water quality?	☐	☐	✖	☐
g. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	✖	☐
h. Place within a 100-year floodplain structures which would impede or redirect flood flows?	☐	☐	✖	☐
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	☐	☐	✖	☐
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	✖	☐

Discussion

a-f. A *Stormwater Control Plan* (SWCP) was prepared for the proposed project by Bellecci & Associates in April, 2016, per City of Antioch Municipal Code Section 6-9.05.

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 square feet of impervious area to contain and treat all stormwater runoff from the project site. Given that the proposed project would create approximately 172,672 sf of impervious area, the proposed project would be subject to the requirements of the SWRCB and the RWQCB, including the C.3 Standards, which are included in the City's NPDES General Permit.

The SWCP prepared for the proposed project conforms with the most recent Contra Costa Clean Water Program Stormwater C.3 Guidebook and verifies that the proposed project complies with all City stormwater requirements. In compliance with the C.3 Guidebook, the proposed project would include a bio-retention facility on the eastern edge of the site, which would be sized to exceed the minimum volume requirement necessary to adequately treat all runoff from the proposed impervious surfaces. Runoff would gravity flow to the bio-retention area where the stormwater would be able to infiltrate the soil in a similar manner to what currently occurs on the project site. In the event of a large storm that produces stormwater runoff in-excess of the bio-retention facilities' capacity, all excess runoff would flow through the existing stormwater line located in Vineyard Drive. Because the proposed bio-retention facility would be designed with adequate capacity to capture and treat runoff from proposed impervious surfaces, the proposed project would not alter the existing drainage pattern of the site. In addition to reducing runoff and allowing for groundwater recharge, the bio-retention area would treat incoming runoff by filtering stormwater through permeable soil layers. The process of stormwater moving through the soil layers would remove pollutants from the stormwater before further subsurface infiltration or discharge to City infrastructure. As a result, the proposed project would not lead to the degradation of water quality or the violation of water quality standards due to operational stormwater runoff.

Additionally, during the early stages of construction activities, topsoil would be exposed due to grading 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, urban pollutants, and/or residual pesticides into stormwater runoff, which would adversely affect water quality. The SWCP includes a Construction Plan C.3 Checklist with Best Management Practices to mitigate the impacts of topsoil erosion and pollutant discharge.

Therefore, the project would not substantially deplete groundwater supplies, interfere with the recharge of groundwater, violate water quality standards, substantially degrade water quality, directly alter or lead to the alteration of existing drainage features leading to erosion, flooding or siltation, nor would the project contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. As a result, the project would have a ***less-than-significant*** impact.

g-i. 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 just over two miles south. The Citywide inundation map for the failure of Contra Loma Dam and Dike No. 2 (Figure 4.7-3 of the GPU 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 GPU EIR, dam failure would be an unlikely event.[10] As a result, the project would not place structures within the 100-year floodplain, nor expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Therefore, a ***less-than-significant*** flooding impact would result.

j. The project area is located over 50 miles from the Pacific Ocean and tsunamis typically affect coastlines and areas up to one-quarter mile inland. Therefore, due to the project site's distance from the coast, potential impacts related to a tsunami are minimal. Additionally, the project site is not susceptible to impacts resulting from a seiche because of the site's distance from any enclosed bodies of water. The nearest enclosed body of water to the project site is the Contra Loma Reservoir, which is located just over two miles south of the project site. Because steep slopes are not located in close proximity to the site, mudflows would not pose an issue. Therefore, a ***less-than-significant*** impact would occur related to inundation by seiche, tsunami, or mudflow.

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

X. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	✖	☐
b. Conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating on environmental effect?	☐	☐	✖	☐
c. Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	✖

Discussion

a. The 6.68-acre project site is vacant undeveloped land surrounded by an existing agricultural field and commercial developments. The General Plan Eastern Waterfront Employment Focus Area, East 18th Street Specific Plan, and City Zoning designate the project site for development. Given that the site has already been planned for development and the site is surrounded by existing commercial and agricultural uses, the project would have a ***less-than-significant*** impact related to the physical division of an established community.

b. According to the Antioch General Plan, the 6.68-acre project site is designated Business Park within the City of Antioch's Eastern Waterfront Employment Focus Area.[11] The purpose of the "Focus Areas" is to provide policy direction specific to each area, including appropriate land use types and development intensity, based upon analysis of the particular opportunities and constraints affecting each area. The Antioch General Plan designates 10 different Focus Areas. Self-storage facilities, such as that proposed for the project are an allowable use under the Business Park designation of the Eastern Waterfront Employment Focus Area.

The project site is currently zoned Planned Business Center (PBC), which does not allow for self-storage usage. However, in 2001 the City of Antioch adopted the East 18th Street Specific Plan to guide future development of the Eastern Waterfront Employment Focus Area, which designated the site Office and Light Industry (O/LI). The East 18th Street Specific Plan determined the uses allowed in O/LI are consistent with the Citywide Light Manufacturing Zoning District (M-1). Self-storage and RV/boat storage are conditionally permitted uses within the M-1 district of the Antioch Zoning Code.[12] Therefore, the proposed project's uses would be conditionally permitted with approval of a Conditional Use Permit (CUP).[13]

[11] City of Antioch. *City of Antioch General Plan*. November 23, 2003
[12] City of Antioch. *East 18th Street Specific Plan* [pg. 19]. September 2001.
[13] City of Antioch. City *of Antioch, California Code of Ordinances Table of Land Use Regulations § 9-5.3803.* Current through September 22, 2015.

Additionally, consistent with the requirements of the East 18th Street Specific Plan, the proposed project includes a request for a Planned Development (PD) Rezone. PD districts encourage the use of flexible development standards designed to appropriately integrate a project into its natural and/or man-made setting and the City of Antioch uses the PD process to implement the various Specific Plans adopted by the City. In addition, approval of the CUP is required prior to final map recordation for all projects within a PD District.

Upon obtaining approval of the rezone and CUP from the City, the proposed project would be consistent with all applicable land use plans, policies, and regulations of agencies with jurisdiction over the project, which would result in a ***less-than-significant*** impact.

c. 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. 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.

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

Discussion

a,b. According to the City of Antioch's GPU 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.[14] Therefore, ***no impact*** to mineral resources would occur as a result of development of the project.

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

XII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	✖	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	✖	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	✖	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	✖	☐	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖

Discussion

a,c. The City of Antioch GPU EIR establishes a noise level limit of 70 dBA for residential neighborhoods. The site is immediately surrounded by existing commercial developments on three sides and an agricultural field on the remaining side. The nearest sensitive residential receptors to the project site are located approximately 500 feet to the northwest of the site, behind the agricultural field. The existing noise environment in the project vicinity is defined primarily by vehicle noise from traffic along East 18th Street. As discussed in the Transportation/Traffic section of this IS/MND, the proposed project is not anticipated to generate excessive traffic or significantly impact the transportation and circulation system in the area. Additionally, the operation of self-storage facilities is not typically associated with high levels of noise production, and any operational noise produced by the self-storage facility would not be expected to significantly impact the nearby neighborhoods by generating noise in excess of 70 dBA. Therefore, the proposed project would result in a ***less-than-significant*** impact regarding exposure of persons to or generation of noise levels in excess of standards established in the local general plan.

b. Groundborne vibration would not be generated as part of the daily operation of the proposed self-storage facility. However, groundborne vibrations would be generated during construction of the proposed project. For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches/second, peak

particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards; 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern; and a conservative limit of 0.08 in/sec PPV for historic buildings or buildings that are documented to be structurally weakened.[15] All surrounding structures are assumed to be structurally sound, but damage would be a concern so the 0.2 in/sec PPV is used as a threshold of significance for structural damage for this analysis. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Therefore, activities creating vibrations exceeding 0.2 in/sec PPV would impact sensitive receptors in nearby residences. Table 4 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Table 4
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Caltrans, Transportation and Construction Vibration: Guidance Manual. September 2013.

Project construction activities, such as drilling, the use of jackhammers, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate groundborne vibration in the immediate vicinity. As shown in Table 4, jackhammers typically generate vibration levels of 0.035 in/sec PPV, drilling typically generates vibration levels of 0.09 in/sec PPV, and the strongest source of vibration, vibratory rollers, generates vibration levels of 0.21 in/sec PPV, all at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. It is important to note that groundborne vibrations dissipate with distance. The closest residential structures to the project site are at least 500 feet away. Therefore, the PPV experienced at any of the residences would be significantly reduced from the PPV's reported in Table 4. Consequently, vibration generated by construction activities associated with the proposed project are not expected to be perceptible at any nearby residence or result in structural damage to such residences. Therefore, the project would not involve the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels resulting in a ***less-than-significant*** impact.

d. During construction of the proposed project, noise from construction activities would add to the noise environment in the immediate project vicinity. According to the Antioch GPU EIR, activities involved in construction would generate maximum noise levels ranging from 68 to 90 dB at a distance of 50 feet. The GPU EIR includes mitigation measures ensuring that short-term construction noise from GP buildout would not result in adverse noise impacts to nearby sensitive receptors. While the nearest sensitive receptors to the

[15] Caltrans. *Transportation and Construction Vibration Guidance Manual*. September 2013.

project site are located approximately 500 feet to the northwest, if project construction operations do not comply with GPU EIR mitigation measures, a remote potential exists for construction noise to have a ***potentially significant*** short-term impact.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

Proposed Project and Alternate "A" Off-Site Sewer Improvement

XII-1 *Noise-generating activities at the construction site shall be restricted to the hours specified in Section 5-17.04 of the City's Municipal Code, as follows: 7:00 AM to 6:00 PM, Monday through Friday, and 9:00 AM to 5:00 PM on weekends and holidays.*

XII-2 *Prior to the initiation of grading or construction activities, and subject to the review and approval of the City Engineer, the following notes shall be included on the improvement plans:*

- *Equip all equipment driven by internal combustion engines with intake and exhaust mufflers that are in good condition and appropriate to the equipment. Unnecessary idling of internal combustion engines should be strictly prohibited;*
- *Stationary noise-generating equipment, such as air compressors or portable power generators, must be located as far as is feasible from sensitive receptors; and*
- *Utilize "quiet" air compressors and other stationary noise sources where technology exists.*

e,f. The project site is not located within the vicinity of a public airport or private airstrip as the nearest airstrip to the site is the Funny Farm airstrip, located approximately 7.6 miles southeast of the site. Therefore, the proposed project would not expose people residing or working in the project area to excessive air traffic noise levels, and ***no impact*** would occur.

XIII. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	☐	✖
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. The 6.68-acre project site is currently vacant and is surrounded by existing commercial developments on three sides. The proposed project would include the construction and operation of 102,333 sf of office and self-storage space; 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, these improvements would not constitute extension of major infrastructure. The water and sanitary sewer line improvements would only have capacity to serve the proposed project. Because the project does not include new home construction, or the extension of major infrastructure that could indirectly induce population growth, the project would have ***no impact*** related to inducing substantial population growth.

b,c. The project site is vacant and surrounded by existing commercial and agricultural land uses. Given the undeveloped condition of the project site and the commercial land uses that surround the site, the project would have ***no impact*** related to the displacement of substantial numbers of existing housing or people.

XIV. 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?	☐	☐	✖	☐
b. Police protection?	☐	☐	✖	☐
c. Schools?	☐	☐	☐	✖
d. Parks?	☐	☐	☐	✖
e. Other Public Facilities?	☐	☐	☐	✖

Discussion

a. Fire protection services to 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. CCCFPD's Station #88 (4288 Folsom Drive) is located approximately 1.5 miles south of the project site and is the closest fire station to the site. Station #88 currently provides fire protection service to the proposed project site and the surrounding commercial developments.

The proposed project would be required to pay applicable fire protection fees per the City's Master Fee Schedule and the proposed self-storage facility would be constructed in accordance with the fire protection requirements of the 2013 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. Police protection in the area is provided by the Antioch Police Department (APD). According to the Antioch Police Chief's City Council presentation given on July 26, 2016, the APD has 102 authorized sworn positions and 95 positions are currently filled.[16] The Antioch Police Station is located approximately three miles away from the project site. The operation of the proposed self-storage facility has the potential to increase demand for police protection services, though, given the relatively small number of people who would access the facility each day, the increase would be expected to be minimal. As a result, the project would have a ***less-than-significant*** impact related to the need for new or physically

[16] Personal Communication with Alexis Morris, Senior Planner, City of Antioch Community Development Department. August 16, 2016.

altered police protection facilities, the construction of which could cause significant environmental impacts.

c-e. Development of the proposed self-storage facility would not induce significant population growth, as the project would not include the construction of housing or the creation of a substantial number of new jobs. 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.

XV. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	✖
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?	☐	☐	☐	✖

Discussion

a,b. The proposed project would be a self-storage facility and would not include park facilities. Because the project would not directly or indirectly increase population growth, the project would not increase the use of any existing recreational facilities or the demand for new, or the expansion of existing recreational facilities. Therefore, ***no impact*** to park facilities would occur.

XVI. TRANSPORTATION AND CIRCULATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	✖	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	✖	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	✖
d. Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
e. Result in inadequate emergency access?	☐	☐	✖	☐
f. Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	✖	☐

Discussion

a,b,f. The proposed project includes the development of a self-storage facility at the corner of East 18th Street and Vineyard Drive.

Roadway Traffic

The Institute of Traffic Engineer's (ITE) *Trip Generation Handbook*[17] was used to estimate automotive trip generation rates for the proposed project. Based on a maximum configuration of 999 self-storage units and 150 RV/boat storage spaces, the proposed project could create a total of 287 Average Daily Trips (ADT), with 23 trips occurring during the AM peak hour and 23 trips occurring during the PM peak hour, 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.

[17] Institute of Transportation Engineers. *Trip Generation Handbook – 9th Edition*. September 2012.

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 East 18th Street and Hillcrest Avenue. The GPU EIR identified the arterial roadway segments nearest the project site as LOS C or "Low D" in the year 2000 and that traffic along Hillcrest Avenue south of East 18th Street could increase to a potential LOS of "High D." While the GPU EIR estimates that traffic levels on nearby roadway segments could reach established LOS standards, the analysis takes into consideration the buildout of vacant sites per the sites' land use designations. Because the proposed project would be consistent with land use designations in the East 18th Street Specific Plan and the Eastern Waterfront Employment Focus Area, the increase in traffic due to buildout of the project site has already been anticipated by the City. Therefore, development of the project would not be expected to cause roadway segments to exceed the LOS "High D" standard.

Alternative Transportation

Due to the nature of storage facilities, development of the proposed project would not be expected to generate any alternative transportation traffic. Nonetheless, lines 383, 391, and 393 of the Tri Delta Transit bus system include service along the segment of East 18th Street adjacent to the project site. The nearest Tri Delta Transit bus stop is located 0.1 mile away on the corner of East 18th Street and Wilson Street. 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***.

c. The proposed project is not located near an airport, and does not include any improvements to airports or a change in air traffic patterns. The nearest airstrip to the site is the Funny Farm airstrip, located approximately 7.6 miles southeast of the site. Therefore, because the proposed project would not result in a change in air traffic patterns, including either an increase in air traffic levels or a change in location that results in substantial safety risks, ***no impact*** would occur.

d, e. The proposed project does not include changes to existing roadways or the introduction of an incompatible use or any design features that would be considered hazardous. The proposed project would provide one entrance point and one emergency exit point on Vineyard Drive, which would provide sufficient emergency access to 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.

XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	✖	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✖	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✖	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	✖	☐
e. 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?	☐	☐	✖	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	✖	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	✖	☐

Discussion

a, b, e. 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 owns and operates the regional interceptors and wastewater treatment plant. The project site is located within the Delta Diablo service area. As proposed, the City of Antioch is responsible for the wastewater collection system from the project site to the designated Delta Diablo regional wastewater conveyance facility. The regional conveyance facilities transport wastewater to the WWTP located at 2500 Pittsburg-Antioch Highway, Antioch. After secondary treatment, the effluent is either discharged through a deep-water outfall to New York Slough or further processed through the Recycled Water Facility. The WWTP NPDES Permit allows an average dry weather flow of 16.5 mgd. An EIR for the expansion of the wastewater treatment plant capacity to an average dry weather flow of 22.7 mgd was completed in April 1988. During the most recent reporting period, 2012, the average dry weather flow influent to the treatment plant

was 12.7 mgd. In 2000 and 2005, the average dry weather flow influent to the treatment plant was 13.5 mgd and 14.2 mgd, respectively.[18]

As discussed previously, the East 18th Street Specific Plan requires the construction of a new sewer line within Vineyard Drive right-of-way, which would connect with the existing stubbed sewer line within the future Sakurai Street alignment (see Figure 4 above). The City of Antioch Engineering Division provided an alternate alignment for the sewer line known as Alternate "A" (see Appendix C). The final sewer alignment for the proposed project has not yet been determined.

In addition, the project applicant would be required to pay sewer connection fees, which are utilized toward needed sewer system improvements. The proposed project would generate wastewater from the single restroom facility located in the manager's office. The inclusion of a single restroom facility would involve a minor increase in demand for wastewater treatment series and, as such, would not be expected to cause an exceedance of the WWTP's capacity. In addition, the proposed project would be consistent with the General Plan land use designation. Thus, any increase in wastewater treatment demands would have been anticipated by the City and included in the GPU EIR analysis. As such, the wastewater generated by the project would result in a ***less-than-significant*** impact related to wastewater treatment requirements of the applicable RWQCB and the capacity of existing water and wastewater treatment facilities.

c. The project site is currently undeveloped vacant land with ruderal vegetation. Completion of the proposed project would increase site runoff due to the introduction of impervious surfaces to the site. As previously mentioned in the Hydrology and Water Quality section of this IS/MND, the required SWCP for the proposed project conforms with the most recent Contra Costa Clean Water Program Stormwater C.3 Guidebook and verifies that the proposed project complies with all City stormwater requirements. In compliance with the C.3 Guidebook, the proposed project would include a bio-retention facility on the eastern edge of the site, which would be sized to exceed the minimum volume requirement necessary to adequately treat all runoff from the proposed impervious surfaces. In the event of a large storm that produces stormwater runoff in-excess of the bio-retention facilities' capacity, all excess runoff would flow through an existing City stormwater line located in Vineyard Drive. Because the proposed bio-retention facility 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. Therefore, the proposed project would have a ***less-than-significant*** impact with respect to requiring or resulting in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

d. Principal sources of raw water supply to the City of Antioch are the Sacrament/San Joaquin Rivers Delta and the Contra Costa Canal, which are stored in the Antioch Municipal Reservoir. According to 2015 projections included in the City of Antioch *2010 Urban*

[18] Delta Diablo. *Proposed Tuscany Meadows Subdivision Letter Addressed to Nick Pappani, Vice President Raney Planning and Management.* October 3, 2013.

Water Management Plan, the City has a total water supply of 31,095 acre-feet per year (AFY) and a total water demand of 22,678 AFY. A surplus of 8,417 AFY was calculated for the 2015 year. Commercial land uses are projected to have a gross water demand of 3.41 AFY/acre. If the 6.68-acre site were to be developed as a commercial self-storage facility, the projected water demand would be approximately 22.78 AFY (3.41 AFY/acre x 6.68 acres), which is significantly less than the City's estimated water surplus. It should also be noted that the proposed project would be expected to use less water than the estimated 22.78 AFY because water use would be limited to the breakroom and restroom in the Manager's Office and for landscaping purposes.

In addition, the proposed project would be consistent with the site's designations of O/LI and Business Park. As such, the water demand associated with the buildout of the site has already been anticipated and accounted for as part of the GPU EIR analysis. Therefore, the project would have a ***less-than-significant*** impact related to water supply.

f, g. 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, with only approximately 12 million cubic yards (16 percent of total capacity) used to date.[19] 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.

[19] California Department of Resources Recycling and Recovery (CalRecycle). *Solid Waste Information System*. Available at: www.calrecycle.ca.gov/SWFacilities/. Accessed July, 2016.

XVIII. 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 degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	✖	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	✖	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✖	☐

Discussion

a. As described throughout this IS/MND, implementation of the proposed project would have the potential to adversely impact the environment by reducing available habitat for sensitive natural communities and migratory birds, as well as the potential release of hazardous material. The proposed project would implement and comply with applicable City of Antioch General Plan and Municipal Code policies, as discussed throughout this IS/MND. With implementation of the mitigation measures required by this IS/MND, compliance with General Plan policies, Municipal Code sections, and application of standard Best Management Practices during construction, development of the proposed project would not result in any of 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*** would occur.

b. The proposed project includes construction of a 1,390 sf office building, 100,943 sf of self-storage space, and 70,600 sf of outdoor boat and RV storage. The proposed project is consistent with the General Plan land use designation for the project site and, as such, the proposed project was included in the cumulative analysis of City buildout in the General Plan. Applicable policies from the 2003 GPU and the East 18th Street Specific Plan would be implemented as part of the proposed project, as well as the project-specific mitigation measures included in this IS/MND, to reduce the project's contribution to potentially

cumulative impacts. The potential impacts of the proposed project would be individually limited and would not be cumulatively considerable. As demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level with implementation of project-specific mitigation measures and compliance with applicable General Plan policies. When viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, development of the proposed project would not contribute to cumulative impacts in the City of Antioch and the project's cumulative impact would be ***less than significant***.

c. As described in this IS/MND, implementation of the proposed project could result in temporary impacts related to noise and the release of hazardous materials during the construction period. However, the proposed project would be required to implement the project-specific mitigation measures within this IS/MND, as well as applicable policies of the City of Antioch General Plan, to reduce any potential direct or indirect impacts that could occur to human beings or various resources and, as demonstrated in this IS/MND, with implementation of the identified mitigation measures, all impacts would be reduced to less-than-significant levels. Therefore, overall, the project's impact would be ***less than significant***.

APPENDIX A

AIR QUALITY AND GHG MODELING RESULTS

APPENDIX B

ROAD CONSTRUCTION EMISSIONS MODELING RESULTS

Vineyard Self-Storage

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	102.33	1000sqft	2.35	102,333.00	0
Other Non-Asphalt Surfaces	1.65	Acre	1.65	71,874.00	0
Parking Lot	11.00	Space	0.10	4,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	419.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted based on PG&E's anticipated progress towards statewide RPS goals

Land Use - Applicant Information

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Based on IS/MND Traffic section

Energy Use - *

Mobile Land Use Mitigation -

Energy Mitigation -

Architectural Coating -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	95.00
tblConstructionPhase	NumDays	230.00	95.00
tblConstructionPhase	NumDays	8.00	10.00
tblConstructionPhase	NumDays	18.00	15.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	12/11/2017	8/14/2017
tblConstructionPhase	PhaseEndDate	3/7/2017	3/20/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	2/14/2017
tblConstructionPhase	PhaseStartDate	8/1/2017	4/4/2017
tblConstructionPhase	PhaseStartDate	2/15/2017	2/28/2017
tblConstructionPhase	PhaseStartDate	1/28/2017	2/1/2017
tblGrading	AcresOfGrading	5.00	6.26
tblLandUse	LandUseSquareFeet	102,330.00	102,333.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	419.59
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	2.59	2.50
tblVehicleTrips	SU_TR	2.59	2.50
tblVehicleTrips	WD_TR	2.59	2.50

2.0 Emissions Summary

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					
2017	1.1576	2.0691	1.7762	2.7200e-003	0.1743	0.1265	0.3007	0.0802	0.1186	0.1988	0.0000	236.2260	236.2260	0.0450	0.0000	237.1710
Total	**1.1576**	**2.0691**	**1.7762**	**2.7200e-003**	**0.1743**	**0.1265**	**0.3007**	**0.0802**	**0.1186**	**0.1988**	**0.0000**	**236.2260**	**236.2260**	**0.0450**	**0.0000**	**237.1710**

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					
2017	1.1576	2.0691	1.7762	2.7200e-003	0.1743	0.1265	0.3007	0.0802	0.1186	0.1988	0.0000	236.2258	236.2258	0.0450	0.0000	237.1708
Total	**1.1576**	**2.0691**	**1.7762**	**2.7200e-003**	**0.1743**	**0.1265**	**0.3007**	**0.0802**	**0.1186**	**0.1988**	**0.0000**	**236.2258**	**236.2258**	**0.0450**	**0.0000**	**237.1708**

	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	N20	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	tons/yr										MT/yr					
Area	0.7886	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1700e-003
Energy	2.0100e-003	0.0183	0.0154	1.1000e-004		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	95.6529	95.6529	5.6200e-003	1.4500e-003	96.2198
Mobile	0.1670	0.4393	1.8397	3.9500e-003	0.2779	5.7900e-003	0.2837	0.0746	5.3300e-003	0.0799	0.0000	304.5805	304.5805	0.0124	0.0000	304.8416
Waste						0.0000	0.0000		0.0000	0.0000	19.5257	0.0000	19.5257	1.1539	0.0000	43.7584
Water						0.0000	0.0000		0.0000	0.0000	7.5074	24.3699	31.8773	0.7728	0.0186	53.8577
Total	**0.9576**	**0.4577**	**1.8562**	**4.0600e-003**	**0.2779**	**7.1800e-003**	**0.2851**	**0.0746**	**6.7200e-003**	**0.0813**	**27.0331**	**424.6053**	**451.6385**	**1.9448**	**0.0200**	**498.6795**

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	0.7886	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1700e-003
Energy	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0672	14.0672	2.7000e-004	2.6000e-004	14.1528
Mobile	0.1551	0.3599	1.5714	3.1400e-003	0.2189	4.6500e-003	0.2235	0.0587	4.2700e-003	0.0630	0.0000	241.7682	241.7682	0.0101	0.0000	241.9796
Waste						0.0000	0.0000		0.0000	0.0000	19.5257	0.0000	19.5257	1.1539	0.0000	43.7584
Water						0.0000	0.0000		0.0000	0.0000	7.5074	24.3699	31.8773	0.7726	0.0185	53.8457
Total	**0.9451**	**0.3728**	**1.5833**	**3.2200e-003**	**0.2189**	**5.6300e-003**	**0.2245**	**0.0587**	**5.2500e-003**	**0.0640**	**27.0331**	**280.2073**	**307.2404**	**1.9369**	**0.0188**	**353.7386**

	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	N20	CO2e
Percent Reduction	**1.31**	**18.54**	**14.70**	**20.69**	**21.24**	**21.59**	**21.25**	**21.24**	**21.88**	**21.28**	**0.00**	**34.01**	**31.97**	**0.40**	**6.10**	**29.06**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/16/2017	1/27/2017	5	10	
2	Site Preparation	Site Preparation	2/1/2017	2/14/2017	5	10	
3	Paving	Paving	2/28/2017	3/20/2017	5	15	
4	Building Construction	Building Construction	3/21/2017	7/31/2017	5	95	
5	Architectural Coating	Architectural Coating	4/4/2017	8/14/2017	5	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.26

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 261,509; Non-Residential Outdoor: 87,170 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Grading	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	29.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2017

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					0.0334	0.0000	0.0334	0.0169	0.0000	0.0169	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0173	0.1799	0.1269	1.5000e-004		0.0102	0.0102		9.3800e-003	9.3800e-003	0.0000	13.8058	13.8058	4.2300e-003	0.0000	13.8947
Total	**0.0173**	**0.1799**	**0.1269**	**1.5000e-004**	**0.0334**	**0.0102**	**0.0436**	**0.0169**	**9.3800e-003**	**0.0263**	**0.0000**	**13.8058**	**13.8058**	**4.2300e-003**	**0.0000**	**13.8947**

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	2.5000e-004	3.7000e-004	3.5500e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5939	0.5939	3.0000e-005	0.0000	0.5945
Total	**2.5000e-004**	**3.7000e-004**	**3.5500e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5939**	**0.5939**	**3.0000e-005**	**0.0000**	**0.5945**

3.2 Grading - 2017

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					0.0334	0.0000	0.0334	0.0169	0.0000	0.0169	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0173	0.1799	0.1269	1.5000e-004		0.0102	0.0102		9.3800e-003	9.3800e-003	0.0000	13.8058	13.8058	4.2300e-003	0.0000	13.8947
Total	**0.0173**	**0.1799**	**0.1269**	**1.5000e-004**	**0.0334**	**0.0102**	**0.0436**	**0.0169**	**9.3800e-003**	**0.0263**	**0.0000**	**13.8058**	**13.8058**	**4.2300e-003**	**0.0000**	**13.8947**

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	2.5000e-004	3.7000e-004	3.5500e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5939	0.5939	3.0000e-005	0.0000	0.5945
Total	**2.5000e-004**	**3.7000e-004**	**3.5500e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5939**	**0.5939**	**3.0000e-005**	**0.0000**	**0.5945**

3.3 Site Preparation - 2017

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2588	0.1970	2.0000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	18.1577	18.1577	5.5600e-003	0.0000	18.2745
Total	**0.0242**	**0.2588**	**0.1970**	**2.0000e-004**	**0.0903**	**0.0138**	**0.1041**	**0.0497**	**0.0127**	**0.0623**	**0.0000**	**18.1577**	**18.1577**	**5.5600e-003**	**0.0000**	**18.2745**

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	3.0000e-004	4.4000e-004	4.2600e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7127	0.7127	4.0000e-005	0.0000	0.7134
Total	**3.0000e-004**	**4.4000e-004**	**4.2600e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.2000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7127**	**0.7127**	**4.0000e-005**	**0.0000**	**0.7134**

3.3 Site Preparation - 2017

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2588	0.1970	2.0000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	18.1577	18.1577	5.5600e-003	0.0000	18.2745
Total	**0.0242**	**0.2588**	**0.1970**	**2.0000e-004**	**0.0903**	**0.0138**	**0.1041**	**0.0497**	**0.0127**	**0.0623**	**0.0000**	**18.1577**	**18.1577**	**5.5600e-003**	**0.0000**	**18.2745**

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	3.0000e-004	4.4000e-004	4.2600e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7127	0.7127	4.0000e-005	0.0000	0.7134
Total	**3.0000e-004**	**4.4000e-004**	**4.2600e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.2000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7127**	**0.7127**	**4.0000e-005**	**0.0000**	**0.7134**

3.4 Paving - 2017

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	0.0124	0.1260	0.0936	1.4000e-004		7.5400e-003	7.5400e-003		6.9500e-003	6.9500e-003	0.0000	12.7493	12.7493	3.8000e-003	0.0000	12.8291
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1260**	**0.0936**	**1.4000e-004**		**7.5400e-003**	**7.5400e-003**		**6.9500e-003**	**6.9500e-003**	**0.0000**	**12.7493**	**12.7493**	**3.8000e-003**	**0.0000**	**12.8291**

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	5.0000e-004	7.4000e-004	7.1000e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1878	1.1878	6.0000e-005	0.0000	1.1891
Total	**5.0000e-004**	**7.4000e-004**	**7.1000e-003**	**2.0000e-005**	**1.3600e-003**	**1.0000e-005**	**1.3700e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1878**	**1.1878**	**6.0000e-005**	**0.0000**	**1.1891**

3.4 Paving - 2017

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	0.0124	0.1260	0.0936	1.4000e-004		7.5400e-003	7.5400e-003		6.9500e-003	6.9500e-003	0.0000	12.7493	12.7493	3.8000e-003	0.0000	12.8291
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1260**	**0.0936**	**1.4000e-004**		**7.5400e-003**	**7.5400e-003**		**6.9500e-003**	**6.9500e-003**	**0.0000**	**12.7493**	**12.7493**	**3.8000e-003**	**0.0000**	**12.8291**

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	5.0000e-004	7.4000e-004	7.1000e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1878	1.1878	6.0000e-005	0.0000	1.1891
Total	**5.0000e-004**	**7.4000e-004**	**7.1000e-003**	**2.0000e-005**	**1.3600e-003**	**1.0000e-005**	**1.3700e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1878**	**1.1878**	**6.0000e-005**	**0.0000**	**1.1891**

3.5 Building Construction - 2017

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	0.1474	1.2543	0.8611	1.2700e-003		0.0846	0.0846		0.0795	0.0795	0.0000	113.7526	113.7526	0.0280	0.0000	114.3405
Total	**0.1474**	**1.2543**	**0.8611**	**1.2700e-003**		**0.0846**	**0.0846**		**0.0795**	**0.0795**	**0.0000**	**113.7526**	**113.7526**	**0.0280**	**0.0000**	**114.3405**

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	0.0159	0.1237	0.1915	3.3000e-004	8.8700e-003	1.7800e-003	0.0107	2.5400e-003	1.6400e-003	4.1800e-003	0.0000	29.2870	29.2870	2.3000e-004	0.0000	29.2917
Worker	0.0120	0.0175	0.1687	3.8000e-004	0.0323	2.6000e-004	0.0326	8.6000e-003	2.4000e-004	8.8300e-003	0.0000	28.2095	28.2095	1.4800e-003	0.0000	28.2405
Total	**0.0279**	**0.1412**	**0.3602**	**7.1000e-004**	**0.0412**	**2.0400e-003**	**0.0432**	**0.0111**	**1.8800e-003**	**0.0130**	**0.0000**	**57.4964**	**57.4964**	**1.7100e-003**	**0.0000**	**57.5322**

3.5 Building Construction - 2017

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	0.1474	1.2543	0.8611	1.2700e-003		0.0846	0.0846		0.0795	0.0795	0.0000	113.7524	113.7524	0.0280	0.0000	114.3404
Total	**0.1474**	**1.2543**	**0.8611**	**1.2700e-003**		**0.0846**	**0.0846**		**0.0795**	**0.0795**	**0.0000**	**113.7524**	**113.7524**	**0.0280**	**0.0000**	**114.3404**

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	0.0159	0.1237	0.1915	3.3000e-004	8.8700e-003	1.7800e-003	0.0107	2.5400e-003	1.6400e-003	4.1800e-003	0.0000	29.2870	29.2870	2.3000e-004	0.0000	29.2917
Worker	0.0120	0.0175	0.1687	3.8000e-004	0.0323	2.6000e-004	0.0326	8.6000e-003	2.4000e-004	8.8300e-003	0.0000	28.2095	28.2095	1.4800e-003	0.0000	28.2405
Total	**0.0279**	**0.1412**	**0.3602**	**7.1000e-004**	**0.0412**	**2.0400e-003**	**0.0432**	**0.0111**	**1.8800e-003**	**0.0130**	**0.0000**	**57.4964**	**57.4964**	**1.7100e-003**	**0.0000**	**57.5322**

3.6 Architectural Coating - 2017

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	0.9091					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1038	0.0887	1.4000e-004		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	12.1280	12.1280	1.2800e-003	0.0000	12.1548
Total	**0.9249**	**0.1038**	**0.0887**	**1.4000e-004**		**8.2300e-003**	**8.2300e-003**		**8.2300e-003**	**8.2300e-003**	**0.0000**	**12.1280**	**12.1280**	**1.2800e-003**	**0.0000**	**12.1548**

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	2.4000e-003	3.5000e-003	0.0337	8.0000e-005	6.4600e-003	5.0000e-005	6.5100e-003	1.7200e-003	5.0000e-005	1.7700e-003	0.0000	5.6419	5.6419	3.0000e-004	0.0000	5.6481
Total	**2.4000e-003**	**3.5000e-003**	**0.0337**	**8.0000e-005**	**6.4600e-003**	**5.0000e-005**	**6.5100e-003**	**1.7200e-003**	**5.0000e-005**	**1.7700e-003**	**0.0000**	**5.6419**	**5.6419**	**3.0000e-004**	**0.0000**	**5.6481**

3.6 Architectural Coating - 2017

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	0.9091					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1038	0.0887	1.4000e-004		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	12.1279	12.1279	1.2800e-003	0.0000	12.1548
Total	**0.9249**	**0.1038**	**0.0887**	**1.4000e-004**		**8.2300e-003**	**8.2300e-003**		**8.2300e-003**	**8.2300e-003**	**0.0000**	**12.1279**	**12.1279**	**1.2800e-003**	**0.0000**	**12.1548**

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	2.4000e-003	3.5000e-003	0.0337	8.0000e-005	6.4600e-003	5.0000e-005	6.5100e-003	1.7200e-003	5.0000e-005	1.7700e-003	0.0000	5.6419	5.6419	3.0000e-004	0.0000	5.6481
Total	**2.4000e-003**	**3.5000e-003**	**0.0337**	**8.0000e-005**	**6.4600e-003**	**5.0000e-005**	**6.5100e-003**	**1.7200e-003**	**5.0000e-005**	**1.7700e-003**	**0.0000**	**5.6419**	**5.6419**	**3.0000e-004**	**0.0000**	**5.6481**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	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	0.1551	0.3599	1.5714	3.1400e-003	0.2189	4.6500e-003	0.2235	0.0587	4.2700e-003	0.0630	0.0000	241.7682	241.7682	0.0101	0.0000	241.9796
Unmitigated	0.1670	0.4393	1.8397	3.9500e-003	0.2779	5.7900e-003	0.2837	0.0746	5.3300e-003	0.0799	0.0000	304.5805	304.5805	0.0124	0.0000	304.8416

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	255.83	255.83	255.83	746,884	588,253
Total	255.83	255.83	255.83	746,884	588,253

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546114	0.062902	0.174648	0.122995	0.034055	0.004856	0.015640	0.024397	0.002087	0.003279	0.006673	0.000688	0.001667

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable 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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.7207	75.7207	5.2300e-003	1.0800e-003	76.1663
NaturalGas Mitigated	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0672	14.0672	2.7000e-004	2.6000e-004	14.1528
NaturalGas Unmitigated	2.0100e-003	0.0183	0.0154	1.1000e-004		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	19.9322	19.9322	3.8000e-004	3.7000e-004	20.0535

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					
Other Non-Asphalt Surfaces	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
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
Unrefrigerated Warehouse-No Rail	373515	2.0100e-003	0.0183	0.0154	1.1000e-004		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	19.9322	19.9322	3.8000e-004	3.7000e-004	20.0535
Total		**2.0100e-003**	**0.0183**	**0.0154**	**1.1000e-004**		**1.3900e-003**	**1.3900e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**19.9322**	**19.9322**	**3.8000e-004**	**3.7000e-004**	**20.0535**

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					
Other Non-Asphalt Surfaces	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
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
Unrefrigerated Warehouse-No Rail	263610	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0672	14.0672	2.7000e-004	2.6000e-004	14.1528
Total		**1.4200e-003**	**0.0129**	**0.0109**	**8.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**14.0672**	**14.0672**	**2.7000e-004**	**2.6000e-004**	**14.1528**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3872	0.7369	5.0000e-005	1.0000e-005	0.7413
Unrefrigerated Warehouse-No Rail	393982	74.9838	5.1800e-003	1.0700e-003	75.4250
Total		**75.7207**	**5.2300e-003**	**1.0800e-003**	**76.1663**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

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	0.7886	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1700e-003
Unmitigated	0.7886	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1700e-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	0.0909					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1700e-003
Total	**0.7886**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0500e-003**	**2.0500e-003**	**1.0000e-005**	**0.0000**	**2.1700e-003**

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	0.0909					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1700e-003
Total	**0.7886**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0500e-003**	**2.0500e-003**	**1.0000e-005**	**0.0000**	**2.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	31.8773	0.7726	0.0185	53.8457
Unmitigated	31.8773	0.7728	0.0186	53.8577

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	23.6638 / 0	31.8773	0.7728	0.0186	53.8577
Total		**31.8773**	**0.7728**	**0.0186**	**53.8577**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	23.6638 / 0	31.8773	0.7726	0.0185	53.8457
Total		**31.8773**	**0.7726**	**0.0185**	**53.8457**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.5257	1.1539	0.0000	43.7584
Unmitigated	19.5257	1.1539	0.0000	43.7584

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	96.19	19.5257	1.1539	0.0000	43.7584
Total		**19.5257**	**1.1539**	**0.0000**	**43.7584**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	96.19	19.5257	1.1539	0.0000	43.7584
Total		**19.5257**	**1.1539**	**0.0000**	**43.7584**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Vineyard Self-Storage

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	102.33	1000sqft	2.35	102,333.00	0
Other Non-Asphalt Surfaces	1.65	Acre	1.65	71,874.00	0
Parking Lot	11.00	Space	0.10	4,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	419.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted based on PG&E's anticipated progress towards statewide RPS goals

Land Use - Applicant Information

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Based on IS/MND Traffic section

Energy Use - *

Mobile Land Use Mitigation -

Energy Mitigation -

Architectural Coating -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	95.00
tblConstructionPhase	NumDays	230.00	95.00
tblConstructionPhase	NumDays	8.00	10.00
tblConstructionPhase	NumDays	18.00	15.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	12/11/2017	8/14/2017
tblConstructionPhase	PhaseEndDate	3/7/2017	3/20/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	2/14/2017
tblConstructionPhase	PhaseStartDate	8/1/2017	4/4/2017
tblConstructionPhase	PhaseStartDate	2/15/2017	2/28/2017
tblConstructionPhase	PhaseStartDate	1/28/2017	2/1/2017
tblGrading	AcresOfGrading	5.00	6.26
tblLandUse	LandUseSquareFeet	102,330.00	102,333.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	419.59
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	2.59	2.50
tblVehicleTrips	SU_TR	2.59	2.50
tblVehicleTrips	WD_TR	2.59	2.50

2.0 Emissions Summary

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					
2017	23.1972	51.8317	40.3103	0.0471	18.2360	2.7555	20.9915	9.9757	2.5351	12.5108	0.0000	4,447.0342	4,447.0342	1.2348	0.0000	4,472.9641
Total	**23.1972**	**51.8317**	**40.3103**	**0.0471**	**18.2360**	**2.7555**	**20.9915**	**9.9757**	**2.5351**	**12.5108**	**0.0000**	**4,447.0342**	**4,447.0342**	**1.2348**	**0.0000**	**4,472.9641**

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					
2017	23.1972	51.8317	40.3103	0.0471	18.2360	2.7555	20.9915	9.9757	2.5351	12.5108	0.0000	4,447.0342	4,447.0342	1.2348	0.0000	4,472.9641
Total	**23.1972**	**51.8317**	**40.3103**	**0.0471**	**18.2360**	**2.7555**	**20.9915**	**9.9757**	**2.5351**	**12.5108**	**0.0000**	**4,447.0342**	**4,447.0342**	**1.2348**	**0.0000**	**4,472.9641**

	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	N20	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	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Energy	0.0110	0.1003	0.0843	6.0000e-004		7.6200e-003	7.6200e-003		7.6200e-003	7.6200e-003		120.3918	120.3918	2.3100e-003	2.2100e-003	121.1245
Mobile	0.9399	2.2634	9.9573	0.0230	1.5862	0.0318	1.6180	0.4243	0.0293	0.4536		1,950.2173	1,950.2173	0.0754		1,951.7998
Total	**5.2725**	**2.3638**	**10.0535**	**0.0236**	**1.5862**	**0.0395**	**1.6257**	**0.4243**	**0.0369**	**0.4613**		**2,070.6342**	**2,070.6342**	**0.0777**	**2.2100e-003**	**2,072.9508**

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	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Energy	7.7900e-003	0.0708	0.0595	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		84.9669	84.9669	1.6300e-003	1.5600e-003	85.4840
Mobile	0.8729	1.8552	8.3170	0.0183	1.2493	0.0255	1.2748	0.3342	0.0235	0.3577		1,547.5704	1,547.5704	0.0610		1,548.8519
Total	**5.2021**	**1.9261**	**8.3884**	**0.0187**	**1.2493**	**0.0309**	**1.2802**	**0.3342**	**0.0289**	**0.3631**		**1,632.5624**	**1,632.5624**	**0.0627**	**1.5600e-003**	**1,634.3625**

	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	N20	CO2e
Percent Reduction	**1.33**	**18.52**	**16.56**	**20.85**	**21.24**	**21.66**	**21.25**	**21.24**	**21.80**	**21.28**	**0.00**	**21.16**	**21.16**	**19.30**	**29.41**	**21.16**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/16/2017	1/27/2017	5	10	
2	Site Preparation	Site Preparation	2/1/2017	2/14/2017	5	10	
3	Paving	Paving	2/28/2017	3/20/2017	5	15	
4	Building Construction	Building Construction	3/21/2017	7/31/2017	5	95	
5	Architectural Coating	Architectural Coating	4/4/2017	8/14/2017	5	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.26

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 261,509; Non-Residential Outdoor: 87,170 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Grading	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	29.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2017

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					6.6860	0.0000	6.6860	3.3819	0.0000	3.3819			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.6860**	**2.0388**	**8.7248**	**3.3819**	**1.8757**	**5.2576**		**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.0543**	**0.0652**	**0.7611**	**1.7400e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**140.6558**	**140.6558**	**6.8500e-003**		**140.7996**

3.2 Grading - 2017

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					6.6860	0.0000	6.6860	3.3819	0.0000	3.3819			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.6860**	**2.0388**	**8.7248**	**3.3819**	**1.8757**	**5.2576**	**0.0000**	**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.0543**	**0.0652**	**0.7611**	**1.7400e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**140.6558**	**140.6558**	**6.8500e-003**		**140.7996**

3.3 Site Preparation - 2017

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	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.0652**	**0.0783**	**0.9133**	**2.0900e-003**	**0.1698**	**1.3000e-003**	**0.1711**	**0.0450**	**1.2000e-003**	**0.0462**		**168.7869**	**168.7869**	**8.2200e-003**		**168.9595**

3.3 Site Preparation - 2017

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	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.0652**	**0.0783**	**0.9133**	**2.0900e-003**	**0.1698**	**1.3000e-003**	**0.1711**	**0.0450**	**1.2000e-003**	**0.0462**		**168.7869**	**168.7869**	**8.2200e-003**		**168.9595**

3.4 Paving - 2017

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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269		1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6729**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**		**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

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	0.0725	0.0870	1.0148	2.3200e-003	0.1886	1.4400e-003	0.1901	0.0500	1.3300e-003	0.0514		187.5410	187.5410	9.1300e-003		187.7328
Total	**0.0725**	**0.0870**	**1.0148**	**2.3200e-003**	**0.1886**	**1.4400e-003**	**0.1901**	**0.0500**	**1.3300e-003**	**0.0514**		**187.5410**	**187.5410**	**9.1300e-003**		**187.7328**

3.4 Paving - 2017

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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6729**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**	**0.0000**	**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

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	0.0725	0.0870	1.0148	2.3200e-003	0.1886	1.4400e-003	0.1901	0.0500	1.3300e-003	0.0514		187.5410	187.5410	9.1300e-003		187.7328
Total	**0.0725**	**0.0870**	**1.0148**	**2.3200e-003**	**0.1886**	**1.4400e-003**	**0.1901**	**0.0500**	**1.3300e-003**	**0.0514**		**187.5410**	**187.5410**	**9.1300e-003**		**187.7328**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.2981	2.5192	3.1059	6.9100e-003	0.1928	0.0373	0.2301	0.0551	0.0343	0.0894		681.8462	681.8462	5.2100e-003		681.9556
Worker	0.2717	0.3261	3.8053	8.7000e-003	0.7073	5.4200e-003	0.7127	0.1876	4.9900e-003	0.1926		703.2789	703.2789	0.0342		703.9980
Total	**0.5699**	**2.8454**	**6.9112**	**0.0156**	**0.9001**	**0.0428**	**0.9428**	**0.2426**	**0.0393**	**0.2820**		**1,385.1250**	**1,385.1250**	**0.0395**		**1,385.9536**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.2981	2.5192	3.1059	6.9100e-003	0.1928	0.0373	0.2301	0.0551	0.0343	0.0894		681.8462	681.8462	5.2100e-003		681.9556
Worker	0.2717	0.3261	3.8053	8.7000e-003	0.7073	5.4200e-003	0.7127	0.1876	4.9900e-003	0.1926		703.2789	703.2789	0.0342		703.9980
Total	**0.5699**	**2.8454**	**6.9112**	**0.0156**	**0.9001**	**0.0428**	**0.9428**	**0.2426**	**0.0393**	**0.2820**		**1,385.1250**	**1,385.1250**	**0.0395**		**1,385.9536**

3.6 Architectural Coating - 2017

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	19.1384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**19.4707**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.0543**	**0.0652**	**0.7611**	**1.7400e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**140.6558**	**140.6558**	**6.8500e-003**		**140.7996**

3.6 Architectural Coating - 2017

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	19.1384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**19.4707**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.0543**	**0.0652**	**0.7611**	**1.7400e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**140.6558**	**140.6558**	**6.8500e-003**		**140.7996**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	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	0.8729	1.8552	8.3170	0.0183	1.2493	0.0255	1.2748	0.3342	0.0235	0.3577		1,547.5704	1,547.5704	0.0610		1,548.8519
Unmitigated	0.9399	2.2634	9.9573	0.0230	1.5862	0.0318	1.6180	0.4243	0.0293	0.4536		1,950.2173	1,950.2173	0.0754		1,951.7998

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	255.83	255.83	255.83	746,884	588,253
Total	255.83	255.83	255.83	746,884	588,253

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546114	0.062902	0.174648	0.122995	0.034055	0.004856	0.015640	0.024397	0.002087	0.003279	0.006673	0.000688	0.001667

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable 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	7.7900e-003	0.0708	0.0595	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		84.9669	84.9669	1.6300e-003	1.5600e-003	85.4840
NaturalGas Unmitigated	0.0110	0.1003	0.0843	6.0000e-004		7.6200e-003	7.6200e-003		7.6200e-003	7.6200e-003		120.3918	120.3918	2.3100e-003	2.2100e-003	121.1245

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					
Other Non-Asphalt Surfaces	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
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
Unrefrigerated Warehouse-No Rail	1023.33	0.0110	0.1003	0.0843	6.0000e-004		7.6200e-003	7.6200e-003		7.6200e-003	7.6200e-003		120.3918	120.3918	2.3100e-003	2.2100e-003	121.1245
Total		**0.0110**	**0.1003**	**0.0843**	**6.0000e-004**		**7.6200e-003**	**7.6200e-003**		**7.6200e-003**	**7.6200e-003**		**120.3918**	**120.3918**	**2.3100e-003**	**2.2100e-003**	**121.1245**

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					
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
Unrefrigerated Warehouse-No Rail	0.722219	7.7900e-003	0.0708	0.0595	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		84.9669	84.9669	1.6300e-003	1.5600e-003	85.4840
Other Non-Asphalt Surfaces	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
Total		**7.7900e-003**	**0.0708**	**0.0595**	**4.2000e-004**		**5.3800e-003**	**5.3800e-003**		**5.3800e-003**	**5.3800e-003**		**84.9669**	**84.9669**	**1.6300e-003**	**1.5600e-003**	**85.4840**

6.0 Area Detail

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	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Unmitigated	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266

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	0.4981					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.8222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1500e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Total	**4.3215**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0252**	**0.0252**	**7.0000e-005**		**0.0266**

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	0.4981					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.8222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1500e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Total	**4.3215**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0252**	**0.0252**	**7.0000e-005**		**0.0266**

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

10.0 Vegetation

Vineyard Self-Storage

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	102.33	1000sqft	2.35	102,333.00	0
Other Non-Asphalt Surfaces	1.65	Acre	1.65	71,874.00	0
Parking Lot	11.00	Space	0.10	4,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	419.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted based on PG&E's anticipated progress towards statewide RPS goals

Land Use - Applicant Information

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Based on IS/MND Traffic section

Energy Use - *

Mobile Land Use Mitigation -

Energy Mitigation -

Architectural Coating -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	95.00
tblConstructionPhase	NumDays	230.00	95.00
tblConstructionPhase	NumDays	8.00	10.00
tblConstructionPhase	NumDays	18.00	15.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	12/11/2017	8/14/2017
tblConstructionPhase	PhaseEndDate	3/7/2017	3/20/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	2/14/2017
tblConstructionPhase	PhaseStartDate	8/1/2017	4/4/2017
tblConstructionPhase	PhaseStartDate	2/15/2017	2/28/2017
tblConstructionPhase	PhaseStartDate	1/28/2017	2/1/2017
tblGrading	AcresOfGrading	5.00	6.26
tblLandUse	LandUseSquareFeet	102,330.00	102,333.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	419.59
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	2.59	2.50
tblVehicleTrips	SU_TR	2.59	2.50
tblVehicleTrips	WD_TR	2.59	2.50

2.0 Emissions Summary

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					
2017	23.2734	51.8503	40.2818	0.0463	18.2360	2.7555	20.9915	9.9757	2.5351	12.5108	0.0000	4,376.4569	4,376.4569	1.2348	0.0000	4,402.3868
Total	**23.2734**	**51.8503**	**40.2818**	**0.0463**	**18.2360**	**2.7555**	**20.9915**	**9.9757**	**2.5351**	**12.5108**	**0.0000**	**4,376.4569**	**4,376.4569**	**1.2348**	**0.0000**	**4,402.3868**

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					
2017	23.2734	51.8503	40.2818	0.0463	18.2360	2.7555	20.9915	9.9757	2.5351	12.5108	0.0000	4,376.4569	4,376.4569	1.2348	0.0000	4,402.3868
Total	**23.2734**	**51.8503**	**40.2818**	**0.0463**	**18.2360**	**2.7555**	**20.9915**	**9.9757**	**2.5351**	**12.5108**	**0.0000**	**4,376.4569**	**4,376.4569**	**1.2348**	**0.0000**	**4,402.3868**

	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	N20	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	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Energy	0.0110	0.1003	0.0843	6.0000e-004		7.6200e-003	7.6200e-003		7.6200e-003	7.6200e-003		120.3918	120.3918	2.3100e-003	2.2100e-003	121.1245
Mobile	0.9875	2.5160	10.9793	0.0216	1.5862	0.0320	1.6181	0.4243	0.0294	0.4537		1,833.4664	1,833.4664	0.0754		1,835.0501
Total	**5.3200**	**2.6165**	**11.0755**	**0.0222**	**1.5862**	**0.0396**	**1.6258**	**0.4243**	**0.0371**	**0.4614**		**1,953.8833**	**1,953.8833**	**0.0778**	**2.2100e-003**	**1,956.2011**

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	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Energy	7.7900e-003	0.0708	0.0595	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		84.9669	84.9669	1.6300e-003	1.5600e-003	85.4840
Mobile	0.9210	2.0600	9.4850	0.0172	1.2493	0.0256	1.2749	0.3342	0.0236	0.3578		1,455.2003	1,455.2003	0.0611		1,456.4831
Total	**5.2502**	**2.1309**	**9.5564**	**0.0176**	**1.2493**	**0.0311**	**1.2804**	**0.3342**	**0.0290**	**0.3632**		**1,540.1924**	**1,540.1924**	**0.0628**	**1.5600e-003**	**1,541.9937**

	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	N20	CO2e
Percent Reduction	**1.31**	**18.56**	**13.72**	**20.82**	**21.24**	**21.59**	**21.25**	**21.24**	**21.73**	**21.28**	**0.00**	**21.17**	**21.17**	**19.30**	**29.41**	**21.17**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/16/2017	1/27/2017	5	10	
2	Site Preparation	Site Preparation	2/1/2017	2/14/2017	5	10	
3	Paving	Paving	2/28/2017	3/20/2017	5	15	
4	Building Construction	Building Construction	3/21/2017	7/31/2017	5	95	
5	Architectural Coating	Architectural Coating	4/4/2017	8/14/2017	5	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.26

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 261,509; Non-Residential Outdoor: 87,170 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Grading	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	29.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2017

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					6.6860	0.0000	6.6860	3.3819	0.0000	3.3819			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.6860**	**2.0388**	**8.7248**	**3.3819**	**1.8757**	**5.2576**		**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.0542**	**0.0807**	**0.7373**	**1.6100e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**129.7647**	**129.7647**	**6.8500e-003**		**129.9085**

3.2 Grading - 2017

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					6.6860	0.0000	6.6860	3.3819	0.0000	3.3819			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.6860**	**2.0388**	**8.7248**	**3.3819**	**1.8757**	**5.2576**	**0.0000**	**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

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	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.0542**	**0.0807**	**0.7373**	**1.6100e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**129.7647**	**129.7647**	**6.8500e-003**		**129.9085**

3.3 Site Preparation - 2017

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	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0650	0.0969	0.8848	1.9300e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		155.7176	155.7176	8.2200e-003		155.8902
Total	**0.0650**	**0.0969**	**0.8848**	**1.9300e-003**	**0.1698**	**1.3000e-003**	**0.1711**	**0.0450**	**1.2000e-003**	**0.0462**		**155.7176**	**155.7176**	**8.2200e-003**		**155.8902**

3.3 Site Preparation - 2017

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	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

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	0.0650	0.0969	0.8848	1.9300e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		155.7176	155.7176	8.2200e-003		155.8902
Total	**0.0650**	**0.0969**	**0.8848**	**1.9300e-003**	**0.1698**	**1.3000e-003**	**0.1711**	**0.0450**	**1.2000e-003**	**0.0462**		**155.7176**	**155.7176**	**8.2200e-003**		**155.8902**

3.4 Paving - 2017

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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269		1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6729**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**		**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

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	0.0722	0.1076	0.9831	2.1400e-003	0.1886	1.4400e-003	0.1901	0.0500	1.3300e-003	0.0514		173.0196	173.0196	9.1300e-003		173.2113
Total	**0.0722**	**0.1076**	**0.9831**	**2.1400e-003**	**0.1886**	**1.4400e-003**	**0.1901**	**0.0500**	**1.3300e-003**	**0.0514**		**173.0196**	**173.0196**	**9.1300e-003**		**173.2113**

3.4 Paving - 2017

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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6729**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**	**0.0000**	**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

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	0.0722	0.1076	0.9831	2.1400e-003	0.1886	1.4400e-003	0.1901	0.0500	1.3300e-003	0.0514		173.0196	173.0196	9.1300e-003		173.2113
Total	**0.0722**	**0.1076**	**0.9831**	**2.1400e-003**	**0.1886**	**1.4400e-003**	**0.1901**	**0.0500**	**1.3300e-003**	**0.0514**		**173.0196**	**173.0196**	**9.1300e-003**		**173.2113**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.3754	2.6367	4.9282	6.8800e-003	0.1928	0.0377	0.2305	0.0551	0.0347	0.0897		676.6156	676.6156	5.3500e-003		676.7279
Worker	0.2707	0.4036	3.6866	8.0300e-003	0.7073	5.4200e-003	0.7127	0.1876	4.9900e-003	0.1926		648.8233	648.8233	0.0342		649.5424
Total	**0.6462**	**3.0403**	**8.6148**	**0.0149**	**0.9001**	**0.0431**	**0.9432**	**0.2426**	**0.0397**	**0.2823**		**1,325.4389**	**1,325.4389**	**0.0396**		**1,326.2703**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.3754	2.6367	4.9282	6.8800e-003	0.1928	0.0377	0.2305	0.0551	0.0347	0.0897		676.6156	676.6156	5.3500e-003		676.7279
Worker	0.2707	0.4036	3.6866	8.0300e-003	0.7073	5.4200e-003	0.7127	0.1876	4.9900e-003	0.1926		648.8233	648.8233	0.0342		649.5424
Total	**0.6462**	**3.0403**	**8.6148**	**0.0149**	**0.9001**	**0.0431**	**0.9432**	**0.2426**	**0.0397**	**0.2823**		**1,325.4389**	**1,325.4389**	**0.0396**		**1,326.2703**

3.6 Architectural Coating - 2017

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	19.1384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**19.4707**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.0542**	**0.0807**	**0.7373**	**1.6100e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**129.7647**	**129.7647**	**6.8500e-003**		**129.9085**

3.6 Architectural Coating - 2017

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	19.1384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**19.4707**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.0542**	**0.0807**	**0.7373**	**1.6100e-003**	**0.1415**	**1.0800e-003**	**0.1425**	**0.0375**	**1.0000e-003**	**0.0385**		**129.7647**	**129.7647**	**6.8500e-003**		**129.9085**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	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	0.9210	2.0600	9.4850	0.0172	1.2493	0.0256	1.2749	0.3342	0.0236	0.3578		1,455.2003	1,455.2003	0.0611		1,456.4831
Unmitigated	0.9875	2.5160	10.9793	0.0216	1.5862	0.0320	1.6181	0.4243	0.0294	0.4537		1,833.4664	1,833.4664	0.0754		1,835.0501

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	255.83	255.83	255.83	746,884	588,253
Total	255.83	255.83	255.83	746,884	588,253

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546114	0.062902	0.174648	0.122995	0.034055	0.004856	0.015640	0.024397	0.002087	0.003279	0.006673	0.000688	0.001667

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable 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	7.7900e-003	0.0708	0.0595	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		84.9669	84.9669	1.6300e-003	1.5600e-003	85.4840
NaturalGas Unmitigated	0.0110	0.1003	0.0843	6.0000e-004		7.6200e-003	7.6200e-003		7.6200e-003	7.6200e-003		120.3918	120.3918	2.3100e-003	2.2100e-003	121.1245

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					
Other Non-Asphalt Surfaces	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
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
Unrefrigerated Warehouse-No Rail	1023.33	0.0110	0.1003	0.0843	6.0000e-004		7.6200e-003	7.6200e-003		7.6200e-003	7.6200e-003		120.3918	120.3918	2.3100e-003	2.2100e-003	121.1245
Total		**0.0110**	**0.1003**	**0.0843**	**6.0000e-004**		**7.6200e-003**	**7.6200e-003**		**7.6200e-003**	**7.6200e-003**		**120.3918**	**120.3918**	**2.3100e-003**	**2.2100e-003**	**121.1245**

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					
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
Unrefrigerated Warehouse-No Rail	0.722219	7.7900e-003	0.0708	0.0595	4.2000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		84.9669	84.9669	1.6300e-003	1.5600e-003	85.4840
Other Non-Asphalt Surfaces	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
Total		**7.7900e-003**	**0.0708**	**0.0595**	**4.2000e-004**		**5.3800e-003**	**5.3800e-003**		**5.3800e-003**	**5.3800e-003**		**84.9669**	**84.9669**	**1.6300e-003**	**1.5600e-003**	**85.4840**

6.0 Area Detail

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	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Unmitigated	4.3215	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266

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	0.4981					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.8222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1500e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Total	**4.3215**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0252**	**0.0252**	**7.0000e-005**		**0.0266**

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	0.4981					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.8222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1500e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0266
Total	**4.3215**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0252**	**0.0252**	**7.0000e-005**		**0.0266**

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

10.0 Vegetation

Vineyard Self-Storage

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
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
Cement and Mortar Mixers	Diesel	No Change	0	2	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	1	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	1	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	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	11	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	1.57800E-002	1.03790E-001	8.87300E-002	1.40000E-004	8.23000E-003	8.23000E-003	0.00000E+000	1.21280E+001	1.21280E+001	1.28000E-003	0.00000E+000	1.21548E+001
Cement and Mortar Mixers	6.60000E-004	4.15000E-003	3.47000E-003	1.00000E-005	1.70000E-004	1.70000E-004	0.00000E+000	5.15560E-001	5.15560E-001	5.00000E-005	0.00000E+000	5.16680E-001
Cranes	2.69300E-002	3.19740E-001	1.14560E-001	2.30000E-004	1.42500E-002	1.31100E-002	0.00000E+000	2.17647E+001	2.17647E+001	6.67000E-003	0.00000E+000	2.19047E+001
Excavators	1.81000E-003	2.00800E-002	1.71100E-002	3.00000E-005	9.90000E-004	9.10000E-004	0.00000E+000	2.45512E+000	2.45512E+000	7.50000E-004	0.00000E+000	2.47092E+000
Forklifts	3.00600E-002	2.60260E-001	1.78000E-001	2.20000E-004	2.14700E-002	1.97500E-002	0.00000E+000	2.01997E+001	2.01997E+001	6.19000E-003	0.00000E+000	2.03296E+001
Generator Sets	2.70800E-002	2.12050E-001	1.79240E-001	3.10000E-004	1.42700E-002	1.42700E-002	0.00000E+000	2.68474E+001	2.68474E+001	2.17000E-003	0.00000E+000	2.68930E+001
Graders	4.76000E-003	4.82100E-002	2.41900E-002	3.00000E-005	2.71000E-003	2.49000E-003	0.00000E+000	2.89211E+000	2.89211E+000	8.90000E-004	0.00000E+000	2.91072E+000
Pavers	2.70000E-003	3.02300E-002	2.12700E-002	3.00000E-005	1.49000E-003	1.37000E-003	0.00000E+000	3.14349E+000	3.14349E+000	9.60000E-004	0.00000E+000	3.16372E+000
Paving Equipment	3.18000E-003	3.61800E-002	2.85400E-002	5.00000E-005	1.81000E-003	1.66000E-003	0.00000E+000	4.18797E+000	4.18797E+000	1.28000E-003	0.00000E+000	4.21492E+000
Rollers	3.50000E-003	3.26400E-002	2.24000E-002	3.00000E-005	2.36000E-003	2.18000E-003	0.00000E+000	2.73683E+000	2.73683E+000	8.40000E-004	0.00000E+000	2.75444E+000
Rubber Tired Dozers	2.38100E-002	2.63850E-001	1.98810E-001	1.80000E-004	1.22600E-002	1.12800E-002	0.00000E+000	1.65109E+001	1.65109E+001	5.06000E-003	0.00000E+000	1.66172E+001
Tractors/Loaders/ Backhoes	5.29600E-002	5.08900E-001	4.00220E-001	5.20000E-004	3.82700E-002	3.52100E-002	0.00000E+000	4.82712E+001	4.82712E+001	1.47900E-002	0.00000E+000	4.85818E+001
Welders	2.37900E-002	8.26800E-002	9.08500E-002	1.20000E-004	6.07000E-003	6.07000E-003	0.00000E+000	8.94048E+000	8.94048E+000	1.94000E-003	0.00000E+000	8.98112E+000

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	1.57800E-002	1.03790E-001	8.87300E-002	1.40000E-004	8.23000E-003	8.23000E-003	0.00000E+000	1.21279E+001	1.21279E+001	1.28000E-003	0.00000E+000	1.21548E+001
Cement and Mortar Mixers	6.60000E-004	4.15000E-003	3.47000E-003	1.00000E-005	1.70000E-004	1.70000E-004	0.00000E+000	5.15560E-001	5.15560E-001	5.00000E-005	0.00000E+000	5.16680E-001
Cranes	2.69300E-002	3.19740E-001	1.14560E-001	2.30000E-004	1.42500E-002	1.31100E-002	0.00000E+000	2.17647E+001	2.17647E+001	6.67000E-003	0.00000E+000	2.19047E+001
Excavators	1.81000E-003	2.00800E-002	1.71100E-002	3.00000E-005	9.90000E-004	9.10000E-004	0.00000E+000	2.45512E+000	2.45512E+000	7.50000E-004	0.00000E+000	2.47092E+000
Forklifts	3.00600E-002	2.60260E-001	1.78000E-001	2.20000E-004	2.14700E-002	1.97500E-002	0.00000E+000	2.01996E+001	2.01996E+001	6.19000E-003	0.00000E+000	2.03296E+001
Generator Sets	2.70800E-002	2.12050E-001	1.79240E-001	3.10000E-004	1.42700E-002	1.42700E-002	0.00000E+000	2.68473E+001	2.68473E+001	2.17000E-003	0.00000E+000	2.68930E+001
Graders	4.76000E-003	4.82100E-002	2.41900E-002	3.00000E-005	2.71000E-003	2.49000E-003	0.00000E+000	2.89211E+000	2.89211E+000	8.90000E-004	0.00000E+000	2.91072E+000
Pavers	2.70000E-003	3.02300E-002	2.12700E-002	3.00000E-005	1.49000E-003	1.37000E-003	0.00000E+000	3.14349E+000	3.14349E+000	9.60000E-004	0.00000E+000	3.16371E+000
Paving Equipment	3.18000E-003	3.61800E-002	2.85400E-002	5.00000E-005	1.81000E-003	1.66000E-003	0.00000E+000	4.18797E+000	4.18797E+000	1.28000E-003	0.00000E+000	4.21492E+000
Rollers	3.50000E-003	3.26400E-002	2.24000E-002	3.00000E-005	2.36000E-003	2.18000E-003	0.00000E+000	2.73683E+000	2.73683E+000	8.40000E-004	0.00000E+000	2.75444E+000
Rubber Tired Dozers	2.38100E-002	2.63850E-001	1.98810E-001	1.80000E-004	1.22600E-002	1.12800E-002	0.00000E+000	1.65109E+001	1.65109E+001	5.06000E-003	0.00000E+000	1.66171E+001
Tractors/Loaders/Backhoes	5.29600E-002	5.08900E-001	4.00220E-001	5.20000E-004	3.82700E-002	3.52100E-002	0.00000E+000	4.82712E+001	4.82712E+001	1.47900E-002	0.00000E+000	4.85818E+001
Welders	2.37900E-002	8.26800E-002	9.08500E-002	1.20000E-004	6.07000E-003	6.07000E-003	0.00000E+000	8.94047E+000	8.94047E+000	1.94000E-003	0.00000E+000	8.98110E+000

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	1.64908E-006	1.64908E-006	0.00000E+000	0.00000E+000	8.22718E-007
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.18920E-007	9.18920E-007	0.00000E+000	0.00000E+000	9.13045E-007
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.90116E-007	9.90116E-007	0.00000E+000	0.00000E+000	9.83786E-007
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11743E-006	1.11743E-006	0.00000E+000	0.00000E+000	1.11553E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.16084E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21132E-006	1.21132E-006	0.00000E+000	0.00000E+000	1.20358E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.24298E-006	1.24298E-006	0.00000E+000	0.00000E+000	1.23503E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11851E-006	1.11851E-006	0.00000E+000	0.00000E+000	2.22689E-006

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)			
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	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	0.01	0.00	0.01	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.04	0.01	0.04	0.01	0.00	0.00
Grading	Fugitive Dust	0.03	0.02	0.03	0.02	0.00	0.00
Grading	Roads	0.00	0.00	0.00	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	0.09	0.05	0.09	0.05	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	100.00	100.00	100.00	100.00	100.00
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	7.15	18.09	14.58	20.51	19.69	19.89	0.00	20.62	20.62	18.99	0.00	20.62
Natural Gas	29.35	29.44	29.45	27.27	29.50	29.50	0.00	29.42	29.42	28.95	29.73	29.42
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.16	0.02
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
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.09	0.31		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
Yes	Land Use	Increase Transit Accessibility	0.21	0.10		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.21			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
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	0.21			
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	0.21			

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	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	30.00	
No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	30.00	100.00

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
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

APPENDIX B

ROAD CONSTRUCTION EMISSIONS MODELING RESULTS

Orange highlighted cells show s overlapped project phases, maximum daily emissions show n below have been adjusted to account for phase overlap

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Vineyard Self-Storage

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.00	0.00	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/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	1.18	7.67	8.74	4.46	0.46	4.00	1.26	0.42	0.83	0.01	1,001.66	0.31	0.01	1,011.88
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	0.00	0.00
Maximum (pounds/day)	1.18	7.67	8.74	4.46	0.46	4.00	1.26	0.42	0.83	0.01	1,001.66	0.31	0.01	1,011.88
Total (tons/construction project)	0.01	0.04	0.04	0.02	0.00	0.02	0.01	0.00	0.00	0.00	4.85	0.00	0.00	4.90

Notes:

Project Start Year ->	2017
Project Length (months) ->	0
Total Project Area (acres) ->	0
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	No

	Total Material Imported/Exported Volume (yd³/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	0	0	0	0	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from w atering and associated dust control measures if a minimum number of w ater trucks are specified.

Total PM10 emissions show n in column F are the sum of exhaust and fugitive dust emissions show n in columns G and H. Total PM2.5 emissions show n in Column I are the sum of exhaust and fugitive dust emissions show n in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global w arming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Vineyard Self-Storage

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.00	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/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	0.01	0.04	0.04	0.02	0.00	0.02	0.01	0.00	0.00	0.00	4.85	0.00	0.00	4.44
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	0.00	0.00
Maximum (tons/phase)	0.01	0.04	0.04	0.02	0.00	0.02	0.01	0.00	0.00	0.00	4.85	0.00	0.00	4.44
Total (tons/construction project)	0.01	0.04	0.04	0.02	0.00	0.02	0.01	0.00	0.00	0.00	4.85	0.00	0.00	4.44

PM10 and PM2.5 estimates assume 50% control of fugitive dust from w atering and associated dust control measures if a minimum number of w ater trucks are specified.

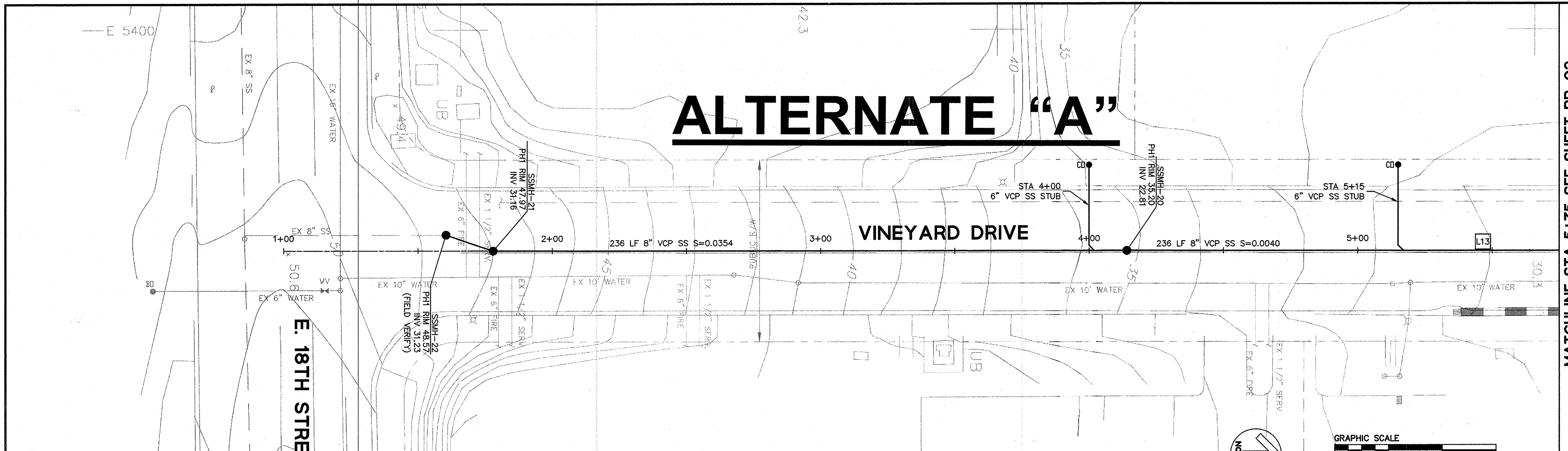
Total PM10 emissions show n in column F are the sum of exhaust and fugitive dust emissions show n in columns G and H. Total PM2.5 emissions show n in Column I are the sum of exhaust and fugitive dust emissions show n in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global w arming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

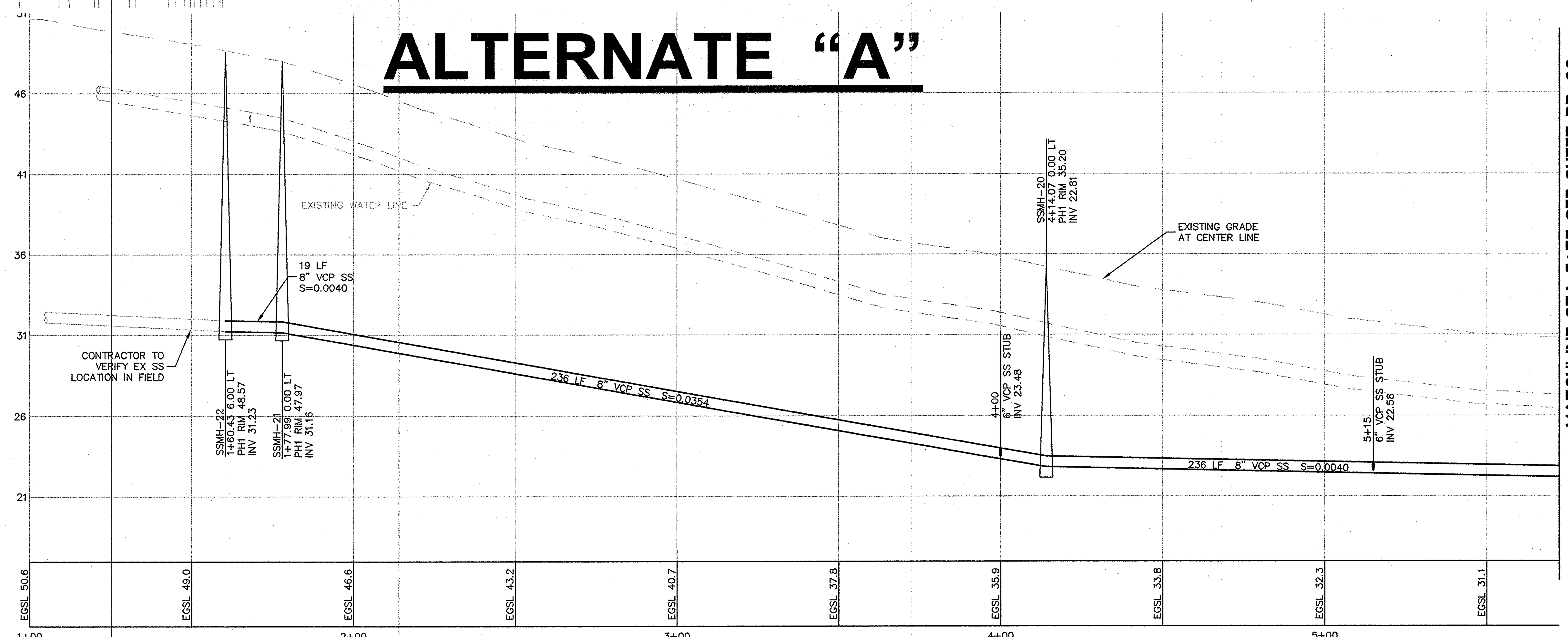
APPENDIX C

ALTERNATE "A" SANITARY SEWER INSTALLATION PLAN AND PROFILE



PLAN - VINEYARD DRIVE

SCALE: 1"=20'



PROFILE - VINEYARD DRIVE

SCALE: H: 1"= 20', V: 1"=4'

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	DESC.
C1	750.00'	25°09'35"	329.34'	CL
C2	774.00'	25°09'35"	339.88'	FC
C3	726.00'	25°09'35"	318.80'	FC
C4	50.00'	98°16'39"	85.76'	FC
C5	726.00'	25°09'35"	318.80'	FC
C6	774.00'	25°09'35"	339.88'	FC
C7	750.00'	25°09'35"	329.34'	CL
C8	500.00'	13°34'22"	118.44'	CL
C9	500.00'	13°34'22"	118.44'	CL
C10	54.00'	90°01'36"	84.85'	CL
C11	50.00'	90°01'36"	78.56'	FC
C12	88.00'	137°32'34"	211.25'	FC
C13	30.00'	23°45'29"	12.44'	FC
C14	30.00'	23°45'29"	12.44'	FC
C15	476.00'	13°28'30"	111.95'	FC
C16	500.00'	08°18'56"	72.57'	CL
C17	476.00'	08°18'56"	69.08'	FC
C18	524.00'	08°18'56"	76.05'	FC
C19	54.00'	98°16'39"	92.62'	CL
C20	88.00'	145°47'37"	223.92'	FC
C21	30.00'	23°45'29"	12.44'	FC
C22	30.00'	23°45'29"	12.44'	FC

LINE TABLE			
LINE	BEARING	LENGTH	DESC.
L1	N64°50'25"W	209.91'	CL
L2	N64°50'25"W	209.91'	FC
L3	N64°50'25"W	209.91'	FC
L4	N90°00'00"E	1247.66'	FC
L5	N90°00'00"W	1275.19'	FC
L6	N90°00'00"W	1295.19'	CL
L7	N00°01'36"E	150.00'	CL
L8	N00°01'36"E	775.06'	CL
L9	N00°01'36"E	755.05'	FC
L10	N00°01'36"E	160.73'	FC
L11	N00°02'17"E	298.32'	FC
L13	N00°02'17"E	1195.06'	CL
L14	N90°00'00"E	744.00'	FC
L15	N90°00'00"E	767.12'	CL
L16	N90°00'00"W	719.58'	FC
L17	N08°16'39"W	160.72'	CL
L18	N08°16'39"W	113.18'	FC
L19	N08°16'39"W	137.60'	FC

NOTE:
FC DATA SHOWN FOR REREFENCE ONLY. NOT IN CONTRACT.

NOTE:
PHASE 1 (PH1) SEWER RIMS INDICATE THE EXISTING CONDITION. RAISE OR LOWER TO PHASE 2 (PH2) RIM ELEVATIONS AS SHOWN.

REVIEWED FOR COMPLIANCE WITH TITLE 9, CHAPTER 4 OF THE ANTIOCH MUNICIPAL CODE

BY: [signature] CITY ENGINEER   1/25/07 DATE

1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT

REGISTERED PROFESSIONAL ENGINEER C 058084 EXP. 06/30/08 CIVIL STATE OF CALIFORNIA 1/19/07

BID SET
01/10/2007

BKF
ENGINEERS / SURVEYORS / PLANNERS
2737 N. MAIN STREET, STE 200
WALNUT CREEK, CA 94597
PH: (925) 940-2200
FAX: (925) 940-2299

SANITARY SEWER INSTALLATION WITHIN FUTURE SAKURAI STREET
VINEYARD DRIVE PLAN AND PROFILE

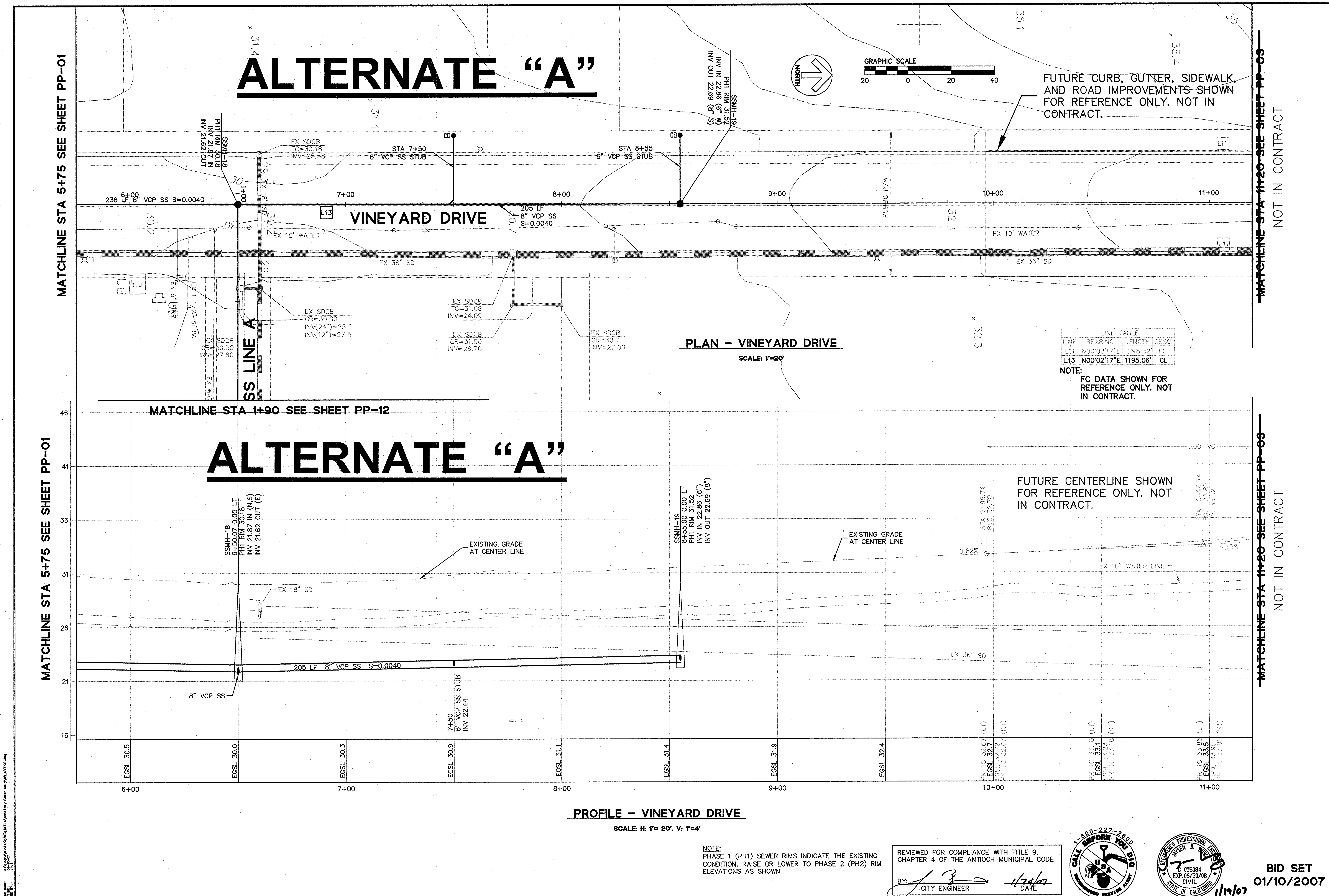
CITY OF ANTIOCH   CONTRA COSTA COUNTY   CALIFORNIA

Revisions | No.

Date: 01/10/2007
Scale: AS SHOWN
Design: AH/KW
Drawn: KW
Approved: JDL
Job No: 20035145

Drawing Number:
PP-01
OF

DRAWING NAME: K:\Eng03\035145\DWG\SHEETS\Sanitary Sewer Only\07_ASPP01.dwg
PLOT TIME: 01-10-07
PLOTTED BY: chuj



ALTERNATE "A"
MATCHLINE STA 5+75 SEE SHEET PP-01
MATCHLINE STA 11+20 SEE SHEET PP-03
NOT IN CONTRACT
GRAPHIC SCALE
20 0 20 40
NORTH
FUTURE CURB, GUTTER, SIDEWALK, AND ROAD IMPROVEMENTS SHOWN FOR REFERENCE ONLY. NOT IN CONTRACT.
SSMH-18
PH1 RIM 30.18
INV 21.87 IN
INV 21.62 OUT
SSMH-19
PH1 RIM 31.52
INV IN 22.86 (6" W)
INV OUT 22.69 (8" S)
STA 7+50
6" VCP SS STUB
STA 8+55
6" VCP SS STUB
236 LF 8" VCP SS S=0.0040
205 LF
8" VCP SS
S=0.0040
VINEYARD DRIVE
EX 10' WATER
EX 36" SD
EX SDCB
TC=30.18
INV=25.58
EX SDCB
GR=30.00
INV(24")=25.2
INV(12")=27.5
EX SDCB
TC=31.09
INV=24.09
EX SDCB
GR=31.00
INV=26.70
EX SDCB
GR=30.7
INV=27.00
EX SDCB
GR=30.30
INV=27.80
SS LINE A
PUBLIC R/W
LINE TABLE
LINE | BEARING | LENGTH | DESC.
L11 | N00°02'17"E | 298.32' | FC
L13 | N00°02'17"E | 1195.06' | CL
NOTE:
FC DATA SHOWN FOR REFERENCE ONLY. NOT IN CONTRACT.
PLAN - VINEYARD DRIVE
SCALE: 1"=20'
MATCHLINE STA 1+90 SEE SHEET PP-12
FUTURE CENTERLINE SHOWN FOR REFERENCE ONLY. NOT IN CONTRACT.
SSMH-18
6+50.07 0.00 LT
PH1 RIM 30.18
INV 21.87 IN (N,S)
INV 21.62 OUT (E)
SSMH-19
8+55.00 0.00 LT
PH1 RIM 31.52
INV IN 22.86 (6")
INV OUT 22.69 (8")
EXISTING GRADE AT CENTER LINE
EX 18" SD
205 LF 8" VCP SS S=0.0040
8" VCP SS
7+50
6" VCP SS STUB
INV 22.44
200' VC
EX 10" WATER LINE
EX 36" SD
0.82%
2.15%
EGSL 30.5
EGSL 30.0
EGSL 30.3
EGSL 30.9
EGSL 31.1
EGSL 31.4
EGSL 31.9
EGSL 32.4
6+00
7+00
8+00
9+00
10+00
11+00
PROFILE - VINEYARD DRIVE
SCALE: H: 1"= 20', V: 1"=4'
NOTE:
PHASE 1 (PH1) SEWER RIMS INDICATE THE EXISTING CONDITION. RAISE OR LOWER TO PHASE 2 (PH2) RIM ELEVATIONS AS SHOWN.
REVIEWED FOR COMPLIANCE WITH TITLE 9, CHAPTER 4 OF THE ANTIOCH MUNICIPAL CODE
BY: CITY ENGINEER
DATE
1-800-227-2600
CALL BEFORE YOU DIG
USA
REGISTERED PROFESSIONAL ENGINEER
058084
EXP. 06/30/08
CIVIL
STATE OF CALIFORNIA
BID SET
01/10/2007

BKF
ENGINEERS / SURVEYORS / PLANNERS
2737 N. MAIN STREET, STE 200
WALNUT CREEK, CA 94597
PH: (925) 940-2200
FAX: (925) 940-2299

SANITARY SEWER INSTALLATION WITHIN FUTURE SAKURAI STREET

VINEYARD DRIVE PLAN AND PROFILE

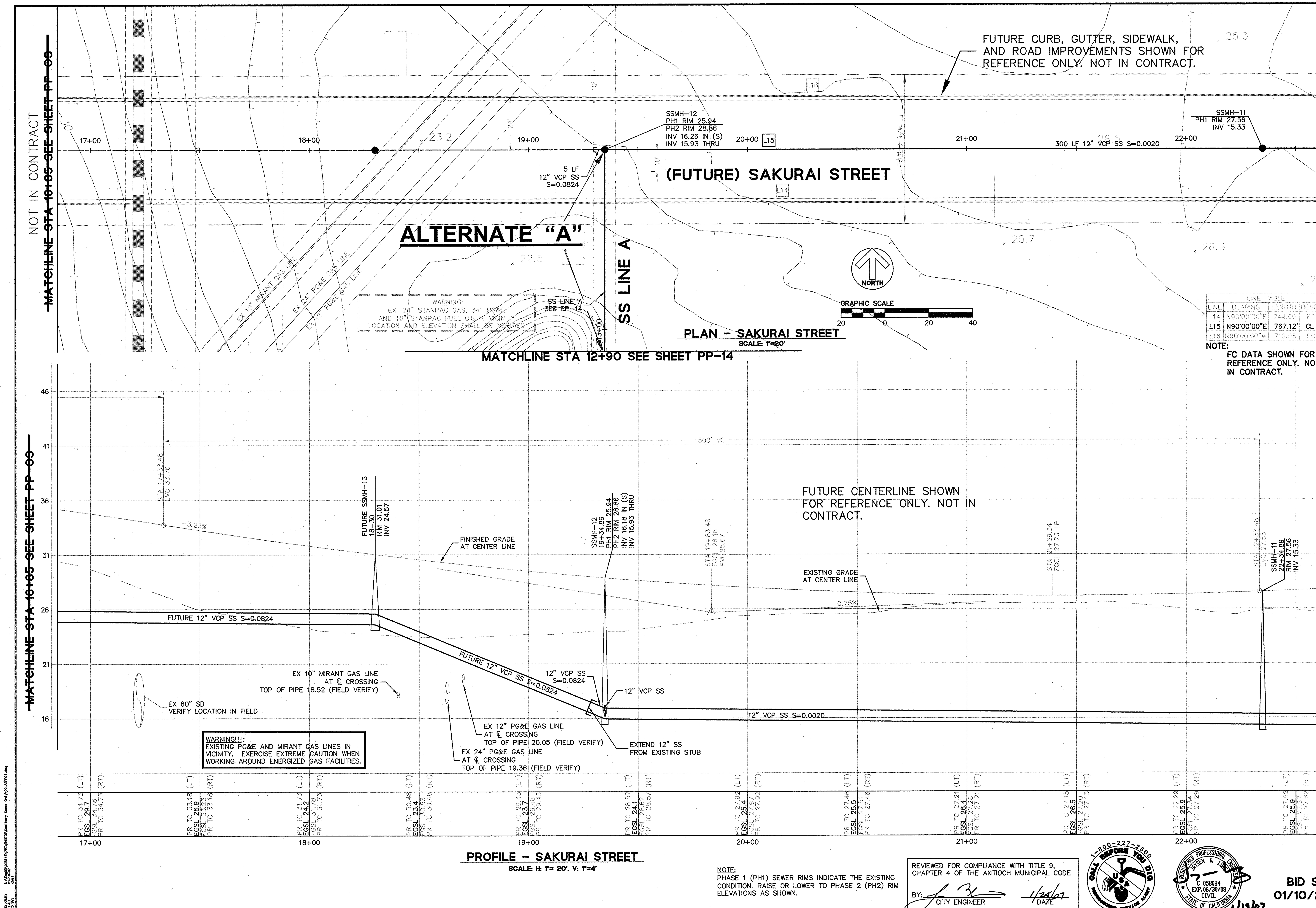
CITY OF ANTIOCH CONTRA COSTA COUNTY CALIFORNIA

Revisions

No.

Date: 01/10/2007
Scale: AS SHOWN
Design: AH/KW
Drawn: KW
Approved: JDL
Job No: 20035145

Drawing Number:
PP-02
OF



NOT IN CONTRACT
MATCHLINE STA 16+85 SEE SHEET PP-03
FUTURE CURB, GUTTER, SIDEWALK, AND ROAD IMPROVEMENTS SHOWN FOR REFERENCE ONLY. NOT IN CONTRACT.
SSMH-12
PH1 RIM 25.94
PH2 RIM 28.86
INV 16.26 IN (S)
INV 15.93 THRU
SSMH-11
PH1 RIM 27.56
INV 15.33
17+00
18+00
19+00
20+00
21+00
22+00
300 LF 12" VCP SS S=0.0020
5 LF
12" VCP SS
S=0.0824
(FUTURE) SAKURAI STREET
ALTERNATE "A"
SS LINE A
SS LINE A
SEE PP-14
EX 10" MIRANT GAS LINE
EX 24" PG&E GAS LINE
EX 12" PG&E GAS LINE
WARNING:
EX. 24" STANPAC GAS, 34" PG&E, AND 10" STANPAC FUEL OIL IN VICINITY. LOCATION AND ELEVATION SHALL BE VERIFIED.
NORTH
GRAPHIC SCALE
20 0 20 40
PLAN - SAKURAI STREET
SCALE: 1"=20'
MATCHLINE STA 12+90 SEE SHEET PP-14
LINE TABLE
LINE | BEARING | LENGTH | DESC.
L14 | N90°00'00"E | 744.00' | FC
L15 | N90°00'00"E | 767.12' | CL
L16 | N90°00'00"W | 719.58' | FC
NOTE:
FC DATA SHOWN FOR REFERENCE ONLY. NOT IN CONTRACT.
MATCHLINE STA 22+65 SEE SHEET PP-05
500' VC
STA 17+33.48
EVC 33.76
-3.23%
FUTURE SSMH-13
18+30
RIM 31.01
INV 24.57
FINISHED GRADE AT CENTER LINE
SSMH-12
19+34.89
PH1 RIM 25.94
PH2 RIM 28.86
INV 16.18 IN (S)
INV 15.93 THRU
STA 19+83.48
FGCL 28.16
PVI 25.67
FUTURE CENTERLINE SHOWN FOR REFERENCE ONLY. NOT IN CONTRACT.
STA 21+39.34
FGCL 27.20 LP
STA 22+33.46
EVC 27.55
SSMH-11
22+34.89
RIM 27.56
INV 15.33
EXISTING GRADE AT CENTER LINE
0.75%
FUTURE 12" VCP SS S=0.0824
FUTURE 12" VCP SS S=0.0824
12" VCP SS
S=0.0824
12" VCP SS
12" VCP SS S=0.0020
EX 10" MIRANT GAS LINE AT ℄ CROSSING TOP OF PIPE 18.52 (FIELD VERIFY)
EX 60" SD VERIFY LOCATION IN FIELD
EX 12" PG&E GAS LINE AT ℄ CROSSING TOP OF PIPE 20.05 (FIELD VERIFY)
EX 24" PG&E GAS LINE AT ℄ CROSSING TOP OF PIPE 19.36 (FIELD VERIFY)
EXTEND 12" SS FROM EXISTING STUB
WARNING!!!: EXISTING PG&E AND MIRANT GAS LINES IN VICINITY. EXERCISE EXTREME CAUTION WHEN WORKING AROUND ENERGIZED GAS FACILITIES.
46
41
36
31
26
21
16
PROFILE - SAKURAI STREET
SCALE: H: 1"= 20', V: 1"=4'

NOTE:
PHASE 1 (PH1) SEWER RIMS INDICATE THE EXISTING CONDITION. RAISE OR LOWER TO PHASE 2 (PH2) RIM ELEVATIONS AS SHOWN.

REVIEWED FOR COMPLIANCE WITH TITLE 9, CHAPTER 4 OF THE ANTIOCH MUNICIPAL CODE

BY: CITY ENGINEER 1/24/07 DATE

C 058084
EXP. 06/30/08
CIVIL
STATE OF CALIFORNIA
1/19/07

BID SET
01/10/2007

BKF
ENGINEERS | SURVEYORS | PLANNERS
2737 N. MAIN STREET, STE 200
WALNUT CREEK, CA 94597
PH: (925) 940-2200
FAX: (925) 940-2299

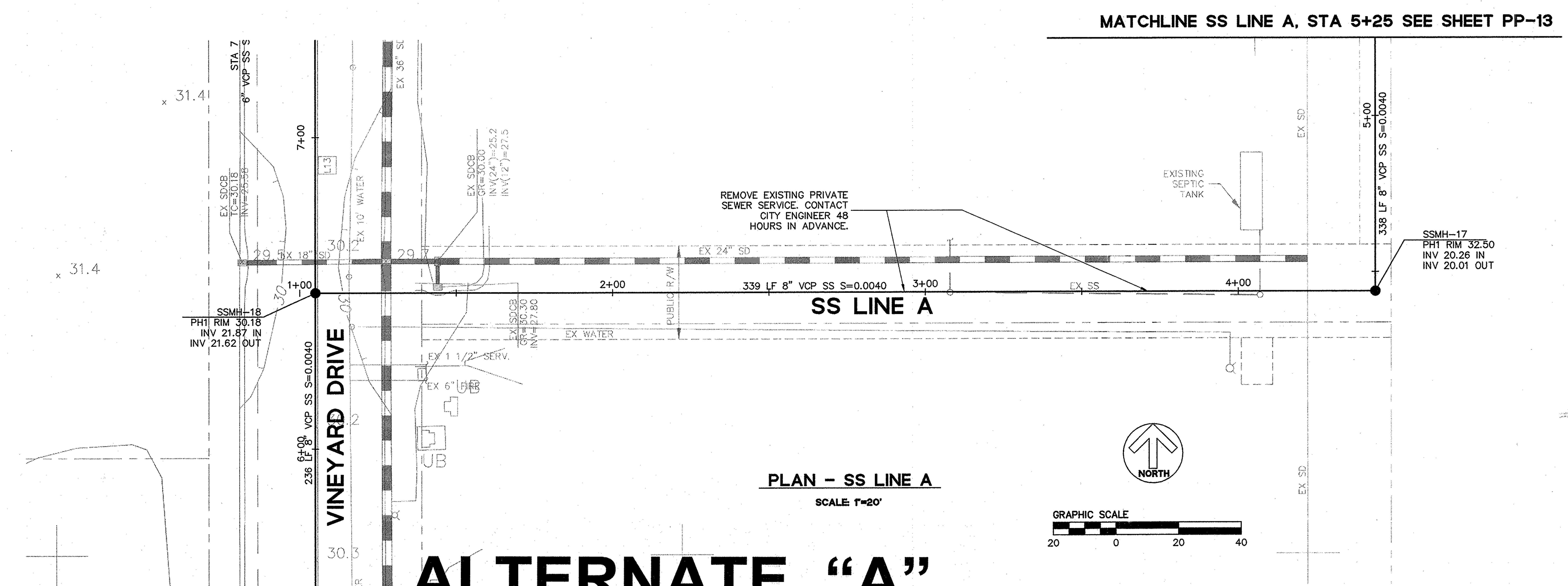
SANITARY SEWER INSTALLATION WITHIN FUTURE SAKURAI STREET
SAKURAI STREET PLAN AND PROFILE

CITY OF ANTIOCH CONTRA COSTA COUNTY CALIFORNIA

Date: 01/10/2007
Scale: AS SHOWN
Design: AH/KW
Drawn: KW/AM
Approved: JDL
Job No: 20035145

Drawing Number:
PP-04
OF

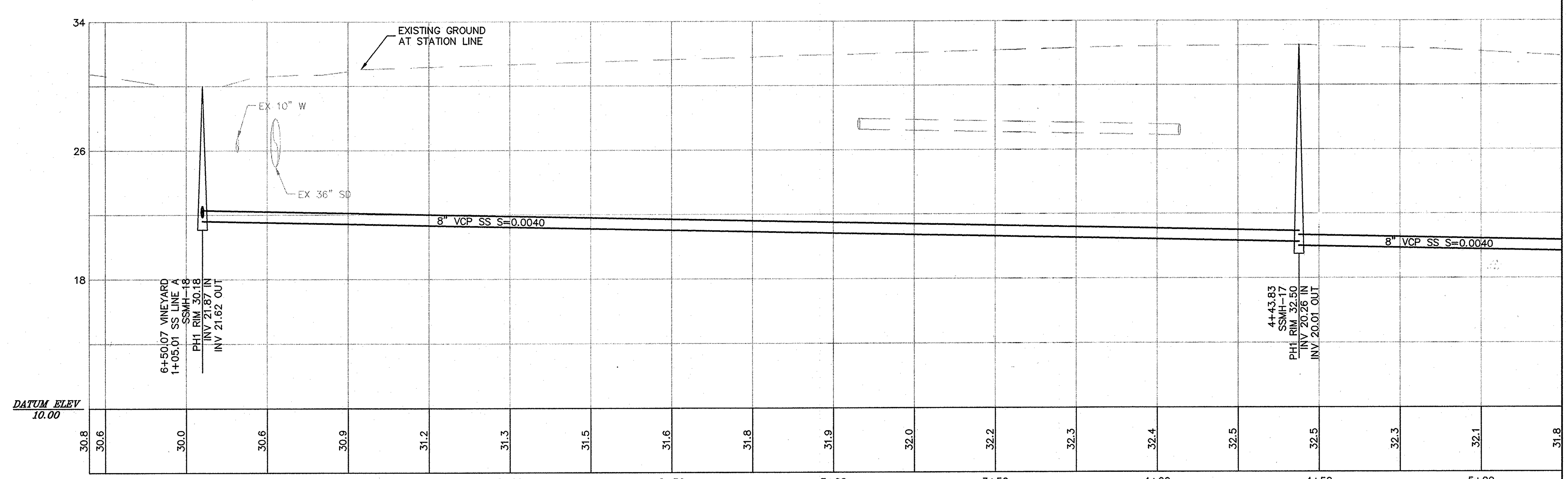
MATCHLINE SS LINE A, STA 5+25 SEE SHEET PP-13



PLAN - SS LINE A

SCALE: 1"=20'

ALTERNATE "A"



MATCHLINE SS LINE A, STA 5+25 SEE SHEET PP-13

PROFILE - SS LINE A

SCALE: H: 1"= 20', V: 1"=4'

NOTE:
PHASE 1 (PH1) SEWER RIMS INDICATE THE EXISTING CONDITION. RAISE OR LOWER TO PHASE 2 (PH2) RIM ELEVATIONS AS SHOWN.

REVIEWED FOR COMPLIANCE WITH TITLE 9, CHAPTER 4 OF THE ANTIOCH MUNICIPAL CODE

BY: ____________ CITY ENGINEER   1/24/07 DATE

1-800-227-2600 CALL BEFORE YOU DIG

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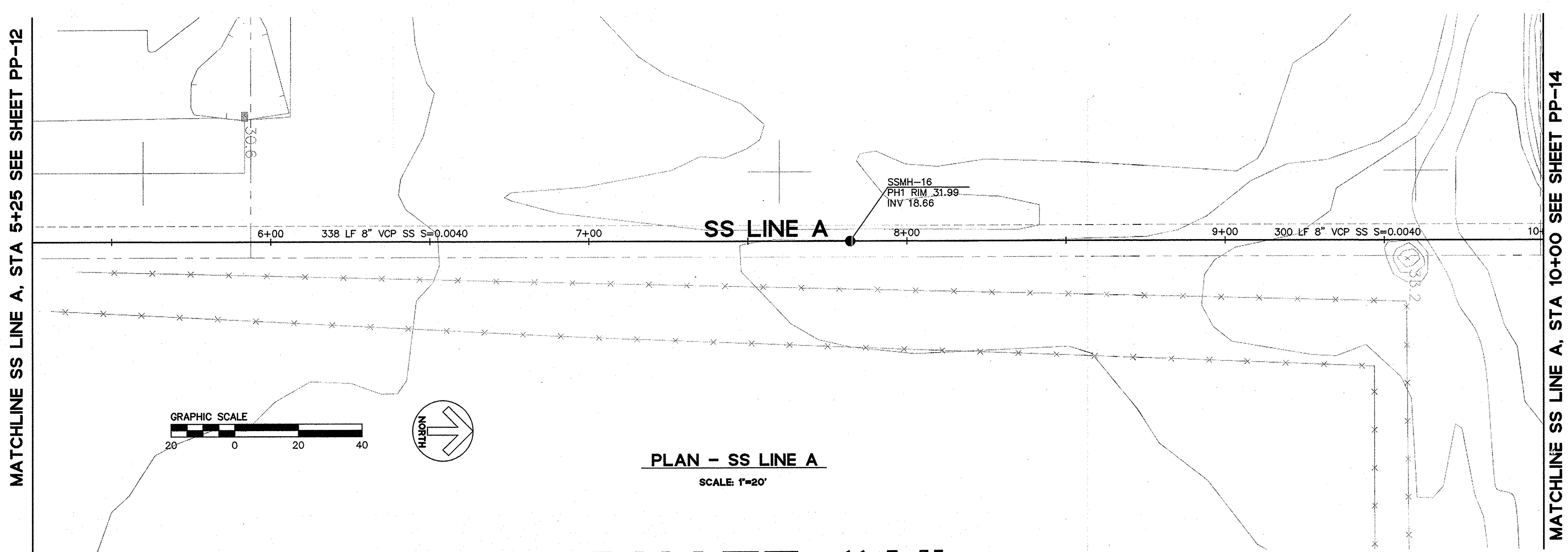
SANITARY SEWER INSTALLATION WITHIN FUTURE SAKURAI STREET
SS LINE A PLAN AND PROFILE

CITY OF ANTIOCH   CONTRA COSTA COUNTY   CALIFORNIA

No.	Revisions

Date: 01/10/2007
Scale: AS SHOWN
Design: AH/KW
Drawn: KW/AM
Approved: JDL
Job No: 20035145

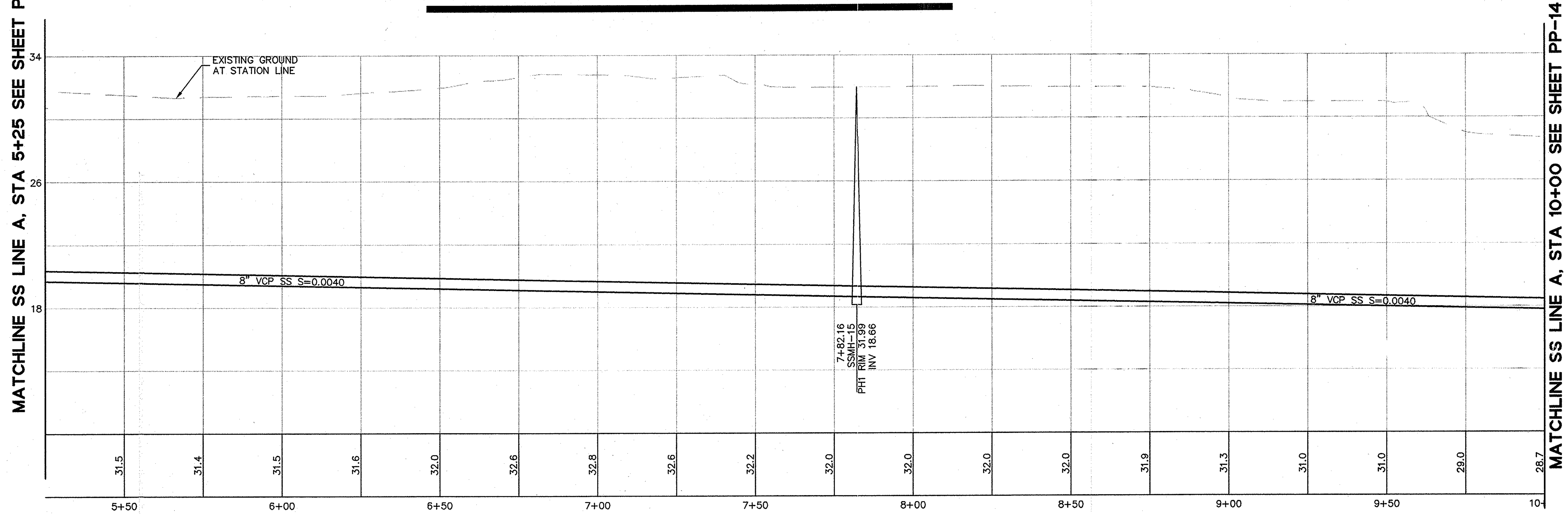
Drawing Number:
PP-12
OF



PLAN - SS LINE A

SCALE: 1"=20'

ALTERNATE "A"



PROFILE - SS LINE A

SCALE: H: 1"= 20', V: 1"=4'

NOTE:
PHASE 1 (PH1) SEWER RIMS INDICATE THE EXISTING CONDITION. RAISE OR LOWER TO PHASE 2 (PH2) RIM ELEVATIONS AS SHOWN.

REVIEWED FOR COMPLIANCE WITH TITLE 9, CHAPTER 4 OF THE ANTIOCH MUNICIPAL CODE

BY: [signature] CITY ENGINEER 1/24/07 DATE

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REGISTERED PROFESSIONAL ENGINEER JAYSEN D. ... C 058084 EXP. 05/30/08 CIVIL STATE OF CALIFORNIA 1/19/07

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SANITARY SEWER INSTALLATION WITHIN FUTURE SAKURAI STREET
SS LINE A PLAN AND PROFILE

CITY OF ANTIOCH CONTRA COSTA COUNTY CALIFORNIA

No.	Revisions

Date: 01/10/2007
Scale: AS SHOWN
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Job No: 20035145

Drawing Number:
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OF

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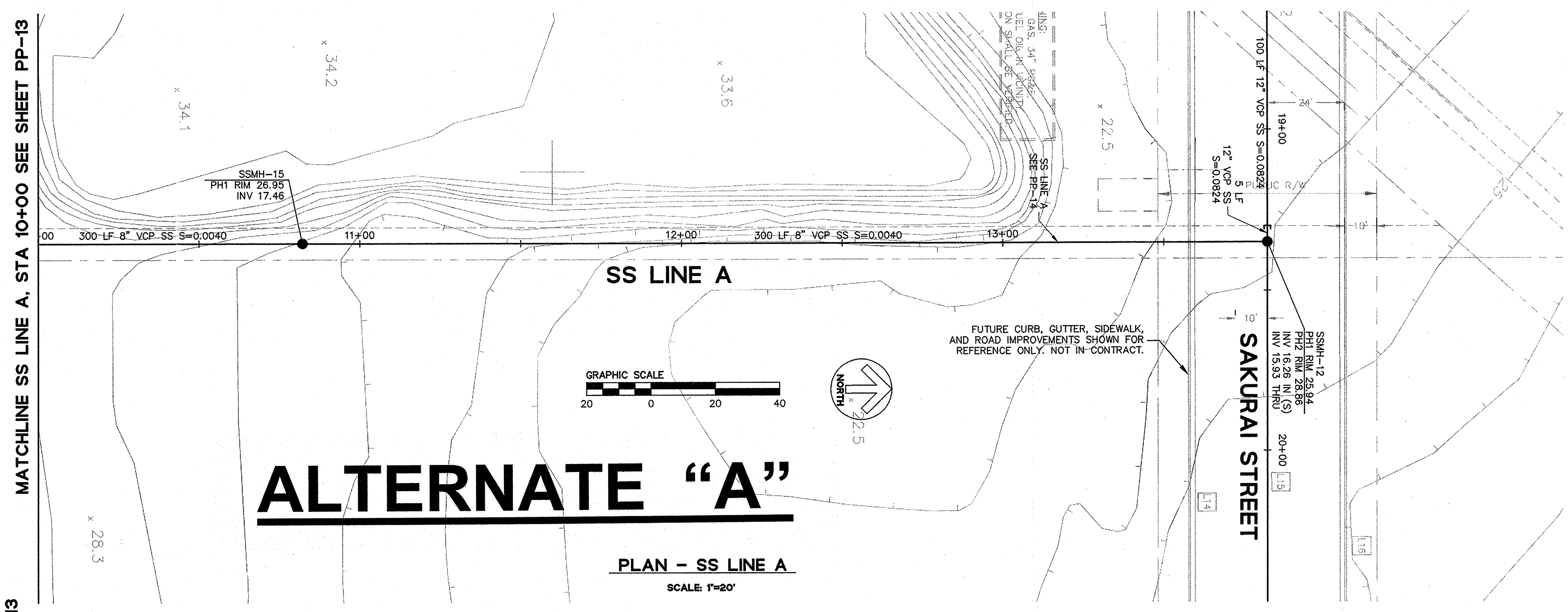
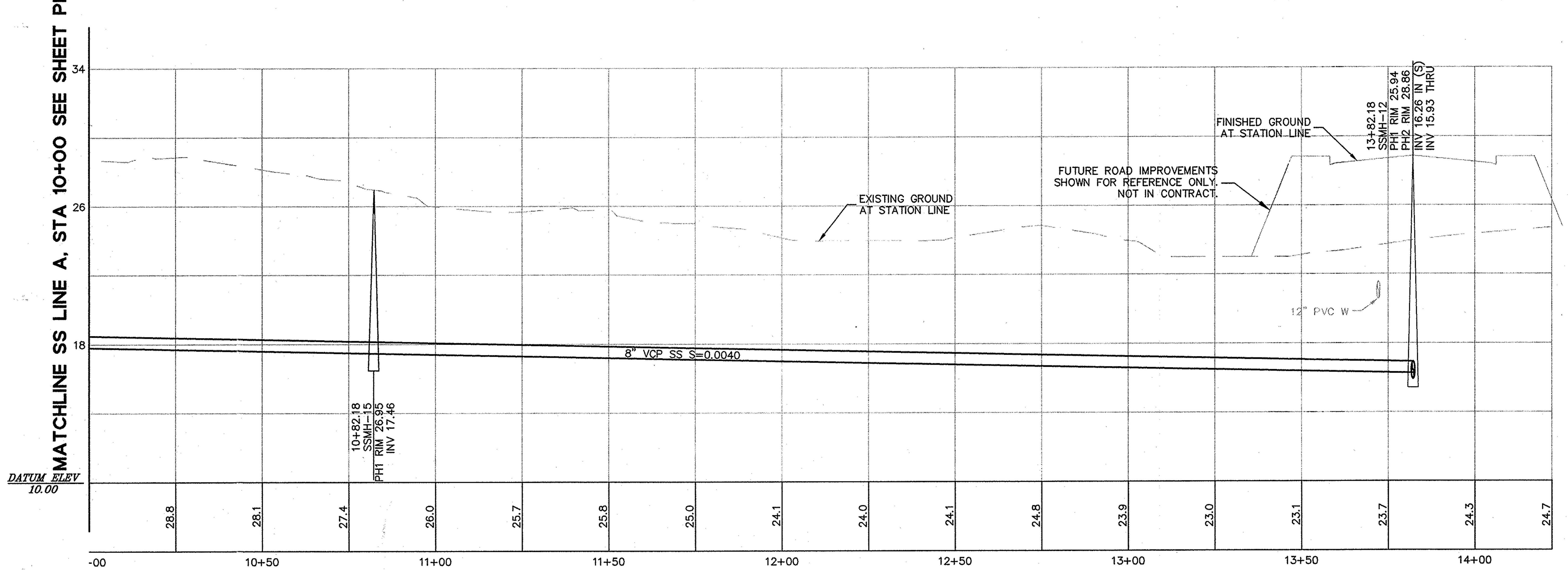


PLAN – SS LINE A

SCALE: 1"=20'



PROFILE – SS LINE A

SCALE: H: 1"= 20', V: 1"=4'

NOTE:
PHASE 1 (PH1) SEWER RIMS INDICATE THE EXISTING CONDITION. RAISE OR LOWER TO PHASE 2 (PH2) RIM ELEVATIONS AS SHOWN.

REVIEWED FOR COMPLIANCE WITH TITLE 9, CHAPTER 4 OF THE ANTIOCH MUNICIPAL CODE

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SS LINE A PLAN AND PROFILE

CITY OF ANTIOCH CONTRA COSTA COUNTY CALIFORNIA

No.	Revisions

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