

Appendix IS

Initial Study



Amáre Apartment Homes Project

Initial Study

prepared by

City of Martinez

Planning Division, Department of Community and Economic Development

525 Henrietta Street

Martinez, California 94553

Contact: Hector J. Rojas, AICP, Planning Manager

prepared with the assistance of

Rincon Consultants, Inc.

449 15th Street, Suite 303

Oakland, California 94612

January 2022



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

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Appendix AQ	Air Quality – California Emissions Estimator Model (CalEEMod) Output
Appendix ARB	Arborist Report
Appendix ESA	Phase I ESA
Appendix GEO	Preliminary Geotechnical Investigation and Peer Review
Appendix GHG	Greenhouse Gas – California Emissions Estimator Model (CalEEMod) Output and Supplemental Calculations
Appendix HYD	Supplemental Hydrology and Hydraulic Study

Abbreviations and Acronyms

AB	Assembly Bill
ABAG	Association of Bay Area Governments
BMP	best management practices
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CARB	California Air Resources Board
CCWD	Contra Costa Water District
CCCSPD	Contra Costa County Fire Protection District
CEQA	California Environmental Quality Act
CH ₄	methane
CHRIS	California Historical Resources Information System
CO	carbon monoxide
CO ₂	carbon dioxide
CNEL	Community Noise Equivalent Level
CRHR	California Register of Historical Resources
dB	decibels
dBA	A-weighted sound pressure level
DOC	(California) Department of Conservation
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
ESA	Environmental Site Assessment
EUI	energy use intensity
FIRM	(Federal Emergency Management Agency) Flood Insurance Rate Map
GHG	greenhouse gases
I-680	Interstate 680
IMP	integrated management practices
kBtu	thousand British thermal units
kWh	kilowatt-hours
Ldn	Day-Night Average (noise) Level
Leq	single steady A-weighted (noise) level

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Lmax	highest root mean squared sound pressure level
Lmin	lowest root mean squared sound pressure level
L10, L50, and L90	the noise levels exceeded 10, 50 and 90 percent of the time
MMC	Martinez Municipal Code
MUSD	Martinez Unified School District
mgd	million gallons per day
MLD	most likely descendant
MVSD	Mountain View Sanitary District
MMBtu	million British thermal units
MW	megawatts
N2O	nitrous oxides
NOX	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
O3	ozone
PG&E	Pacific Gas and Electric
PM2.5	particulate matter with a diameter of up to 2.5 microns
PM10	particulate matter with a diameter of up to ten microns
PPV	peak particle velocity
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SFBAAB	San Francisco Bay Area Air Basin
SO2	sulfur dioxide
SR	State Route
STC	sound transmission class
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
UCMP	University of California Museum of Paleontology
UWMP	Urban Water Management Plan
VdB	vibration decibels

Initial Study

As Lead Agency, the City of Martinez (City) has prepared this Initial Study for the Amáre Apartment Homes project in compliance with the California Environmental Quality Act (CEQA), the CEQA guidelines (California Code of Regulations Section 15000 et. seq.), and the regulations and policies of the City.

1. Project Title

Amáre Apartment Homes Project

2. Lead Agency Name and Address

City of Martinez
Planning Division
525 Henrietta Street
Martinez, California 94553

3. Contact Person and Phone Number

Hector J. Rojas, AICP Planning Manager
(925) 372-3524

4. Project Sponsor's Name and Address

William Schrader
The Austin Group LLC
164 Oak Road, Alamo, California 94507

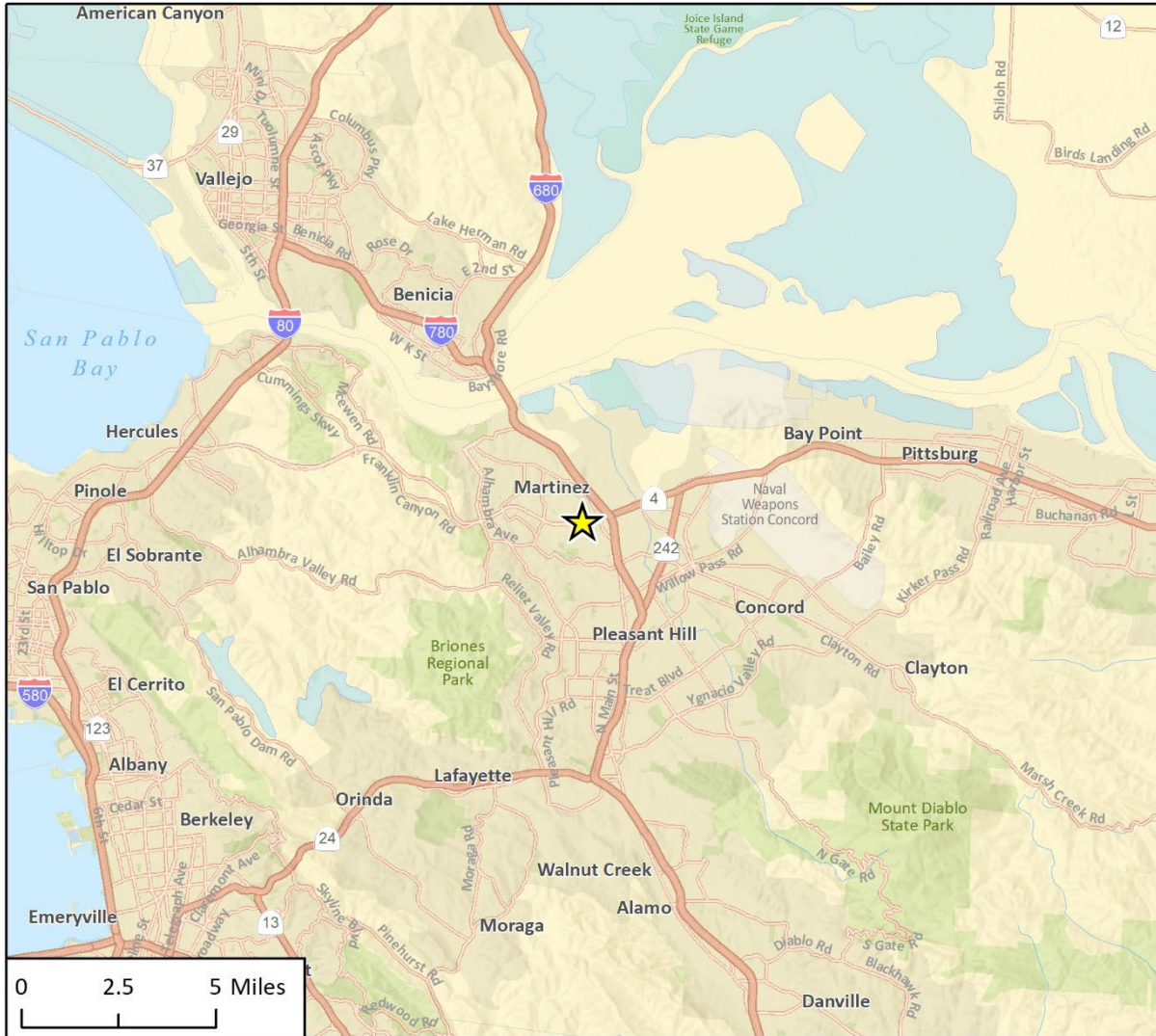
5. Project Location

The project site is located in Martinez in Contra Costa County (Figure 1). The site is approximately 6.06 acres in size and is on the south side of Arnold Drive, near its intersection with Starflower Drive (Figure 2). The site includes two assessor parcel numbers: 161-400-009 and 161-400-010.

6. General Plan Designation

The General Plan land use designation of the project site is Mixed Residential (up to 29 units/acre)/Office (MR/O).

Figure 1 Regional Project Location



Imagery provided by Esri and its licensors   2020.

★ Project Location

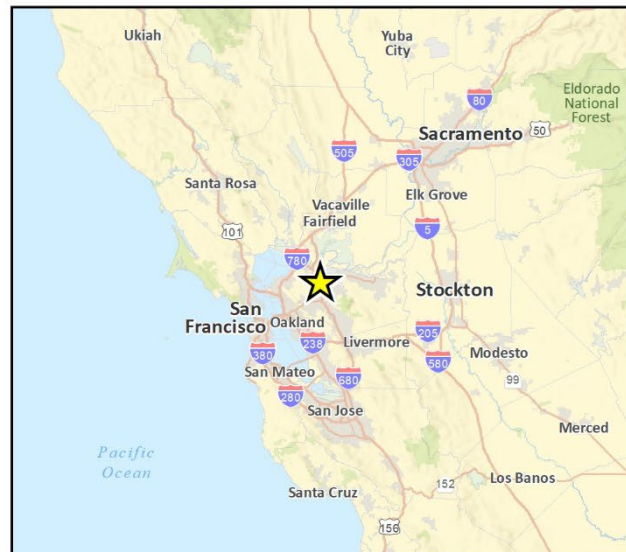


Fig. 1 Regional Location

Figure 2 Project Vicinity Map



7. Zoning

The project site is in a Mixed Use District: Multi-Family Residential/Professional and Administrative Offices (M-R-1.5/PA).

8. Surrounding Land Uses and Setting

The project site is surrounded by a mix of land uses. It is bordered by undeveloped land and State Route (SR) 4 to the south, Arnold Drive to the north, the Contra Costa County Assessor's Office to the east, and a single-family residence to the west. Single-family neighborhoods are located north of Arnold Drive and to the west of the site. Mountain View Sanitary District operates and maintains a sanitary sewer lift station on a small parcel that fronts Arnold Drive and is surrounded by the project site on the other three sides. The parcel containing the pump station is not included in the project site, and the proposed project would not involve changes to the existing pump station facility.

The site grades down slope from west to east, with an approximately 20-foot hill on the southwest corner of the site. The project site is undeveloped and contains non-native annual grassland and 60 trees, primarily native oaks and Italian stone pines, with redwoods and African sumac trees occurring along Arnold Drive (Traverso Tree Service 2016, Appendix ARB). A 48-inch storm drain traverses the site alongside a straight, man-made ditch that runs southeast from a point just off Arnold Drive for approximately 600 feet through the project site.

9. Project Description

The proposed project would involve the construction of six buildings that would include 104 one bedroom/one bathroom residential units and 79 two bedroom/two bathroom units, for a total of 183 rental residential units. Nine of the units would be below market rate, qualifying it as a California Density Bonus Project. Figure 3 shows the proposed site plan. The proposed apartment complex would also include on-site amenities such as a workout facility, business center, children's play area, outdoor kitchen area, and parking areas. Three of the buildings, Buildings 1, 2, and 4, would be three stories and up to 35 feet, 2 inches above adjacent grade. The other three buildings, Buildings 3, 5, and 6, would be four stories and up to 44 feet, 2 inches above adjacent grade.

Landscaping

Landscaping would include approximately 178 new trees and 28 standards, as well as shrubs and ground cover throughout the project site.¹ High planting densities would be used along the southern and eastern boundaries of the project site to create a visual screen between the site and SR 4 and adjacent uses. Landscaping would be irrigated using a fully automatic, water-conserving irrigation system consisting of drip and bubbler fixtures; a weather-based controller would regulate the system and include a rain sensor control to minimize watering during and after rain events. Three bioretention areas would be located on site: one in the southeastern corner and two along Arnold Drive on either side of the existing pump station. Flow-through planters would also be located along the parking area in the center of the site and north of the three western structures.

¹ Standards refer to the secondary street trees known as crape myrtle (*lagerstroemia "tuscarosa"*) in the applicant-provided landscape plans.

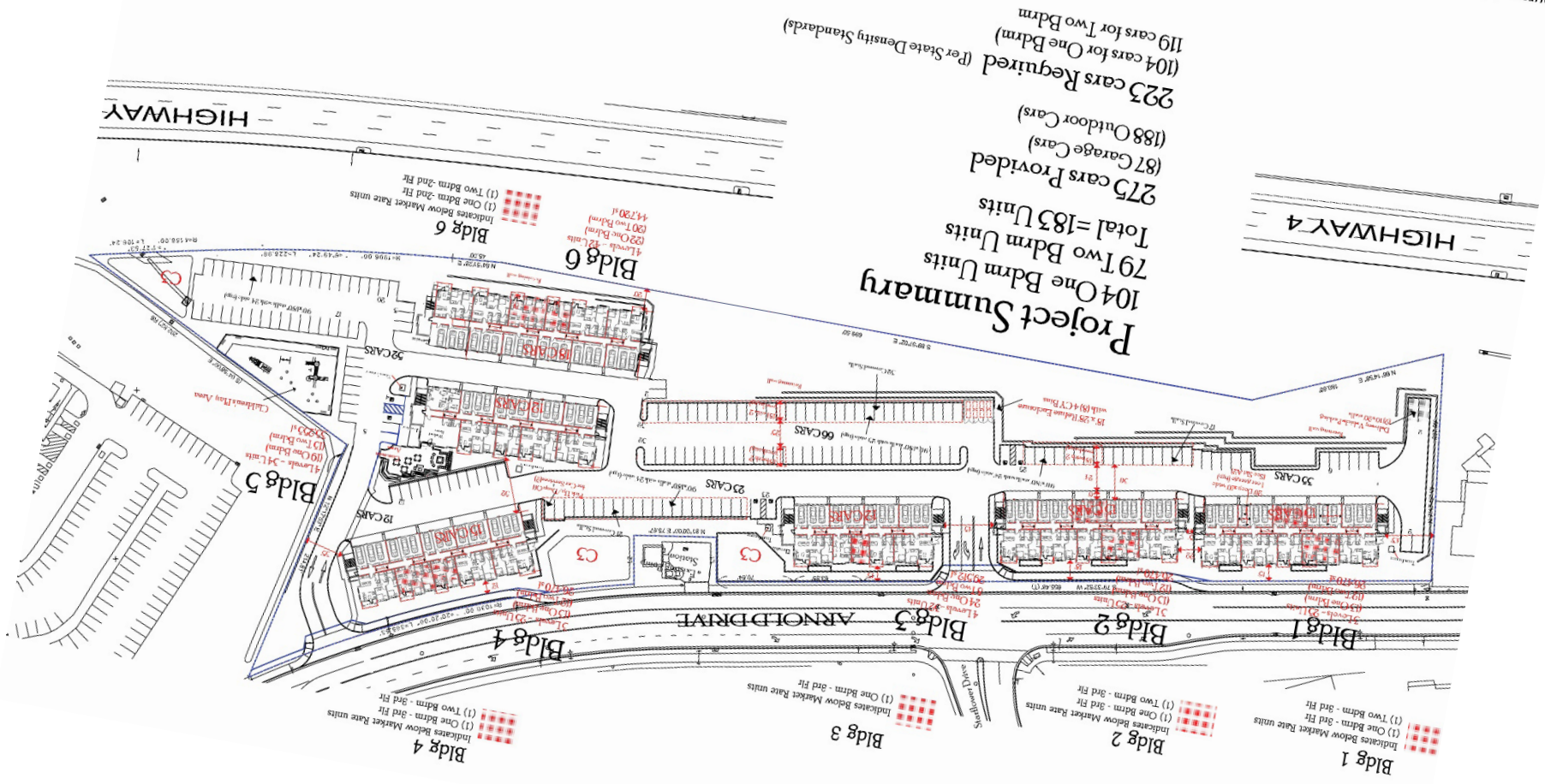


Figure 3 Proposed Project Site Plan

Source: Johnson Lyman Architects, 2021.

Site Access and Parking

Access to the project site would be provided through two proposed driveways from Arnold Drive (see Figure 3). The main project driveway would align with the existing intersection of Arnold Drive and Starflower Drive and would allow for left and right turn movements into and out of the project site from Arnold Drive. The second project driveway would be located near the eastern boundary of the project site and would provide right turn access onto and from Arnold Drive. Interior drive aisles would connect all six of the proposed buildings to both driveways on the project site. Parking areas would be provided in surface parking stalls and garages underneath the proposed residences.

The project would provide 275 parking spaces, of which 87 would be covered and 188 would be uncovered. Pursuant to state density standards, the project exceeds the required 223 parking spaces. The project includes a request for a parking requirement reduction to reduce the number of parking spaces required under City of Martinez Municipal Code (MMC) Chapter 22.36.030, from 458 spaces to 275 required spaces.² Parking locations are shown on Figure 3.

Utility Infrastructure

One connection would be made to existing water infrastructure within Arnold Drive for domestic water use. The connection would consist of an 8-inch line that would split into multiple 4-inch water lines to serve the proposed apartment structures. Two additional connections would be made for fire water supply through the project site. Wastewater service would be provided by 8-inch sanitary sewer lines connecting to the proposed apartment structures. The 8-inch sewer lines would transport wastewater to the existing sewer pump station located adjacent to Arnold Drive.

Public storm drainage infrastructure currently exists in the eastern and northern portions of the project site, and a drainage swale exists on the northeastern portion of the project site. The public storm drain systems would be replaced and rerouted to run within the drive aisles of the project site. Proposed public storm drain infrastructure would include multiple sizes of piping, ranging from 60-inches to 24-inches. The existing drainage swale on the project site would be piped, and extensive stormwater infrastructure, such as bioretention areas and storm water planters, would be incorporated throughout the project site prior to connection with proposed stormwater infrastructure.

Site Preparation and Construction

Construction would take approximately 24 months. Grading would occur over approximately four months, and the project would require import of 12,673 cubic yards of soil. Of the on-site trees, 43 would be removed and 17 would be retained.

10. Required City Approvals

- **Density Bonus**
- **Design Review Permit** for the design of the apartments
- **Height Concession** to allow a maximum height of 44 feet, 2 inches for proposed Buildings 3, 5, and 6
- **Hillside Density Waiver**

² Calculated using MMC Section 22.36.030 Residential Uses Table. (183 units x 1 covered space) + (183 units x 1.25 open space) + (183 units x 0.25 guest parking space) = 458 spaces (rounded up).

- **Building Separation Waiver**
- **Parking Waiver** for relief from the required dimension of exterior pad parking spaces and driveway width
- **Rear Building Setback Waiver**
- **Drive Aisle Width Waiver**
- **Height Exception** for each of the four-story buildings
- **Parking Lot Landscaping Waiver**

11. Other Public Agencies Whose Approval is Required

None.

12. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

The Lone Band of Miwok Indians previously submitted a request to the City to be consulted during the review process for proposed projects under the City's jurisdiction, pursuant to Public Resources Code Section 21080.3.1. As such, the City provided the Lone Band of Miwok Indians with notification regarding the proposed project on April 11, 2016. The Lone Band of Miwok Indians did not respond to the City's request for consultation for the proposed project.

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Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

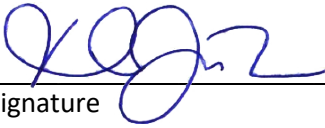
- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/>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

Determination

Based on this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “less than significant with mitigation incorporated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report (EIR) or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

Hector J. Rojas

Printed Name

January 13, 2022

Date

Planning Manager

Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

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

- | | | | | |
|---|---|--------------------------|--------------------------|--------------------------|
| a. Have a substantial adverse effect on a scenic vista? | ■ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ■ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ■ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area? | ■ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- a. *Would the project have a substantial adverse effect on a scenic vista?*
- b. *Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*
- c. *Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*
- d. *Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The project site is in an urbanized (suburban) area comprising residential development with some mixed office/commercial uses and low to moderate levels of existing lighting. Currently, site topography and existing on-site trees block the view of offsite open space from Arnold Drive; limited views of the open space preserve's northern border can be seen from Arnold Drive along the

City of Martinez

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eastern portion of the project site. However, the project would result in changes to the existing setting and may be potentially significant. This issue will be studied in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The project site is designated as Urban and Built-Up Land on the Contra Costa County Important Farmland 2014 Map (California Department of Conservation [DOC] 2016). The project site is designated and zoned for mixed-use residential and office uses. Surrounding properties are developed and are also not used or zoned for agriculture. As such, the proposed project would not

Amáre Apartment Homes Project

convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use and there would be no impact. This impact will not be discussed in the EIR.

NO IMPACT

- b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

The project site and surrounding area are not subject to Williamson Act contract (DOC 2013), nor is the site zoned for agricultural use. The current zoning designation for the project site is M-R-1.5/PA (City of Martinez 2018). Therefore, no Williamson Act contracts would be affected by project implementation and no impact would occur. This impact will not be discussed in the EIR.

NO IMPACT

- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

While trees are present on the project site, the site itself 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]). The project site is not currently utilized for the provision of forest and timber resources. As such, the project would not convert forest or timberland uses, and no impact would occur. This impact will not be discussed in the EIR.

NO IMPACT

3 Air Quality

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

Air Quality Standards and Attainment

Martinez is in Contra Costa County, which is a subregion of the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB includes the counties of San Francisco, Santa Clara, San Mateo, Marin, Napa, Contra Costa, and Alameda, along with the southeast portion of Sonoma County and the southwest portion of Solano County.

As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet them. Depending on whether or not standards are met or exceeded, a local air basin is classified as in “attainment” or “non-attainment.” The BAAQMD is in non-attainment for the national standards for ozone (O₃) and particulate matter smaller than 2.5 microns in diameter (PM_{2.5}) and in non-attainment for the state standard for O₃, PM_{2.5}, and particulate matter smaller than 10 microns in diameter (PM₁₀) (BAAQMD 2017a).

Air Quality Management

The BAAQMD is primarily responsible for assuring that national and state ambient air quality standards are attained and maintained in the Bay Area. The BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities. The BAAQMD has jurisdiction over much of the nine-county Bay Area, including Contra Costa County.

Am re Apartment Homes Project

The BAAQMD adopted the 2017 Clean Air Plan (2017 Plan) as an update to the 2010 Clean Air Plan. The 2017 Plan provides a regional strategy to protect public health and the climate. Consistent with the greenhouse gas (GHG) reduction targets adopted by the state, the 2017 Plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. To fulfill state O₃ planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of O₃precursors— reactive organic gases (ROG) and nitrogen oxides (NO_x)—and reduce transport of ozone and its precursors to neighboring air basins. The 2017 Plan builds upon and enhances the BAAQMD’s efforts to reduce emissions of fine particulate matter and toxic air contaminants (BAAQMD 2017b).

BAAQMD Screening Criteria

The BAAQMD recommends that lead agencies determine appropriate air quality emissions thresholds of significance based on substantial evidence in the record. The BAAQMD’s significance thresholds in the updated May 2017 CEQA Air Quality Guidelines for project operations within the SFBAAB are the most appropriate thresholds for use in determining air quality impacts of the proposed project. The BAAQMD developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts. If a project meets all of the screening criteria, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project’s air pollutant emissions. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration (BAAQMD 2017c).

The screening criteria for operational criteria pollutant emissions of residential townhome developments (which is the category most applicable for the proposed project) is 451 dwelling units. For construction-related emissions, the screening criteria is 240 dwelling units. As provided by the BAAQMD’s CEQA Air Quality Guidelines, if a project meets the screening criteria for an impact category and is consistent with the methodology used to develop the screening criteria, then its air quality impact for that category may be considered less than significant.

For a project to meet the screening criteria for construction, it cannot include any of the following activities during construction:

- Demolition
- Simultaneous occurrence of more than two construction phases (e.g., paving and building construction occurring simultaneously)
- Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development)
- Extensive site preparation (i.e., greater than default assumptions used by the Urban Land Use Emissions Model for grading, cut/fill, or earth movement)
- Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity

As the applicant provided information stating construction phases may overlap and the project would involve over 10,000 cubic yard of material transport, the screening criteria for construction do not apply to the project.

BAAQMD also provides a preliminary screening methodology to conservatively determine whether a proposed project would exceed CO thresholds. If the following criteria are met, a project would result in a less than significant impact related to local CO concentrations:

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

BAAQMD Air Emission Thresholds

Table 1 presents the significance thresholds for construction/demolition and operational-related criteria air pollutant and precursor emissions used for the purposes of this analysis. These 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. For the purposes of this analysis, the proposed project would result in a significant impact if construction or operational emissions would exceed any of the thresholds shown in Table 1.

Table 1 Air Quality Thresholds of Significance

Pollutant/ Precursor	Construction: Average Daily Emissions (lbs/day)	Operation: Maximum Annual Emissions (tpy)	Operation: Average Daily Emissions (lbs/day)
ROG	54	10	54
NO _x	54	10	54
PM ₁₀	82 (exhaust)	15	82
PM _{2.5}	54 (exhaust)	10	54

Notes: lbs/day = pounds per day; tpy = tons per year; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less.; PM_{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less

Source: BAAQMD 2017c: Table 2-1.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The California Clean Air Act requires that air districts create a Clean Air Plan that describes how the jurisdiction will meet air quality standards. The most recently adopted applicable air quality plan is the BAAQMD’s 2017 Plan. As described in the *Air Quality Management* Section above, the 2017 Plan updates the most recent Bay Area O₃ plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health and Safety Code. To fulfill state O₃ planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of O₃ precursors—ROG and NO_x—and reduce transport of O₃ and its precursors to neighboring air basins.

The 2017 Plan builds upon and enhances the BAAQMD’s efforts to reduce emissions of fine particulate matter and Toxic Air Contaminants (TAC). The 2017 Plan does not include control

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measures that apply directly to individual development projects. Instead, the control strategy includes control measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

The 2017 Plan focuses on two paramount goals:

- Protect air quality and health at the regional and local scale by attaining all national and state air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs
- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050

Under BAAQMD’s methodology, a determination of consistency with the 2017 Plan should demonstrate that a project:

- Supports the primary goals of the air quality plan
- Includes applicable control measures from the air quality plan
- Does not disrupt or hinder implementation of any air quality plan control measures

A project that would not support the 2017 CAP goals would not be considered consistent with the 2017 CAP. Individual project consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the clean air plan’s goals. As shown in the response to checklist items b and c (see below), the proposed Plan would not result in exceedances of BAAQMD 2017 thresholds for criteria air pollutants and thus would not conflict with the 2017 CAP’s goal to attain air quality standards. Table 2 provides the applicable control strategies to the project.

Table 2 2017 Plan Applicable Strategies

Control Strategy	Evaluation
Direct new development to areas that are well served by transit, and conducive to bicycling and walking.	The project area is along Route 18/23/99x of the Central Contra Costa Transit Authority transient lines. Dedicated bike lanes and trails are located along Arnold Drive.
Expand the production of low-carbon, renewable energy by promoting on-site technologies such as rooftop solar, wind and ground-source heat pumps.	The project will include solar electrical generation systems to comply with net zero energy requirements under the Energy Code.
Promote energy and water efficiency in both new and existing buildings.	The project will include water efficient fixtures to comply with CalGreen requirements.
Promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.	The project will include solar electrical generation systems to comply with net zero energy requirements under the Energy Code.

Therefore, consistent with the City’s CEQA thresholds, the proposed Plan would not conflict with or obstruct the implementation of the 2017 Clean Air Plan. This impact would be less than significant and will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Construction

Project construction would result in temporary construction emissions and long-term operational emissions. Construction activities such as the operation of construction vehicles and equipment over unpaved areas, grading, trenching, and disturbance of stockpiled soils have the potential to generate fugitive dust (PM₁₀) through the exposure of soil to wind erosion and dust entrainment. Exhaust emissions associated with heavy-duty construction equipment would potentially degrade regional air quality. Project construction would require more than 10,000 cubic yards of soil import, and construction phases would overlap; therefore, project construction exceeds the BAAQMD screening criteria.

Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 and are shown in Table 3.

Table 3 Construction Emissions (pounds/day)

Pollutant	Maximum Daily Emissions ¹	Significance Threshold	Significant Impact?
ROG	14.9	54	No
NO _x	46.5	54	No
CO	29.8	N/A	N/A
PM ₁₀ (exhaust)	1.8	82	No
PM _{2.5} (exhaust)	1.7	54	No

¹ The BAAQMD threshold is for the average daily emissions, but the maximum daily emissions are provided here for a conservative analysis.

Source: Appendix AQ, CalEEMod worksheet Table 2.1 "Overall construction (Maximum Daily Emission)" emissions

As shown in Table 3, the proposed project would not exceed the BAAQMD short-term construction thresholds and impacts from construction emissions would therefore be less than significant.

Operation

Long-term emissions associated with operational impacts would include emissions from vehicle trips (mobile sources), natural gas and electricity use (energy sources), and landscape maintenance equipment, consumer products, and architectural coating associated with on-site development (area sources). Table 4 and Table 5 show that emissions would not exceed BAAQMD daily or annual thresholds for any criteria pollutant. Consequently, operational impacts would be less than significant. This impact will not be discussed in the EIR.

Table 4 Project Operation Average Daily Emissions

Sources	Average Daily Emissions (lbs/day)					
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
Area	5.1	0.2	15.1	0.1	0.1	<0.1
Energy	<0.1	0.4	0.2	<0.1	<0.1	<0.1
Mobile	1.9	6.7	18.7	6.5	1.8	0.1
Total Project Emissions	7.0	7.3	33.9	6.6	1.9	0.1
BAAQMD Thresholds	54	54	N/A	82	54	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

Source: Appendix AQ, CalEEMod worksheet Table 2.2 "Overall operational-mitigated." Numbers may not add up due to rounding.
 N/A = not applicable; no BAAQMD threshold for CO or SO_x

Table 5 Project Operational Maximum Annual Emissions

Sources	Maximum Annual Emissions (tons/year)					
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
Area	0.1	<0.1	1.4	<0.1	<0.1	<0.1
Energy	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Mobile	0.3	1.1	3.0	1.1	0.3	<0.1
Total Project Emissions	1.2	1.2	4.4	1.1	0.3	<0.1
BAAQMD Thresholds	10	10	N/A	15	10	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

Source: Appendix AQ, CalEEMod worksheet Table 2.2 "Overall operational-unmitigated" emissions. Numbers may not add up due to rounding.
 N/A = not applicable; no BAAQMD threshold for CO or SO_x

LESS THAN SIGNIFICANT IMPACT

c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

CO Hot Spots

A project’s indirect CO emissions would be significant if they contribute to a violation of the State standards for CO (9.0 ppm averaged over eight hours and 20 ppm over one hour). BAAQMD provides a preliminary screening methodology to conservatively determine whether a proposed project would exceed CO thresholds. If the following criteria are met, a project would not have a significant impact related to local CO concentrations:

1. 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.
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g.,

tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The project must comply with the Contra Costa Transportation Authority's Congestion Management Program. The project is anticipated to result in an increase of 102 hourly trips to the p.m. peak hour traffic volumes. The busiest affected intersection would be Pacheco Boulevard and Arnold Drive, which has a volume of 18,000 vehicles per day. The project trip generation added to existing traffic volumes would not exceed 44,000 vehicles per day or 24,000 vehicles per hour. Therefore, the project would have a less than significant impact on local CO concentrations.

As construction and operational emissions would not exceed BAAQMD thresholds for any criteria pollutant and would comply with BAAQMD criteria pollutant thresholds, and CAAQS CO thresholds, the project would not result in individually or cumulatively significant impacts to air quality.

Toxics

The California Air Resources Board (CARB) has identified diesel particulate matter as the primary airborne carcinogen in the state (CARB 2014). TACs include a defined set of air pollutants that may pose a present or potential hazard to human health. Common sources of TACs and PM_{2.5} include gasoline stations, dry cleaners, diesel backup generators, truck distribution centers, freeways, and other major roadways (BAAQMD 2017c). The project does not propose construction of gas stations, dry cleaners, highways, roadways, or other sources that could be considered permitted or non-permitted source of toxic air contaminants or PM_{2.5} in proximity to receptors. The project would not introduce a new stationary source of emissions and would not result in particulate matter greater than BAAQMD thresholds. Moreover, as described above under criterion (b), the proposed project would not exceed emissions thresholds during construction or operation. Impacts would be less than significant. This impact will not be discussed in the EIR.

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

Table 3-3 in the BAAQMD's 2017 CEQA Guidelines provides odor screening distances for land uses that have the potential to generate substantial odor complaints. These uses include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017c). None of these identified uses would occur on or in the vicinity of the project site. The proposed project, including outdoor kitchen, does not include odor-complaint generating uses as identified by the BAAQMD CEQA Guidelines, and would not generate objectionable odors affecting a substantial number of people during operation.

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust both during normal use and when idling. However, such emissions would be intermittent in nature and would dissipate rapidly with increasing distance from the source. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people. This impact would be less than significant and will not be discussed in the EIR.

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4 Biological Resources

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

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- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*
- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*
- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The project site is currently undeveloped and contains grasslands and native and non-native trees on the hillsides with the potential to support sensitive species. The project site also has a low-lying drainage ditch that appears to contain potential wetland conditions. Therefore, impacts related to special-status species, riparian habitats and natural communities, wetlands, wildlife movement, and conflicts with local policies or ordinances protecting biological resources would be potentially significant impact and will be addressed in the EIR.

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- f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The boundary of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan is approximately 15 miles east of Martinez. As the city is not located within the boundaries of this or any other habitat conservation plan/natural community conservation plan, the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan and there would be no impacts. This impact will not be discussed further in the EIR.

NO IMPACT

5 Cultural Resources

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

- a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*
- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*
- c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

The project site does not contain structures or other built environment features that may be considered historical resources. Considering the previous uses and frequent disturbance of the project site, archaeological resources are unlikely to occur there, but the potential remains for unanticipated discoveries during ground disturbance, which could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. This impact would be potentially significant and will be evaluated in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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6 Energy

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

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

The total consumption of energy during project construction and operation of the buildings was estimated using the assumptions and factors from CalEEMod Version 2016.3.2, the results of which can be found in Appendix AQ.

Construction

Project construction would result in short-term consumption of energy from the use of construction equipment and processes. Energy use would be primarily from fuel consumption to operate heavy-duty equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. Project construction would be required to comply with the MMC, which incorporates the California Green Building Standards Code (CalGreen). The California Green Building Standards Code includes specific requirements related to recycling, construction materials, and energy efficiency standards that apply to construction of residences to minimize wasteful, inefficient, and unnecessary energy consumption. Therefore, project construction would not involve wasteful, inefficient, or unnecessary consumption of energy resources.

Operation

The proposed project would involve the use of energy during operation. The project would require permanent grid connections for electricity and natural gas. The project would be required to comply with the California Building Code (Title 24) and the MMC. CalGreen (adopted under MMC 15.07.010), includes specific requirements related to energy efficiency standards that apply to new residences and that minimize wasteful, inefficient, and unnecessary energy consumption during operation. CalGreen also requires water-efficient plumbing fixtures and fittings, recycling services, and other energy-efficient measures. Under the California Energy Code, the project must meet the

net zero energy requirements for new single- and multiple-family residential development, up to three stories, by incorporating solar electric generation systems into the design.

The proposed project would also involve the use of energy from private vehicle travel to and from the site. According to CARB, the average miles per gallon for all gasoline vehicles in operational year 2021 is 14.7 miles per gallon (CARB 2019). Assuming a trip length of 10.8 miles project operation would require 357,193 gallons of gasoline per year (California Air Pollution Control Officers Association 2017). This estimate conservatively assumes that a variety of vehicle types would travel to and from the project site, whereas for a residential development, most, if not all, vehicle trips would be conducted in passenger vehicles, which generally operate at a higher fuel efficiency than 14.7 miles per gallon. Therefore, the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources from travel to and from the site.

Based on information from CalEEMod, project operation would require permanent grid connections for electricity and natural gas. Approximately 2,522 million British thermal units per year (MMBtu/year) of electricity would be used for lighting and large appliances within the residential units. Approximately 1,533 MMBtu/year of natural gas would be used primarily for heating the proposed structures. The proposed residential structures would total approximately 188,895 square feet, which is an average energy use intensity (EUI) of 0.021472 MMBtu per square foot. According to the U.S. Energy Information Administration (EIA), average EUI for residences in the Pacific region of the United States is 0.0314 MMBtu per square foot (EIA 2018a; EIA 2018b). Therefore, the project's EUI for residential buildings would be below the average EUI in the Pacific region of the U.S. Project operation would not result in significant impacts due to the wasteful, inefficient, or unnecessary consumption of energy.

Overall, project operation would result in consumption of fuels from vehicle trips, and electricity and natural gas in proposed structures. Project energy consumed would represent an incremental increase in energy usage compared to existing conditions, and the proposed project would implement energy-efficient components to reduce energy demand. Therefore, impacts would be less than significant.

Conclusion

Project construction and operation would not result in potentially significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy. Impacts would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Energy use during project construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. Energy use during construction would be temporary and construction equipment used would be typical of other construction projects in the region. Therefore, project construction would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and no construction-related energy impact would occur.

Table 6 provides energy efficiency goals and policies provided in the City's Climate Action Plan (CAP); it describes the project's consistency with these policies (City of Martinez 2009).

Table 6 Project Compliance with Energy Efficiency Goals and Policies

Energy Efficiency Goal or Policy	Project Consistency
City of Martinez Climate Action Plan	
Goal 1: To shift to renewable energy sources	Consistent. The project includes a solar system and would be required to comply with the 2019 California Building Code (Title 24), which includes updates to the energy code, which requires all new single or multiple family residential construction up to three stories high to be Net zero energy emissions. Title 24 also includes CALGreen’s specific requirements related to water-efficient plumbing fixtures and fittings, recycling services, and other energy-efficient measures, representing a shift toward conservation and a decreased reliance on non-renewable energy sources.
Principal 6. Reduce, reuse, and recycle.	Consistent. The project would be required to comply with the 2019 California Building Code (Title 24) and includes CALGreen requirement to divert at least 65 percent of waste from covered construction projects. Project occupants would be required to comply with waste diversion requirements under Assembly Bill (AB) 341, which requires 75 percent diversion of waste from landfills.

As shown in Table 6, the project would be consistent with applicable energy efficiency goals and policies. Therefore, potential impacts associated with renewable energy and energy efficiency would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

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7 Geology and Soils

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

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A Preliminary Geotechnical Investigation for the project site was completed by Cornerstone Earth Group in December of 2009 (Appendix GEO). The investigation consisted of field and laboratory programs to evaluate physical and engineering properties of the subsurface soils, engineering analysis to prepare recommendations for site work and grading, building foundations, flatwork, retaining walls, and pavements, and preparation of this report. In 2016, the City hired Cal Engineering & Geology to conduct a peer review of the Preliminary Geotechnical Investigation to provide technical advice to assist the City in its discretionary permit decisions. The analysis contained in this section is based, in part, on the Preliminary Geotechnical Investigation prepared for the proposed project by Cornerstone Earth Group as well as the Peer Review prepared by Cal Engineering & Geology (Cornerstone Earth Group 2009, Cal Engineering & Geology 2016; included in Appendix GEO).

- a.1. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*
- a.2. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*
- a.3. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*
- a.4. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*
- b. *Would the project result in substantial soil erosion or the loss of topsoil?*
- c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*
- d. *Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*
- e. *Would the project 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?*
- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

A Preliminary Geotechnical Investigation for the project site was completed by Cornerstone Earth Group in December of 2009 (Appendix GEO). The investigation consisted of field and laboratory programs to evaluate physical and engineering properties of the subsurface soils, engineering analysis to prepare recommendations for site work and grading, building foundations, flatwork, retaining walls, and pavements, and preparation of this report. In 2016, the City hired Cal Engineering & Geology to conduct a peer review of the Preliminary Geotechnical Investigation to provide technical advice to assist the City in its discretionary permit decisions. The analysis contained in this section is based, in part, on the Preliminary Geotechnical Investigation prepared for the proposed project by Cornerstone Earth Group as well as the Peer Review prepared by Cal

Engineering & Geology (Cornerstone Earth Group 2009, Cal Engineering & Geology 2016; included in Appendix GEO).

Based on the results in this report, there would be a potentially significant impact with regard to unstable soil that may be prone to lateral spreading, expansive soil, and soil erosion. This impact will be evaluated in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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8 Greenhouse Gas Emissions

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

Climate Change and Greenhouse Gases

Project implementation would generate greenhouse gas (GHG) emissions through the burning of fossil fuels or other emissions of GHGs, thus potentially contributing to cumulative impacts related to climate change. In response to an increase in man-made GHG concentrations over the past 150 years, California has implemented AB 32, the “California Global Warming Solutions Act of 2006.” AB 32 codifies the Statewide goal of reducing emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels) and the adoption of regulations to require reporting and verification of statewide GHG emissions. Furthermore, on September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, which requires the State to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 extends AB 32, directing the CARB to ensure that GHGs are reduced to 40 percent below the 1990 level by 2030.

On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) CO₂e by 2030 and two MT CO₂e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the State.

Most individual projects do not generate enough GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project’s contribution towards an impact would be cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

City of Martinez Climate Action Plan

The City of Martinez CAP establishes strategies to reduce GHG emissions known to contribute to climate change, to conserve energy and other natural resources, and to prepare the community for the expected effects of global warming (City of Martinez 2009). The CAP includes specific goals and objectives to reduce GHG emissions, including policies, programs, and actions to facilitate change. The CAP establishes four key GHG emissions categories (transportation, energy, solid waste, and water) as priorities for adapting to the local physical changes in the environment resulting from climate change.

Thresholds

Pursuant to the requirements of SB 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines for the feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

To evaluate whether a project may generate a quantity of GHG emissions that may have a significant impact on the environment, state agencies have developed several operational bright-line significance thresholds. Significance thresholds are numeric mass emissions thresholds that identify the level at which additional analysis of project GHG emissions is necessary. Projects that attain the significance target, with or without mitigation, would result in less than significant GHG emissions.

In late 2015, the California Supreme Court’s Newhall Ranch decision confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA, depending on the circumstances of a given project (Center for Biological Diversity v. Department of Fish and Wildlife (2015) 62 Cal. 4th 204). Given the legislative attention and judicial action regarding post-2020 goals and the scientific evidence that additional GHG reductions are needed through the year 2050, the Association of Environmental Professionals’ Climate Change Committee published a white paper in October 2016 to provide guidance on defensible GHG thresholds for use in CEQA analyses and GHG reduction targets in climate action plans in light of the change in focus on the 2030 reduction target and questions raised in the Newhall Ranch case (Association of Environmental Professionals 2016).

The Association of Environmental Professionals Climate Change Committee white paper identified seven thresholds for operational emissions. The following four methods described are the most widely used evaluation criteria.³

1. **Consistency with a Qualified GHG Reduction Plan.** For a project located within a jurisdiction that has adopted a qualified GHG reduction plan (as defined by CEQA Guidelines Section 15183.5), GHG emissions would be less than significant if the project is anticipated by the plan and fully consistent with the plan. However, projects with a horizon year beyond 2020 should not tier from a plan that is qualified up to 2020.

³ The three other thresholds are best management practices (BMP/best available mitigation (BAM), compliance with regulations, and a hybrid threshold concept: separate transportation and non-transportation threshold. The BMP/BAM concept would require creation and implementation of an approved list of BMPs to ensure compliance with statewide reduction targets. No such list has been created/approved to date. Compliance with existing regulations is not recommended until the state has developed its regulatory framework to meet 2030 GHG reduction targets. Finally, the hybrid transportation and non-transportation thresholds approach is generally reserved for residential and/or mixed-use projects qualifying for relief from analysis of GHG emissions from cars and light-duty trucks. As such, none of these thresholds specifically apply to this project.

2. **Bright line Thresholds.** There are two types of bright line thresholds:
 - a. **Standalone Threshold.** Emissions exceeding standalone thresholds would be considered significant.
 - b. **Screening Threshold.** Emissions exceeding screening thresholds would require evaluation using a second-tier threshold, such as an efficiency threshold or other threshold concept to determine whether project emissions would be considered significant. However, projects with a horizon year beyond 2020 should take into account the type and amount of land use projects and their expected emissions out to the year 2030.
3. **Efficiency Thresholds.** Land use sector efficiency thresholds are currently based on AB 32 targets and should not be used for projects with a horizon year beyond 2020. Efficiency metrics should be adjusted for 2030 and include applicable land uses.
4. **Percent Below “Business as Usual.”** GHG emissions would be less than significant if the project reduces Business as Usual emissions by the same amount as the statewide 2020 reductions. However, this method is no longer recommended following the Newhall Ranch ruling.

Operational emissions methods (1), (3), and (4) are not applicable. The City of Martinez adopted a Climate Action Plan (CAP) in 2009 (City of Martinez 2009). However, the CAP only addresses 2020 emission targets and cannot be used for project streamlining under CEQA. While the CAP may not be used for streamlining the emissions inventories and targets can be used in the development of a project-specific efficiency threshold. Efficiency thresholds are quantitative thresholds based on a measurement of GHG efficiency for a given project, regardless of the amount of mass emissions. These thresholds identify the emission level below which new development would not interfere with attainment of statewide GHG reduction targets. A project that attains such an efficiency target, with or without mitigation, would result in less than significant GHG emissions.

Accordingly, consistent with the concerns raised in the Golden Door (2018) and Newhall Ranch (2015) decisions regarding the correlation between state and local conditions, the 2005 City inventory were evaluated to establish a locally appropriate, evidence-based, project-specific threshold consistent with California’s GHG reduction targets.

The CAP provides an inventory of the community wide emissions and breaks the energy emissions into residential, commercial sectors, and industrial categories. The City also includes aggregated emissions from transportation and solid waste emissions. The emissions were reduced by 15 percent to represent the 2020 emission target, and then by another 40 percent to represent the 2030 target as identified in AB 32 and SB 32, respectively. The population and employment projections were taken from the Association of Bay Area Governments Population Projections. Table 7 summarizes the project specific threshold for this analysis.

Table 7 2030 GHG Efficiency Thresholds by Land Use for the City of Martinez

2030 Population	2030 Employment	2030 Emission Target	Threshold
38,480	25,645	162,346 MT CO ₂ e	2.53 MT CO ₂ e/SP

Source: City of Martinez 2009

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Emissions associated with the project were estimated using CalEEMod, version 2016.3.2. Complete CalEEMod results and assumptions can be viewed in Appendix AQ.

A project's service population includes both its residents and employees. The proposed project would create a population of approximately 437 residents. There would be no permanent employees associated with the proposed project.

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction

Project construction would generate temporary, short-term GHG emissions through travel to and from the worksite and from the operation of construction equipment such as graders, backhoes, and generators. Excavation, grading, and trenching typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. As there is no applicable construction GHG threshold, this calculation is included for informational purposes in Table 8. Nonetheless, the project applicant would be required to comply with BAAQMD rules and regulations regarding emission control measures, such as the In-Use Off-Road Diesel-Fueled Fleets Regulation and idling restrictions. Therefore, impacts related to GHG emissions generated during construction would be less than significant. This impact will not be discussed in the EIR.

Operation

Table 8 provides the project's estimated operational GHG emissions. Because CalEEMod does not calculate N₂O emissions from mobile sources, N₂O emissions were quantified using guidance from CARB and the EMFAC2017 Emissions Inventory for the Contra Costa County region for the year 2023 (the project operational year) using the EMFAC2011 categories (CARB 2018 and 2019; see Appendix GHG for calculations). Estimated GHG emissions would be approximately 1,068 MT CO₂e per year with the primary source of emissions from mobile sources and energy use. As previously indicated the project would have 437 residents based on 2.4 residents per household in Martinez. This would result in an efficiency of 2.35 MT CO₂e, which is below the locally appropriate project specific significance threshold of 2.53 MT CO₂e per service population (MT CO₂e/SP); therefore, GHG impacts would be less than significant. This impact will not be discussed in the EIR.

Table 8 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO₂e in metric tons)
Construction ¹	1,258
Operational	
Area	2.52
Energy	88.15
Solid Waste	18.83
Water	18.89
Mobile	
CO ₂ and CH ₄	895.47
N ₂ O	1.10
Total Operation	1,026.13
Service Population	437
Project Efficiency	2.35
Threshold	2.53
Threshold Exceeded	No

¹ The construction emissions are the total construction GHG emissions summed for all construction years, which provides for a conservative calculation of project efficiency.

Source: Appendix GHG

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Table 9 evaluates the project’s consistency with the applicable GHG reduction measures outlined in the CAP and shows the proposed project would be consistent with those measures. The CAP includes specific goals and measures to meet estimated reductions for compliance with state GHG reduction goals, and the project would comply with these goals and measures.

The project would be required to comply with MMC Section 15.07.010, which incorporates CALGreen and includes specific requirements related to recycling, construction materials, and energy efficiency standards that would apply to project construction to minimize wasteful, inefficient, and unnecessary energy consumption. Therefore, the proposed project would not conflict with state regulations intended to reduce GHG emissions statewide and would be consistent with applicable GHG reduction plans. Impacts related to GHG emissions would be less than significant. This impact will not be discussed in the EIR.

Table 9 Project Consistency with the Martinez Change Action Plan Programs

Martinez CAP Goal	Project Consistency
Program E1: Martinez Green Building Standards	Consistent. The project would meet the California Green Building Standards Code, which is incorporated into the MMC.
Program SW1: Think Reusable, Less Disposable	Consistent. Consistent with the MMC Chapter 8.19 and CalGreen Building Code, the proposed project would be required to recycle at least 50 percent of its construction waste.
Program W1: Promote Water Conservation	Consistent. The project includes features that would promote water conservation, including a fully automatic water-conserving irrigation system comprised of drip and bubbler applications. Landscaping irrigation control would be operated by a weather-based controller with a rain sensor control to minimize watering during and after rain events.
Program A1: Tree City USA	Consistent. While the proposed project would remove existing on-site vegetation and 43 trees, it would also involve substantial landscaping, including planting approximately 219 trees, as well as shrubs and ground cover throughout the project site. The project would result in a net increase of 176 trees.

Source: City of Martinez 2009

LESS THAN SIGNIFICANT IMPACT

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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A Phase I Environmental Site Assessment (ESA) was prepared for the proposed project site by Environmental Resource Group, Inc. on October 5, 2015 (Environmental Resource Group 2015, Appendix ESA). The Phase I ESA included assessment of the project site, general reconnaissance of adjacent properties, background research, a review of available and pertinent local, state, and federal regulatory records regarding the presence of hazardous materials and/or petroleum products at the project site. Information contained in this section is based, in part, on the findings of the Phase I ESA.

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

According to the Phase I ESA, the adjoining properties are not of potential environmental concern to the project site. Historical uses of adjoining properties are not of environmental concern, and during site reconnaissance, no items of potential environmental concern were identified at the project site.

Potentially hazardous materials such as fuels, lubricants, and solvents would be used during project construction. However, the transport, use, and storage of hazardous materials during project construction would be conducted in accordance with all applicable state and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the CCR, Title 22. The proposed project would involve the minimal use, storage, transportation, or disposal of hazardous materials as they are used for household use, landscaping on site, or those associated with vehicular traffic. The Contra Costa Sanitary District Household Hazardous Waste collection facility collects and disposes of household hazardous waste produced by residents (Central San 2020). The minimal amounts of household hazardous wastes that would be produced would result in less than significant impacts. Therefore, through compliance with applicable laws and regulations, the project would have a less than significant impact. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The project site is not located within 0.25 mile of an existing or proposed school. The nearest school is Hidden Valley Elementary School, located approximately 0.7 mile southwest of the project site. Project operation would not involve use or storage of hazardous materials. Though potentially hazardous materials such as fuels, lubricants, solvents, and oils could be used during project construction, the transport, use, and storage of any and all hazardous materials would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the CCR, Title 22. Due to the distance to the nearest school, impacts to schools associated with hazardous emissions would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project be located on a site that is included on a list of hazardous material 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?*

Review of the California Department of Toxic Substances Control EnviroStor database (2019) and the State Water Resources Control Board GeoTracker database (2020) did not identify hazardous waste sites within 0.25 mile of the project site. The project would not be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. This impact will not be discussed in the EIR.

NO IMPACT

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

The nearest airport to the project site is the Buchanan Field Airport, located approximately 1 mile east of the project site. Although Figure 3A of the Contra Costa County Airport Land Use Compatibility Plan shows the proposed project area as within the Buchanan Field Airport Influence Area, figures 3B and 3C of the report show the project site is not within a noise contour area or safety zone area, respectively. Therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working at the project site, this would be a less than significant impact and will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project would include two access points on Arnold Drive that would provide sufficient emergency access. The project would be required to comply with applicable City codes and regulations pertaining to emergency response and evacuation. Furthermore, project construction would not require lengthy roadway/lane closures or detours during construction activities and would not alter emergency access to the project site or on Arnold Drive. As the project would not alter the existing transportation infrastructure, it would not interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the project would have a less than significant impact and this issue will not be discussed in the EIR.

NO IMPACT

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

The proposed project is not located in or near very high fire hazard severity zone (California Department of Forestry and Fire [CAL FIRE] 2009). The closest very high fire hazard severity zone is over 2.5 miles to the west of the project site. The project site is in an urbanized area. Thus, the proposed project would not expose people or structures to a significant wildfire risk. Nevertheless, the proposed project would be required to comply with the MMC Chapter 15.28, Fire Prevention Code, which adopts the Contra Costa County Fire Protection District's Fire Prevention Code by reference and includes policies and requirements intended to protect residents of Contra Costa County from potential fire hazard, including requirements for vegetation removal, maintain adequate water supply, and ensure emergency access. Therefore, the proposed project would not

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expose people or structures to wildfire risk; compliance with applicable municipal codes would further reduce potential risks. This impact would be less than significant and will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

10 Hydrology and Water Quality

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

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- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The project site is currently undeveloped and contains steep slopes that drain into an existing drainage ditch. The proposed project would create changes to stormwater flow and introduce additional urban pollutants to the stormwater system through runoff. Furthermore, construction activities could result in temporary impacts to the quality of runoff leaving the site.

Grading activity during construction has the potential to impact water quality through erosion and through debris carried in runoff. Furthermore, the project construction would involve heavy equipment that could result in an increase in fuel, oil, and lubricants in the stormwater runoff due to leaks or accidental releases. The State Water Resources Control Board regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. As the site is over one acre in size, it would be subject to these regulations. Performance Standard NDCC-13 of the City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires a SWPPP to be prepared for the proposed project. A SWPPP describes BMPs to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. BMPs that would be required under the SWPPP may include but would not be limited to the following:

- Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) shall be employed to control erosion from disturbed areas.
- Use a dry stormwater quality basin (which is typically dry except after a major rainstorm, when the basin would temporarily fill with stormwater), designed to decrease runoff during storm events, prevent flooding, and allow for off-peak discharge. Basin features shall include maintenance schedules for the periodic removal of sediments, excessive vegetation, and debris that may clog basin inlets and outlets.
- Cover, or apply nontoxic soil stabilizers to, inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways.
- Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways.
- Ensure that no earth or organic material shall be deposited or placed where the material could be directly carried into a stream, marsh, slough, lagoon, or body of standing water.
- Prohibit the following types of materials from being rinsed or washed into the streets, shoulder areas, or gutters: concrete, solvents and adhesives, thinners, paints, fuels, sawdust, dirt, gasoline, asphalt and concrete saw slurry, and heavily chlorinated water.
- Ensure that grass or other vegetative cover be established on the construction site as soon as possible after disturbance.

Additionally, a drainage system would be included as part of the final project design that would ensure that runoff from new impervious surfaces can percolate into the groundwater, including flow-through planters. The proposed project also includes three bio-retention areas that would retain runoff. Additionally, the City would review the drainage plan for its ability to adhere to water quality regulations.

With compliance with existing regulations, impacts would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The City receives untreated imported water from Contra Costa Water District (CCWD) via the Contra Costa Canal, which is part of the Central Valley Project developed by the U.S. Bureau of Reclamation. CCWD stores this water in the Martinez Reservoir, which is located at the terminus of the Contra Costa Canal and CCWD's Shortcut Pipeline. Martinez Reservoir is an open, earthen reservoir and is estimated to have a capacity of 79.6 million gallons (MG) based on a 2003 bathymetry. Groundwater resources in the CCWD service area do not supply significant amounts of water to meet or augment untreated water demands (City of Martinez 2016). Therefore, no incremental increase in demand on groundwater supplies would occur, as CCWD does not use groundwater as a major source of water and the proposed project does not involve the placement or use of groundwater wells.

The project site is currently undeveloped and groundwater infiltration occurs throughout the site. Shallow groundwater at the site was measured at depths ranging from approximately 10 to 13.5 feet below ground surface (Cornerstone Earth Group 2009). The project site features an existing drainage ditch that extends near the north middle portion of the site and crosses towards the southeast corner of the site project. As this drainage ditch is unlined, stormwater flowing in it can pool and infiltrate into the underlying soils before it is discharged into the existing storm drain infrastructure. However, much of the stormwater entering the project site flows off-site and enters the stormwater system as runoff before infiltrating underlying soils. As a result, the proposed project site itself is not estimated to contribute significantly to groundwater recharge. The proposed project would introduce 153,875 square feet of new impervious surfaces, which represents 58.3 percent of the site. This would impede groundwater recharge within the footprint of impervious surfaces. However, a drainage system is proposed that would ensure runoff from new impervious surfaces is allowed to percolate into the groundwater, including flow-through planters. The proposed project also includes three bio-retention areas that would allow for some percolation of water into the underlying soils and potentially contribute to groundwater recharge. Therefore, considering that the proposed project's drainage design would allow water to infiltrate into soil, the project would not substantially interfere with groundwater recharge, and these impacts would be less than significant.

Because the project would not result in an incremental increase in demand on groundwater, and the project would not interfere with groundwater recharge, this impact would be less than significant. This impact will not be discussed in the EIR.

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- c.(i) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*

The site's existing drainage pattern is currently uncontrolled. All municipalities within Contra Costa County are required to develop more restrictive surface water control standards for new development projects to comply with Provision C.3 of the Regional Water Quality Control Board (RWQCB) Municipal Regional Stormwater NPDES Permit order No. R2-2015-0049. The Contra Costa County Clean Water Program developed a Stormwater C.3 Guidebook for implementing the RWQCB Municipal Regional Stormwater NPDES Permit C.3 requirements, known as the "C.3 Standards." Development projects that create or replace 10,000 or more square feet of impervious surface area must contain and treat stormwater runoff from the site. The proposed project is a C.3 regulated project, and, thus, is required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures.

A Stormwater Control Plan has been prepared for the proposed project, consistent with C.3 requirements as per the Contra Costa County Clean Water Program Stormwater C.3 Guidebook, the proposed project would include a series of coordinated integrated management practices (IMP) to remove pollutants and slow runoff. The IMPs would be hydrologically sized to accept runoff from specific drainage management areas, based on the anticipated runoff factor from such areas. Generally, the IMPs included in the proposed project consist of either flow-through planters or bioretention facilities. Flow-through planters would accept drainage from roof areas through downspouts. Stormwater would then interact with permeable soil materials within the planters prior to discharge into storm drain piping within the planters. Bioretention facilities would be constructed with a layer of permeable soils over a second layer of permeable materials surrounded by non-compacted native soils. Runoff entering the bioretention areas would interact with the active soil layer before percolating through the bioretention facility and eventually reaching a perforated subdrain storm pipe. The sub drain storm pipe would direct stormwater to storm drainage infrastructure. Both the flow-through planters and the bioretention facilities would be planted with vegetation, and the process of allowing stormwater to flow through permeable layers would allow for stormwater filtration while also slowing the velocity of runoff prior to discharge into storm drain infrastructure.

Because the proposed project would include IMPs to properly treat and control runoff from the project site, it would not result in the discharge of pollutants or increases in stormwater discharge that could lead to erosion or siltation. Impacts would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

The Stormwater Control Plan prepared for the proposed project includes calculations for the minimum treatment area and volume needed per the Stormwater C.3 Guidebook. The IMPs would be designed to exceed the minimum volume needed to treat and control runoff from all proposed impervious surfaces. Consequently, while the proposed project would include changes to the project site, the proposed project would include IMPs that would be designed to ensure that the proposed project does not substantially alter the existing drainage pattern of the site through increased stormwater runoff or result in post-project stormwater runoff exceeding pre-project levels of runoff. Therefore, the project would have a less than significant impact as no increase in surface runoff would occur, and no increased flooding would occur on or off-site. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would 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?*

The Stormwater Control Plan and IMPs would ensure the project site would not provide a substantial source of polluted runoff. As discussed above under threshold c.(i), the project would properly treat and control runoff, and therefore would not provide a substantial source of polluted runoff. As discussed under threshold c.(ii), post-project stormwater runoff would not exceed pre-project runoff levels, and therefore the project would not exceed the capacity of existing or planned stormwater drainage systems. This impact would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?*

Streams or rivers do not exist within the site, but a 48-inch storm drain and a man-made ditch traverse the site, collecting and conveying runoff from surrounding development areas and discharging the runoff into the storm drain system along Arnold Drive. In addition to the existing storm drain infrastructure on the project site, the Mountain View Sanitary District (MVSD) operates a sewer lift station on the project site. To avoid the potential for stormwater runoff passing through the site, and generated on the site, from backing up and inundating the MVSD site, the proposed project would include removal and replacement of the existing 48-inch storm drainpipe with a 60-inch pipe, and other infrastructure improvements. Replacement of the existing storm drain infrastructure and the inclusion of the on-site IMPs would ensure that the public storm drain infrastructure would continue to function in the current fashion and would be adequately sized to handle 100-year storm events with project implementation (Gossett Civil Engineering 2017; Appendix HYD).

The project would not substantially alter the existing drainage pattern of the site or area in a manner that would impede or redirect flood flows, and infrastructure would be adequately sized for flood events. Consequently, impacts would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- d. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

According to the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM), the project site is located in Zone X, which is characterized as an area of minimal flood hazard and having a less than 0.2 percent annual chance to be inundated by flood waters as a result of a storm event (Map # 06013C0277F, June 16, 2009) (Federal Emergency Management Agency 2009). As Therefore, impacts due to project release of pollutants due to flood hazard would be less than significant.

The project site is located approximately 3.5 miles east of the San Francisco Bay and is not located in a tsunami or seiche zone (DOC 2019). The Martinez Dam, which contains the Martinez Reservoir, is the closest dam to the project site, at more than 1.5 miles northwest of the site. Based on the distance, the project site is not in the inundation area for this dam or for any other dam or levee. Therefore, the proposed project would not result in the risk of release of pollutants due to inundation by a tsunami, seiche, or flooding. Impacts would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The Water Quality Control Plan for the San Francisco Bay Basin includes the project site within the plan boundaries. The plan includes goals for beneficial uses of water in the region. The project would not conflict with these goals or otherwise degrade the water quality of surface water and groundwater in the area, as bioretention facilities would be installed as part of the project to improve the water quality of stormwater runoff. Therefore, the project would not conflict with or obstruct the implementation of applicable plans, and impacts would be less than significant.

The project would be served by CCWD, which maintains an Urban Water Management Plan (UWMP) (CCWD 2016). The UWMP includes the District's planning activities to ensure adequate water supplies to meet existing and future demands for water. CCWD utilizes water treatment plants to ensure water quality standards and goals are met. Implementation of the project would increase water demand at the project site, but the project would not interfere with the ability of CCWD to maintain water quality standards, as described in the UWMP.

Furthermore, the proposed project would be directly adjacent to the Ygnacio Valley Groundwater Basin (Basin 2-6), which is not identified as a high priority basin and does not have a developed a Groundwater Sustainability Plan to date. Because no groundwater management plans are currently adopted or approved for groundwater use in the project vicinity, and the project would not introduce more intensive uses or more water-demanding uses than allowed under existing zoning, no impact would occur. This impact will not be discussed in the EIR.

NO IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project physically divide an established community?

Project implementation would continue the existing residential development pattern in the neighborhood and would not cut off connected neighborhoods or land uses from each other. Furthermore, the proposed project site does not contain existing housing or other development. No new roads, linear infrastructure or other development features are proposed that would divide an established community or limit movement, travel or social interaction between established land uses. This impact will not be discussed in the EIR.

NO IMPACT

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

The project site is designated in the City’s General Plan as Mixed Residential/Office (MR/O) (City of Martinez 1973) and is zoned within a Mixed Use District: Multi-Family Residential/Professional and Administrative Offices (M-R-1.5/PA). The project site is surrounded by a mix of land uses including single-family residential development, and the project would result in construction of a residential apartment complex that would also comply with the designated land use and zoning. The project site is identified in the City’s Housing Element, Appendix A, as being suitable for residential development (City of Martinez 2011). Therefore, the proposed project would be generally consistent with the type of land uses surrounding the project and anticipated under the City’s General Plan and zoning ordinance.

The project would provide 1,426 square feet of space per dwelling unit, which is less than the 1,500-square foot requirement, but greater than the 1,250-square foot minimum for R-1.5 zoning districts. The project would be consistent with the allowable lot coverage, as it would result in a 21.4 percent coverage of the project site, which is below the 40 percent maximum allowed by the Martinez Municipal Code Section 22.12.210 for R-1.5 zoning districts.

The proposed project includes requests for various approvals, including a waiver to provide for 96 fewer parking spaces than those required by the City, drive aisle width waiver, and allowance for

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non-standard parking space design. It also requests a use waiver to allow for increased building heights. The requested waivers and permits are policy issues under the purview of the Martinez Planning Commission and City Council. These waivers would address inconsistencies with the zoning code. The provision of fewer and non-standard parking spaces would not result in significant impacts because parking is not an environmental impact under CEQA. As outlined in Section 1, *Aesthetics*, the increased building heights would not result in significant impacts to aesthetic resources in the project area. Thus, the approval of parking exceptions and the density bonus waiver would not result in significant environmental impacts.

With approval by the City Council of the requested entitlements and given the project’s compliance with the designated land use and zoning of the project site, the project would have a less than significant impact regarding conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The project’s consistency with applicable local land use and policy programs or regulations adopted to avoid such effects is described in more detail in Table 10.

Table 10 Project Consistency with General Plan Policies

General Plan Policy	Project Consistency
<p>21.31 Protected Neighborhoods</p> <p>21.311 Existing neighborhoods shall retain their present housing roles and the existing residential character preserved and enhanced. Non-residential uses, other than those providing services primarily to residents within the neighborhoods, shall be prohibited.</p> <p>21.312 To respect the established physical patterns of these neighborhoods, new residential structures should be similar in scale and type of accommodations to existing units.</p>	<p>Consistent. The proposed project has been designed to protect some of the existing slope areas and would incorporate retaining walls and proper grading practices to avoid potential slope-related hazards. Although the project includes a request for a height concession to allow for an increase in maximum building height, the proposed structures would be built with respect to the natural grade of the project site, with taller buildings (Building 5) shielded from adjacent uses by shorter buildings (Buildings 4, 6, and 7).</p>
<p>21.32 Hill Residential Areas</p> <p>21.321 All land designated for residential use with slopes in excess of ten percent shall be developed in a manner which respects the site's natural features and protects against natural hazards common to most hill area sites in Martinez. Allowable residential density shall be governed by the City's slope density ordinance. Use of planned unit development approach is made mandatory in order that conditions unique to each site can be considered.</p>	<p>Consistent. While the project site contains slopes steeper than 10 percent, the proposed residences would be located on areas of the site where slopes range from 3 to 6 percent. The steep ridgeline area along the project site’s southern boundary would not be substantially altered by the project. The proposed project also includes a density bonus and associated concession from the City's hillside regulations and slope density ordinance, pursuant to the California Density Bonus Law (Government Code section 65915). With the requested concession, the project would be consistent with this policy.</p>
<p>22.4 Conservation Lands Policies</p> <p>22.43 Grading alterations should not induce or accelerate natural channel grading, sheet erosion, gullyng and other forms of erosion.</p> <p>22.45 Any tree removal required by development should be based upon a selective thinning program utilizing the principles of natural plant succession.</p>	<p>Consistent. Refer to Section 7, <i>Geology and Soils</i>, criterion (b) regarding erosion and loss of topsoil. As stated therein, the project would be required to implement BMPs and obtain coverage under the SWPPP to reduce erosion and topsoil loss during project construction.</p> <p>Consistent. While 43 trees would be removed as part of the project, 219 new trees would be planted throughout the site as part of the landscaping plan. Additionally, 17 existing trees would remain on site and be protected in place during construction.</p>
<p>24.22 Other Geologic Hazards and Constraints</p>	<p>Consistent. Refer to Section 7, <i>Geology and Soils</i>, criterion (d) regarding expansive soils, which will be evaluated in the EIR.</p>

General Plan Policy

Project Consistency

24.223 Construction in areas containing soils with high "shrink-swell" properties will require employment of special foundation techniques to offset these effects.

The proposed project would be generally consistent with applicable City land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental impacts. Impacts would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

According to the State Division of Mines and Geology, the proposed project site does not contain any identified mineral resources (California Division of Mines and Geology 1996). The City’s General Plan and the County General Plan do not identify any significant mineral resources or mining operations in Martinez (City of Martinez 1973; Contra Costa County 2004). Therefore, no impact would occur. This impact will not be discussed in the EIR.

NO IMPACT

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13 Noise

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

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*
- b. *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*
- c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 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?*

The project is located in proximity to noise-sensitive land uses and may result in a significant temporary or permanent noise impact to nearby sensitive receivers. Construction may result in substantial vibration. The nearest airport, Buchanan Field, is located one mile east of the project site. Impacts may be potentially significant. This impact will be discussed in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The proposed project would directly induce population growth in the area through the proposed construction of 182 dwelling units. According to the Bay Area Census the average household size in Martinez is 2.4 people per household (U.S. Census 2010). With 182 units, the proposed project would result in approximately 437 new residents. The City of Martinez’s current population is approximately 38,402 people. Plan Bay Area anticipates that the population of the City will grow to 40,035 by 2040 (Association of Bay Area Governments 2020). The project’s increase falls within the growth projected by Plan Bay Area. Therefore, the proposed project would not directly or indirectly induce substantial, unplanned population growth. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The project site does not currently contain housing or habitable structures, and thus the project would not result in the displacement of people or housing from the city. There would be no impact. This impact will not be discussed in the EIR.

NO IMPACT

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15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				
1 Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Fire protection is provided to the project site by the Contra Costa County Fire Protection District (CCCFPD). CCCFPD Station 15 is located at 251 Church Street and Station 14 located at 1240 Shell Avenue; both are within three miles of the project site. CCCFPD Ordinance 2013-25 requires that all new development complete a plan review, inspection, and pay associated fees. Per CCCFPD Ordinance 2013-25, the proposed project would be required to incorporate recommendations for fire prevention and emergency access into the project design. MMC Chapter 21.20 requires the installation of fire hydrants, where applicable, in accordance with standard established by the National Board of Fire Underwriters and the determination of the CCCFPD Fire Chief and City Engineer. Furthermore, the proposed project would be required to be constructed to the most recent applicable California Fire Code requirements. Since the proposed project would be required to be built to all applicable standards, as well as review and incorporation of recommendations by the CCCFPD and payment of applicable fees (if needed), the proposed project would not be anticipated to result in a significant increase in fire service demand at the project site. Therefore,

the proposed project would have a less than significant impact related to the need for new or physically altered fire protection facilities. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The City of Martinez Police Department serves the proposed project site. To offset new demand for police services the City charges an impact/mitigation fee for new development. Payment of this fee would ensure that the proposed project would not result in a substantial adverse physical impact associated with the provision of new or physically altered police facilities. Furthermore, the proposed project is consistent with the general plan and zoning designations for the project site, and, as such, increase in police service demand from development of the site would have been included in growth estimates for citywide police service demand. Therefore, the project would not result in the need for new or expanded police protection facilities to serve the project. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The project site is located in the Martinez Unified School District. Based on a conservative metric of 19.6 percent of the population of Martinez under the age of 18, the project would generate approximately 86 children (U.S. Census Bureau 2019). The project applicant would be required to pay school development fees, as dictated by state law, prior to the issuance of building permits. According to Government Code Section 65996 (3)(h), payment of such fees constitutes full mitigation of any school impacts under CEQA. Therefore, any impacts from the increase in school enrollment would be offset by the required payment of development fees. This impact would be less than significant and will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Based on the average person per household rate from the City's Housing Element, the proposed project is anticipated to result in 437 new residents, based on an average household size of 2.4 and 182 proposed units (City of Martinez 2011). According to MMC Chapter 22.04.560 the proposed project would be required to provide 73,200 square feet of open space. The current project design incorporates 77,855 square feet (over two acres) of open space, which would exceed the requirement. Project residents would be expected to use on-site facilities, which would reduce the increase in demand for existing City parks. As such, creation of on-site open space would ensure

that the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities. Because the project does not propose dedicating land or building a park and recreational facility, the project would be required to pay the City's Parks In-Lieu fees for the provision and maintenance of parkland that may be used by project residents, as described in Chapter 21.46 of the MMC. Therefore, the proposed project would result in a less than significant impact in regard to public parks. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Other public facilities in the project area include the Martinez Public Library, the Martinez Senior Center, the Martinez Marina, the Martinez Waterfront Amphitheater, and the Martinez Historic Museum. The proposed project would increase demand for those facilities and general City maintenance services. However, these demands would not be significant given the scale of the proposed development relative to the overall population of the area. The population of Martinez is 38,402, and the project would result in 437 new residents, which would be 1.1 percent of the existing population and would present a minimal increase. Payment of user fees or taxes and development impact fees to the appropriate service providers, such as under Chapter 21.46 of the MMC, is expected to off-set potential impacts to such public facilities, the additional demands for other governmental services would result in a less than significant impact. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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?*

As discussed in Section 15, *Public Services*, the on-site open space would ensure that the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities. Additionally, the project would be required to pay Quimby Act and impact fees for the provision and maintenance of park and recreational services that may be used by project residents. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The proposed project includes several private site amenities such as a common courtyard and outdoor cooking facility. To construct the residences and associated driveways, the project would involve removing trees and grading along the hillside to the south. Impacts to biological resources associated with construction will be addressed in the EIR. However, the addition of 437 new residents would add approximately one percent to the City’s population; this would not require the construction of new recreational facilities that would cause an adverse physical effect on the environment. Therefore, impacts would be less than significant and this impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

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17 Transportation

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

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*
- b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*
- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*
- d. *Would the project result in inadequate emergency access?*

The project would introduce 182 new residential units and 437 new residents to the project site, which would increase traffic and vehicle miles travelled in the area. These impacts will be addressed in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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18 Tribal Cultural Resources

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

California AB 52 was enacted in 2015 and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 states, “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (Public Resource Code Section 21084.2). It further states the lead agency shall establish measures to avoid impacts altering the significant characteristics of a tribal cultural resource, when feasible (Public Resource Code Section 21084.3).

Public Resource Code Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and is:

1. Listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC section 5020.1(k).
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

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AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified or adopted. Under AB 52, lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those having requested notice of projects proposed in the jurisdiction of the lead agency.

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

In compliance with AB 52 (Public Resources Code Section 21080.3.1), the City sent a project notification letter to the Lone Band of Miwok Indians, the only group who had requested notification from the City of Martinez, on April 11, 2016. The Lone Band of Miwok Indians did not respond to the request for consultation. Additionally, a search of the Sacred Lands File conducted by the Native American Heritage Commission for the project did not identify any sacred lands in the project area. However, because the project involves ground disturbance, there is the possibility of encountering undisturbed subsurface tribal cultural resources during construction of the project. This impact would be potentially significant and will be discussed in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

-
- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*
- b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*
- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Water

CCWD would provide potable water service to the proposed project. The CCWD obtains surface water from the San Joaquin River Delta. The water supplied by CCWD to the City is treated at the Bollman Water Treatment Plant and distributed through a system of pipelines and pump stations. The proposed project would make domestic and fire line connections to existing water utility lines within Arnold Drive.

The CCWD anticipates growth to occur in its service area, including Martinez, that would increase water service demand. Growth estimates for the CCWD service area are based on local land use designations, and growth estimates for the region. Because the proposed project would be consistent with the land use and zoning designations for the project site, increases in water demand from the project would have been generally considered in the CCWD's regional growth estimates. According to Table 7-4W, of the CCWD's UWMP, the CCWD would have adequate supplies to meet the district's demand during normal years as well as during multiple dry-years (CCWD 2016). Thus, the CCWD is anticipated to continue to supply the City with adequate water supplies, which the City will use to meet water service demands within the City's service area.

The proposed project would be required to comply with the CALGreen Code standards, which would help to reduce water consumption at the site. Landscaping would be designed to incorporate drought tolerant landscaping and efficient irrigation systems to reduce irrigation water consumption. Therefore, water supply impacts of the proposed project would be less than significant. This impact will not be discussed in the EIR.

Wastewater

MVSD would provide sewer services to the proposed project via 8-inch sanitary sewer lines connecting to the proposed apartment buildings. The 8-inch sewer lines would transport wastewater to the existing sewer pump station located adjacent to Arnold Drive.

MVSD has anticipated that continued growth in Martinez and surrounding areas would increase wastewater service demand in the MVSD service area. Growth in Martinez has been planned through the City's General Plan and zoning designations. Therefore, the increase in wastewater demand from development consistent with the City's General Plan and zoning designations has also been anticipated by MVSD. As discussed in Section 11, *Land Use and Planning*, the proposed project would be consistent with the City's General Plan land use and zoning designations for the site. Therefore, the increase in demand from the project has been anticipated by the MVSD.

The MVSD wastewater treatment plant received 1.25 mgd of wastewater per day. The wastewater treatment plant has a design capacity of 3.2 mgd. Therefore, the wastewater treatment plant has an available capacity of 1.95 mgd. The current flow of 1.25 mgd of wastewater is generated by 18,253 residents, 269 commercial and industrial connections, and 283 institutional connections (Contra Costa Local Agency Formation Committee 2014). As discussed in Section 14, *Population and Housing*, the project would result in 437 residents on the project site. Therefore, the proposed project would contribute a relatively small increase in wastewater, compared to the existing generation from the MVSD service area and the existing capacity at the wastewater treatment plant. Considering the relatively small increase in wastewater anticipated during project operation, the MVSD wastewater treatment plant would have adequate capacity to serve the proposed project.

The project applicant would be required to obtain a sewer connection permit and pay permit fees for trunk sewer, plant capacity, and connection prior to connecting to the MVSD's system. The

process of obtaining a connection permit and paying permit fees would help ensure that adequate capacity is available to serve the project's projected demand for services. Therefore, the proposed project would not require the construction of new municipal wastewater treatment facilities or impact the treatment capacity of existing municipal wastewater treatment providers. Impacts to wastewater treatment facilities would be less than significant. This impact will not be discussed in the EIR.

Stormwater

The project would be designed and engineered with drainage features appropriate to accommodate stormwater runoff from the project site. As discussed in Section 10, *Hydrology and Water Quality*, the project would be required to comply with requirements of the General Construction Permit and City requirements, including implementing the project specific Stormwater Control Plan and design BMPs to ensure minimal erosion, siltation, flooding, and polluted runoff occur from development of the site. The proposed project would improve the existing stormwater drainage facilities on-site to ensure enough capacity exists to handle the stormwater flows from the proposed project and surrounding drainage area. Off-site improvements to the existing stormwater infrastructure are not required. As the proposed project would not require new or expanded off-site stormwater infrastructure improvements, impacts would be less than significant. This impact will not be discussed in the EIR.

Electricity, Natural Gas, and Telecommunications

Marin Clean Energy (MCE) Community Choice Energy and/or PG&E would provide electricity to the project site, and PG&E would provide natural gas. AT&T or Comcast would provide telecommunications services, at the discretion of the project residents. The project's demand for these services would not exceed the capacity of local providers that serve the region. Accordingly, the project would be accommodated adequately by existing electricity, natural gas, and telecommunication facilities and would not require improvements to existing facilities, or the provision of new facilities, that would cause significant environmental effects. This impact would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Republic Services provides solid waste service including public trash, recyclables, and green waste collection in the City. The proposed project would generate solid waste during construction and operation. Consistent with the MMC Chapter 8.19 and CalGreen Building Code, the proposed project would be required to recycle at least 50 percent of its construction waste. The project would not involve demolition activities; therefore, construction activities would not generate substantial solid waste.

Republic Services would collect solid waste generated by project operation and transfer it to the Keller Canyon Landfill, which serves Contra Costa County. The permitted daily throughput of this landfill is 3,500 tons per day, the estimated average waste quantities disposed is 3,000 tons per day,

Amáre Apartment Homes Project

the remaining capacity is 25.4 million tons, and the anticipated closure date is 2030 (California Department of Resources Recycling and Recovery [CalRecycle] 2019a, 2019b; Republic Services 2019). The Keller Canyon Landfill has an estimated average remaining capacity of 500 tons per day.

Based on a rate of 4 pounds of solid waste per dwelling unit per day, the 182-unit project would generate 728 pounds (0.36 tons) of solid waste per day, or approximately 133 tons per year (CalRecycle 2019c). This estimate is conservative as it does not factor in recycling or waste diversion programs. The less than 0.4 ton of solid waste generated daily by the project would represent less than 0.02 percent of the available surplus capacity of the Keller Canyon Landfill. The City is required to meet the statewide waste diversion goal of 50 percent set by AB 939. Project residents would be provided recycling and green waste collection services, which would reduce the amount of solid waste sent to landfills. The proposed project would comply with federal, state, and local statutes and regulations related to solid waste, such as AB 939, the MMC, and the City's recycling program. Impacts related to solid waste and waste facilities would be less than significant. This impact will not be discussed in the EIR.

LESS THAN SIGNIFICANT IMPACT

20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

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

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*
- b. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- c. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

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- d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The proposed project is not in or near a very high fire hazard severity zone or state responsibility area, as the closest is 2.5 miles west of the site (CAL FIRE 2009). No wildfire impact would occur. This impact will not be discussed in the EIR.

NO IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

Does the project:

- | | | | | |
|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| <p>a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>b. 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)?</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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

As described in Section 4, *Biological Resources*, the proposed project has the potential to impact sensitive species and wetlands. However, the project site is generally surrounded by urban development, and is not part of a substantial wildlife corridor or wildlife area. Therefore, the project would not substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. In addition, potential direct impacts to biological resources will be addressed in the EIR.

Amáre Apartment Homes Project

As noted under Section 5, *Cultural Resources*, and Section 7, *Geology and Soils*, no historical, archeological, or paleontological resources were identified on site. The project site does not contain important examples of the major periods of California history or prehistory. Therefore, the project would not eliminate these resources. In addition, Mitigation Measures CR-1 requires the implementation of a process for evaluating and, as necessary, avoiding impacts to any resources found during construction. Therefore, impacts to important examples of California history or prehistory would be less than significant with mitigation incorporated.

This impact will not be discussed further in the EIR.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

The proposed project involves construction on an undeveloped parcel in a developed area of the City. However, the proposed project would develop the site in a manner consistent with surrounding land uses, existing land use and zoning designations, and would be considered infill. Cumulative impacts associated with some of the resource areas have been addressed in the individual resource sections above: Air Quality, Greenhouse Gases, Water Supply, and Solid Waste (CEQA Guidelines Section 15064[h][3]) and would be less than significant. Some of the other resource areas were determined to have no impact in comparison to existing conditions and therefore would not contribute to cumulative impacts, such as Agriculture and Forestry Resources and Mineral Resources. As such, cumulative impacts in these issue areas would also be less than significant (not cumulatively considerable). Other issues (e.g., tribal cultural resources, hazards and hazardous materials) are site-specific, and impacts at one location do not add to impacts at other locations or create additive impacts. Cumulative biological resources or traffic impacts may be potentially significant and further analysis will be included in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in analyses for air quality, hazards and hazardous materials, and noise, the proposed project would not result, either directly or indirectly, in substantial adverse hazards related to air quality or hazards and hazardous materials. Direct and indirect impacts related to noise and vibration will be addressed in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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List of Preparers

Rincon Consultants, Inc. prepared this Initial Study under contract to the City of Martinez. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Appendix AQ

Air Quality – California Emissions Estimator Model (CalEEMod) Output

Amare Apartments - Contra Costa County, Annual

Amare Apartments
Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	265.00	Space	1.27	106,000.00	0
----- Apartments Mid Rise	----- 182.00	----- Dwelling Unit	----- 4.79	----- 182,000.00	----- 437

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Amare Apartments - Contra Costa County, Annual

Project Characteristics -

Land Use - project details from project plans

population calculated from average household size of 2.4 people per household = 436.8 = 437 POP

Construction Phase - from applicant-provided construction schedule

Grading - grading amounts from applicant-provided info

Architectural Coating -

Woodstoves - applicant provided info on natural gas fireplaces for the main lobby and one in the outdoor rec area

Land Use Change -

Area Mitigation -

Energy Mitigation - Applicant identified improvements

Water Mitigation - applicant-provided info

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Trips and VMT - Applicant provided truck hauling

Vehicle Trips - weekday trip generation based on project specific TIA

Mobile Land Use Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDays	20.00	79.00
tblConstructionPhase	NumDays	230.00	390.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	PhaseEndDate	4/16/2021	5/31/2021

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tblConstructionPhase	PhaseEndDate	5/14/2021	9/17/2021
tblConstructionPhase	PhaseEndDate	4/1/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	5/27/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	4/29/2022	4/28/2023
tblConstructionPhase	PhaseStartDate	4/17/2021	6/1/2021
tblConstructionPhase	PhaseStartDate	5/15/2021	9/18/2021
tblConstructionPhase	PhaseStartDate	4/30/2022	6/1/2022
tblConstructionPhase	PhaseStartDate	4/2/2022	3/18/2023
tblFireplaces	NumberGas	27.30	2.00
tblFireplaces	NumberNoFireplace	7.28	180.00
tblFireplaces	NumberWood	30.94	0.00
tblGrading	AcresOfGrading	158.00	6.06
tblGrading	MaterialImported	0.00	12,673.00
tblLandUse	LotAcreage	2.38	1.27
tblLandUse	Population	521.00	437.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders

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tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblVehicleTrips	WD_TR	6.65	7.32

2.0 Emissions Summary

Amare Apartments - Contra Costa County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2765	2.9151	2.2856	5.2700e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	472.0172	472.0172	0.0993	0.0000	474.4989
2022	1.2386	2.2858	3.0490	6.9500e-003	0.2344	0.0934	0.3278	0.0631	0.0895	0.1526	0.0000	621.5756	621.5756	0.0711	0.0000	623.3532
2023	0.4158	0.5463	0.7973	1.7900e-003	0.0540	0.0226	0.0766	0.0145	0.0215	0.0360	0.0000	159.4334	159.4334	0.0226	0.0000	159.9971
Maximum	1.2386	2.9151	3.0490	6.9500e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	621.5756	621.5756	0.0993	0.0000	623.3532

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					
2021	0.2765	2.9151	2.2856	5.2700e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	472.0168	472.0168	0.0993	0.0000	474.4985
2022	1.2386	2.2858	3.0490	6.9500e-003	0.2344	0.0934	0.3278	0.0631	0.0895	0.1526	0.0000	621.5752	621.5752	0.0711	0.0000	623.3528
2023	0.4158	0.5463	0.7973	1.7900e-003	0.0540	0.0226	0.0766	0.0145	0.0215	0.0360	0.0000	159.4333	159.4333	0.0226	0.0000	159.9970
Maximum	1.2386	2.9151	3.0490	6.9500e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	621.5752	621.5752	0.0993	0.0000	623.3528

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-5-2021	7-4-2021	1.0316	1.0316
2	7-5-2021	10-4-2021	1.4768	1.4768
3	10-5-2021	1-4-2022	0.6770	0.6770
4	1-5-2022	4-4-2022	0.6032	0.6032
5	4-5-2022	7-4-2022	0.7802	0.7802
6	7-5-2022	10-4-2022	1.0835	1.0835
7	10-5-2022	1-4-2023	1.0843	1.0843
8	1-5-2023	4-4-2023	0.8427	0.8427
9	4-5-2023	7-4-2023	0.0669	0.0669
		Highest	1.4768	1.4768

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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	0.9032	0.0179	1.4833	5.0000e-004		0.0287	0.0287		0.0287	0.0287	2.8386	2.4619	5.3005	0.0154	0.0000	5.6870
Energy	8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	319.1216	319.1216	0.0122	3.7500e-003	320.5437
Mobile	0.2704	1.1392	3.0646	0.0116	1.0952	9.0000e-003	1.1042	0.2938	8.3800e-003	0.3022	0.0000	1,060.4098	1,060.4098	0.0349	0.0000	1,061.2821
Waste						0.0000	0.0000		0.0000	0.0000	16.9944	0.0000	16.9944	1.0043	0.0000	42.1029
Water						0.0000	0.0000		0.0000	0.0000	3.7620	26.2777	30.0397	0.3876	9.3700e-003	42.5214
Total	1.1821	1.2303	4.5790	0.0125	1.0952	0.0436	1.1389	0.2938	0.0430	0.3368	23.5950	1,408.2710	1,431.8660	1.4544	0.0131	1,472.1370

Amare Apartments - Contra Costa County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8889	0.0158	1.3533	7.0000e-005		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003	0.0000	2.4619	2.4619	2.1400e-003	0.0000	2.5166
Energy	8.2700e-003	0.0707	0.0301	4.5000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	296.8901	296.8901	0.0113	3.5100e-003	298.2190
Mobile	0.2694	1.1338	3.0420	0.0115	1.0843	8.9200e-003	1.0932	0.2909	8.3100e-003	0.2992	0.0000	1,050.6168	1,050.6168	0.0347	0.0000	1,051.4830
Waste						0.0000	0.0000		0.0000	0.0000	12.7458	0.0000	12.7458	0.7533	0.0000	31.5772
Water						0.0000	0.0000		0.0000	0.0000	3.0096	19.9360	22.9456	0.3100	7.4900e-003	32.9266
Total	1.1666	1.2202	4.4254	0.0120	1.0843	0.0221	1.1064	0.2909	0.0215	0.3124	15.7554	1,369.9047	1,385.6601	1.1114	0.0110	1,416.7224

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.31	0.82	3.36	4.39	1.00	49.26	2.85	1.00	49.94	7.25	33.23	2.72	3.23	23.59	16.16	3.76

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	0.0000
Total	0.0000

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/5/2021	5/31/2021	5	41	
2	Grading	Grading	6/1/2021	9/17/2021	5	79	
3	Building Construction	Building Construction	9/18/2021	3/17/2023	5	390	
4	Architectural Coating	Architectural Coating	6/1/2022	3/17/2023	5	208	
5	Paving	Paving	3/18/2023	4/28/2023	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.06

Acres of Paving: 1.27

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**Residential Indoor: 368,550; Residential Outdoor: 122,850; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 6,360
(Architectural Coating – sqft)**

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Off-Highway Tractors	1	4.00	124	0.44
Grading	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Excavators	1	8.00	158	0.38
Paving	Off-Highway Trucks	1	4.00	402	0.38
Grading	Scrapers	2	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37

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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
Site Preparation	5	13.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	1,584.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	176.00	37.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1235	0.0000	0.1235	0.0679	0.0000	0.0679	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0377	0.3824	0.2615	5.2000e-004		0.0182	0.0182		0.0167	0.0167	0.0000	45.8812	45.8812	0.0148	0.0000	46.2522
Total	0.0377	0.3824	0.2615	5.2000e-004	0.1235	0.0182	0.1416	0.0679	0.0167	0.0846	0.0000	45.8812	45.8812	0.0148	0.0000	46.2522

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3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.7000e-004	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0749	0.0749	0.0000	0.0000	0.0750
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	8.3000e-004	5.8000e-004	6.1000e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7886	1.7886	4.0000e-005	0.0000	1.7896
Total	8.4000e-004	8.5000e-004	6.1500e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.8634	1.8634	4.0000e-005	0.0000	1.8645

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					0.1235	0.0000	0.1235	0.0679	0.0000	0.0679	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0377	0.3824	0.2615	5.2000e-004		0.0182	0.0182		0.0167	0.0167	0.0000	45.8812	45.8812	0.0148	0.0000	46.2522
Total	0.0377	0.3824	0.2615	5.2000e-004	0.1235	0.0182	0.1416	0.0679	0.0167	0.0846	0.0000	45.8812	45.8812	0.0148	0.0000	46.2522

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3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.7000e-004	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0749	0.0749	0.0000	0.0000	0.0750
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	8.3000e-004	5.8000e-004	6.1000e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7886	1.7886	4.0000e-005	0.0000	1.7896
Total	8.4000e-004	8.5000e-004	6.1500e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.8634	1.8634	4.0000e-005	0.0000	1.8645

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2418	0.0000	0.2418	0.1312	0.0000	0.1312	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1483	1.6272	1.1184	2.1600e-003		0.0712	0.0712		0.0655	0.0655	0.0000	189.5476	189.5476	0.0613	0.0000	191.0802
Total	0.1483	1.6272	1.1184	2.1600e-003	0.2418	0.0712	0.3130	0.1312	0.0655	0.1967	0.0000	189.5476	189.5476	0.0613	0.0000	191.0802

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3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1500e-003	0.2121	0.0420	6.1000e-004	0.0134	6.7000e-004	0.0141	3.6900e-003	6.4000e-004	4.3300e-003	0.0000	59.3149	59.3149	2.6000e-003	0.0000	59.3800
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	2.2000e-003	1.5400e-003	0.0163	5.0000e-005	5.6400e-003	4.0000e-005	5.6800e-003	1.5000e-003	3.0000e-005	1.5300e-003	0.0000	4.7717	4.7717	1.1000e-004	0.0000	4.7744
Total	8.3500e-003	0.2136	0.0583	6.6000e-004	0.0191	7.1000e-004	0.0198	5.1900e-003	6.7000e-004	5.8600e-003	0.0000	64.0866	64.0866	2.7100e-003	0.0000	64.1544

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					0.2418	0.0000	0.2418	0.1312	0.0000	0.1312	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1483	1.6272	1.1184	2.1600e-003		0.0712	0.0712		0.0655	0.0655	0.0000	189.5473	189.5473	0.0613	0.0000	191.0799
Total	0.1483	1.6272	1.1184	2.1600e-003	0.2418	0.0712	0.3130	0.1312	0.0655	0.1967	0.0000	189.5473	189.5473	0.0613	0.0000	191.0799

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3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1500e-003	0.2121	0.0420	6.1000e-004	0.0134	6.7000e-004	0.0141	3.6900e-003	6.4000e-004	4.3300e-003	0.0000	59.3149	59.3149	2.6000e-003	0.0000	59.3800
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	2.2000e-003	1.5400e-003	0.0163	5.0000e-005	5.6400e-003	4.0000e-005	5.6800e-003	1.5000e-003	3.0000e-005	1.5300e-003	0.0000	4.7717	4.7717	1.1000e-004	0.0000	4.7744
Total	8.3500e-003	0.2136	0.0583	6.6000e-004	0.0191	7.1000e-004	0.0198	5.1900e-003	6.7000e-004	5.8600e-003	0.0000	64.0866	64.0866	2.7100e-003	0.0000	64.1544

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0562	0.5332	0.6537	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4191	90.4191	0.0177	0.0000	90.8615
Total	0.0562	0.5332	0.6537	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4191	90.4191	0.0177	0.0000	90.8615

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3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.1000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0576	0.0576	0.0000	0.0000	0.0577
Vendor	4.5400e-003	0.1434	0.0364	3.7000e-004	9.1300e-003	3.2000e-004	9.4500e-003	2.6400e-003	3.1000e-004	2.9500e-003	0.0000	35.8675	35.8675	1.6700e-003	0.0000	35.9091
Worker	0.0204	0.0143	0.1512	4.9000e-004	0.0524	3.4000e-004	0.0527	0.0139	3.1000e-004	0.0142	0.0000	44.2942	44.2942	1.0100e-003	0.0000	44.3193
Total	0.0250	0.1579	0.1876	8.6000e-004	0.0615	6.6000e-004	0.0622	0.0166	6.2000e-004	0.0172	0.0000	80.2193	80.2193	2.6800e-003	0.0000	80.2862

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	0.0562	0.5332	0.6537	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4190	90.4190	0.0177	0.0000	90.8614
Total	0.0562	0.5332	0.6537	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4190	90.4190	0.0177	0.0000	90.8614

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3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.1000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0576	0.0576	0.0000	0.0000	0.0577
Vendor	4.5400e-003	0.1434	0.0364	3.7000e-004	9.1300e-003	3.2000e-004	9.4500e-003	2.6400e-003	3.1000e-004	2.9500e-003	0.0000	35.8675	35.8675	1.6700e-003	0.0000	35.9091
Worker	0.0204	0.0143	0.1512	4.9000e-004	0.0524	3.4000e-004	0.0527	0.0139	3.1000e-004	0.0142	0.0000	44.2942	44.2942	1.0100e-003	0.0000	44.3193
Total	0.0250	0.1579	0.1876	8.6000e-004	0.0615	6.6000e-004	0.0622	0.0166	6.2000e-004	0.0172	0.0000	80.2193	80.2193	2.6800e-003	0.0000	80.2862

3.4 Building Construction - 2022

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	0.1760	1.6582	2.2540	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.5296	313.5296	0.0609	0.0000	315.0510
Total	0.1760	1.6582	2.2540	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.5296	313.5296	0.0609	0.0000	315.0510

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3.4 Building Construction - 2022

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	2.0000e-005	6.5000e-004	1.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1971	0.1971	1.0000e-005	0.0000	0.1973
Vendor	0.0147	0.4696	0.1185	1.2900e-003	0.0316	9.7000e-004	0.0326	9.1500e-003	9.3000e-004	0.0101	0.0000	123.1625	123.1625	5.4700e-003	0.0000	123.2994
Worker	0.0659	0.0444	0.4813	1.6300e-003	0.1815	1.1500e-003	0.1826	0.0483	1.0600e-003	0.0493	0.0000	147.8519	147.8519	3.1300e-003	0.0000	147.9301
Total	0.0806	0.5147	0.5999	2.9200e-003	0.2132	2.1200e-003	0.2153	0.0574	1.9900e-003	0.0594	0.0000	271.2115	271.2115	8.6100e-003	0.0000	271.4267

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	0.1760	1.6582	2.2540	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.5292	313.5292	0.0609	0.0000	315.0506
Total	0.1760	1.6582	2.2540	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.5292	313.5292	0.0609	0.0000	315.0506

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3.4 Building Construction - 2022

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	2.0000e-005	6.5000e-004	1.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1971	0.1971	1.0000e-005	0.0000	0.1973
Vendor	0.0147	0.4696	0.1185	1.2900e-003	0.0316	9.7000e-004	0.0326	9.1500e-003	9.3000e-004	0.0101	0.0000	123.1625	123.1625	5.4700e-003	0.0000	123.2994
Worker	0.0659	0.0444	0.4813	1.6300e-003	0.1815	1.1500e-003	0.1826	0.0483	1.0600e-003	0.0493	0.0000	147.8519	147.8519	3.1300e-003	0.0000	147.9301
Total	0.0806	0.5147	0.5999	2.9200e-003	0.2132	2.1200e-003	0.2153	0.0574	1.9900e-003	0.0594	0.0000	271.2115	271.2115	8.6100e-003	0.0000	271.4267

3.4 Building Construction - 2023

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	0.0344	0.3212	0.4759	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3440	66.3440	0.0128	0.0000	66.6632
Total	0.0344	0.3212	0.4759	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3440	66.3440	0.0128	0.0000	66.6632

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3.4 Building Construction - 2023

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	9.0000e-005	3.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0401	0.0401	0.0000	0.0000	0.0401
Vendor	2.3400e-003	0.0756	0.0223	2.6000e-004	6.6900e-003	9.0000e-005	6.7800e-003	1.9300e-003	9.0000e-005	2.0200e-003	0.0000	25.3284	25.3284	9.5000e-004	0.0000	25.3522
Worker	0.0130	8.4300e-003	0.0936	3.3000e-004	0.0384	2.4000e-004	0.0386	0.0102	2.2000e-004	0.0104	0.0000	30.0614	30.0614	5.9000e-004	0.0000	30.0762
Total	0.0153	0.0841	0.1160	5.9000e-004	0.0451	3.3000e-004	0.0455	0.0122	3.1000e-004	0.0125	0.0000	55.4298	55.4298	1.5400e-003	0.0000	55.4685

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	0.0344	0.3212	0.4759	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3439	66.3439	0.0128	0.0000	66.6632
Total	0.0344	0.3212	0.4759	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3439	66.3439	0.0128	0.0000	66.6632

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3.4 Building Construction - 2023

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	9.0000e-005	3.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0401	0.0401	0.0000	0.0000	0.0401
Vendor	2.3400e-003	0.0756	0.0223	2.6000e-004	6.6900e-003	9.0000e-005	6.7800e-003	1.9300e-003	9.0000e-005	2.0200e-003	0.0000	25.3284	25.3284	9.5000e-004	0.0000	25.3522
Worker	0.0130	8.4300e-003	0.0936	3.3000e-004	0.0384	2.4000e-004	0.0386	0.0102	2.2000e-004	0.0104	0.0000	30.0614	30.0614	5.9000e-004	0.0000	30.0762
Total	0.0153	0.0841	0.1160	5.9000e-004	0.0451	3.3000e-004	0.0455	0.0122	3.1000e-004	0.0125	0.0000	55.4298	55.4298	1.5400e-003	0.0000	55.4685

3.5 Architectural Coating - 2022

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	0.9587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642
Total	0.9743	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642

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3.5 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113
Total	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113

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	0.9587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642
Total	0.9743	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642

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3.5 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113
Total	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113

3.5 Architectural Coating - 2023

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	0.3446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2700e-003	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0215	7.0215	4.2000e-004	0.0000	7.0320
Total	0.3499	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0215	7.0215	4.2000e-004	0.0000	7.0320

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3.5 Architectural Coating - 2023

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	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811
Total	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811

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	0.3446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2700e-003	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0214	7.0214	4.2000e-004	0.0000	7.0319
Total	0.3499	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0214	7.0214	4.2000e-004	0.0000	7.0319

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3.5 Architectural Coating - 2023

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	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811
Total	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811

3.6 Paving - 2023

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	0.0115	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7284	23.7284	7.6700e-003	0.0000	23.9202
Paving	1.6600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0132	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7284	23.7284	7.6700e-003	0.0000	23.9202

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3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321
Total	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321

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	0.0115	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7283	23.7283	7.6700e-003	0.0000	23.9202
Paving	1.6600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0132	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7283	23.7283	7.6700e-003	0.0000	23.9202

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321
Total	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2694	1.1338	3.0420	0.0115	1.0843	8.9200e-003	1.0932	0.2909	8.3100e-003	0.2992	0.0000	1,050.6168	1,050.6168	0.0347	0.0000	1,051.4830
Unmitigated	0.2704	1.1392	3.0646	0.0116	1.0952	9.0000e-003	1.1042	0.2938	8.3800e-003	0.3022	0.0000	1,060.4098	1,060.4098	0.0349	0.0000	1,061.2821

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,332.24	1,162.98	1066.52	2,933,432	2,904,098
Parking Lot	0.00	0.00	0.00		
Total	1,332.24	1,162.98	1,066.52	2,933,432	2,904,098

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Parking Lot	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	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	215.0680	215.0680	9.7200e-003	2.0100e-003	215.9107
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	234.3298	234.3298	0.0106	2.1900e-003	235.2480
NaturalGas Mitigated	8.2700e-003	0.0707	0.0301	4.5000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	81.8221	81.8221	1.5700e-003	1.5000e-003	82.3083
NaturalGas Unmitigated	8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	84.7918	84.7918	1.6300e-003	1.5500e-003	85.2957

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.58894e+006	8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	84.7918	84.7918	1.6300e-003	1.5500e-003	85.2957
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
Total		8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	84.7918	84.7918	1.6300e-003	1.5500e-003	85.2957

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					
Apartments Mid Rise	1.53329e+006	8.2700e-003	0.0707	0.0301	4.5000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	81.8221	81.8221	1.5700e-003	1.5000e-003	82.3083
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
Total		8.2700e-003	0.0707	0.0301	4.5000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	81.8221	81.8221	1.5700e-003	1.5000e-003	82.3083

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	768402	223.5370	0.0101	2.0900e-003	224.4129
Parking Lot	37100	10.7928	4.9000e-004	1.0000e-004	10.8351
Total		234.3298	0.0106	2.1900e-003	235.2480

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	711465	206.9734	9.3600e-003	1.9400e-003	207.7844
Parking Lot	27825	8.0946	3.7000e-004	8.0000e-005	8.1263
Total		215.0680	9.7300e-003	2.0200e-003	215.9107

6.0 Area Detail

6.1 Mitigation Measures Area

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Use only Natural Gas Hearths

	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	0.8889	0.0158	1.3533	7.0000e-005		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003	0.0000	2.4619	2.4619	2.1400e-003	0.0000	2.5166
Unmitigated	0.9032	0.0179	1.4833	5.0000e-004		0.0287	0.0287		0.0287	0.0287	2.8386	2.4619	5.3005	0.0154	0.0000	5.6870

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	0.1303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0143	2.3400e-003	0.1300	4.3000e-004		0.0212	0.0212		0.0212	0.0212	2.8386	0.2497	3.0883	0.0133	0.0000	3.4215
Landscaping	0.0408	0.0156	1.3532	7.0000e-005		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	2.2122	2.2122	2.1300e-003	0.0000	2.2654
Total	0.9032	0.0179	1.4833	5.0000e-004		0.0287	0.0287		0.0287	0.0287	2.8386	2.4619	5.3005	0.0154	0.0000	5.6870

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0000e-005	2.2000e-004	9.0000e-005	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2497	0.2497	0.0000	0.0000	0.2512
Landscaping	0.0408	0.0156	1.3532	7.0000e-005		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	2.2122	2.2122	2.1300e-003	0.0000	2.2654
Total	0.8889	0.0158	1.3533	7.0000e-005		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	2.4619	2.4619	2.1300e-003	0.0000	2.5166

7.0 Water Detail

7.1 Mitigation Measures Water

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22.9456	0.3100	7.4900e-003	32.9266
Unmitigated	30.0397	0.3876	9.3700e-003	42.5214

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	11.858 / 7.47572	30.0397	0.3876	9.3700e-003	42.5214
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		30.0397	0.3876	9.3700e-003	42.5214

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	9.48643 / 4.91379	22.9456	0.3100	7.4900e-003	32.9266
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		22.9456	0.3100	7.4900e-003	32.9266

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.7458	0.7533	0.0000	31.5772
Unmitigated	16.9944	1.0043	0.0000	42.1029

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	83.72	16.9944	1.0043	0.0000	42.1029
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		16.9944	1.0043	0.0000	42.1029

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	62.79	12.7458	0.7533	0.0000	31.5772
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		12.7458	0.7533	0.0000	31.5772

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Others	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Amare Apartments - Contra Costa County, Summer

Amare Apartments
Contra Costa County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	265.00	Space	1.27	106,000.00	0
----- Apartments Mid Rise	----- 182.00	----- Dwelling Unit	----- 4.79	----- 182,000.00	----- 437

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Amare Apartments - Contra Costa County, Summer

Project Characteristics -

Land Use - project details from project plans

population calculated from average household size of 2.4 people per household = 436.8 = 437 POP

Construction Phase - from applicant-provided construction schedule

Grading - grading amounts from applicant-provided info

Architectural Coating -

Woodstoves - applicant provided info on natural gas fireplaces for the main lobby and one in the outdoor rec area

Land Use Change -

Area Mitigation -

Energy Mitigation - Applicant identified improvements

Water Mitigation - applicant-provided info

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Trips and VMT - Applicant provided truck hauling

Vehicle Trips - weekday trip generation based on project specific TIA

Mobile Land Use Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	41.00
tblConstructionPhase	NumDays	20.00	79.00
tblConstructionPhase	NumDays	230.00	390.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	PhaseEndDate	4/16/2021	5/31/2021

Amare Apartments - Contra Costa County, Summer

tblConstructionPhase	PhaseEndDate	5/14/2021	9/17/2021
tblConstructionPhase	PhaseEndDate	4/1/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	5/27/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	4/29/2022	4/28/2023
tblConstructionPhase	PhaseStartDate	4/17/2021	6/1/2021
tblConstructionPhase	PhaseStartDate	5/15/2021	9/18/2021
tblConstructionPhase	PhaseStartDate	4/30/2022	6/1/2022
tblConstructionPhase	PhaseStartDate	4/2/2022	3/18/2023
tblFireplaces	NumberGas	27.30	2.00
tblFireplaces	NumberNoFireplace	7.28	180.00
tblFireplaces	NumberWood	30.94	0.00
tblGrading	AcresOfGrading	158.00	6.06
tblGrading	MaterialImported	0.00	12,673.00
tblLandUse	LotAcreage	2.38	1.27
tblLandUse	Population	521.00	437.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders

Amare Apartments - Contra Costa County, Summer

tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblVehicleTrips	WD_TR	6.65	7.32

2.0 Emissions Summary

Amare Apartments - Contra Costa County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9687	46.4968	29.8045	0.0718	6.6197	1.8192	8.4389	3.4570	1.6743	5.1313	0.0000	7,102.129 7	7,102.129 7	1.7848	0.0000	7,146.749 4
2022	14.8588	18.1126	24.9956	0.0572	1.9843	0.7526	2.7369	0.5320	0.7227	1.2547	0.0000	5,635.753 5	5,635.753 5	0.6137	0.0000	5,651.095 3
2023	14.6705	16.0449	24.4821	0.0563	1.9858	0.6474	2.6332	0.5324	0.6219	1.1543	0.0000	5,543.300 6	5,543.300 6	0.5967	0.0000	5,558.217 8
Maximum	14.8588	46.4968	29.8045	0.0718	6.6197	1.8192	8.4389	3.4570	1.6743	5.1313	0.0000	7,102.129 7	7,102.129 7	1.7848	0.0000	7,146.749 4

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					
2021	3.9687	46.4968	29.8045	0.0718	6.6197	1.8192	8.4389	3.4570	1.6743	5.1313	0.0000	7,102.129 7	7,102.129 7	1.7848	0.0000	7,146.749 4
2022	14.8588	18.1126	24.9956	0.0572	1.9843	0.7526	2.7369	0.5320	0.7227	1.2547	0.0000	5,635.753 4	5,635.753 4	0.6137	0.0000	5,651.095 3
2023	14.6705	16.0449	24.4821	0.0563	1.9858	0.6474	2.6332	0.5324	0.6219	1.1543	0.0000	5,543.300 5	5,543.300 5	0.5967	0.0000	5,558.217 8
Maximum	14.8588	46.4968	29.8045	0.0718	6.6197	1.8192	8.4389	3.4570	1.6743	5.1313	0.0000	7,102.129 7	7,102.129 7	1.7848	0.0000	7,146.749 4

Amare Apartments - Contra Costa County, Summer

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	7.1316	0.5122	33.4592	0.0611		3.0892	3.0892		3.0892	3.0892	443.2048	76.5063	519.7110	2.0989	9.1000e-004	572.4543
Energy	0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911
Mobile	1.8719	6.3780	18.8020	0.0713	6.5342	0.0518	6.5860	1.7479	0.0482	1.7961		7,207.1858	7,207.1858	0.2245		7,212.7974
Total	9.0504	7.2914	52.4319	0.1350	6.5342	3.1734	9.7076	1.7479	3.1698	4.9177	443.2048	7,795.8398	8,239.0446	2.3332	0.0103	8,300.4428

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.1048	0.2119	15.0524	1.0400e-003		0.0864	0.0864		0.0864	0.0864	0.0000	76.5063	76.5063	0.0270	9.1000e-004	77.4522
Energy	0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473
Mobile	1.8664	6.3487	18.6504	0.0707	6.4688	0.0514	6.5202	1.7304	0.0478	1.7782		7,140.4713	7,140.4713	0.2228		7,146.0420
Total	7.0165	6.9477	33.8676	0.0742	6.4688	0.1691	6.6379	1.7304	0.1655	1.8959	0.0000	7,711.1880	7,711.1880	0.2593	9.9700e-003	7,720.6415

Amare Apartments - Contra Costa County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	22.47	4.71	35.41	45.04	1.00	94.67	31.62	1.00	94.78	61.45	100.00	1.09	6.41	88.88	3.20	6.99

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/5/2021	5/31/2021	5	41	
2	Grading	Grading	6/1/2021	9/17/2021	5	79	
3	Building Construction	Building Construction	9/18/2021	3/17/2023	5	390	
4	Architectural Coating	Architectural Coating	6/1/2022	3/17/2023	5	208	
5	Paving	Paving	3/18/2023	4/28/2023	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.06

Acres of Paving: 1.27

Residential Indoor: 368,550; Residential Outdoor: 122,850; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 6,360 (Architectural Coating – sqft)

OffRoad Equipment

Amare Apartments - Contra Costa County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Off-Highway Tractors	1	4.00	124	0.44
Grading	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Excavators	1	8.00	158	0.38
Paving	Off-Highway Trucks	1	4.00	402	0.38
Grading	Scrapers	2	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37

Amare Apartments - Contra Costa County, Summer

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
Site Preparation	5	13.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	1,584.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	176.00	37.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	1.8410	18.6516	12.7563	0.0255		0.8859	0.8859		0.8150	0.8150		2,467.0925	2,467.0925	0.7979		2,487.0402
Total	1.8410	18.6516	12.7563	0.0255	6.0221	0.8859	6.9080	3.3102	0.8150	4.1252		2,467.0925	2,467.0925	0.7979		2,487.0402

Amare Apartments - Contra Costa County, Summer

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.7000e-004	0.0128	2.5000e-003	4.0000e-005	8.5000e-004	4.0000e-005	8.9000e-004	2.3000e-004	4.0000e-005	2.7000e-004		4.0564	4.0564	1.7000e-004		4.0607
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	0.0437	0.0252	0.3340	1.0500e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0289		104.8368	104.8368	2.3800e-003		104.8963
Total	0.0440	0.0380	0.3365	1.0900e-003	0.1076	7.1000e-004	0.1084	0.0286	6.6000e-004	0.0292		108.8932	108.8932	2.5500e-003		108.9570

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					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	1.8410	18.6516	12.7563	0.0255		0.8859	0.8859		0.8150	0.8150	0.0000	2,467.0925	2,467.0925	0.7979		2,487.0402
Total	1.8410	18.6516	12.7563	0.0255	6.0221	0.8859	6.9080	3.3102	0.8150	4.1252	0.0000	2,467.0925	2,467.0925	0.7979		2,487.0402

Amare Apartments - Contra Costa County, Summer

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.7000e-004	0.0128	2.5000e-003	4.0000e-005	8.5000e-004	4.0000e-005	8.9000e-004	2.3000e-004	4.0000e-005	2.7000e-004		4.0564	4.0564	1.7000e-004		4.0607
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	0.0437	0.0252	0.3340	1.0500e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0289		104.8368	104.8368	2.3800e-003		104.8963
Total	0.0440	0.0380	0.3365	1.0900e-003	0.1076	7.1000e-004	0.1084	0.0286	6.6000e-004	0.0292		108.8932	108.8932	2.5500e-003		108.9570

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1216	0.0000	6.1216	3.3218	0.0000	3.3218			0.0000			0.0000
Off-Road	3.7543	41.1944	28.3131	0.0546		1.8015	1.8015		1.6573	1.6573		5,289.6310	5,289.6310	1.7108		5,332.4003
Total	3.7543	41.1944	28.3131	0.0546	6.1216	1.8015	7.9230	3.3218	1.6573	4.9791		5,289.6310	5,289.6310	1.7108		5,332.4003

Amare Apartments - Contra Costa County, Summer

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1540	5.2676	1.0291	0.0157	0.3502	0.0168	0.3671	0.0960	0.0161	0.1121		1,667.340 0	1,667.340 0	0.0707		1,669.108 0
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	0.0604	0.0349	0.4624	1.4600e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		145.1587	145.1587	3.2900e-003		145.2410
Total	0.2144	5.3025	1.4915	0.0171	0.4981	0.0178	0.5159	0.1352	0.0170	0.1522		1,812.498 7	1,812.498 7	0.0740		1,814.349 0

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					6.1216	0.0000	6.1216	3.3218	0.0000	3.3218			0.0000			0.0000
Off-Road	3.7543	41.1944	28.3131	0.0546		1.8015	1.8015		1.6573	1.6573	0.0000	5,289.631 0	5,289.631 0	1.7108		5,332.400 3
Total	3.7543	41.1944	28.3131	0.0546	6.1216	1.8015	7.9230	3.3218	1.6573	4.9791	0.0000	5,289.631 0	5,289.631 0	1.7108		5,332.400 3

Amare Apartments - Contra Costa County, Summer

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1540	5.2676	1.0291	0.0157	0.3502	0.0168	0.3671	0.0960	0.0161	0.1121		1,667.3400	1,667.3400	0.0707		1,669.1080
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	0.0604	0.0349	0.4624	1.4600e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		145.1587	145.1587	3.2900e-003		145.2410
Total	0.2144	5.3025	1.4915	0.0171	0.4981	0.0178	0.5159	0.1352	0.0170	0.1522		1,812.4987	1,812.4987	0.0740		1,814.3490

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388		2,657.8663	2,657.8663	0.5202		2,670.8711
Total	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388		2,657.8663	2,657.8663	0.5202		2,670.8711

Amare Apartments - Contra Costa County, Summer

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6000e-004	5.3900e-003	1.0500e-003	2.0000e-005	1.5000e-003	2.0000e-005	1.5100e-003	3.8000e-004	2.0000e-005	3.9000e-004		1.7058	1.7058	7.0000e-005		1.7076
Vendor	0.1184	3.7847	0.9063	0.0101	0.2504	8.4600e-003	0.2589	0.0721	8.0900e-003	0.0802		1,065.7910	1,065.7910	0.0470		1,066.9670
Worker	0.5910	0.3411	4.5212	0.0142	1.4458	9.0700e-003	1.4549	0.3835	8.3500e-003	0.3919		1,419.3291	1,419.3291	0.0322		1,420.1341
Total	0.7096	4.1312	5.4285	0.0244	1.6977	0.0176	1.7153	0.4560	0.0165	0.4724		2,486.8259	2,486.8259	0.0793		2,488.8086

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	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388	0.0000	2,657.8663	2,657.8663	0.5202		2,670.8711
Total	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388	0.0000	2,657.8663	2,657.8663	0.5202		2,670.8711

Amare Apartments - Contra Costa County, Summer

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6000e-004	5.3900e-003	1.0500e-003	2.0000e-005	1.5000e-003	2.0000e-005	1.5100e-003	3.8000e-004	2.0000e-005	3.9000e-004		1.7058	1.7058	7.0000e-005		1.7076
Vendor	0.1184	3.7847	0.9063	0.0101	0.2504	8.4600e-003	0.2589	0.0721	8.0900e-003	0.0802		1,065.7910	1,065.7910	0.0470		1,066.9670
Worker	0.5910	0.3411	4.5212	0.0142	1.4458	9.0700e-003	1.4549	0.3835	8.3500e-003	0.3919		1,419.3291	1,419.3291	0.0322		1,420.1341
Total	0.7096	4.1312	5.4285	0.0244	1.6977	0.0176	1.7153	0.4560	0.0165	0.4724		2,486.8259	2,486.8259	0.0793		2,488.8086

3.4 Building Construction - 2022

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	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242		2,658.5171	2,658.5171	0.5160		2,671.4175
Total	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242		2,658.5171	2,658.5171	0.5160		2,671.4175

Amare Apartments - Contra Costa County, Summer

3.4 Building Construction - 2022

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	1.5000e-004	4.9500e-003	1.0300e-003	2.0000e-005	4.9000e-004	1.0000e-005	5.1000e-004	1.3000e-004	1.0000e-005	1.5000e-004		1.6831	1.6831	7.0000e-005		1.6849
Vendor	0.1104	3.5775	0.8498	0.0100	0.2504	7.3300e-003	0.2578	0.0721	7.0100e-003	0.0791		1,055.7610	1,055.7610	0.0446		1,056.8763
Worker	0.5488	0.3058	4.1645	0.0137	1.4458	8.8600e-003	1.4547	0.3835	8.1600e-003	0.3917		1,366.5809	1,366.5809	0.0289		1,367.3035
Total	0.6594	3.8883	5.0154	0.0237	1.6967	0.0162	1.7130	0.4557	0.0152	0.4709		2,424.0250	2,424.0250	0.0736		2,425.8646

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	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242	0.0000	2,658.5171	2,658.5171	0.5160		2,671.4175
Total	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242	0.0000	2,658.5171	2,658.5171	0.5160		2,671.4175

Amare Apartments - Contra Costa County, Summer

3.4 Building Construction - 2022

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	1.5000e-004	4.9500e-003	1.0300e-003	2.0000e-005	4.9000e-004	1.0000e-005	5.1000e-004	1.3000e-004	1.0000e-005	1.5000e-004		1.6831	1.6831	7.0000e-005		1.6849
Vendor	0.1104	3.5775	0.8498	0.0100	0.2504	7.3300e-003	0.2578	0.0721	7.0100e-003	0.0791		1,055.7610	1,055.7610	0.0446		1,056.8763
Worker	0.5488	0.3058	4.1645	0.0137	1.4458	8.8600e-003	1.4547	0.3835	8.1600e-003	0.3917		1,366.5809	1,366.5809	0.0289		1,367.3035
Total	0.6594	3.8883	5.0154	0.0237	1.6967	0.0162	1.7130	0.4557	0.0152	0.4709		2,424.0250	2,424.0250	0.0736		2,425.8646

3.4 Building Construction - 2023

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	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384		2,659.3350	2,659.3350	0.5119		2,672.1323
Total	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384		2,659.3350	2,659.3350	0.5119		2,672.1323

Amare Apartments - Contra Costa County, Summer

3.4 Building Construction - 2023

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	1.0000e-004	3.2700e-003	9.4000e-004	2.0000e-005	2.0100e-003	1.0000e-005	2.0200e-003	5.0000e-004	1.0000e-005	5.1000e-004		1.6190	1.6190	6.0000e-005		1.6205
Vendor	0.0833	2.7291	0.7615	9.7200e-003	0.2505	3.2200e-003	0.2537	0.0721	3.0800e-003	0.0752		1,026.2620	1,026.2620	0.0368		1,027.1821
Worker	0.5108	0.2748	3.8401	0.0132	1.4458	8.6700e-003	1.4545	0.3835	7.9900e-003	0.3915		1,313.4409	1,313.4409	0.0259		1,314.0893
Total	0.5942	3.0072	4.6026	0.0229	1.6983	0.0119	1.7102	0.4561	0.0111	0.4672		2,341.3219	2,341.3219	0.0628		2,342.8919

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	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384	0.0000	2,659.3350	2,659.3350	0.5119		2,672.1323
Total	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384	0.0000	2,659.3350	2,659.3350	0.5119		2,672.1323

Amare Apartments - Contra Costa County, Summer

3.4 Building Construction - 2023

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	1.0000e-004	3.2700e-003	9.4000e-004	2.0000e-005	2.0100e-003	1.0000e-005	2.0200e-003	5.0000e-004	1.0000e-005	5.1000e-004		1.6190	1.6190	6.0000e-005		1.6205
Vendor	0.0833	2.7291	0.7615	9.7200e-003	0.2505	3.2200e-003	0.2537	0.0721	3.0800e-003	0.0752		1,026.2620	1,026.2620	0.0368		1,027.1821
Worker	0.5108	0.2748	3.8401	0.0132	1.4458	8.6700e-003	1.4545	0.3835	7.9900e-003	0.3915		1,313.4409	1,313.4409	0.0259		1,314.0893
Total	0.5942	3.0072	4.6026	0.0229	1.6983	0.0119	1.7102	0.4561	0.0111	0.4672		2,341.3219	2,341.3219	0.0628		2,342.8919

3.5 Architectural Coating - 2022

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	12.7361	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Amare Apartments - Contra Costa County, Summer

3.5 Architectural Coating - 2022

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	0.1091	0.0608	0.8282	2.7300e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		271.7633	271.7633	5.7500e-003		271.9070
Total	0.1091	0.0608	0.8282	2.7300e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		271.7633	271.7633	5.7500e-003		271.9070

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	12.7361	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Amare Apartments - Contra Costa County, Summer

3.5 Architectural Coating - 2022

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	0.1091	0.0608	0.8282	2.7300e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		271.7633	271.7633	5.7500e-003		271.9070
Total	0.1091	0.0608	0.8282	2.7300e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		271.7633	271.7633	5.7500e-003		271.9070

3.5 Architectural Coating - 2023

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	12.7232	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Amare Apartments - Contra Costa County, Summer

3.5 Architectural Coating - 2023

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	0.1016	0.0547	0.7637	2.6200e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		261.1956	261.1956	5.1600e-003		261.3246
Total	0.1016	0.0547	0.7637	2.6200e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		261.1956	261.1956	5.1600e-003		261.3246

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	12.7232	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Amare Apartments - Contra Costa County, Summer

3.5 Architectural Coating - 2023

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	0.1016	0.0547	0.7637	2.6200e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		261.1956	261.1956	5.1600e-003		261.3246
Total	0.1016	0.0547	0.7637	2.6200e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		261.1956	261.1956	5.1600e-003		261.3246

3.6 Paving - 2023

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	0.7683	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940		1,743.7363	1,743.7363	0.5640		1,757.8353
Paving	0.1109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8792	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940		1,743.7363	1,743.7363	0.5640		1,757.8353

Amare Apartments - Contra Costa County, Summer

3.6 Paving - 2023

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	0.0290	0.0156	0.2182	7.5000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		74.6273	74.6273	1.4700e-003		74.6642
Total	0.0290	0.0156	0.2182	7.5000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		74.6273	74.6273	1.4700e-003		74.6642

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	0.7683	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940	0.0000	1,743.7363	1,743.7363	0.5640		1,757.8353
Paving	0.1109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8792	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940	0.0000	1,743.7363	1,743.7363	0.5640		1,757.8353

Amare Apartments - Contra Costa County, Summer

3.6 Paving - 2023

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	0.0290	0.0156	0.2182	7.5000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		74.6273	74.6273	1.4700e-003		74.6642
Total	0.0290	0.0156	0.2182	7.5000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		74.6273	74.6273	1.4700e-003		74.6642

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Amare Apartments - Contra Costa County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8664	6.3487	18.6504	0.0707	6.4688	0.0514	6.5202	1.7304	0.0478	1.7782		7,140.4713	7,140.4713	0.2228		7,146.0420
Unmitigated	1.8719	6.3780	18.8020	0.0713	6.5342	0.0518	6.5860	1.7479	0.0482	1.7961		7,207.1858	7,207.1858	0.2245		7,212.7974

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,332.24	1,162.98	1066.52	2,933,432	2,904,098
Parking Lot	0.00	0.00	0.00		
Total	1,332.24	1,162.98	1,066.52	2,933,432	2,904,098

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Parking Lot	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771

Amare Apartments - Contra Costa County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473
NaturalGas Unmitigated	0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911

Amare Apartments - Contra Costa County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4353.26	0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911
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
Total		0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911

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					
Apartments Mid Rise	4.20079	0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473
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
Total		0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473

6.0 Area Detail

6.1 Mitigation Measures Area

Amare Apartments - Contra Costa County, Summer

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.1048	0.2119	15.0524	1.0400e-003		0.0864	0.0864		0.0864	0.0864	0.0000	76.5063	76.5063	0.0270	9.1000e-004	77.4522
Unmitigated	7.1316	0.5122	33.4592	0.0611		3.0892	3.0892		3.0892	3.0892	443.2048	76.5063	519.7110	2.0989	9.1000e-004	572.4543

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	0.7141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9324					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0314	0.3390	18.4233	0.0603		3.0059	3.0059		3.0059	3.0059	443.2048	49.4118	492.6165	2.0728	9.1000e-004	544.7075
Landscaping	0.4538	0.1732	15.0359	7.9000e-004		0.0833	0.0833		0.0833	0.0833		27.0945	27.0945	0.0261		27.7468
Total	7.1316	0.5122	33.4592	0.0611		3.0892	3.0892		3.0892	3.0892	443.2048	76.5063	519.7110	2.0989	9.1000e-004	572.4543

Amare Apartments - Contra Costa County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9324					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.5300e-003	0.0387	0.0165	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	49.4118	49.4118	9.5000e-004	9.1000e-004	49.7054
Landscaping	0.4538	0.1732	15.0359	7.9000e-004		0.0833	0.0833		0.0833	0.0833		27.0945	27.0945	0.0261		27.7468
Total	5.1048	0.2119	15.0524	1.0400e-003		0.0864	0.0864		0.0864	0.0864	0.0000	76.5063	76.5063	0.0270	9.1000e-004	77.4522

7.0 Water Detail

7.1 Mitigation Measures Water

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Amare Apartments - Contra Costa County, Summer

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Amare Apartments - Contra Costa County, Winter

Amare Apartments
Contra Costa County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	265.00	Space	1.27	106,000.00	0
----- Apartments Mid Rise	----- 182.00	----- Dwelling Unit	----- 4.79	----- 182,000.00	----- 437

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Amare Apartments - Contra Costa County, Winter

Project Characteristics -

Land Use - project details from project plans

population calculated from average household size of 2.4 people per household = 436.8 = 437 POP

Construction Phase - from applicant-provided construction schedule

Grading - grading amounts from applicant-provided info

Architectural Coating -

Woodstoves - applicant provided info on natural gas fireplaces for the main lobby and one in the outdoor rec area

Land Use Change -

Area Mitigation -

Energy Mitigation - Applicant identified improvements

Water Mitigation - applicant-provided info

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Trips and VMT - Applicant provided truck hauling

Vehicle Trips - weekday trip generation based on project specific TIA

Mobile Land Use Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	41.00
tblConstructionPhase	NumDays	20.00	79.00
tblConstructionPhase	NumDays	230.00	390.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	PhaseEndDate	4/16/2021	5/31/2021

Amare Apartments - Contra Costa County, Winter

tblConstructionPhase	PhaseEndDate	5/14/2021	9/17/2021
tblConstructionPhase	PhaseEndDate	4/1/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	5/27/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	4/29/2022	4/28/2023
tblConstructionPhase	PhaseStartDate	4/17/2021	6/1/2021
tblConstructionPhase	PhaseStartDate	5/15/2021	9/18/2021
tblConstructionPhase	PhaseStartDate	4/30/2022	6/1/2022
tblConstructionPhase	PhaseStartDate	4/2/2022	3/18/2023
tblFireplaces	NumberGas	27.30	2.00
tblFireplaces	NumberNoFireplace	7.28	180.00
tblFireplaces	NumberWood	30.94	0.00
tblGrading	AcresOfGrading	158.00	6.06
tblGrading	MaterialImported	0.00	12,673.00
tblLandUse	LotAcreage	2.38	1.27
tblLandUse	Population	521.00	437.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders

Amare Apartments - Contra Costa County, Winter

tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblVehicleTrips	WD_TR	6.65	7.32

2.0 Emissions Summary

Amare Apartments - Contra Costa County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9739	46.6221	29.8473	0.0713	6.6197	1.8195	8.4392	3.4570	1.6746	5.1315	0.0000	7,059.7714	7,059.7714	1.7888	0.0000	7,104.4921
2022	14.8758	18.2244	24.6742	0.0554	1.9843	0.7529	2.7372	0.5320	0.7230	1.2550	0.0000	5,454.6390	5,454.6390	0.6148	0.0000	5,470.0088
2023	14.6870	16.1343	24.1531	0.0545	1.9858	0.6475	2.6333	0.5324	0.6220	1.1544	0.0000	5,369.2565	5,369.2565	0.5970	0.0000	5,384.1828
Maximum	14.8758	46.6221	29.8473	0.0713	6.6197	1.8195	8.4392	3.4570	1.6746	5.1315	0.0000	7,059.7714	7,059.7714	1.7888	0.0000	7,104.4921

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					
2021	3.9739	46.6221	29.8473	0.0713	6.6197	1.8195	8.4392	3.4570	1.6746	5.1315	0.0000	7,059.7714	7,059.7714	1.7888	0.0000	7,104.4921
2022	14.8758	18.2244	24.6742	0.0554	1.9843	0.7529	2.7372	0.5320	0.7230	1.2550	0.0000	5,454.6390	5,454.6390	0.6148	0.0000	5,470.0088
2023	14.6870	16.1343	24.1531	0.0545	1.9858	0.6475	2.6333	0.5324	0.6220	1.1544	0.0000	5,369.2565	5,369.2565	0.5970	0.0000	5,384.1828
Maximum	14.8758	46.6221	29.8473	0.0713	6.6197	1.8195	8.4392	3.4570	1.6746	5.1315	0.0000	7,059.7714	7,059.7714	1.7888	0.0000	7,104.4921

Amare Apartments - Contra Costa County, Winter

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	7.1316	0.5122	33.4592	0.0611		3.0892	3.0892		3.0892	3.0892	443.2048	76.5063	519.7110	2.0989	9.1000e-004	572.4543
Energy	0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911
Mobile	1.5168	6.7027	18.4936	0.0659	6.5342	0.0521	6.5862	1.7479	0.0485	1.7964		6,656.7578	6,656.7578	0.2273		6,662.4414
Total	8.6954	7.6161	52.1235	0.1295	6.5342	3.1737	9.7078	1.7479	3.1701	4.9180	443.2048	7,245.4118	7,688.6166	2.3361	0.0103	7,750.0868

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.1048	0.2119	15.0524	1.0400e-003		0.0864	0.0864		0.0864	0.0864	0.0000	76.5063	76.5063	0.0270	9.1000e-004	77.4522
Energy	0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473
Mobile	1.5115	6.6700	18.3633	0.0653	6.4688	0.0516	6.5204	1.7304	0.0481	1.7785		6,595.0753	6,595.0753	0.2258		6,600.7203
Total	6.6616	7.2690	33.5805	0.0688	6.4688	0.1693	6.6382	1.7304	0.1658	1.8962	0.0000	7,165.7920	7,165.7920	0.2623	9.9700e-003	7,175.3198

Amare Apartments - Contra Costa County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	23.39	4.56	35.58	46.90	1.00	94.66	31.62	1.00	94.77	61.44	100.00	1.10	6.80	88.77	3.20	7.42

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/5/2021	5/31/2021	5	41	
2	Grading	Grading	6/1/2021	9/17/2021	5	79	
3	Building Construction	Building Construction	9/18/2021	3/17/2023	5	390	
4	Architectural Coating	Architectural Coating	6/1/2022	3/17/2023	5	208	
5	Paving	Paving	3/18/2023	4/28/2023	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.06

Acres of Paving: 1.27

Residential Indoor: 368,550; Residential Outdoor: 122,850; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 6,360 (Architectural Coating – sqft)

OffRoad Equipment

Amare Apartments - Contra Costa County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Off-Highway Tractors	1	4.00	124	0.44
Grading	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Excavators	1	8.00	158	0.38
Paving	Off-Highway Trucks	1	4.00	402	0.38
Grading	Scrapers	2	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37

Amare Apartments - Contra Costa County, Winter

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
Site Preparation	5	13.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	1,584.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	176.00	37.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	1.8410	18.6516	12.7563	0.0255		0.8859	0.8859		0.8150	0.8150		2,467.0925	2,467.0925	0.7979		2,487.0402
Total	1.8410	18.6516	12.7563	0.0255	6.0221	0.8859	6.9080	3.3102	0.8150	4.1252		2,467.0925	2,467.0925	0.7979		2,487.0402

Amare Apartments - Contra Costa County, Winter

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9000e-004	0.0131	2.7100e-003	4.0000e-005	8.5000e-004	4.0000e-005	8.9000e-004	2.3000e-004	4.0000e-005	2.7000e-004		3.9866	3.9866	1.8000e-004		3.9911
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	0.0443	0.0311	0.3048	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0289		94.9852	94.9852	2.1800e-003		95.0397
Total	0.0447	0.0442	0.3075	9.9000e-004	0.1076	7.1000e-004	0.1084	0.0286	6.6000e-004	0.0292		98.9718	98.9718	2.3600e-003		99.0308

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					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	1.8410	18.6516	12.7563	0.0255		0.8859	0.8859		0.8150	0.8150	0.0000	2,467.0925	2,467.0925	0.7979		2,487.0402
Total	1.8410	18.6516	12.7563	0.0255	6.0221	0.8859	6.9080	3.3102	0.8150	4.1252	0.0000	2,467.0925	2,467.0925	0.7979		2,487.0402

Amare Apartments - Contra Costa County, Winter

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9000e-004	0.0131	2.7100e-003	4.0000e-005	8.5000e-004	4.0000e-005	8.9000e-004	2.3000e-004	4.0000e-005	2.7000e-004		3.9866	3.9866	1.8000e-004		3.9911
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	0.0443	0.0311	0.3048	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0289		94.9852	94.9852	2.1800e-003		95.0397
Total	0.0447	0.0442	0.3075	9.9000e-004	0.1076	7.1000e-004	0.1084	0.0286	6.6000e-004	0.0292		98.9718	98.9718	2.3600e-003		99.0308

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1216	0.0000	6.1216	3.3218	0.0000	3.3218			0.0000			0.0000
Off-Road	3.7543	41.1944	28.3131	0.0546		1.8015	1.8015		1.6573	1.6573		5,289.6310	5,289.6310	1.7108		5,332.4003
Total	3.7543	41.1944	28.3131	0.0546	6.1216	1.8015	7.9230	3.3218	1.6573	4.9791		5,289.6310	5,289.6310	1.7108		5,332.4003

Amare Apartments - Contra Costa County, Winter

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	5.3847	1.1121	0.0154	0.3502	0.0171	0.3674	0.0960	0.0164	0.1124		1,638.622 4	1,638.622 4	0.0750		1,640.498 3
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	0.0613	0.0430	0.4221	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		131.5180	131.5180	3.0200e-003		131.5935
Total	0.2196	5.4278	1.5342	0.0167	0.4981	0.0181	0.5162	0.1352	0.0172	0.1524		1,770.140 4	1,770.140 4	0.0781		1,772.091 8

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1216	0.0000	6.1216	3.3218	0.0000	3.3218			0.0000			0.0000
Off-Road	3.7543	41.1944	28.3131	0.0546		1.8015	1.8015		1.6573	1.6573	0.0000	5,289.631 0	5,289.631 0	1.7108		5,332.400 3
Total	3.7543	41.1944	28.3131	0.0546	6.1216	1.8015	7.9230	3.3218	1.6573	4.9791	0.0000	5,289.631 0	5,289.631 0	1.7108		5,332.400 3

Amare Apartments - Contra Costa County, Winter

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	5.3847	1.1121	0.0154	0.3502	0.0171	0.3674	0.0960	0.0164	0.1124		1,638.622 4	1,638.622 4	0.0750		1,640.498 3
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	0.0613	0.0430	0.4221	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		131.5180	131.5180	3.0200e-003		131.5935
Total	0.2196	5.4278	1.5342	0.0167	0.4981	0.0181	0.5162	0.1352	0.0172	0.1524		1,770.140 4	1,770.140 4	0.0781		1,772.091 8

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388		2,657.866 3	2,657.866 3	0.5202		2,670.871 1
Total	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388		2,657.866 3	2,657.866 3	0.5202		2,670.871 1

Amare Apartments - Contra Costa County, Winter

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6000e-004	5.5100e-003	1.1400e-003	2.0000e-005	1.5000e-003	2.0000e-005	1.5100e-003	3.8000e-004	2.0000e-005	3.9000e-004		1.6764	1.6764	8.0000e-005		1.6783
Vendor	0.1256	3.8169	1.0479	9.8500e-003	0.2504	8.7400e-003	0.2592	0.0721	8.3600e-003	0.0805		1,038.5044	1,038.5044	0.0514		1,039.7888
Worker	0.5993	0.4206	4.1269	0.0129	1.4458	9.0700e-003	1.4549	0.3835	8.3500e-003	0.3919		1,285.9538	1,285.9538	0.0295		1,286.6917
Total	0.7250	4.2429	5.1759	0.0228	1.6977	0.0178	1.7156	0.4560	0.0167	0.4727		2,326.1346	2,326.1346	0.0810		2,328.1588

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	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388	0.0000	2,657.8663	2,657.8663	0.5202		2,670.8711
Total	1.4996	14.2189	17.4313	0.0277		0.7739	0.7739		0.7388	0.7388	0.0000	2,657.8663	2,657.8663	0.5202		2,670.8711

Amare Apartments - Contra Costa County, Winter

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6000e-004	5.5100e-003	1.1400e-003	2.0000e-005	1.5000e-003	2.0000e-005	1.5100e-003	3.8000e-004	2.0000e-005	3.9000e-004		1.6764	1.6764	8.0000e-005		1.6783
Vendor	0.1256	3.8169	1.0479	9.8500e-003	0.2504	8.7400e-003	0.2592	0.0721	8.3600e-003	0.0805		1,038.5044	1,038.5044	0.0514		1,039.7888
Worker	0.5993	0.4206	4.1269	0.0129	1.4458	9.0700e-003	1.4549	0.3835	8.3500e-003	0.3919		1,285.9538	1,285.9538	0.0295		1,286.6917
Total	0.7250	4.2429	5.1759	0.0228	1.6977	0.0178	1.7156	0.4560	0.0167	0.4727		2,326.1346	2,326.1346	0.0810		2,328.1588

3.4 Building Construction - 2022

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	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242		2,658.5171	2,658.5171	0.5160		2,671.4175
Total	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242		2,658.5171	2,658.5171	0.5160		2,671.4175

Amare Apartments - Contra Costa County, Winter

3.4 Building Construction - 2022

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	1.5000e-004	5.0500e-003	1.1200e-003	2.0000e-005	4.9000e-004	1.0000e-005	5.1000e-004	1.3000e-004	1.0000e-005	1.5000e-004		1.6538	1.6538	7.0000e-005		1.6557
Vendor	0.1171	3.6039	0.9828	9.7500e-003	0.2504	7.5900e-003	0.2580	0.0721	7.2600e-003	0.0794		1,028.5696	1,028.5696	0.0487		1,029.7872
Worker	0.5574	0.3769	3.7854	0.0124	1.4458	8.8600e-003	1.4547	0.3835	8.1600e-003	0.3917		1,238.2145	1,238.2145	0.0264		1,238.8751
Total	0.6747	3.9859	4.7693	0.0222	1.6967	0.0165	1.7132	0.4557	0.0154	0.4712		2,268.4380	2,268.4380	0.0752		2,270.3179

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	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242	0.0000	2,658.5171	2,658.5171	0.5160		2,671.4175
Total	1.3542	12.7551	17.3385	0.0278		0.6530	0.6530		0.6242	0.6242	0.0000	2,658.5171	2,658.5171	0.5160		2,671.4175

Amare Apartments - Contra Costa County, Winter

3.4 Building Construction - 2022

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	1.5000e-004	5.0500e-003	1.1200e-003	2.0000e-005	4.9000e-004	1.0000e-005	5.1000e-004	1.3000e-004	1.0000e-005	1.5000e-004		1.6538	1.6538	7.0000e-005		1.6557
Vendor	0.1171	3.6039	0.9828	9.7500e-003	0.2504	7.5900e-003	0.2580	0.0721	7.2600e-003	0.0794		1,028.5696	1,028.5696	0.0487		1,029.7872
Worker	0.5574	0.3769	3.7854	0.0124	1.4458	8.8600e-003	1.4547	0.3835	8.1600e-003	0.3917		1,238.2145	1,238.2145	0.0264		1,238.8751
Total	0.6747	3.9859	4.7693	0.0222	1.6967	0.0165	1.7132	0.4557	0.0154	0.4712		2,268.4380	2,268.4380	0.0752		2,270.3179

3.4 Building Construction - 2023

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	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384		2,659.3350	2,659.3350	0.5119		2,672.1323
Total	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384		2,659.3350	2,659.3350	0.5119		2,672.1323

Amare Apartments - Contra Costa County, Winter

3.4 Building Construction - 2023

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	1.0000e-004	3.3200e-003	1.0000e-003	1.0000e-005	2.0100e-003	1.0000e-005	2.0200e-003	5.0000e-004	1.0000e-005	5.1000e-004		1.5908	1.5908	6.0000e-005		1.5924
Vendor	0.0886	2.7422	0.8694	9.4800e-003	0.2505	3.3600e-003	0.2538	0.0721	3.2100e-003	0.0753		1,000.0914	1,000.0914	0.0399		1,001.0894
Worker	0.5201	0.3385	3.4757	0.0119	1.4458	8.6700e-003	1.4545	0.3835	7.9900e-003	0.3915		1,190.1197	1,190.1197	0.0236		1,190.7106
Total	0.6088	3.0840	4.3460	0.0214	1.6983	0.0120	1.7103	0.4561	0.0112	0.4673		2,191.8019	2,191.8019	0.0636		2,193.3924

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	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384	0.0000	2,659.3350	2,659.3350	0.5119		2,672.1323
Total	1.2516	11.6800	17.3048	0.0278		0.5629	0.5629		0.5384	0.5384	0.0000	2,659.3350	2,659.3350	0.5119		2,672.1323

Amare Apartments - Contra Costa County, Winter

3.4 Building Construction - 2023

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	1.0000e-004	3.3200e-003	1.0000e-003	1.0000e-005	2.0100e-003	1.0000e-005	2.0200e-003	5.0000e-004	1.0000e-005	5.1000e-004		1.5908	1.5908	6.0000e-005		1.5924
Vendor	0.0886	2.7422	0.8694	9.4800e-003	0.2505	3.3600e-003	0.2538	0.0721	3.2100e-003	0.0753		1,000.0914	1,000.0914	0.0399		1,001.0894
Worker	0.5201	0.3385	3.4757	0.0119	1.4458	8.6700e-003	1.4545	0.3835	7.9900e-003	0.3915		1,190.1197	1,190.1197	0.0236		1,190.7106
Total	0.6088	3.0840	4.3460	0.0214	1.6983	0.0120	1.7103	0.4561	0.0112	0.4673		2,191.8019	2,191.8019	0.0636		2,193.3924

3.5 Architectural Coating - 2022

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	12.7361	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Amare Apartments - Contra Costa County, Winter

3.5 Architectural Coating - 2022

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	0.1109	0.0750	0.7528	2.4700e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		246.2358	246.2358	5.2500e-003		246.3672
Total	0.1109	0.0750	0.7528	2.4700e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		246.2358	246.2358	5.2500e-003		246.3672

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	12.7361	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Amare Apartments - Contra Costa County, Winter

3.5 Architectural Coating - 2022

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	0.1109	0.0750	0.7528	2.4700e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		246.2358	246.2358	5.2500e-003		246.3672
Total	0.1109	0.0750	0.7528	2.4700e-003	0.2875	1.7600e-003	0.2893	0.0763	1.6200e-003	0.0779		246.2358	246.2358	5.2500e-003		246.3672

3.5 Architectural Coating - 2023

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	12.7232	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Amare Apartments - Contra Costa County, Winter

3.5 Architectural Coating - 2023

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	0.1034	0.0673	0.6912	2.3700e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		236.6715	236.6715	4.7000e-003		236.7890
Total	0.1034	0.0673	0.6912	2.3700e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		236.6715	236.6715	4.7000e-003		236.7890

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	12.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	12.7232	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Amare Apartments - Contra Costa County, Winter

3.5 Architectural Coating - 2023

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	0.1034	0.0673	0.6912	2.3700e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		236.6715	236.6715	4.7000e-003		236.7890
Total	0.1034	0.0673	0.6912	2.3700e-003	0.2875	1.7200e-003	0.2892	0.0763	1.5900e-003	0.0779		236.6715	236.6715	4.7000e-003		236.7890

3.6 Paving - 2023

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	0.7683	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940		1,743.7363	1,743.7363	0.5640		1,757.8353
Paving	0.1109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8792	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940		1,743.7363	1,743.7363	0.5640		1,757.8353

Amare Apartments - Contra Costa County, Winter

3.6 Paving - 2023

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	0.0296	0.0192	0.1975	6.8000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		67.6204	67.6204	1.3400e-003		67.6540
Total	0.0296	0.0192	0.1975	6.8000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		67.6204	67.6204	1.3400e-003		67.6540

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	0.7683	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940	0.0000	1,743.7363	1,743.7363	0.5640		1,757.8353
Paving	0.1109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8792	6.8798	8.9364	0.0180		0.3196	0.3196		0.2940	0.2940	0.0000	1,743.7363	1,743.7363	0.5640		1,757.8353

Amare Apartments - Contra Costa County, Winter

3.6 Paving - 2023

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	0.0296	0.0192	0.1975	6.8000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		67.6204	67.6204	1.3400e-003		67.6540
Total	0.0296	0.0192	0.1975	6.8000e-004	0.0822	4.9000e-004	0.0826	0.0218	4.5000e-004	0.0222		67.6204	67.6204	1.3400e-003		67.6540

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Amare Apartments - Contra Costa County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5115	6.6700	18.3633	0.0653	6.4688	0.0516	6.5204	1.7304	0.0481	1.7785		6,595.075 3	6,595.075 3	0.2258		6,600.720 3
Unmitigated	1.5168	6.7027	18.4936	0.0659	6.5342	0.0521	6.5862	1.7479	0.0485	1.7964		6,656.757 8	6,656.757 8	0.2273		6,662.441 4

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,332.24	1,162.98	1066.52	2,933,432	2,904,098
Parking Lot	0.00	0.00	0.00		
Total	1,332.24	1,162.98	1,066.52	2,933,432	2,904,098

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Parking Lot	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771

Amare Apartments - Contra Costa County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473
NaturalGas Unmitigated	0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911

Amare Apartments - Contra Costa County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4353.26	0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911
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
Total		0.0470	0.4012	0.1707	2.5600e-003		0.0324	0.0324		0.0324	0.0324		512.1477	512.1477	9.8200e-003	9.3900e-003	515.1911

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					
Apartments Mid Rise	4.20079	0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473
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
Total		0.0453	0.3871	0.1647	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2104	494.2104	9.4700e-003	9.0600e-003	497.1473

6.0 Area Detail

6.1 Mitigation Measures Area

Amare Apartments - Contra Costa County, Winter

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.1048	0.2119	15.0524	1.0400e-003		0.0864	0.0864		0.0864	0.0864	0.0000	76.5063	76.5063	0.0270	9.1000e-004	77.4522
Unmitigated	7.1316	0.5122	33.4592	0.0611		3.0892	3.0892		3.0892	3.0892	443.2048	76.5063	519.7110	2.0989	9.1000e-004	572.4543

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	0.7141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9324					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0314	0.3390	18.4233	0.0603		3.0059	3.0059		3.0059	3.0059	443.2048	49.4118	492.6165	2.0728	9.1000e-004	544.7075
Landscaping	0.4538	0.1732	15.0359	7.9000e-004		0.0833	0.0833		0.0833	0.0833		27.0945	27.0945	0.0261		27.7468
Total	7.1316	0.5122	33.4592	0.0611		3.0892	3.0892		3.0892	3.0892	443.2048	76.5063	519.7110	2.0989	9.1000e-004	572.4543

Amare Apartments - Contra Costa County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9324					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.5300e-003	0.0387	0.0165	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	49.4118	49.4118	9.5000e-004	9.1000e-004	49.7054
Landscaping	0.4538	0.1732	15.0359	7.9000e-004		0.0833	0.0833		0.0833	0.0833		27.0945	27.0945	0.0261		27.7468
Total	5.1048	0.2119	15.0524	1.0400e-003		0.0864	0.0864		0.0864	0.0864	0.0000	76.5063	76.5063	0.0270	9.1000e-004	77.4522

7.0 Water Detail

7.1 Mitigation Measures Water

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Amare Apartments - Contra Costa County, Winter

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Appendix ARB

Arborist Report



May 16, 2016

The Austin Group LLC
Attn: Bill Schrader
164 Oak Road
Alamo, CA 94507
bill@austin-group.com

Re: Arborist Report for the Amare Apartment Homes APN 161-400-009 & 010

Dear Bill,

The following arborist report discusses the proposed new development between Arnold Drive and Highway 4 just south of 2530 Arnold Drive. Per the City of Martinez's Trees on Private Property Ordinance Chapter 8.12, the report includes:

- Tag and identify all protected trees, measured at 4.5' above mean grade.
- Identify dripline locations and tree numbers on site map.
- Note trees that are considered "Protected" by the City of Martinez's ordinance as follows:
 - Any tree 6.5" or greater in diameter, measured 4.5' above grade.
 - Any multi-stemmed tree with the sum of the circumferences measuring 40" or larger.
 - Any significant grouping of trees, including groves of four or more trees.
- Assess individual tree health and structural condition.
- Assess proposed improvements for potential encroachment.
- Based on tree condition and potential encroachments, make recommendations for tree preservation.

Site Summary

The site of the proposed development is currently undeveloped, with trees consisting primarily of native oaks and Italian stone pines. Redwoods and African sumac trees are also found along Arnold Drive, within or near the fenced property. The proposed project consists of apartment homes and infrastructure encompassing the majority of the property, with the exception of a swath of land on the southwest portion of the parcel. Every tree included in the inventory is considered protected per city ordinance.

It is my opinion that a total of 43 trees will need to be removed to accommodate the proposed project, and the remaining 17 trees can be retained given that the protection measures within this report are followed.

Assumptions & Limitations

This report is based on my site visit on 5/13/16 and the preliminary grading plan provided by The Humann Company Inc., dated 4/11/16. It was assumed that the proposed improvements and tree driplines were accurately surveyed on the plan, however, several of the tree trunks were not surveyed within the driplines, those trunks were approximately located by me. A few of those trees may have to be re-assessed once the building corners are surveyed on the site.

The health and structure of the trees were assessed visually from ground level. No drilling, root excavation, or aerial inspections were performed. Internal or non-detectable defects may exist, and could lead to part or whole tree failures. Due to the dynamic nature of trees and their environment, it is not possible for arborists to guarantee that trees will not fail in the future.

Tree Inventory & Assessment Table

#s: Each tree was given a numerical tag from #97-156. Trees #97-103 are on the fenced off property and most were not physically tagged due to lack of access. Their locations are given in the tree protection plan.

DBH (Diameter at Breast Height): Trunk diameters in inches were calculated from the circumference measured at 4.5' above average grade.

Health & Structural Condition Rating

Dead: Dead or declining past chance of recovery.

Poor (P): Stunted or declining canopy, poor foliar color, possible disease or insect issues. Severe structural defects that may or may not be correctable. Usually not a reliable specimen for preservation.

Fair (F): Fair to moderate vigor. Minor structural defects that can be corrected. More susceptible to construction impacts than a tree in good condition.

Good (G): Good vigor and color, with no obvious problems or defects. Generally more resilient to impacts.

Very Good (VG): Exceptional specimen with excellent vigor and structure. Unusually nice.

Age

Young (Y): Within the first 20% of expected life span. High resiliency to encroachment.

Mature (M): Between 20% - 80% of expected life span. Moderate resiliency to encroachment.

Overmature (OM): In >80% of expected life span. Low resiliency to encroachment.

DE: Dripline Encroachment (X indicates encroachment)

CI: Anticipated Construction Impact (L = Low, M = Moderate, H = High)

PA: Project Arborist

#	Species	DBH	Health	Structure	Dripline				Age	DE	CI	Comments	Action
					N	E	S	W					
97	Redwood (<i>Sequoia sempervirens</i>)	17	F-P	G	10	10	10	10	M	X	H	Not physically tagged due to lack of access. Drought stressed. 7' from proposed sidewalk and 15' from bio-retention basin. Root pruning would further stress tree.	Remove.
98	Redwood (<i>Sequoia sempervirens</i>)	16	F-P	G	8	8	8	8	M	X	H	Not physically tagged. Drought stressed. In proposed sidewalk.	Remove.
99	Coast Live Oak (<i>Quercus agrifolia</i>)	8.5	G	F	8	8	8	8	Y	X	H	Not physically tagged. In proposed sidewalk.	Remove.
100	African Sumac (<i>Rhus lancea</i>)	10	F	F	6	6	6	6	M		L	Not physically tagged.	Retain.
101	African Sumac (<i>Rhus lancea</i>)	8, 6, 7	G	F	10	10	10	8	M	X	M	Not physically tagged. 8' from proposed bio-retention basin.	Retain.
102	Redwood (<i>Sequoia sempervirens</i>)	16	P	G	8	8	8	8	M	X	H	Protected. Not physically tagged. 1/4th of canopy is very sparse, drought stressed. In proposed sidewalk.	Remove.
103	Coast Live Oak (<i>Quercus agrifolia</i>)	12	G	G	10	10	10	10	Y	X	H	Protected. 2' from driveway, 3' from curb. In proposed sidewalk.	Remove.
104	Coast Live Oak (<i>Quercus agrifolia</i>)	9	G	F	8	8	8	8	Y	X	H	Protected. Co-dominant stems arising at 2'. In proposed wall.	Remove.
105	Coast Live Oak (<i>Quercus agrifolia</i>)	8	G	G	8	8	8	8	Y		L	Protected. Clear of construction.	Retain. Install protective fencing.

#	Species	DBH	Health	Structure	Dripline				Age	DE	CI	Comments	Action
					N	E	S	W					
106	Valley Oak (<i>Quercus lobata</i>)	19	G	G	18	18	18	18	M	X	M	Protected. Proposed retaining wall 18' away to north and west.	Retain. Install protective fencing.
107	Valley Oak (<i>Quercus lobata</i>)	16, 4, 8, 8	F	F	18	18	18	18	M	X	H	Protected. Multiple co-dominant trunks. In proposed parking area.	Remove.
108	Italian Stone Pine (<i>Pinus pinea</i>)	12, 19, 28	G	F-P	20	20	20	20	M	X	H	Protected. Multiple co-dominant trunks. In proposed street.	Remove.
109	Italian Stone Pine (<i>Pinus pinea</i>)	27	G	F	25	25	25	25	M	X	H	Co-dominant stems at 7' with included bark. In construction area.	Remove.
110	Italian Stone Pine (<i>Pinus pinea</i>)	7.5	G	G	8	8	8	8	Y		L	10' from retaining wall.	Retain. Install protective fencing.
111	Valley Oak (<i>Quercus lobata</i>)	15	G	F-P	15	15	15	15	Y	X	H	Multiple stems at 5'. In construction area.	Remove.
112	Italian Stone Pine (<i>Pinus pinea</i>)	8	G	G	7	7	7	7	Y	X	M	5' from retaining wall. Large tree at maturity that requires more space.	Remove.
113	Italian Stone Pine (<i>Pinus pinea</i>)	10	G	G	8	8	8	8	Y		L	Clear of construction.	Retain. Install protective fencing.
114	Italian Stone Pine (<i>Pinus pinea</i>)	15	G	F	15	15	15	15	Y		L	Co-dominant stems at 6'. Clear of construction.	Retain. Install protective fencing.
115	Italian Stone Pine (<i>Pinus pinea</i>)	7	G	G	6	6	6	6	Y		L	Clear of construction.	Retain. Install protective fencing.

#	Species	DBH	Health	Structure	Dripline				Age	DE	CI	Comments	Action
					N	E	S	W					
116	Italian Stone Pine (<i>Pinus pinea</i>)	10.5	G	G	8	8	8	8	Y	X	H	16' from proposed retaining wall.	Retain. Install protective fencing.
117	Coast Live Oak (<i>Quercus agrifolia</i>)	6	G	G	6	6	6	6	Y	X	H	In proposed parking.	Remove.
118	Valley Oak (<i>Quercus lobata</i>)	16, 18	G	F	15	15	15	15	M	X	H	Co-dominant trunks with included bark. In construction area.	Remove.
119	Italian Stone Pine (<i>Pinus pinea</i>)	20	G	F	20	20	20	20	M	X	H	Co-dominant stems at 15'. In proposed street.	Remove.
120	Valley Oak (<i>Quercus lobata</i>)	6	G	F	15	15	0	15	Y	X	M	One sided to north. 5' from proposed retaining wall. Large tree at maturity that requires more space.	Remove.
121	Valley Oak (<i>Quercus lobata</i>)	8	F	F	10	10	0	10	Y	X	M	One sided to north. 8' from proposed retaining wall. Large tree at maturity that requires more space.	Remove.
122	Italian Stone Pine (<i>Pinus pinea</i>)	16	G	F	10	10	10	10	M		L	Clear of construction.	Retain. Install protective fencing.
123	Italian Stone Pine (<i>Pinus pinea</i>)	9	F	F	8	8	0	8	Y		L	One sided to north. Co-dominant trunks at 5'. Clear of construction.	Retain. Install protective fencing.
124	Valley Oak (<i>Quercus lobata</i>)	17	G	F	15	15	15	15	M	X	H	Large scaffold at 4.5', same size as trunk. In construction area.	Remove.

#	Species	DBH	Health	Structure	Dripline				Age	DE	CI	Comments	Action
					N	E	S	W					
125	Italian Stone Pine (<i>Pinus pinea</i>)	20	G	F	18	18	18	18	M	X	H	Co-dominant stems at 15'. In proposed street.	Remove.
126	Valley Oak (<i>Quercus lobata</i>)	6, 5.5	G	F	8	8	8	8	Y	X	H	Co-dominant trunks. In construction area.	Remove.
127	Valley Oak (<i>Quercus lobata</i>)	10	G	F	10	10	10	10	Y	X	H	Co-dominant stems at 7'. In construction area.	Remove.
128	Italian Stone Pine (<i>Pinus pinea</i>)	12	G	G	10	10	10	10	M	X	H	In construction area.	Remove.
129	Italian Stone Pine (<i>Pinus pinea</i>)	30	G	F	20	20	20	20	M	X	H	Co-dominant stems at 6'. In building footprint.	Remove.
130	Italian Stone Pine (<i>Pinus pinea</i>)	35	G	F	20	20	20	20	M	X	H	3 co-dominant stems at 7' with included bark. 18' from retaining wall. Large tree with compromised structure, retention would require significant root pruning.	Remove.
131	Valley Oak (<i>Quercus lobata</i>)	19	G	G	15	18	18	18	M		M	18' from retaining wall.	Retain. Install protective fencing.
132	Italian Stone Pine (<i>Pinus pinea</i>)	15	G	G	5	15	20	15	M		L	Wire embedded in trunk. Remove to provide more space to #131 (more desirable)	Remove.
133	Italian Stone Pine (<i>Pinus pinea</i>)	17	G	F	15	15	15	15	M	X	H	Wire embedded in trunk. Phototropic lean to south. Co-dominant at 10'. 3' from proposed retaining wall.	Remove.

#	Species	DBH	Health	Structure	Dripline				Age	DE	CI	Comments	Action
					N	E	S	W					
134	Italian Stone Pine (<i>Pinus pinea</i>)	14	G	F	15	15	15	15	M	X	H	Co-dominant stems at 15'. In proposed retaining wall.	Remove.
135	Italian Stone Pine (<i>Pinus pinea</i>)	15	G	G	15	15	15	15	M	X	H	Phototropic lean to west. In construction area.	Remove.
136	Valley Oak (<i>Quercus lobata</i>)	15	G	F	20	0	15	20	M	X	H	Shaded and growing to west. In building footprint.	Remove.
137	Italian Stone Pine (<i>Pinus pinea</i>)	18	G	G	20	20	20	20	M	X	H	In building footprint.	Remove.
138	Valley Oak (<i>Quercus lobata</i>)	16	G	G	18	10	18	0	M	X	H	In building footprint.	Remove.
139	Valley Oak (<i>Quercus lobata</i>)	16	G	F	18	15	0	15	M	X	H	In construction area.	Remove.
140	Italian Stone Pine (<i>Pinus pinea</i>)	35	G	F	20	20	20	20	M	X	H	Co-dominant stems at 6'. In building footprint.	Remove.
141	Valley Oak (<i>Quercus lobata</i>)	15	G	F	0	25	25	0	M	X	H	Phototropic lean. In building footprint.	Remove.
142	Italian Stone Pine (<i>Pinus pinea</i>)	12	G	F	0	25	10	0	M	X	H	Phototropic lean. In construction area.	Remove.
143	Valley Oak (<i>Quercus lobata</i>)	5, 12	G	F	8	8	8	8	Y	X	H	Co-dominant trunks. In construction area.	Remove.
144	Valley Oak (<i>Quercus lobata</i>)	9.5	G	G	10	10	8	6	Y	X	H	In building footprint.	Remove.

#	Species	DBH	Health	Structure	Dripline				Age	DE	CI	Comments	Action
					N	E	S	W					
145	Italian Stone Pine (<i>Pinus pinea</i>)	19	G	F	15	15	15	15	M	X	H	Co-dominant stems at 10'. In construction area.	Remove.
146	Valley Oak (<i>Quercus lobata</i>)	12, 10	G	F	10	10	10	10	M	X	H	In building footprint.	Remove.
147	Italian Stone Pine (<i>Pinus pinea</i>)	15	G	F	15	15	15	15	M		L	Co-dominant stems at 6'. Clear of construction.	Retain. Install protective fencing.
148	Valley Oak (<i>Quercus lobata</i>)	10	G	G	15	6	10	10	Y		L	Retaining wall 30' away.	Retain. Install protective fencing.
149	Italian Stone Pine (<i>Pinus pinea</i>)	7, 12	G	F	10	10	10	10	Y		L	Co-dominant stems at 2'. Clear of construction.	Retain. Install protective fencing.
150	Valley Oak (<i>Quercus lobata</i>)	15	G	G-F	20	20	23	16	M		L	Multiple co-dominant stems at 8'. Retaining wall 29' away.	Retain. Install protective fencing.
151	Italian Stone Pine (<i>Pinus pinea</i>)	25.5	VP	P	15	15	0	0	M		L	Dominated by oak, half dead.	Remove.
152	Valley Oak (<i>Quercus lobata</i>)	18, 26	VG	G	17	20	20	20	M	X	M	Very healthy tree. Co-dominant trunks at base. 15' from proposed buildings.	Retain. Install protective fencing. Arborist on site during excavation near tree.
153	Coast Live Oak (<i>Quercus agrifolia</i>)	11	G	F-P	10	10	10	10	Y	X	H	Previously topped at 6', foliage up to 10' removed. In construction area.	Remove.
154	Coast Live Oak (<i>Quercus agrifolia</i>)	11, 9, 8	G	F-P	10	10	10	10	M	X	H	Previously topped at 6', foliage up to 10' removed. 1' from proposed sidewalk, 8' from proposed bio-retention basin.	Remove.

#	Species	DBH	Health	Structure	Dripline				Age	DE	CI	Comments	Action
					N	E	S	W					
155	Coast Live Oak (<i>Quercus agrifolia</i>)	12, 13.5	G	F-P	10	10	10	10	M	X	H	Previously topped at 6', foliage up to 10' removed. In bio-retention basin.	Remove.
156	Coast Live Oak (<i>Quercus agrifolia</i>)	17	G	F-P	10	10	10	10	M	X	H	Previously topped at 6', foliage up to 10' removed. Measured at 1' above grade. In bio-retention basin.	Remove.

Trees that will need to be removed: 97-99, 102-104, 107-109, 111, 112, 117-121, 124-130, 132-146, 151, 153-156

Trees to be saved that will be subjected to dripline encroachment: 101, 106, 116, 152

Trees to be saved that will not be encroached: 100, 105, 110, 113-115, 122, 123, 131, 147-150

Discussion

The majority of the trees within the construction area will need to be removed to accommodate the project, including those in the small fenced area along Arnold Drive. The only exceptions are the African sumacs (#100, 101) and smaller unprotected trees (under 6" in diameter) inside the fence. The redwoods (97, 98, 102) and coast live oaks (99, 103) nearby will be encroached by the proposed sidewalk and bio-retention basin. Tree #98 is not located directly in the sidewalk like the other trees, but is instead 7' away. It will also be encroached from the east by the bio-retention basin. Although redwoods are resilient to root encroachment, this tree is in poor condition with drought stressed foliage. The root pruning required for the project may further exacerbate its condition. I do not consider it worthy of preservation and recommend its removal.

I have also recommended removal of trees outside the immediate construction area. Trees #120 & 121 are small valley oaks located 5'-8' from a proposed retaining wall. Although the trees can withstand grading impacts, they are very large trees at maturity and will outgrow their space above the parking area. Due to high potential targets and restricted space, they should be removed. The retaining wall will also affect two Italian stone pines (130, 133). Tree #130 is a 35" pine with three codominant trunks originating at 7' above grade. The species tends to have codominant stems that are prone to heavy end weights and failure. The risk of failure is high since the attachment is further weakened by included bark between stems, and the new homes present a major target for failure. Similarly, tree #133 is only 3' from the wall and will need to be removed. Two other Italian stone pines (132, 151) are crowding native oaks that are healthier and in better condition. They should be removed to reduce competition for water, nutrients, and sunlight, which can result in healthier oaks.

The remainder of the trees shall be retained and can be protected by erecting 6' tall chain link fencing. The area beneath their driplines shall be mulched to a depth of 4", using the woodchips from on-site tree removals. Fencing shall be installed as shown in the tree protection plan to preserve trees as groves as much as possible, since roots extend well beyond the canopy. Two valley oaks (106, 152) require additional attention. Tree #106 is a 19" valley oak located at the southwest corner of the property that has proposed retaining walls 18' to the north and west. The tree can tolerate the required root pruning, but part of its dripline will be encroached by heavy machinery. To reduce compaction within its dripline but beyond the fence, 4" of mulch shall be spread between the fence and the retaining wall.

Of the trees recommendation for retention, tree #152 is the best specimen. It is a large coast live oak with two trunks measuring 18" and 26", with branches that grow down to the ground. The proposed buildings are located 15' to the north of the tree, and will require at least 5' of crown reduction for building clearance. If possible, adjusting the building location to provide a minimum of 20'-25' of undisturbed soil to the north would preserve more of its root system and eliminate the need for clearance pruning. If this is not possible, fencing shall be erected as close to the edge of its canopy as possible, and at least 9' from the tree. As currently shown on the plans, this would give a maximum of 6' of working conditions around that edge of the building. An expanded root zone area around the rest of the tree shall be fenced off to preserve

the remainder of the root system. The project arborist shall be on-site during grading or excavation around the tree to ensure that roots are cut cleanly and immediately covered up.

Recommendations (to be printed on site plans)

Pre-construction

- Remove trees #97-99, 102-104, 107-109, 111, 112, 117-121, 124-130, 132-146, 151, 153-156.
- Mulch shall be spread out under trees to be retained to a depth of 4", keeping at least 12" away from the trunks.
- Prior to construction or grading, contractor shall construct a temporary 6' chain-link fence to set up a Tree Protection Zone (TPZ) around each tree or grove of trees as indicated on the tree protection plan.
- TPZ fencing shall remain in an upright sturdy manner from the start of grading until the completion of construction. Fencing shall not be adjusted or removed without consulting the project arborist (PA).

Foundation, Grading, and Construction Phase

- PA shall be on-site during excavation around tree #152 to cleanly prune and re-cover roots.
- Any clearance pruning required shall be coordinated through the PA and shall be performed by personnel certified by the International Society of Arboriculture (ISA). All pruning shall adhere to ISA and American National Standards Institute (ANSI) Standards and Best Management Practices.
- Should TPZ encroachment be necessary, the contractor shall contact the PA for consultation and recommendations.
- Should there be a need for additional area to store equipment or supplies, contact the PA to locate areas and provide protection for trees that may be encroached.
- Contractor shall keep TPZs free of all construction-related materials, debris, fill soil, equipment, etc. The only acceptable material is mulch spread out beneath the trees.
- Should any damage to the trees occur, the contractor shall promptly notify the PA to appropriately mitigate the damage.

Landscaping Phase

- TPZ fencing shall remain in place with the same restrictions until landscape contractor notifies and meets with PA.
- Avoid all fill work, grade changes, and trenching within driplines unless it is performed by hand. Pipes shall be threaded under or through large roots without damaging them.
- Contractor shall avoid trenching and grade changes within oak driplines.
- All planting and irrigation shall be kept a minimum of 10' away from native oaks. All irrigation within the driplines shall be targeted at specific plants, such as drip emitters or bubblers. No overhead irrigation shall occur within the driplines of native oaks.

- All planting within oak driplines shall be compatible with oaks, consisting of plant material that requires little to no water after two years' establishment. A list of oak-compatible plants can be found in a publication from the California Oak Foundation, available at: <http://new.californiaoaks.org/wp-content/uploads/2016/04/CompatiblePlantsUnderAroundOaks.pdf>.
- I recommend having the landscape architect and contractor contact the PA with questions regarding tree preservation.

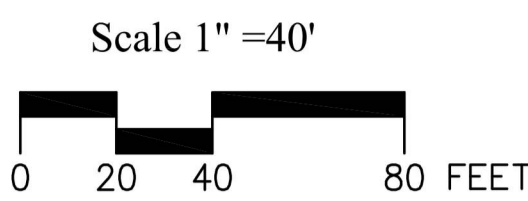
Thank you for the opportunity to provide this report, and please do not hesitate to contact me if there are any questions or concerns.

See attached tree protection plan.

Sincerely,

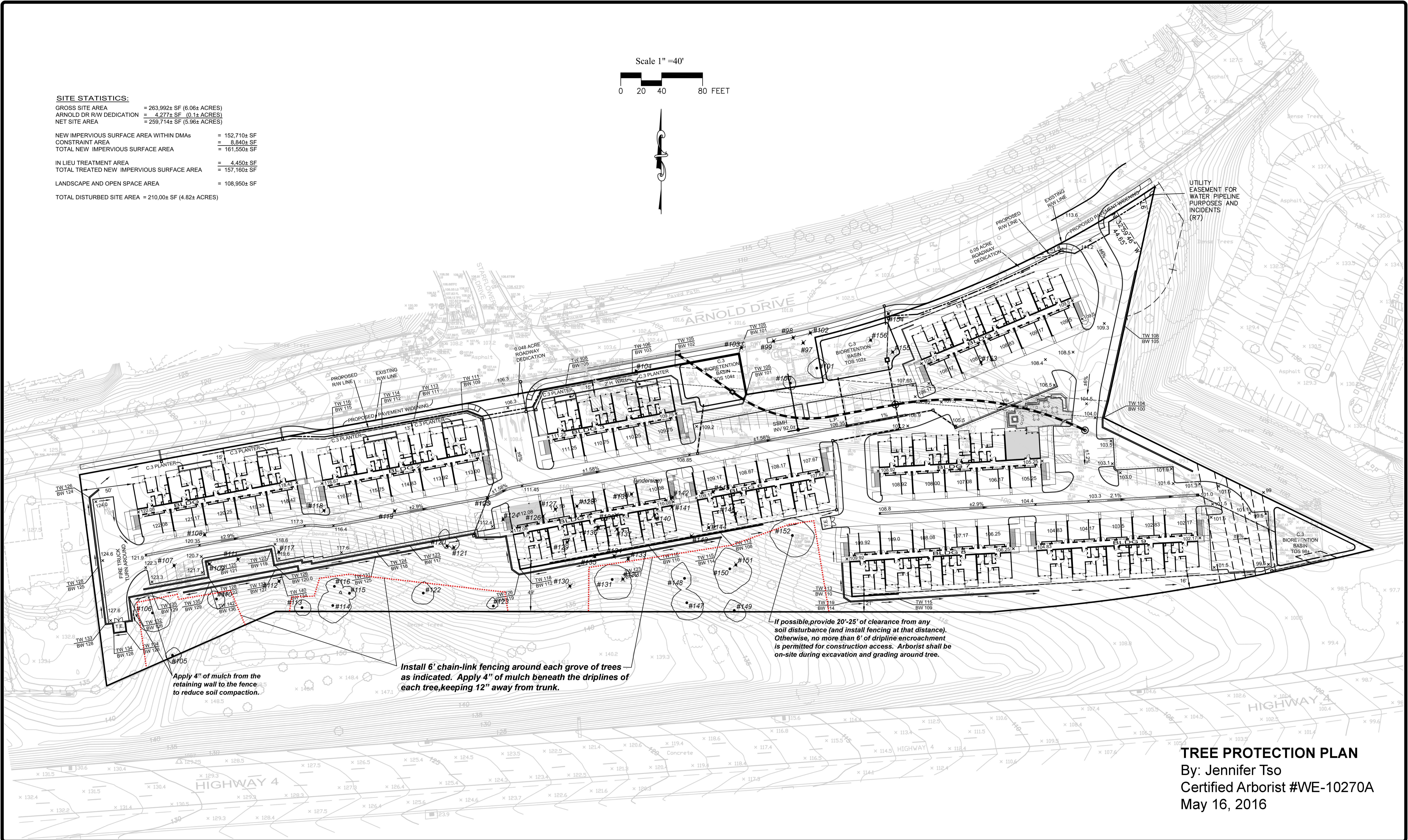
A handwritten signature in black ink, appearing to read 'Jennifer Tso', written in a cursive style.

Jennifer Tso
Certified Arborist #WE-10270A



SITE STATISTICS:

GROSS SITE AREA	= 263,992± SF (6.06± ACRES)
ARNOLD DR R/W DEDICATION	= 4,277± SF (0.1± ACRES)
NET SITE AREA	= 259,714± SF (5.96± ACRES)
NEW IMPERVIOUS SURFACE AREA WITHIN DMAS	= 152,710± SF
CONSTRAINT AREA	= 8,840± SF
TOTAL NEW IMPERVIOUS SURFACE AREA	= 161,550± SF
IN LIEU TREATMENT AREA	= 4,450± SF
TOTAL TREATED NEW IMPERVIOUS SURFACE AREA	= 157,100± SF
LANDSCAPE AND OPEN SPACE AREA	= 108,950± SF
TOTAL DISTURBED SITE AREA	= 210,00± SF (4.82± ACRES)



Apply 4" of mulch from the retaining wall to the fence to reduce soil compaction.

Install 6' chain-link fencing around each grove of trees as indicated. Apply 4" of mulch beneath the driplines of each tree, keeping 12" away from trunk.

If possible, provide 20'-25' of clearance from any soil disturbance (and install fencing at that distance). Otherwise, no more than 6' of dripline encroachment is permitted for construction access. Arborist shall be on-site during excavation and grading around tree.

TREE PROTECTION PLAN
 By: Jennifer Tso
 Certified Arborist #WE-10270A
 May 16, 2016

NO.	DATE	BY	REVISIONS

SCALE	1"=40'
DATE	04/11/2016
ENGINEER	H. N.
JOB NO.	15126

Izzat S. Nashashibi
 IZZAT S. NASHASHIBI R.C.E. 29528

AMARE APARTMENT HOMES
 APN 161-400-009 & 010
PRELIMINARY GRADING PLAN
 ARNOLD DRIVE
 CALIFORNIA

HUMANN COMPANY INC.
 ENGINEERING - SURVEYING
 1021 BROWN AVE. LAFAYETTE, CA 94549
 PH (925)283-5000 FAX (925)283-3578

SHEET **C01**
 OF 3 SHEETS
 JOB NO. 15126

Appendix ESA

Phase I ESA

Prepared For
Craig Chiappone

DRAFT
PHASE I ENVIRONMENTAL SITE ASSESSMENT
Vacant Lot
Martinez, California

October 5, 2015

Prepared By

ENVIRONMENTAL RESOURCE GROUP, INC.
1038 REDWOOD HIGHWAY, SUITE 1
MILL VALLEY, CALIFORNIA 94941
TEL: (415) 381-6574; FAX: (415) 381-6320

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DEFINITIONS (ASTM 1527-13)

Activity and Use Limitations (AULs) – “*activity and use limitations – legal or physical restrictions or limitations on the use of, or access to, a site or a facility: (1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil, soil vapor, groundwater, and/or surface water on the Target Property...*”

Controlled Recognized Environmental Condition (CREC) – “*a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a NFA [No Further Action] letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (e.g. Target Property use restrictions, AULs, institutional controls, or engineering controls)...a CREC shall be listed in the Findings Section of the Phase I ESA Report, and as a REC in the Conclusions Section of the... report.*”

Historical Recognized Environmental Condition (HREC) – “*a past release of any hazardous substances or petroleum products that has occurred in connection with the Target Property and has been addressed to the satisfaction of the applicable regulatory authority or meeting **unrestricted residential use** criteria established by a regulatory authority, without subjecting the Target Property to any required controls (e.g., Target Property use restrictions, AULs, institutional controls, or engineering controls). Before calling the past release an HREC, the EP (Environmental Professional) must determine whether the past release is a REC at the time the Phase I ESA is conducted (e.g., if there has been a change in the regulatory criteria). If the EP considers this past release to be a REC at the time the Phase I ESA is conducted, the conditions shall be included in the conclusions section of the report as a REC.*”

Migrate/Migration – “*refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, or vapor in the subsurface.*”

Recognized Environmental Condition (REC) – “*the presence or likely presence of any hazardous substances or petroleum products, **in, on, or at** a Target Property: (1) due to any **release** to the **environment**; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.*”

Release (CERCLA Definition) 42 U.S.C. §9601(22) defines a “**release**” as “*any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discharging of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant).*”

EXECUTIVE SUMMARY

Environmental Resources Group (“ERG”) performed a Phase I Environmental Site Assessment (“ESA”) of the Vacant Lot on Arnold Drive, Martinez, California (the “Target Property”), Contra Costa County (CCC) Assessor’s Parcel Numbers (APNs) 161-400-010-5 and 161-400-009-7 on behalf of Craig Chiappone (User or Client) (Figure 1).

ERG performed the Phase I ESA following the guidelines in the American Society of Testing and Materials (ASTM) Standard Designation E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*,” and the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI), as required under Section 101(35)(b)(ii) and (iii) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (EPA AAI Rule), and Code of Federal Regulations (40 CFR) 312.

Phase I ESAs are conducted to identify existing or potential Recognized Environmental Conditions (RECs), Historical RECs (HRECs), or Controlled RECs (CRECs) (as defined by ASTM Standard E1527-13 and EPA AAI Rule) in connection with the Target Property, as well as to provide appropriate inquiry into the previous ownership and use of the Target Property (where applicable).

Scope of Services

The Scope of Services includes “All appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice”, as defined in 42 USC 9601(35) (B). The Scope of Services includes observations for RECs, as well as a review of ***reasonably ascertainable information*** in regulatory files provided within reasonable time and cost constraints. Accordingly, it cannot be guaranteed that all files are examined, or that every contingency is investigated. These limitations are in conformance with the stated guidelines of ASTM E1527-13. An evaluation of business environmental risk associated with a parcel of commercial real estate is not included in this assessment. This Phase I ESA included assessment of the Target Property, general reconnaissance of adjacent properties, background research, a review of available and pertinent local, state, and federal regulatory records regarding the presence of hazardous materials and/or petroleum products at the Target Property.

The Scope of Services for this Phase I ESA does not include analysis of Controlled Substances (CS), Asbestos-Containing Materials (ACM), lead-based paint (LBP), or other non-CERCLA related conditions. Licensed professionals should be contacted to assess their potential presence if there is suspicion that these substances or conditions are on the Target Property.

Purpose

ERG understands that this Phase I ESA is being conducted for purposes of a potential sale of the Target Property.

SUMMARY OF PHASE I ESA RESULTS

Target Property Description

The Target Property is located in area of Martinez, California that consists of residences, CCC-governmental offices, and open, undeveloped land. The Target Property consists of two undeveloped parcels, APNs 161-400-010-5 and 161-400-009-7, without assigned addresses along the south side of Arnold Drive.

Current Use of Target Property

The Target Property parcels are open, undeveloped fields with oak trees and poison oak bushes. The parcels appear to be naturally hilly (i.e., not fill-related), and contain an east-west trending drainage swale (with concrete culvert) along the low-lying area on the north. Unpaved gravel paths (with abundant truck tire tracks indicating off-road travel) and apparent walking trails are present throughout the property.

Several upland areas contain small homeless encampments with tents, food preparation areas, and discarded clothing. A limited amount of trash and used propane canisters are observed along the hilltop. Small areas containing concrete debris are present along the base of the hill.

Historical Use of Target Property

Based on a review of available historical documents, the Target Property was first utilized for agricultural purposes as early as the 1940s. Small row crops were observed in aerial photographs until the 1970s, at which time the parcels no longer appeared to be maintained for crops. As the row crops disappeared, the Target Property became open fields with dirt roads that appeared to have been utilized for off-road vehicle traffic. The Target Property does not appear to have been developed at any time with permanent structures.

Summary of Records Review

The CCC Department of Environmental Health (CCCDEH) stated they had no files for Parcel 161-400-009 of the Target Property. Files for 161-400-010 included a permit for installation of four soil borings in October 2009 (drilling conducted by Exploration Geoservices under the direction of consultant Cornerstone Earth Group), and a narrative for the boring file indicating backfilling of the borings and closure of the permit. According to the permit, the borings were 6-inches in diameter and were drilled to a depth of a maximum depth of 39 feet below ground surface (bgs).¹

Review of available environmental databases (i.e., Environmental Data Resources Radius Report [radius report]), and historical aerial photographs, and city directories indicate the Target Property is located in an area of Martinez comprised mostly of residences, governmental offices, and open, undeveloped land. A CCC-government complex lies east of the Target Property.

No sites likely to pose significant environmental risk to the Target Property were identified.

Site Reconnaissance

¹ The purpose of the soil borings is not stated in the permit. However, the borings are believed to be non-environmental, and related to a geotechnical investigation for a potential redevelopment of the Target Property by Hill Valley Oak Apartments.

The Target Property was inspected by the ERG representative on September 1, 2015. No evidence of USTs, ASTs, or other features likely to pose significant environmental concern to the Target Property were observed. See the main body of the report for additional descriptions of site features.

Recognized Environmental Conditions (RECs)

No RECs were identified.

Historical Recognized Environmental Condition (HREC)

An HREC includes chemical releases that occurred in the past, but resulting concentrations of hazardous materials or petroleum products in soil and/or groundwater remain within the regulating agency health criteria, and the site has been closed by said agency *without* land use restrictions (i.e., the property could be redeveloped for *unrestricted residential use*).

No HRECs were identified.

Controlled Recognized Environmental Condition (CREC)

A CREC includes releases of hazardous materials or petroleum products that are allowed to remain in place following closure by a regulating agency, but the site is subject to implementation of required controls (e.g., Target Property use restrictions, Activity Use Limitations [AULs], deed restrictions, engineering controls, or remediation systems, etc.).

No CRECs were identified.

Vapor Encroachment Condition (VEC)

In accordance with ASTM E 1527-13, the potential for a Vapor Encroachment Condition (VEC) must be addressed during standard Phase I ESAs. VECs are evaluated using the Vapor Encroachment Screen (VES), a two-Tier process. The VES process does not evaluate the potential for vapor intrusion (VI) of subsurface vapors into existing buildings. Evaluation of VI conditions requires field sampling, and is not included in ASTM E1527-13.

Using the VES process, no VECs were identified:

De Minimis Conditions

De minimis environmental conditions include:

- Historical agricultural use is considered a *de minimis* condition. The User should note that former agricultural use may indicate the presence of residual pesticides and/or herbicides in the subsurface.
- Empty propane canisters in the areas currently or historically occupied by homeless individuals.
- Small quantities of concrete debris are present several low-lying areas, indicating construction debris has been deposited on the Target Property. No stains or distressed vegetation were observed.

Data Gaps

No data gaps deemed significant to the findings, conclusions, and recommendations of this Phase I ESA report were identified.

Conclusions

Available documentation has provided environmental information to support the following conclusions:

- The Target Property historically was utilized for agricultural purposes from as early as the 1940s through the 1970s, and later remained an undeveloped, open field utilized for off-road vehicular traffic.
- No evidence of permanent structures was identified in aerial photographs or other available documentation.
- The Target Property is located in an area with mostly residences, CCC governmental offices, or undeveloped parcels.
- No features of significant environmental concern were identified.
- No environmental sites were identified in the radius report that are likely to pose significant environmental risk to the Target Property. The Target Property is adjacent to a county pump station.

Opinion

It is the opinion of the Environmental Professional that research performed in this Phase I ESA substantially complies with the scope and limitations of ASTM E 1527-13 and EPA AAI Rule. Exceptions and/or limiting conditions (where applicable) are discussed in Section 1.6.

It is the opinion of the Environmental Professional that all environmental reports, including this Phase I ESA, should be submitted to the CUPA for review.

Recommendations

Based on the results of this assessment, ERG recommends no further investigation.

1.0 INTRODUCTION

Environmental Resources Group (“ERG”) performed a Phase I Environmental Site Assessment (“ESA”) of the Vacant Lot on Arnold Drive, Martinez, California (the “Target Property”), Contra Costa County Assessor’s Parcel Numbers (APNs) 161-400-010-5 and 161-400-009-7 on behalf of Craig Chiappone (User or Client) (Figure 1).

ERG performed the Phase I ESA following the guidelines in the American Society of Testing and Materials (ASTM) Standard Designation E1527-13, “*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*,” and the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI), as required under Section 101(35)(b)(ii) and (iii) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (EPA AAI Rule) and Code of Federal Regulations (40 CFR) 312.

1.1 PURPOSE

The purpose of this Phase I ESA is to identify existing or potential Recognized Environmental Conditions (RECs), Historical RECs (HRECs), or Controlled RECs (CRECs) (as defined by ASTM Standard E1527-13 and EPA AAI Rule) in connection with the Target Property, as well as to provide appropriate inquiry into the previous ownership and use of the Target Property (where applicable).

ERG understands that this Phase I ESA is being conducted for purposes of a sale of the Target Property, and that the proposed future use will remain the same as its historical use as a plant nursery.

1.2 SCOPE OF SERVICES

ERG has performed an ESA on the Target Property in general conformance with the scope and limitations of ASTM Practice E1527-13 and EPA AAI Rule. Any exceptions to or deletions from this practice are described in Section 1.6 of this report.

The Scope of Services includes “All appropriate inquiry into the previous ownership and uses of the Target Property consistent with good commercial or customary practice”, as defined in 42 USC 9601(35) (B). The Scope of Services includes observations for RECs, as well as a review of *reasonably ascertainable information* in regulatory files provided within reasonable time and cost constraints. Accordingly, it cannot be guaranteed that all files are examined, or that every contingency is investigated. These limitations are in conformance with the stated guidelines of ASTM E1527-13. An evaluation of business environmental risk associated with a parcel of commercial real estate is not included in this assessment.

In accordance with ASTM E1527-13, the Scope of Services for Phase I ESAs generally consists of the following tasks²:

- Acquiring available site-specific information (e.g., title, environmental lien information, former environmental investigation documentation, etc.) regarding the Target Property from the User.

² Based on availability of documents and key personnel.

- Providing key site personnel (e.g., owner, property manager, etc.) an Environmental Questionnaire to evaluate current and historical uses of the Target Property.
- Reviewing an Environmental Data Resources, Inc. (EDR) Radius Map Report (radius report) with GeoCheck® (Radius Report) to identify potential issues of environmental concern at the Target Property, and within the Target Property vicinity.
- Researching and reviewing readily available Local regulatory agency (i.e., Certified Unified Program Agency [CUPA]) files and online State database files. The records review includes files for the Target Property available at State, County, and/or Local offices or online databases. Where available, records were reviewed for adjacent properties identified in the Radius Report, as appropriate. In some cases, the status of a site may be determined from telephone interviews of staff persons of these offices.
- Reviewing historical aerial photographs, Sanborn Fire Insurance Maps (Sanborn Maps), historical topographic maps, and city directories, where available.
- Performing a site reconnaissance of the Target Property and nearby properties, including photo-documenting current property conditions. The site reconnaissance consists of an inspection of conditions at the Target Property, and identification of nearby property uses. Interviews are conducted of persons associated with the Target Property (e.g., the current owner or occupant) who are reasonably available at the time of the site reconnaissance, and by telephone when such interviews are possible.
- Interviewing readily available persons with knowledge of the Target Property and/or surrounding properties.
- Evaluating the potential for vapor encroachment onto, or within, the Target Property, in accordance with ASTM E1527-13.³
- Preparing a report presenting the findings, conclusions, and recommendations of the Phase I ESA research.

The Scope of Services for this Phase I ESA does not include analysis of Controlled Substances (CS), Asbestos-Containing Materials (ACM), lead-based paint (LBP), or other non-CERCLA related conditions. Licensed professionals should be contacted to assess their potential presence if there is suspicion that these substances or conditions are on the Target Property.

³ The User(s) should be aware that the VES process does not evaluate the potential for vapor intrusion (VI) into existing buildings from subsurface vapors. Evaluation of VI conditions requires field sampling, and is not included in ASTM E1527-13.

1.3 USER RELIANCE

This Phase I ESA report is for the exclusive use of Craig Chiappone, his Agents and Assignees, financing institutions involved in the financing of the sale and/or development of the Target Property, and any relevant and prevailing regulatory agency. Use of this report by any other party shall be at such party's sole risk.

1.4 USER-PROVIDED INFORMATION

ERG was provided a Preliminary Title Report for the Target Property by the User (Client). The Preliminary Report was prepared by First American Title Company, National Commercial Services, of Walnut Creek, California, and is dated July 23, 2015 (Order Number NCS-745192-CC). The owners of the Target Property are listed as Hill Valley Oaks, LLC.

No environmental cleanup liens were identified in the Preliminary Title for the Target Property.

The User has no specialized knowledge and experience related to the history of the site, except as described in the documents shown above.

1.5 SIGNIFICANT ASSUMPTIONS

ERG informs the Client that there is a possibility that even with the proper application of the methodologies employed in this ESA, conditions may exist on the Target Property that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information.

Significant assumptions regarding this Phase I ESA are summarized below:

- This Phase I ESA is intended to assess environmental conditions of the specific parcels of commercial real estate.
- This Phase I ESA reflects a commercially prudent and reasonable inquiry designed to identify RECs in connection with a Target Property.
- ERG believes that the Target Property information obtained from the review of various source records and interviews is reliable. However, ERG cannot and does not warrant or guarantee that the information provided by these sources is accurate or complete.
- All information regarding operations, plans, specifications, conditions, or test data which is provided to ERG by Client, owners or third parties (including without limitation, any point of contact at the Target Property), is deemed by ERG to be correct and complete without any independent verification by ERG. ERG assumes no responsibility for the accuracy of such information and shall not be liable if reliance on such information results in incorrect conclusions or results.

1.6 LIMITATIONS AND EXCEPTIONS

This Phase I ESA was conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings and conclusions contain all of the limitations inherent in these methodologies that are

referred to in ASTM E1527-13 and the EPA AAI Rule. It is understood by the parties hereto that the Client who has requested this assessment will use this assessment to provide environmental information to the User(s) for purposes of a potential future sale and redevelopment of the Target Property for light industrial use (i.e., a plant nursery). ERG intends no other use or disclosure.

This report is issued with the understanding that it is to be used only in its entirety. The Scope of Services performed to complete this Phase I ESA was limited in nature. This service has been performed in accordance with generally accepted environmental investigation practices for similar investigations conducted at this time and in this geographic area. ERG must alert the Client that this evaluation may not reveal if hazardous substances or petroleum hydrocarbon releases have occurred on or near the Target Property, and this Phase I ESA does not guarantee the condition of the Target Property. Furthermore, the absence of potential gross contamination sources, historical or present, does not necessarily imply that the Target Property is free of contamination. ERG and its EP representative do not warrant or guarantee that no significant events or releases or conditions could have arisen during time periods with data gaps.

This assessment was not intended to predict future site conditions. A risk assessment was not performed, and the Scope of Services does not include a determination of the extent of business environmental risk, or the public health impact of known or suspected hazardous substances or petroleum hydrocarbons. This assessment does not address whether requirements in addition to All Appropriate Inquiry have been met to qualify for the innocent landowner, contiguous Target Property owner, or bona fide prospective purchaser limitations on liability protections under CERCLA. This assessment does not address any additional requirements or environmental assessment obligations of State or Local laws or Federal laws, other than the All Appropriate Inquiry provisions of the landowner liability protections.

ERG and its EP representative are not responsible for conditions or consequences arising from facts and information that were withheld or concealed, or not fully disclosed at the time this evaluation was performed. In accordance with ASTM E1527-13, to achieve the objectives of this project, ERG based its conclusions and recommendations upon *reasonably available* information obtained during the period the investigation was conducted, including: historical records, maps, aerial photographs, personal interviews, and/or records held by relevant government and private agencies. Consequently, this information is subject to the limitations of historical documentation, including availability, completeness, and accuracy of records, and the personal recollections of those persons contacted. ERG and its EP representative are not responsible for errors or omissions in agency files or public or private databases, or non-disclosure by Target Property owners or representatives.

The content and conclusions provided by ERG in this report are based solely on the information collected during our investigation and activities at the Target Property, our present understanding of the Target Property conditions, and our professional judgment in light of such information at the time this report was prepared. Part of the findings in this investigation is based on data provided by others. This report presents ERG's professional opinion, and no warranty, expressed or implied, is made. The Client has the right to reproduce in full and provide copies of this report to interested parties, including his Agents and Representatives.

The information and opinions rendered in the report are exclusively for use by the Client and its approved User(s). ERG will not distribute or publish this report without the Client's consent, except as required by law or court order. ERG and its Environmental Professional representative have no responsibilities or liability whatsoever to persons or entities other than the Client if they so choose to use this report.

1.7 SPECIAL TERMS AND CONDITIONS

The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting constraints imposed by the User. No subsurface exploratory drilling or sampling was done under the scope of this Phase I ESA. Unless specifically stated otherwise in the report, no chemical analyses have been performed during the course of this Phase I ESA.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This Phase I ESA is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

The content and conclusions provided by ERG in this report are based solely on the information collected during our investigation and activities at the Target Property, our present understanding of the Target Property conditions, and our professional judgment in light of such information at the time this report was prepared. Part of the findings in this investigation is based on data provided by others.

This report presents ERG's professional opinion, and no warranty, expressed or implied, is made. Craig Chiappone has the right to reproduce in full and provide copies of this report to interested parties, including his Agents and Representatives.

1.8 MATTERS KNOWN TO CLIENT

The Client, User(s), Target Property representative(s), or owner(s) should have provided ERG any and all information known to said persons which pertains to: (1) the existence or possible existence at, on, under or in the vicinity of the Target Property, of any hazardous substances or petroleum hydrocarbons; (2) any conditions at, on, under or in the vicinity of the Target Property, which might represent a potential safety hazard or danger to human health or the environment; (3) any permit, manifest, title record, lien or other record of compliance or non-compliance with any Federal, State or Local laws, or court or administrative order or decrees; which could affect the recommendations or conclusions reached by ERG in the performance of its services.

2.0 SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

The Target Property consists of two irregularly-shaped parcels (Contra Costa County [CCC] Assessor's Parcel Numbers [APNs] 161-400-010-5 and 161-400-009-7, in Martinez, California. The parcels have no specified address, but lie between 2050 Arnold Drive on the west, and 2530 Arnold Drive on the east. The parcels are listed as Vine Hill Homestead TR POR Lot 1 and Lot D-1.

The Target Property is approximately 1,780 feet west of Highway 680.

2.2 TARGET PROPERTY AND VICINITY CHARACTERISTICS

The Target Property is located in area consisting of residences, CCC-governmental offices, and open, undeveloped land. The Target Property consists of two open, undeveloped lots. Parcels 161-400-010-5

and 161-400-009-7 are approximately 183,823 and 37,897square feet, respectively, and are both zoned commercial.

2.3 CURRENT USE OF TARGET PROPERTY

The Target Property parcels are open, undeveloped fields with oak trees and poison oak bushes. The parcels appear to be naturally hilly (i.e., not fill-related), and contain an east-west trending drainage swale (with concrete culvert) along the low-lying area on the north. Unpaved gravel paths (with abundant truck tire tracks indicating off-road travel) and apparent walking trails are present throughout the property.

Several upland areas contain small homeless encampments with tents, food preparation areas, and discarded clothing. A limited amount of trash and used propane canisters are observed along the hilltop. Small areas containing concrete debris are present along the base of the hill.

2.4 HISTORICAL USE OF TARGET PROPERTY

Based on a review of available historical documents, the Target Property was first utilized for agricultural purposes as early as the 1940s. Small row crops were observed in aerial photographs until the 1970s, at which time the parcels no longer appeared to be maintained for crops. As the row crops disappeared, the Target Property became open fields with dirt roads that appeared to have been utilized for off-road vehicle traffic. The Target Property does not appear to have been developed at any time with permanent structures.

2.5 DESCRIPTION OF TARGET PROPERTY IMPROVEMENTS

The Target Property is undeveloped.

2.6 CURRENT USE OF ADJOINING PROPERTIES

Parcels adjacent to the Target Property are used for residential and CCC-government purposes:

- The Target Property is bounded on the north by Arnold Drive, followed by single- and multi-family residences.
- The Target Property is bounded on the east by the CCC Assessor's Office.
- The Target Property is bounded on the south by U.S. Highway 4 (John Muir Parkway).
- The Target Property is bounded on the west by single-family residences.

2.7 PHYSICAL SETTING SOURCES

2.7.1 Topography

The topography in the Target Property vicinity is hilly. The Target Property occurs at elevations ranging from approximately 112 to 145 feet above mean sea level (Google Earth Pro and EDR topographic maps; EDR, 2015). The lowest elevation occurs on the north side of the Target Property along Arnold Drive.

2.7.2 Geology

The geology in the vicinity of the Target Property consists of a stratified sequence of Cenozoic Age (Eocene) bedrock (EDR radius report). Soils consist of sandy loam (Gaviota), loam (Positas), clay loam (Lodo), loamy sand (Briones), and loam (Tierra).

2.7.3 Hydrogeology and Hydrology

According to the EDR radius report, groundwater is reported to flow to the north-northwest at one location within one mile of the Target Property. However, local variations in groundwater flow are expected to occur based on topography and pumping. Based on the immediate topography of the Target Property, groundwater is expected to flow from the highlands on the north (off property) and south, toward the low-lying swale drainage ditch on the north side of site. Groundwater beneath the Target Property vicinity is expected to occur at approximately 13 to 15 feet bgs, except along ridges, where it is expected to occur at deeper depths.

The Target Property is approximately 3.5 miles south of San Pablo Bay. According to the EDR radius report, the Target Property is outside the 500-year flood zone.

3.0 RECORDS REVIEW

As part of this assessment, ERG reviewed available agency files and records for the Target Property, environmental reports, and online regulatory databases (Appendices B-1 through B-7). A summary of historical use information obtained in this Phase I ESA is presented below, followed by summaries of the findings from environmental sources reviewed for the ESA.

3.1 REGULATORY AGENCY FILE REVIEW

The following sections summarize the review of available regulatory agency files.

3.1.1 State Water Resources Control Board (SWRCB) Geotracker Website

The SWRCB Geotracker website was developed primarily to document activities (i.e., investigation and remediation) at Leaking Underground Storage Tank (LUST) sites.

The Target Property is not listed on Geotracker.

3.1.2 Envirostor

Envirostor sites represent sites under the Department of Toxic Substances Control (DTSC; or CalEPA) (i.e., State and Tribal equivalents to Federal CERCLIS [Superfund]).

The Target Property is not listed on Envirostor.

3.1.3 CUPA – Contra Costa County Department of Health Services (SMCDHS)

The Certified Unified Program Agency (CUPA) is the consolidation of six state environmental programs into one program. This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994. The six programs are the Hazardous Materials Business Plan/Emergency Response Plan, Hazardous Waste, Tiered Permitting, Underground Storage Tanks,

Aboveground Storage Tanks (SPCC only) and the Uniform Fire Code Hazardous Materials Management Plan.

The CUPA is a local agency that has been certified by DTSC to implement the six state environmental programs within the local agency's jurisdiction. The Contra Costa County Department of Environmental Health (CCCDEH) is the CUPA for the Target Property. The CCCDEH stated they had no files for the Target Property and referred ERG to the CCCDEH Hazardous Materials Division (CCCHMD).

The CCCDEH stated they had no files for Parcel 161-400-009 of the Target Property. Files for 161-400-010 included a permit for installation of four soil borings in October 2009 (drilling conducted by Exploration Geoservices under the direction of consultant Cornerstone Earth Group), and a narrative for the boring file indicating backfilling of the borings and closure of the permit. According to the permit, the borings were 6-inch diameter and were drilled to a depth of a maximum depth of 39 feet below ground surface (bgs).⁴

3.2 STANDARD ENVIRONMENTAL RECORD SOURCES

Standard environmental record sources reviewed in this Phase I ESA included aerial photographs and historical topographic maps, Sanborn Fire Insurance Maps, Richmond City Directories, an Environmental Data Resources, Inc. (EDR) Radius Report, and an EDR Environmental Lien and AUL Search Report. The reports are presented in Appendices B-2 through B-6.

3.2.1 Aerial Photographs

For this Phase I ESA, historical aerial photographs from EDR and Google Earth (GE) between 1939 and the present were reviewed to identify areas of potential environmental concern. The aerial photographs are presented in Appendix B-2. The aerial photograph review is summarized below:

- 1939, 1946, 1949, 1950, and 1958 – The Target Property is agricultural, with small row crops extending through both parcels. Adjacent properties to the north appear to contain orchards and a ranch house. The property to the east is undeveloped, and appears to have off-road vehicle tracks. U.S. Highway 4 is present to the south, followed by undeveloped land. The property to the west appears to contain open land and a ranch house. By 1958, a small area containing unidentifiable objects appear along the boundary with the adjoining property to the west of the Target Property.
- 1968 – By this year, the row crops on the Target Property appear to be less organized, and overgrowth with trees has occurred in some areas. The property to the north appears more developed with structures.
- 1974 – By this year, the Target Property no longer appears to have maintained crops. A small structure or vehicle is present on the north (the photograph is not clear enough to discern the structure).
- 1982 – The Target Property appears the same as the previous year. Residences have been constructed to the west.

⁴ The purpose of the soil borings is not stated in the permit. However, the borings are assumed to be non-environmental, and related to a geotechnical investigation for a potential redevelopment of the Target Property by Hill Valley Oak Apartments.

- 1993 – The Target Property appears the same as the previous year. The small pump house on the north (situated between the Target Property parcels) has been constructed. The surrounding properties appear the same as today.
- 1998, 2005, 2006, 2009, 2010, and 2102 – The Target Property and surrounding properties appear the same as today.

No evidence of development, dumping, or filling was observed in the aerial photographs reviewed.

3.2.2 Historical Topographic Maps

Select historical topographic maps from 1897 to 1980 were reviewed to identify significant changes in ground surface elevations that may indicate fill areas, and other pertinent features of potential environmental concern (Appendix B-3).

No features likely to pose significant environmental risk to the Target Property were identified.

3.2.3 Sanborn Fire Insurance Maps

No Sanborn Fire Insurance Map coverage was located for the Target Property. The Sanborn Map Report of No Coverage is included in Appendix B-4.

3.2.4 City Directories

No city directories were obtained for the subject Target Property because there is no official address associated with the parcels, and the site has never been occupied by a business or entity.

3.2.5 Environmental Radius Report

An EDR Radius Map (radius report) was reviewed for the Target Property and surrounding sites within up to a one-mile radius of the Target Property. This information was reviewed for local, state, and federal listings for cases pertaining to leaking USTs and ASTs, hazardous waste sites, and abandoned sites within the standard radii established by the ASTM. Results of the major database searches are discussed below. Minor databases are discussed if deemed relevant by the EP. In some cases, location information supplied by the regulatory agencies is insufficient to allow the database companies to identify facility locations. These facilities are listed as “un-locatable” sites in the database report. A copy of the radius report is included in Appendix B-6.

3.2.5.1 Subject Target Property

The Target Property is listed not listed on any environmental databases in the radius report.

3.2.5.2 Surrounding Properties

The following paragraphs summarize the findings of the EDR radius report search. Surrounding properties that pose potential environmental risk to the Target Property based on their hydrogeologic locations and proximity to the Target Property are discussed in greater detail beneath the radius report summary. In this area, the predominant groundwater flow direction is expected to be toward the San Pablo Bay (i.e., to the northwest). For purposes of this evaluation, sites that are located southeast of Target Property are considered “upgradient”.

State and Federal Regulatory Review

Federal NPL

The National Priorities List (NPL) is the EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program. No NPL sites are located within one mile of the Target Property.

Federal CERCLIS and CERCLIS NFRAP Lists (CERCLIS)

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances. The CERCLIS No Further Remedial Action Planned (NFRAP) list is a compilation of sites that the EPA has investigated and has determined that the facility does not pose a threat to human health or the environment, under the CERCLA framework. No CERCLIS or CERCLIS NFRAP sites are listed within one-half mile of the Target Property.

Federal Resource Conservation and Recovery Act (RCRA) CORRACTS Facilities List

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The CORRACTS database is the EPA's list of treatment storage or disposal (TSD) facilities subject to corrective action under RCRA. One RCRA CORRACTS site is listed within one mile of the Target Property.

Federal Resource Conservation and Recovery Act (RCRA) Non-CORRACTS Treatment Storage and Disposal (TSD) Facilities List

The RCRA TSD database is a listing of reporting facilities that treat, store or dispose of hazardous waste. A listing in this database does not imply a release has occurred at the site, or that there are corrective actions required at a facility. No RCRA TSD sites are listed within one-half mile of the Target Property.

Federal RCRA Generator List

The RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generator database is a compilation by the EPA of reporting facilities that generate hazardous waste, and includes Large Quantity Generators (LQG) and Small Quantity Generators (SQG). A listing in this database does not imply a release has occurred at the site, or that corrective actions are required at a facility. No LQG or CESQG facilities are within one-quarter mile of the Target Property.

Federal Institutional Control/Engineering Controls Registry (Controls)

The U.S. EPA maintains an Engineering Controls and Institutional Controls Site List. No Controls sites listed are listed within one-half mile of the Target Property.

Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to track incidents where there has been a reported release of oil or hazardous substances to the environment. The Target Property is not listed on the ERNS database.

Response

Response sites are State and Tribal equivalents to National Priority List (NPL) sites. No Response sites are located within one mile of the Target Property.

Envirostor

Envirostor sites are DTSC State and Tribal equivalents to CERCLIS sites. Three (3) Envirostor sites are listed within one mile of the Target Property.

SWF/LF

SWF/LF is a database that documents State and tribal landfill and solid waste disposal sites. No SWF/LF sites are located within one-half mile of the Target Property.

State Leaking Underground Storage Tank List (LUST)

The SWRCB compiles lists of sites at which leaks of hazardous substances from USTs have occurred. One Completed-Case Closed LUST case is listed within one-half mile of the Target Property.

In fuel leak cases, research conducted in the State of California by Lawrence Livermore National Laboratory (LLNL) in 1996 indicates that attenuation and degradation of the product in groundwater play major roles in reducing the hydrocarbon contamination to non-detectable levels within several hundred feet of the contaminant source. Moreover, this research indicates that in over 90% of the hydrocarbon contamination cases, with the possible exception of MTBE or other fuel oxygenates, groundwater contaminant plumes do not extend more than 250 feet from the source. Solvent/toxic contamination plumes may extend farther from the source.

Based on the discussion above, fuel leak LUST sites that are within one-eighth mile in the upgradient direction, and upgradient solvent or toxic leak sites are considered to have potential risk to the subsurface soils and/or groundwater of the Target Property.

No LUST sites are located within one-eighth mile of the Target Property.

Spills, Leaks, Investigations, and Cleanups (SLIC)

The SLIC database lists sites with known spills, leaks, investigations, and cleanups within one-half mile of the Target Property. No SLIC sites are located within one-half mile of the Target Property.

State Underground Storage Tank List (UST)

The SWRCB compiles a list of UST locations. One UST site is located within one-quarter mile of the Target Property. No spills or releases associated with the site were identified.

State Above-ground Storage Tank List (AST)

This database includes permitted active, inactive and closed AST facilities recorded with the state. The Target Property is not listed on this database, as this database does not include compressed gas tanks. No AST sites were listed within one-quarter mile of the Target Property.

Local Brownfields Cleanup and Reuse Database (US BROWNFIELDS)

The California Department of Toxic Substance Control (DTSC) maintains the Brownfields Cleanup and Reuse Database of sites that have known contamination or sites for which there may be reasons for further investigation. No US BROWNFIELDS sites were listed within one-half mile of the Target Property.

Additional Environmental Records

Local Lists of Landfill/Solid Waste Facilities (Local SWF/LF)

A database of landfill facilities is prepared by the California Integrated Waste Management Board. No SWRCY/LF facilities are listed within one-half mile of the Target Property.

Deed Restriction Sites (DEED)

Deed Restriction sites are typically sites within other regulatory programs that have achieved closure through a deed restriction process. No DEEDs sites are listed within one-half mile of the Target Property.

Other Ascertainable Records

There are several other ascertainable records in the EDR radius report, but many of them overlap with the records stated above (see EDR Radius Report). Database listings that are considered relevant for this evaluation are discussed further below.

Toxic Pits

There are three Toxic Pit sites within one mile of the Target Property. The pits are located downgradient of and/or at a distance proximal to the Target Property that spills or releases associated with the sites are not expected to pose significant environmental risk to the Target Property.

Formerly Used Defense Site List (FUDS)

The California Department of Toxic Substance Control (DTSC) maintains a list of Formerly Used Defense Sites (FUDS) and Department of Defense (DOD) sites. No FUDS sites are listed within one mile of the Target Property.

Contra Costa County Site List (CCCSL), HAZNET, and EMI

These databases include businesses that maintain Hazardous Materials Business Plans, are Hazardous Waste Generators, and/or maintain USTs. Three CCCSL sites are listed within one-quarter mile of the Target Property.

EDR US Historical Auto Stations

This is a proprietary database under EDR's High Risk Historical Records. No Historical Auto Stations are located within one-eighth mile of the Target Property.

EDR US Historical Cleaners

This is a proprietary database under EDR's High Risk Historical Records. No Historical Cleaners site are located within one-quarter mile of the Target Property.

Discussion

The Target Property lies within an area that historically and currently is mostly residential, CCC-government offices, or undeveloped, open or agricultural land. The nearest environmental site is the CCC Sheriff Forensic Muir Lab, approximately 943 feet southwest of the Target Property, across U.S. Highway 4. The site is listed as a CCCSL and on HAZNET. No spills or releases associated with the site have been identified. Therefore, the site is not expected to pose significant environmental risk to the Target Property. Similarly, the next nearest site is the CCC Forensic Services Summit Center, located east of the Target Property. The site is listed as a CCCSL site. No spills or releases associated with the site have been identified. Therefore, the site is not expected to pose significant environmental risk to the Target Property.

No environmental sites were identified in the radius report that are likely to pose significant environmental risk groundwater beneath the Target Property.

3.3 SPECIALIZED KNOWLEDGE, EXPERIENCE, AND ACTUAL KNOWLEDGE OF THE USER

According to the ASTM standard, it is the User's responsibility to communicate any information that is pertinent to the identification of RECs at the Target Property based on specialized knowledge, experience, and actual knowledge of the User. User-provided environmental reports, if available, are discussed in Section 3.9.

3.4 COMMONLY KNOWN AND REASONABLE ASCERTAINABLE INFORMATION

According to the ASTM standard, it is the User's responsibility to communicate any information that is reasonably known or ascertainable regarding RECs at the Target Property. The User provided no additional environmental information for the Target Property.

3.5 CHAIN-OF-TITLE

According to ASTM E1527-13 standard, the EP is not responsible for review of recorded land title records or judicial records for environmental liens or AULs. The User did not provide this documentation, and a 50-year chain-of-title was not requested by the User for this investigation.

3.6 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

According to the ASTM E1527-13 standard, the User is required to provide and/or report to the EP any environmental liens or AULs identified for the Target Property. The EP was not provided lien or AUL documentation for this Phase I ESA. The current owner, Mr. Victor Sasuga, President of Colorvue Growers, stated in his environmental questionnaire that he was unaware of any environmental liens on the Target Property.

The User provided a Preliminary Title Report, as discussed previously. No environmental liens were identified in the report (Appendix B-7).

3.7 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

The User provided no environmental documents for the Target Property.

4.0 INTERVIEWS AND ENVIRONMENTAL QUESTIONNAIRES

An environmental questionnaire was submitted to the current owner of the Target Property, Mr. Charles Clark. Mr. Clark stated he was unaware of any:

- . Environmental issues associated with the Target Property.
- . Environmental liens or AULs associated with the Target Property.
- . Chemical use at the Target Property.
- . Underground storage tanks at the Target Property.
- . Signs of contamination on the Target Property.

Mr. Clark stated: (1) the Target Property is a vacant lot, and (2) the price being paid reasonably reflects the value of the Target Property (Appendix C)

5.0 SITE RECONNAISSANCE

The Target Property was inspected by the ERG representative on September 1, 2015.

5.1 GENERAL SITE CHARACTERISTICS

The Target Property consists of two undeveloped parcels, 161-400-010-5 and 161-400-009-7, along Arnold Drive in Martinez. The parcels are open fields with oak trees and poison oak bushes. The parcels appear to be naturally hilly (i.e., not fill-related), and contain an east-west trending drainage swale (with concrete culvert) along the low-lying area on the north. Several upland areas contain small homeless encampments with tents, food preparation areas, and clothing. Trash and used propane canisters are observed along the hilltop. Small areas containing concrete debris are present along the base of the hill. Unpaved gravel paths (with abundant truck tire tracks indicating off-road travel) and apparent walking trails are present throughout the property.

Target Property features are described below:

5.2 TARGET PROPERTY FEATURES, UTILITIES, AND MECHANICAL SYSTEMS

Significant property features at the Target Property are summarized below:

FEATURES	COMMENTS
Roads	The Target Property is accessed from Arnold Drive on the north. Evidence of off-road vehicular traffic is present throughout the site, with abundant truck tracks along dirt paths.
Wells and Cisterns	None identified.
Aboveground Storage Tanks (ASTs)	No evidence of ASTs at the Target Property was identified, either in the site visit, or historical documents
Underground Storage Tanks (USTs)	No evidence of USTs at the Target Property was identified, either in the site visit, or historical documents.
Surface Water Drainage and Storm Drains	Surface water at the Target Property drains toward low-lying areas along the north side of the Target Property. Storm drains are present along Arnold Drive on the north of the Target Property. A drainage swale with a

	(partial) concrete culvert is present in the low-lying area along the north side of the site.
Utilities	Electricity and gas is not provided to the Target Property.
Chemical and Waste Chemical Storage and Disposal	No evidence for waste storage disposal was identified.
Sewage Treatment	None identified.
Potable Water Source	None identified.
Wastewater Treatment	No indications of onsite industrial wastewater disposal or treatment facilities were observed during the onsite reconnaissance.
Transformers	No transformers were observed.

5.3 POTENTIAL ENVIRONMENTAL CONDITIONS

Potential environmental conditions at the Target Property are summarized below:

CONDITION	COMMENTS
Hazardous Materials or Petroleum Products	None identified. Empty propane canisters associated with vagrant food preparation are present along the ridge at various locations.
Evidence of Releases	No excessively stained areas, stressed vegetation, or other evidence of surface chemical releases was observed during the site reconnaissance.
Polychlorinated Biphenyls (PCBs)	None identified.
Landfills	None identified.
Pits, Ponds, Lagoons, Sumps, Catch Basins	None identified.
Radiological Hazards	None identified.
Additional Hazard Observations	None identified.
Lead-Based Paint (LBP)	A LBP survey was not conducted for this investigation.
Potential Asbestos-Containing Materials	An asbestos survey was not conducted for this investigation.

6.0 EVALUATION OF POTENTIAL FOR VAPOR ENCROACHMENT CONDITIONS

In accordance with ASTM E1527-13, Phase I ESAs should include evaluation of vapor encroachment conditions (VECs) at a Target Property. Thus, a Vapor Encroachment Screening (VES) was performed in general accordance with ASTM E2600-10, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions* to evaluate if a VEC is present, or likely present, at the Target Property. Volatile organic compounds (VOCs) of potential VEC concern include, but are not limited to: chlorinated solvents (CVOCs such as tetrachloroethylene [PCE], trichloroethylene [TCE], vinyl chloride, etc.) and aromatic petroleum hydrocarbons (e.g., benzene and ethylbenzene).

6.1 VAPOR ENCROACHMENT SCREENING PROCESS

The ASTM E2600-10 VES process may include a two-tiered screening process. Initially, the Tier 1 VES focuses on known or suspected contaminated properties located within the area of concern (AOC). According to ASTM E2600-10, *“the AOC is one third of a mile around the TP [Target Property], unless the use of a shorter distance (such as for petroleum hydrocarbon constituents of concern [COCs]) is appropriate. The AOC is measured from the TP to a contaminated property with known or suspect COC contamination of soil or groundwater or both.”* *“If there are known or suspect property sources of contamination within the AOC, the environmental professional should evaluate whether COC may be present at the TP.*

“For a contaminated property identified in Tier 1 located cross-gradient from the TP, the AOC will be the area within the critical distance plus one half of a reasonable estimation of the contaminated plume width (at the point nearest the closest TP boundary) that might be associated with the nearby known or suspect contaminated property (that is, the contaminated property where the groundwater contamination originated).”

ASTM E2600-10 states that if a VEC cannot be ruled out in the Tier 1 screen, the user can undertake more refined screening, as provided in Tier 2. *“Tier 2 applies numeric screening criteria to existing or newly collected soil, soil gas, and/or groundwater testing results to evaluate whether or not a VEC can be ruled out. Tier 2 has two data collection components: one non-invasive and one invasive.*

The objective of the non-invasive Tier 2 process is to identify through documentation, information regarding plume lengths and contaminants, remediation status, etc. The non-invasive Tier 2 VES uses a plume test and critical distance determination to evaluate whether vapors from the contaminated property might migrate to and encroach upon the Target Property. The critical distance between the Target Property and a contaminated plume is defined by E2600-10 as 30 feet (9 meters) for dissolved petroleum hydrocarbons, and 100 feet (30.5 meters) for separate-phase product petroleum hydrocarbons and non-petroleum chemicals of concern (“COCs”) such as CVOCs). Contaminated groundwater plumes within these distances may constitute a VEC to the Target Property.

The User should be aware that:

- The presence of a VEC does not necessarily constitute a REC. The EP is to determine if the VEC represents a REC for the Target Property.
- The VES process does not evaluate the potential for vapor intrusion (VI) of subsurface vapors into existing buildings. Evaluation of VI conditions requires field sampling, and is not included in ASTM E1527-13.

6.2 EVALUATION

No sites with VOCs were identified within the VES critical distances discussed in Section 6.1. No evidence of VOCs on the Target Property was identified in either historical documents, regulatory agency documents, or during the site reconnaissance.

6.3 VEC CONCLUSIONS

Based this evaluation, no evidence for a VEC was identified.

7.0 FINDINGS AND CONCLUSIONS

ERG has performed this Phase I ESA in conformance with the scope and limitations of ASTM E 1527-13 and EPA AAI Rule for the Target Property located along Arnold Drive, in Martinez, California. Any exceptions to or deletions from this practice are described in Section 1.6 of this report.

7.1 RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs)

No RECs were identified.

7.2 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITION (HRECs)

HRECs include chemical releases that occurred in the past, but resulting concentrations of hazardous materials or petroleum products in soil and/or groundwater remain within the regulating agency health criteria, and the site has been closed by said agency *without* land use restrictions (i.e., the property could be redeveloped for *unrestricted residential use*).

No HRECs were identified.

7.3 CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITION (CRECs)

A CREC includes releases of hazardous materials or petroleum products that are allowed to remain in place following closure by a regulating agency, but the site is subject to implementation of required controls (e.g., Target Property use restrictions, Activity Use Limitations [AULs], deed restrictions, engineering controls, or remediation systems, etc.).

No CRECs were identified.

7.4 VAPOR ENCROACHMENT CONDITIONS (VECs)

In accordance with ASTM E 1527-13, the potential for a Vapor Encroachment Condition (VEC) must be addressed during standard Phase I ESAs. VECs are evaluated using the Vapor Encroachment Screen (VES), a two-Tier process. The VES process does not evaluate the potential for vapor intrusion (VI) of subsurface vapors into existing buildings. Evaluation of VI conditions requires field sampling, and is not included in ASTM E1527-13.

Using the VES process, no VECs were identified.

7.5 DE MINIMIS ENVIRONMENTAL CONDITIONS

De minimis environmental conditions include:

- Historical agricultural use is considered a *de minimis* condition. The User should note that former agricultural use may indicate the presence of residual pesticides and/or herbicides in the subsurface.
- Empty propane canisters in the areas currently or historically occupied by homeless individuals.
- Small quantities of concrete debris are present several low-lying areas, indicating construction debris has been deposited on the Target Property. No stains or distressed vegetation were observed.

7.6 DATA GAPS

No data gaps deemed significant to the findings, conclusions, and recommendations of this Phase I ESA were identified:

7.7 OPINION

It is the opinion of the Environmental Professional that research performed in this Phase I ESA substantially complies with the scope and limitations of ASTM E 1527-13 and EPA AAI Rule. Exceptions and/or limiting conditions (where applicable) are discussed in Section 1.6. It is the opinion of the Environmental Professional that all environmental reports, including this Phase I ESA, should be submitted to the CUPA for review.

7.8 DEVIATIONS

This Phase I ESA substantially complies with the scope of services and ASTM E 1527-13 and EPA AAI RULE, except for exceptions and/or limiting conditions as discussed in Section 1.6.

7.9 CONCLUSIONS

Available documentation has provided environmental information to support the following conclusions:

- The Target Property historically was utilized for agricultural purposes from as early as the 1940s through the 1970s, and later remained an undeveloped, open field used for off-road vehicular traffic.
- No evidence of permanent structures was identified in aerial photographs or other available documentation.
- The Target Property is located in an area with mostly residences, CCC governmental offices, or undeveloped parcels.
- No features of significant environmental concern were identified.

- No environmental sites were identified in the radius report that are likely to pose significant environmental risk to the Target Property. The Target Property is adjacent to a county pump station.

7.10 RECOMMENDATIONS

Based on the results of this assessment, ERG recommends no further investigation.

8.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

I declare the, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40CFR Part 312.

I have the specific qualifications based on education, training and experience to assess a Target Property of the nature, history, and setting of the subject Target Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Tina M. Hariu .

Benjamin Wells, President

Date

9.0 REFERENCES

Reports, Plans, and Other Documents Reviewed:

Contra Costa County Department of Environmental Health, 2009. *Boring Permit*.

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Google Earth Pro, 2015.

Agency Sources:

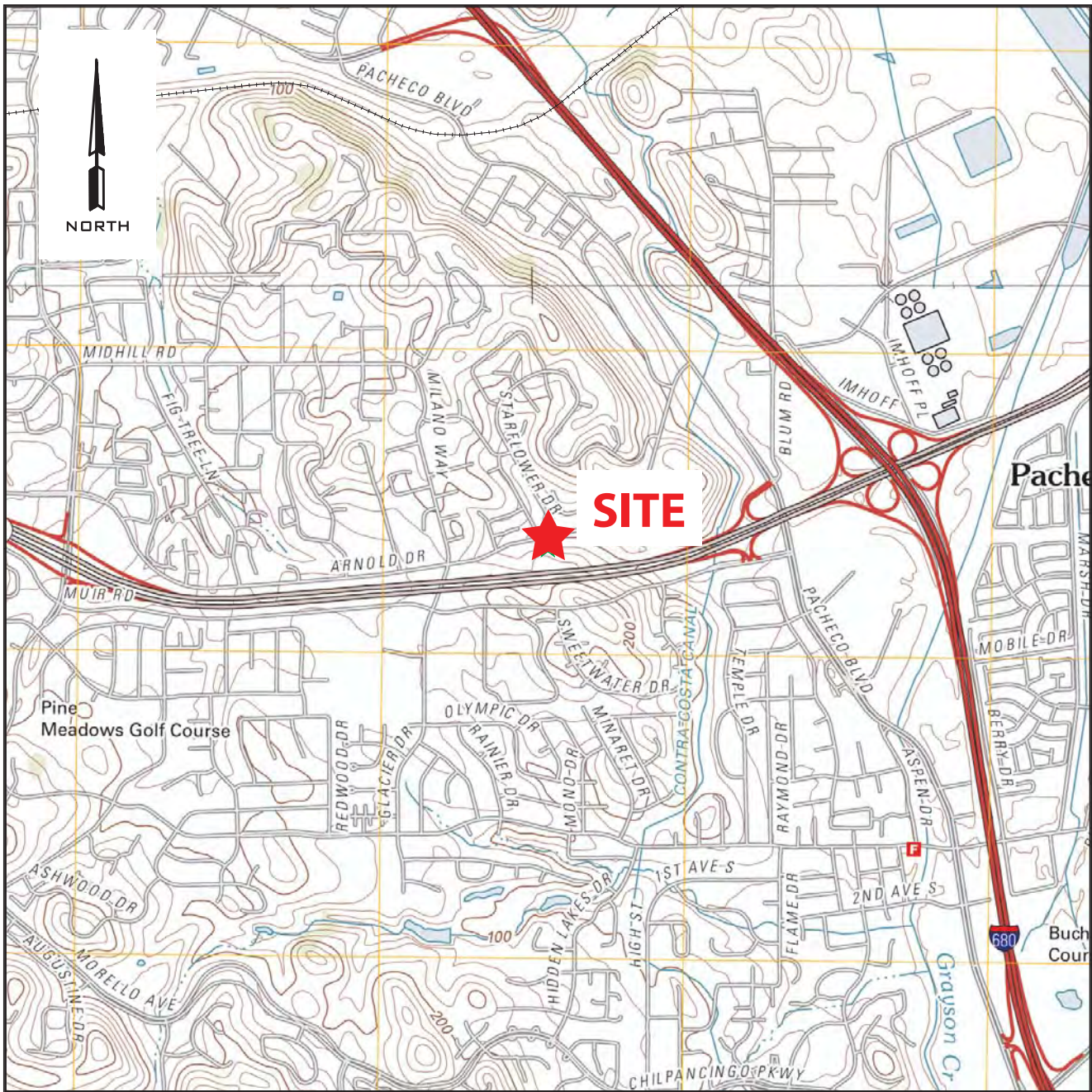
Department of Toxic Substances Control, Envirostor Website (www.data.ca.gov/2011/12/20/envirostor/)

Regional Water Quality Control Board Geotracker Website (www.Geotracker.Waterboards.CA.gov)

Contra Costa County Environmental Health Division

Contra Costa County Environmental Health Division – Hazardous Waste Division

FIGURES



Source: EDR, 2015

Environmental Resources Group, Inc.
 1038 Redwood Highway, Suite 1
 Mill Valley, CA 94941
 415-381-6574

SITE LOCATION MAP
Vacant Lot, Arnold Drive
Martinez, California

Figure 1
Sept 2015



Google earth

© 2015 Google
SOURCE: GOOGLE EARTH PRO, 2015



Drafted by: TH

Environmental Resources Group, Inc.
1038 Redwood Highway, Suite 1
Mill Valley, CA 94941
415-381-6574

SITE PLAN
Vacant Lot - Arnold Drive
Martinez, California

Figure 2

Sept 2015

APPENDIX A
SITE PHOTOGRAPHS

SITE PHOTOGRAPHS
VACANT LOT, ARNOLD DRIVE
MARTINEZ, CALIFORNIA



**PHOTO 1 – VIEW OF SITE FROM
ARNOLD DRIVE.**

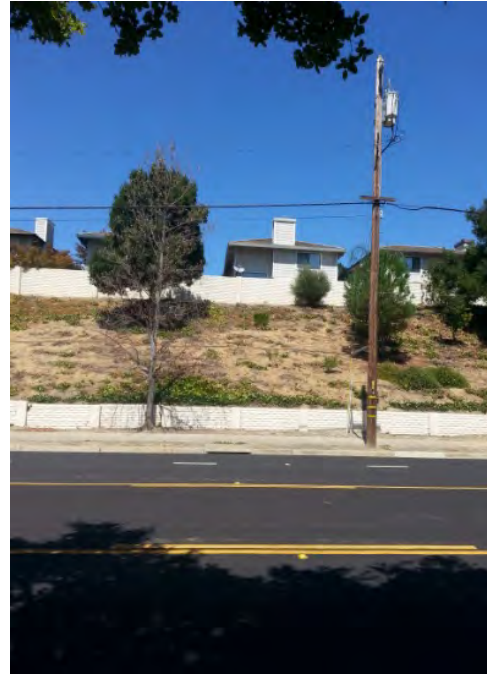


PHOTO 2 – VIEW TO NORTH.



PHOTO 3 – VIEW TO EAST.



PHOTO 4 – VIEW TO NORTHWEST.

SITE PHOTOGRAPHS
VACANT LOT, ARNOLD DRIVE
MARTINEZ, CALIFORNIA



**PHOTO 5 – VIEW TO SOUTH
TO HIGHWAY.**



PHOTO 6 – ADJACENT PUMP HOUSE.



PHOTO 7 – DRAINAGE SWALE.



PHOTO 8 – CULVERT.

SITE PHOTOGRAPHS
VACANT LOT, ARNOLD DRIVE
MARTINEZ, CALIFORNIA



PHOTO 9 – EMPTY PROPANE CANS.



PHOTO 10 – HOMELESS ENCAMPMENT.



PHOTO 11 – OFF-ROAD TRUCK TRACKS.



PHOTO 12 – SECOND ENCAMPMENT.

SITE PHOTOGRAPHS
VACANT LOT, ARNOLD DRIVE
MARTINEZ, CALIFORNIA



PHOTO 13 – TRUCK TRACKS.



PHOTO 14 – OPEN FIELD WITH OAK TREES.

APPENDIX B
REGULATORY AND HISTORICAL RECORDS DOCUMENTATION

APPENDIX B-1
REGULATORY AGENCY FILE RECORDS

Martinez

ARNOLD DR
Martinez, CA 94553

Inquiry Number: 4389624.8
August 20, 2015

EDR Building Permit Report

Target Property and Adjoining Properties

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About This Report

Executive Summary

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Glossary

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with any questions or comments.

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquiries (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.



EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of Env. Resource Group, Inc on Aug 20, 2015.

TARGET PROPERTY

ARNOLD DR
Martinez, CA 94553

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Martinez

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
2012	City of Martinez, Building Department		
2011	City of Martinez, Building Department		X
2010	City of Martinez, Building Department		X
2009	City of Martinez, Building Department		X
2008	City of Martinez, Building Department		X
2007	City of Martinez, Building Department		X
2006	City of Martinez, Building Department		X
2005	City of Martinez, Building Department		X

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Martinez
Years: 2005-2012
Source: City of Martinez, Building Department, MARTINEZ, CA
Phone: (925) 372-3550

Name: Berkeley
Years: 1989-2014
Source: City of Berkeley, Planning and Development, BERKELEY, CA
Phone: (510) 981-7400

Name: Contra Costa County
Years: 1962-2015
Source: Contra Costa County, Public Works Services, SAN PABLO, CA
Phone: (925) 335-1360

Name: Redding
Years: 1987-2015
Source: City of Redding, Development Services, Building Division, LIVERMORE, CA
Phone: 530-225-4014

Name: Richmond
Years: 2006-2015
Source: City of Richmond, Building Regulations, SAN PABLO, CA
Phone: (510) 620-6868

Name: Vacaville
Years: 2009-2015
Source: City of Vacaville, Building Permits, VACAVILLE, CA
Phone: (707) 449-5152

Name: Vallejo
Years: 1960-2015
Source: City of Vallejo, Building Division, VALLEJO, CA
Phone: (707) 648-4374

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

ARNOLD DR
Martinez, CA 94553

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

ARNOLD DR

2050 ARNOLD DR

Date: **4/8/2010**
Permit Type:
Description: **water heater& code compliance**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2010-X5109
Status:
Valuation: \$500.00
Contractor Company:
Contractor Name: O/B (GHEREBEN)

BAYLEAF CT

4969 BAYLEAF CT

Date: **3/3/2011**
Permit Type:
Description: **RE-ROUTE H2O LINES**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2011-00121
Status:
Valuation: \$4,700.00
Contractor Company:
Contractor Name: CUATRO AMIGOS INC.

ADJOINING PROPERTY FINDINGS

4977 BAYLEAF CT

Date: **1/25/2011**
Permit Type:
Description: **BATHROOM REMODEL**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2011-00045
Status:
Valuation: \$5,306.00
Contractor Company:
Contractor Name: RC HENRICH

Date: **8/5/2009**
Permit Type:
Description: **BATHROOM REMODEL**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2009-X4760
Status:
Valuation: \$11,500.00
Contractor Company:
Contractor Name: R.C. HENRICH

Date: **4/11/2005**
Permit Type:
Description: **Kit. Remodel**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2005-00200
Status:
Valuation: \$17,534.00
Contractor Company:
Contractor Name: R.C HENRICH

ADJOINING PROPERTY FINDINGS

4981 BAYLEAF CT

Date: **6/16/2008**
Permit Type:
Description: **KITCHEN REMODEL**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2008-00286
Status:
Valuation: \$21,500.00
Contractor Company:
Contractor Name: R.C. HENRICH

4990 BAYLEAF CT

Date: **6/11/2008**
Permit Type:
Description: **HVAC**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2008-00276
Status:
Valuation: \$7,749.00
Contractor Company:
Contractor Name: SERVICE CHAMPIONS

ADJOINING PROPERTY FINDINGS

CUNNINGHAM WAY

2017 CUNNINGHAM WAY

Date: **9/7/2005**
Permit Type:
Description: **Bath remodel**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2005-X2485
Status:
Valuation: \$12,134.00
Contractor Company:
Contractor Name: TORRES CONST.

2020 CUNNINGHAM WAY

Date: **2/21/2008**
Permit Type:
Description: **HVAC**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2008-X4006
Status:
Valuation: \$6,294.00
Contractor Company:
Contractor Name: SERVICE CHAMPIONS

ADJOINING PROPERTY FINDINGS

2023 CUNNINGHAM WAY

Date: **2/14/2005**
Permit Type:
Description: **WATER HEATER**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2005-00087
Status:
Valuation: \$449.00
Contractor Company:
Contractor Name: FAST WATER HEATER COMPANY

2026 CUNNINGHAM WAY

Date: **8/24/2005**
Permit Type:
Description: **WATER HEATER**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2005-X2430
Status:
Valuation: \$449.00
Contractor Company:
Contractor Name: FAST WATER HEATER COMPANY

ADJOINING PROPERTY FINDINGS

FOXHILL DR

2202 FOXHILL DR

Date: 10/15/2010

Permit Type:

Description: A/C

Permit Description:

Work Class:

Proposed Use:

Permit Number: 2010-00386

Status:

Valuation: \$5,446.00

Contractor Company:

Contractor Name: CALIFORNIA HEATING AND COOLING

2206 FOXHILL DR

Date: 1/31/2007

Permit Type:

Description: WINDOWS

Permit Description:

Work Class:

Proposed Use:

Permit Number: 2007-00076

Status:

Valuation: \$2,000.00

Contractor Company:

Contractor Name: AMERICAN VISION

ADJOINING PROPERTY FINDINGS

2218 FOXHILL DR

Date: **5/11/2006**
Permit Type:
Description: **WINDOWS**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2006-00288
Status:
Valuation: \$7,500.00
Contractor Company:
Contractor Name: 8A ASSOCIATES CONTRACTING

2234 FOXHILL DR

Date: **5/13/2009**
Permit Type:
Description: **RE-ROUTE H2O LINES**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2009-00144
Status:
Valuation: \$1,000.00
Contractor Company:
Contractor Name: O/B (JENSEN)

ADJOINING PROPERTY FINDINGS

2246 FOXHILL DR

Date: **5/5/2006**
Permit Type:
Description: **HVAC**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2006-00276
Status:
Valuation: \$6,933.00
Contractor Company:
Contractor Name: SERVICE CHAMPIONS

GLOUCESTER LN

5076 GLOUCESTER LN

Date: **3/20/2006**
Permit Type:
Description: **WATER HEATER**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2006-00173
Status:
Valuation: \$587.00
Contractor Company:
Contractor Name: JUST WATER HEATERS

ADJOINING PROPERTY FINDINGS

THATCHER DR

4983 THATCHER DR

Date: **6/24/2010**
Permit Type:
Description: **WATER HEATER**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2010-00237
Status:
Valuation: \$1,300.00
Contractor Company:
Contractor Name: AFFORDABLE WATER HEATERS

4995 THATCHER DR

Date: **3/7/2007**
Permit Type:
Description: **REPAIR**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2007-X3377
Status:
Valuation: \$3,000.00
Contractor Company:
Contractor Name: VANDERBUILT CONST.

ADJOINING PROPERTY FINDINGS

5005 THATCHER DR

Date: **1/16/2008**
Permit Type:
Description: **HVAC**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2008-X3967
Status:
Valuation: \$10,703.00
Contractor Company:
Contractor Name: SERVICE CHAMPIONS

5042 THATCHER DR

Date: **8/29/2007**
Permit Type:
Description: **WATER HEATER**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2007-00456
Status:
Valuation: \$449.00
Contractor Company:
Contractor Name: FAST WATER HEATER COM.

ADJOINING PROPERTY FINDINGS

5053 THATCHER DR

Date: **3/4/2011**
Permit Type:
Description: **RE-ROUTE H2O LINES**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2011-00127
Status:
Valuation: \$3,900.00
Contractor Company:
Contractor Name: AMERICAN TECHNOLOGIES INC.

WELLFLEET PL

2030 WELLFLEET PL

Date: **8/19/2011**
Permit Type:
Description: **REPLACE BROKEN WINDOW**

Permit Description:
Work Class:
Proposed Use:
Permit Number: 2011-00632
Status:
Valuation: \$1,576.00
Contractor Company:
Contractor Name: S G K HOME SOLUTIONS INC.

ADJOINING PROPERTY FINDINGS

2040 WELLFLEET PL

Date: **11/16/2005**
Permit Type:
Description: **WATER HEATER**

Permit Description:
Work Class:
Proposed Use:
Permit Number: **2005-X2712**
Status:
Valuation: **\$800.00**
Contractor Company:
Contractor Name: **WATER HEATERS ONLY**

2070 WELLFLEET PL

Date: **1/6/2006**
Permit Type:
Description: **Change sub-panel**

Permit Description:
Work Class:
Proposed Use:
Permit Number: **2006-00019**
Status:
Valuation: **\$2,500.00**
Contractor Company:
Contractor Name: **ALECO ELECTRIC**

ADJOINING PROPERTY FINDINGS

2080 WELLFLEET PL

Date: **4/9/2007**

Permit Type:

Description: **HVAC**

Permit Description:

Work Class:

Proposed Use:

Permit Number: 2007-00206

Status:

Valuation: \$4,200.00

Contractor Company:

Contractor Name: BIG AIR

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeyman:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000

Permit Type: Bldg -

New Permit Number: 101000000405

Status: Valuation: \$1,000,000.00

Contractor Company: OWNER-BUILDER

Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

Martinez

ARNOLD DR
Martinez, CA 94553

Inquiry Number: 4389624.6
August 20, 2015

The EDR Property Tax Map Report

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

NO COVERAGE

Thank you for your business.
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APPENDIX B-2
AERIAL PHOTOGRAPHS



Martinez

ARNOLD DR

Martinez, CA 94553

Inquiry Number: 4389624.12

August 21, 2015

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

Aerial Photography August 21, 2015

Target Property:

ARNOLD DR

Martinez, CA 94553

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1939	Aerial Photograph. Scale: 1"=500'	Flight Year: 1939	USGS
1946	Aerial Photograph. Scale: 1"=500'	Flight Year: 1946	USGS
1949	Aerial Photograph. Scale: 1"=500'	Flight Year: 1949	USGS
1950	Aerial Photograph. Scale: 1"=500'	Flight Year: 1950	USGS
1958	Aerial Photograph. Scale: 1"=500'	Flight Year: 1958	USGS
1968	Aerial Photograph. Scale: 1"=500'	Flight Year: 1968	USGS
1974	Aerial Photograph. Scale: 1"=500'	Flight Year: 1974	USGS
1982	Aerial Photograph. Scale: 1"=500'	Flight Year: 1982	USGS
1993	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1993	USGS/DOQQ
1998	Aerial Photograph. Scale: 1"=500'	Flight Year: 1998 Best Copy Available from original source	USGS
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP



INQUIRY #: 4389624.12

YEAR: 1939

| = 500'





INQUIRY #: 4389624.12

YEAR: 1946

| = 500'





INQUIRY #: 4389624.12

YEAR: 1949

| = 500'





INQUIRY #: 4389624.12

YEAR: 1950

 = 500'





INQUIRY #: 4389624.12

YEAR: 1958

| = 500'





INQUIRY #: 4389624.12

YEAR: 1968

| = 500'





INQUIRY #: 4389624.12

YEAR: 1974

| = 500'





INQUIRY #: 4389624.12

YEAR: 1982

| = 500'





INQUIRY #: 4389624.12

YEAR: 1993

| = 500'





INQUIRY #: 4389624.12

YEAR: 1998

| = 500'





INQUIRY #: 4389624.12

YEAR: 2005

| = 500'





INQUIRY #: 4389624.12

YEAR: 2006

| = 500'



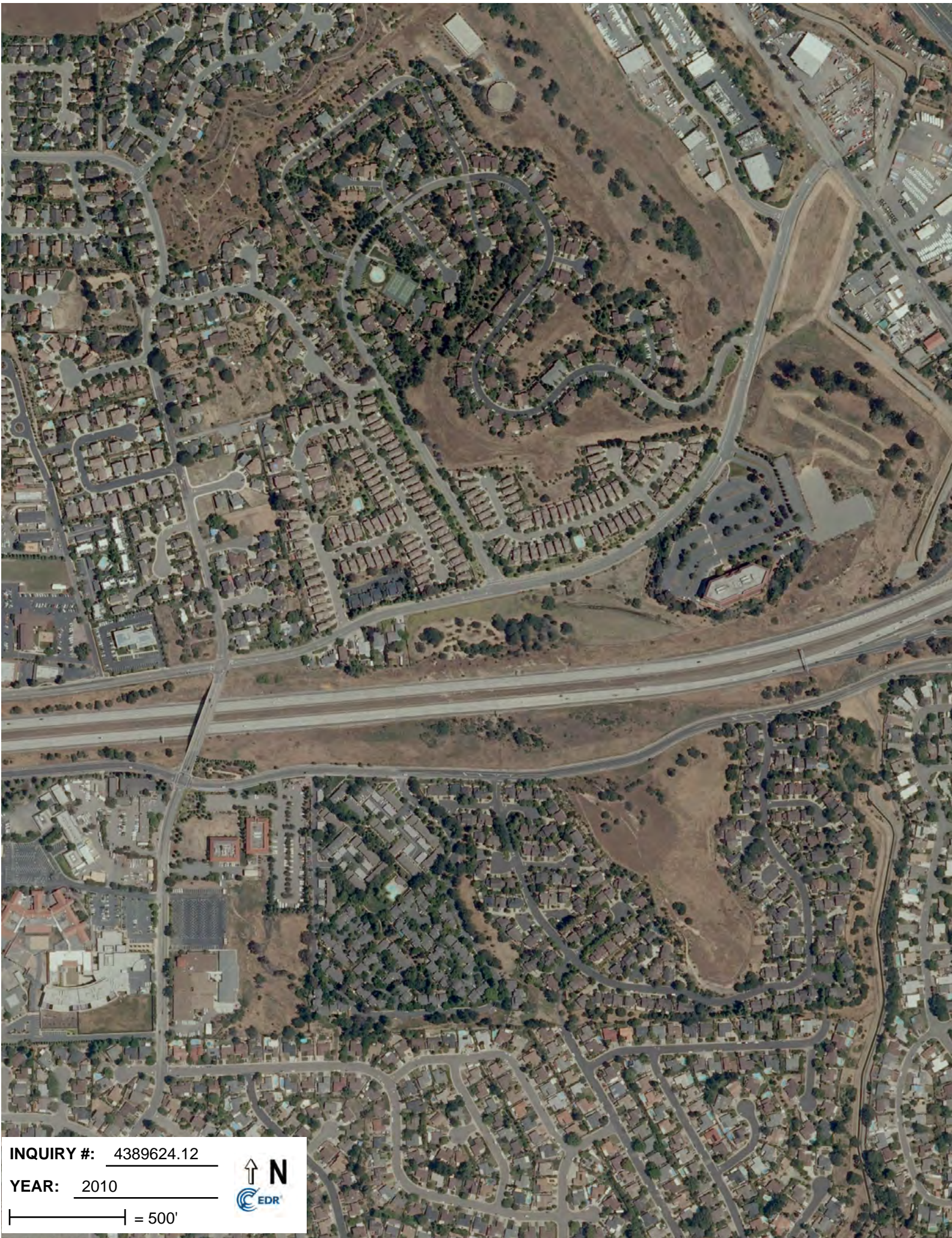


INQUIRY #: 4389624.12

YEAR: 2009

| = 500'





INQUIRY #: 4389624.12

YEAR: 2010

| = 500'





INQUIRY #: 4389624.12

YEAR: 2012

| = 500'



APPENDIX B-3
TOPOGRAPHIC MAPS



Martinez

ARNOLD DR

Martinez, CA 94553

Inquiry Number: 4389624.4

August 20, 2015

EDR Historical Topographic Map Report



6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

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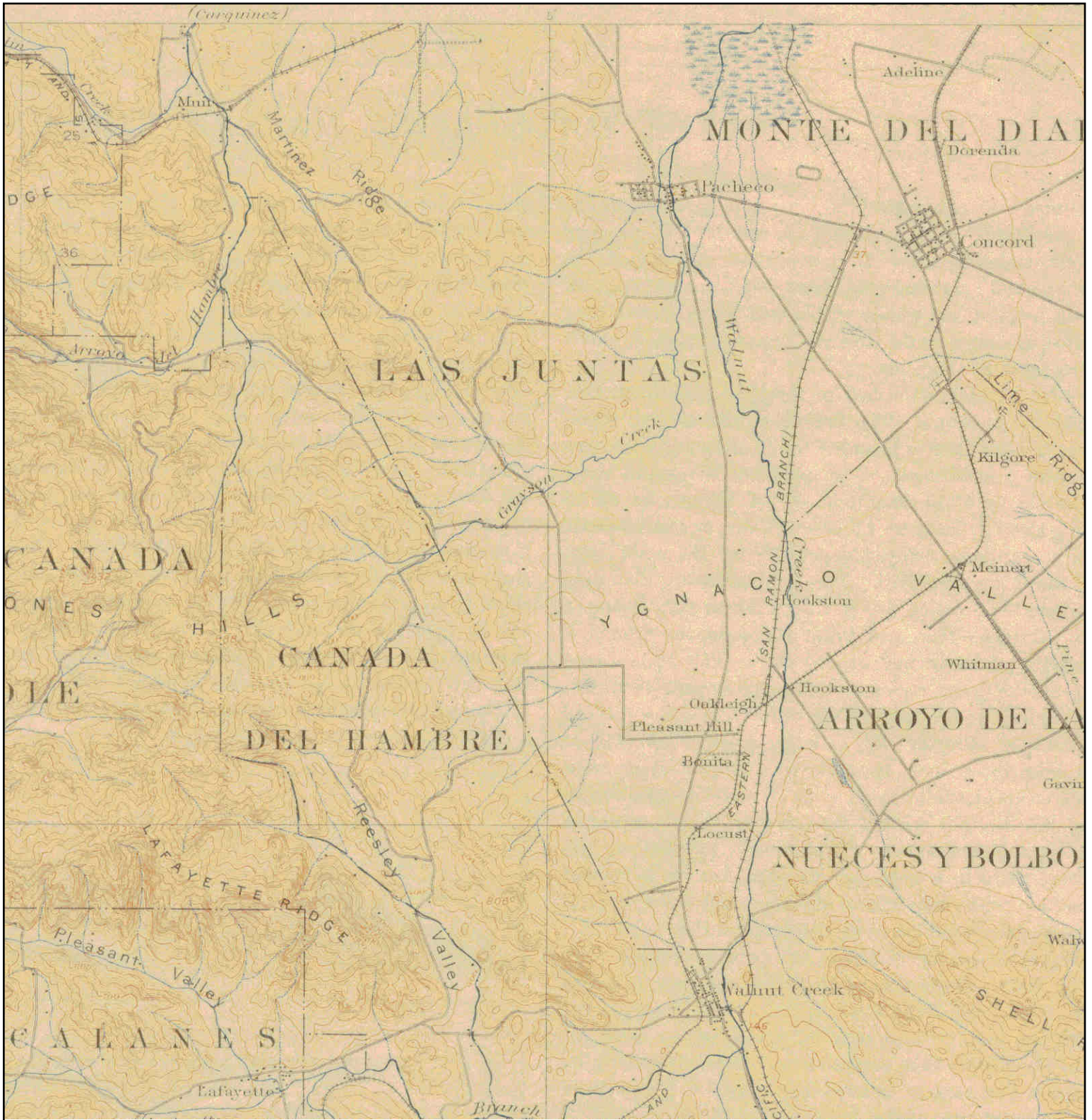
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Historical Topographic Map



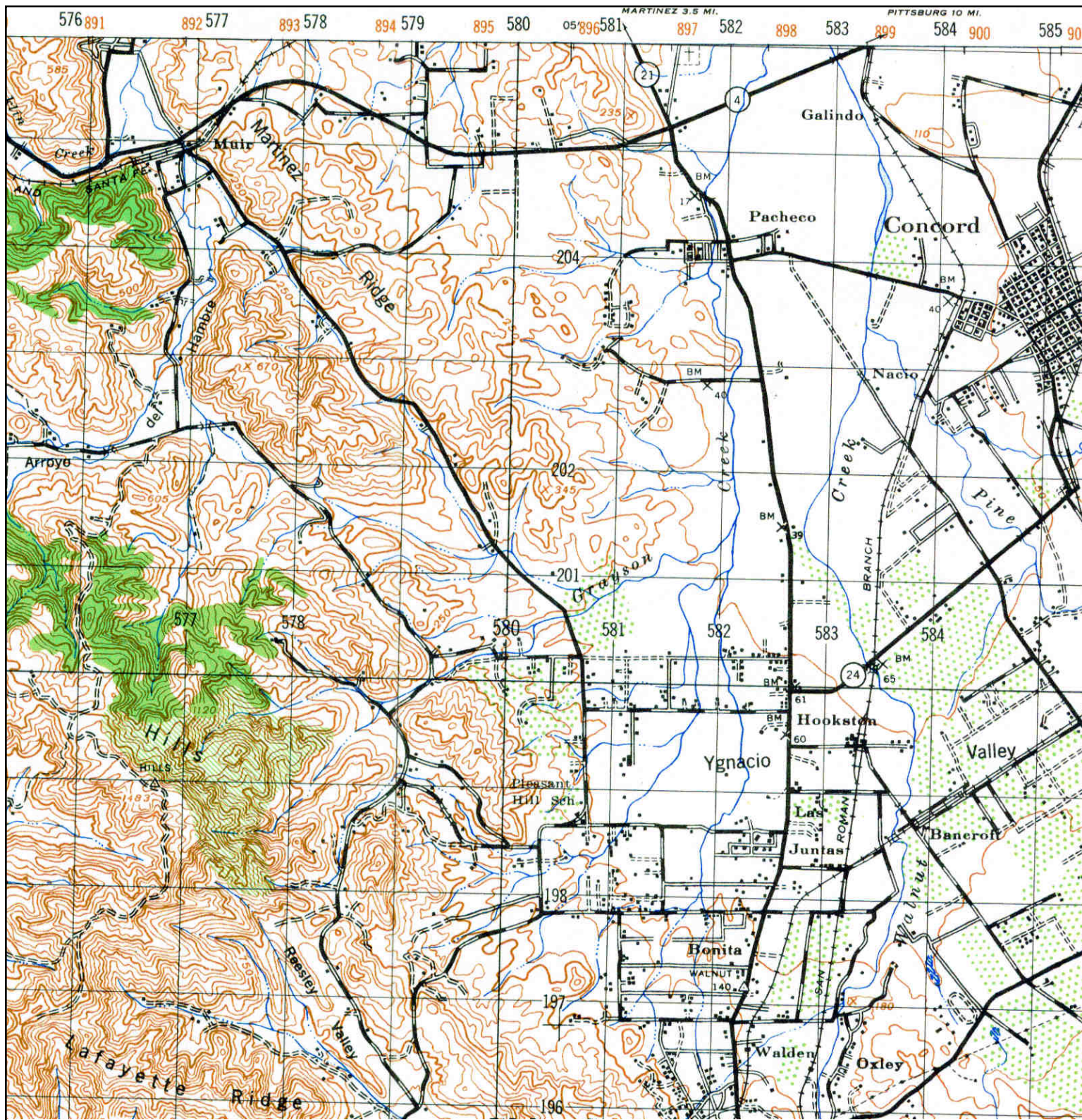
<p>N</p> 	<p>TARGET QUAD NAME: CONCORD MAP YEAR: 1897</p>	<p>SITE NAME: Martinez ADDRESS: ARNOLD DR Martinez, CA 94553 LAT/LONG: 37.9922 / -122.0827</p>	<p>CLIENT: Env. Resource Group, Inc CONTACT: Ben Wells INQUIRY#: 4389624.4 RESEARCH DATE: 08/20/2015</p>
	<p>SERIES: 15 SCALE: 1:62500</p>		


Historical Topographic Map



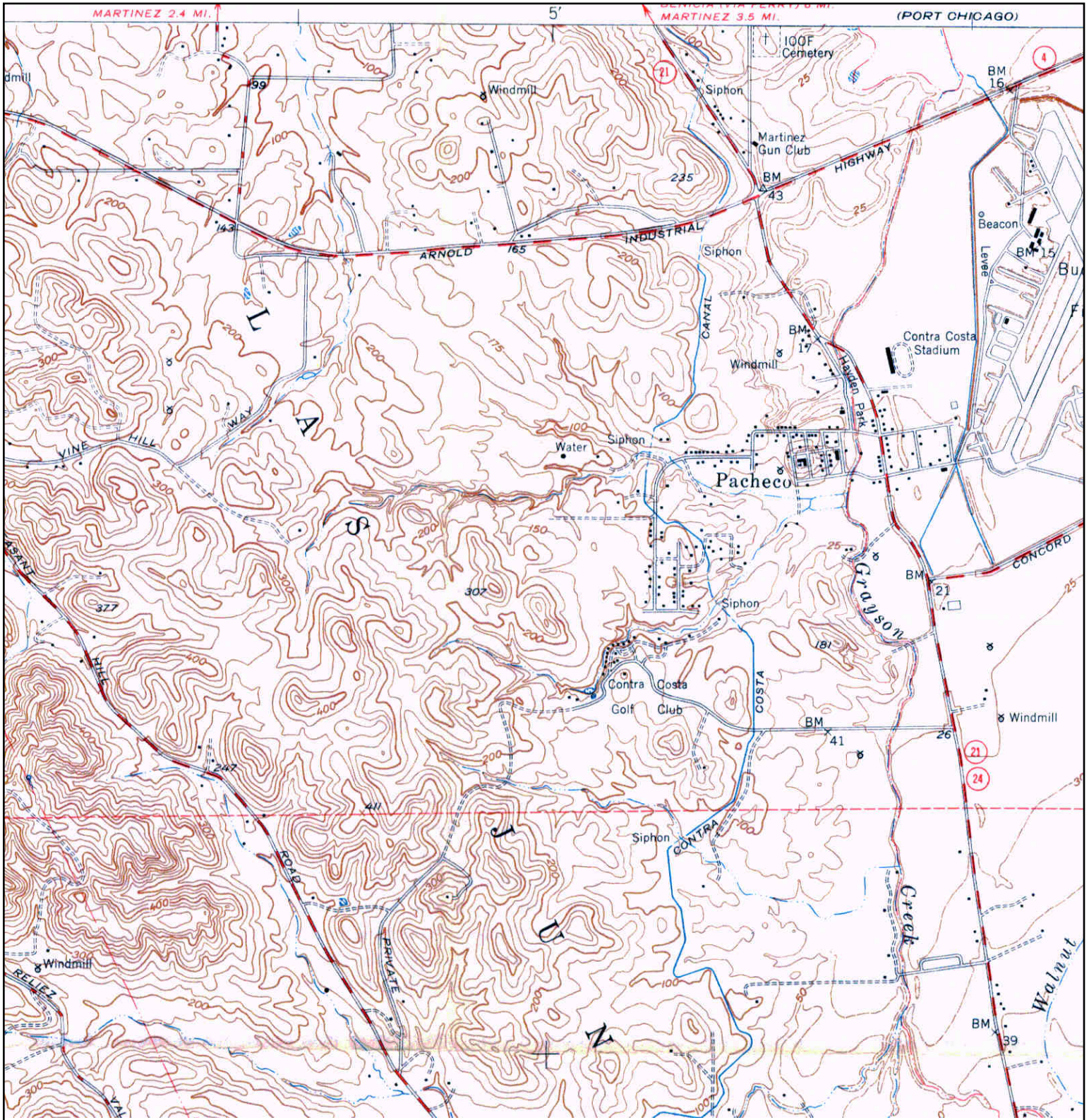
	TARGET QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: CONCORD	ADDRESS: ARNOLD DR Martinez, CA 94553	CONTACT: Ben Wells
	MAP YEAR: 1915	LAT/LONG: 37.9922 / -122.0827	INQUIRY#: 4389624.4
	SERIES: 15		RESEARCH DATE: 08/20/2015
	SCALE: 1:62500		

Historical Topographic Map



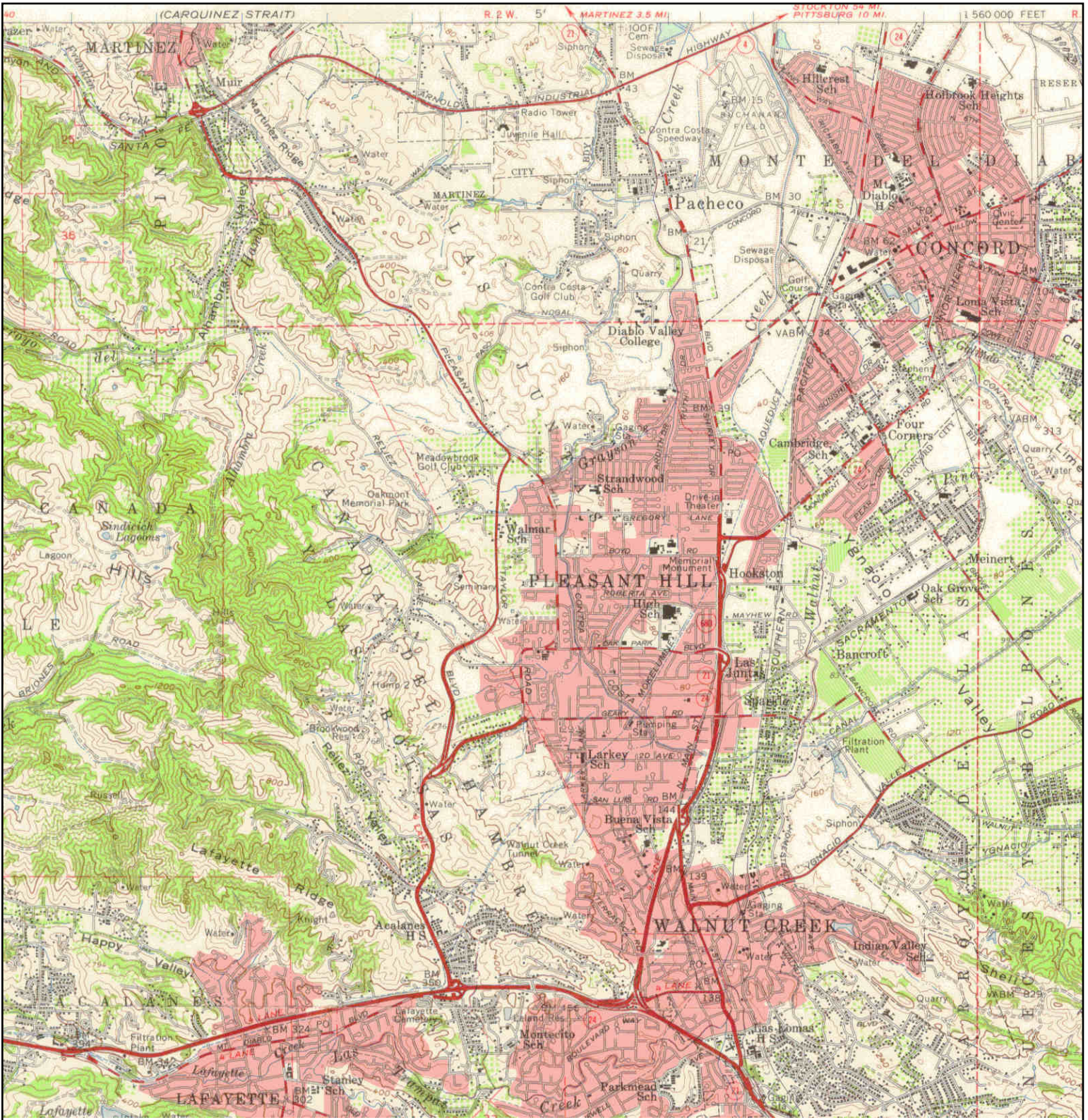
	TARGET QUAD NAME: CONCORD MAP YEAR: 1948	SITE NAME: Martinez ADDRESS: ARNOLD DR Martinez, CA 94553 LAT/LONG: 37.9922 / -122.0827	CLIENT: Env. Resource Group, Inc CONTACT: Ben Wells INQUIRY#: 4389624.4 RESEARCH DATE: 08/20/2015
	SERIES: 15 SCALE: 1:50000		


Historical Topographic Map



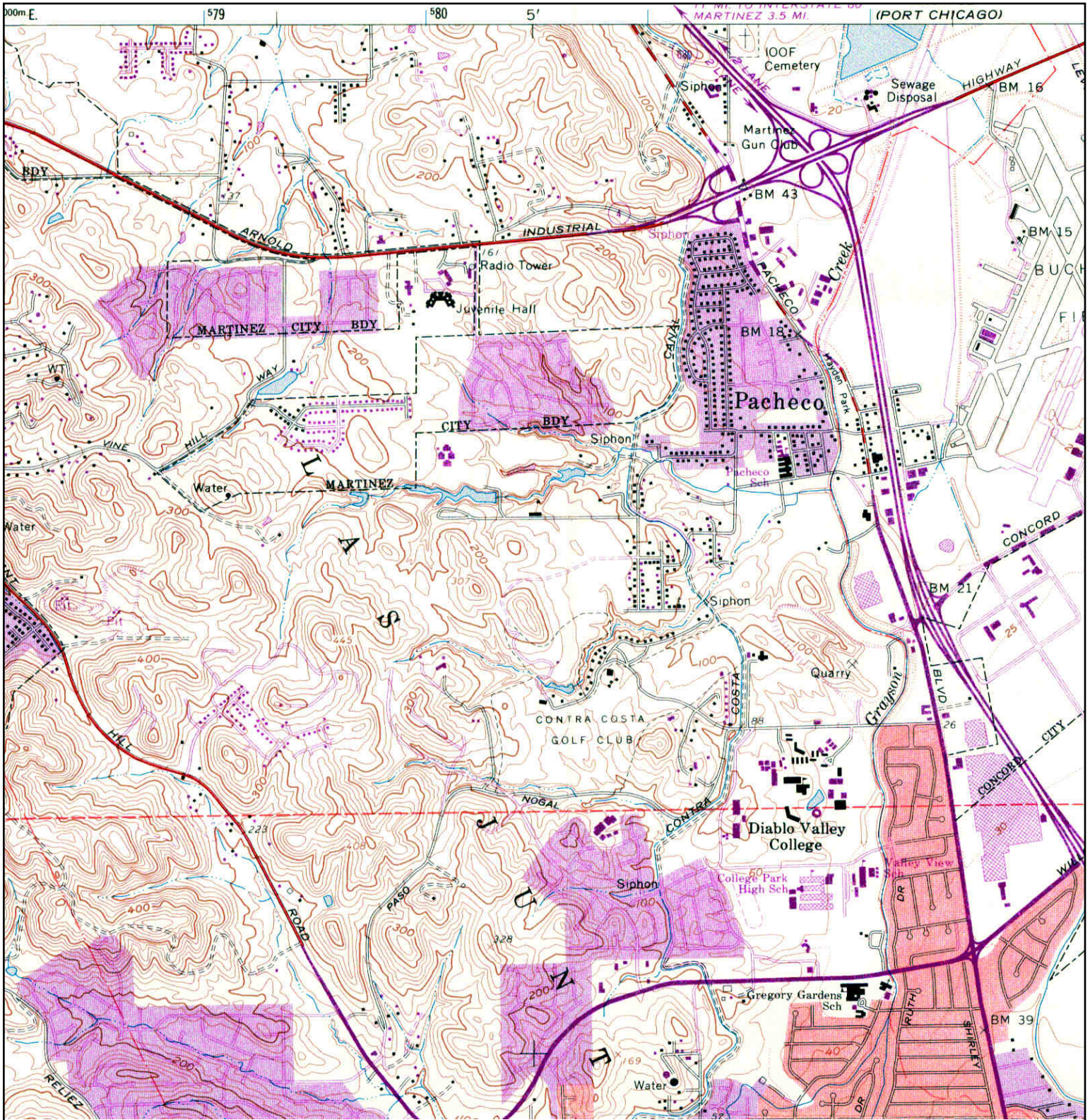
	TARGET QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: WALNUT CREEK	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1949	Martinez, CA 94553	INQUIRY#: 4389624.4
	SERIES: 7.5	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SCALE: 1:24000		


Historical Topographic Map



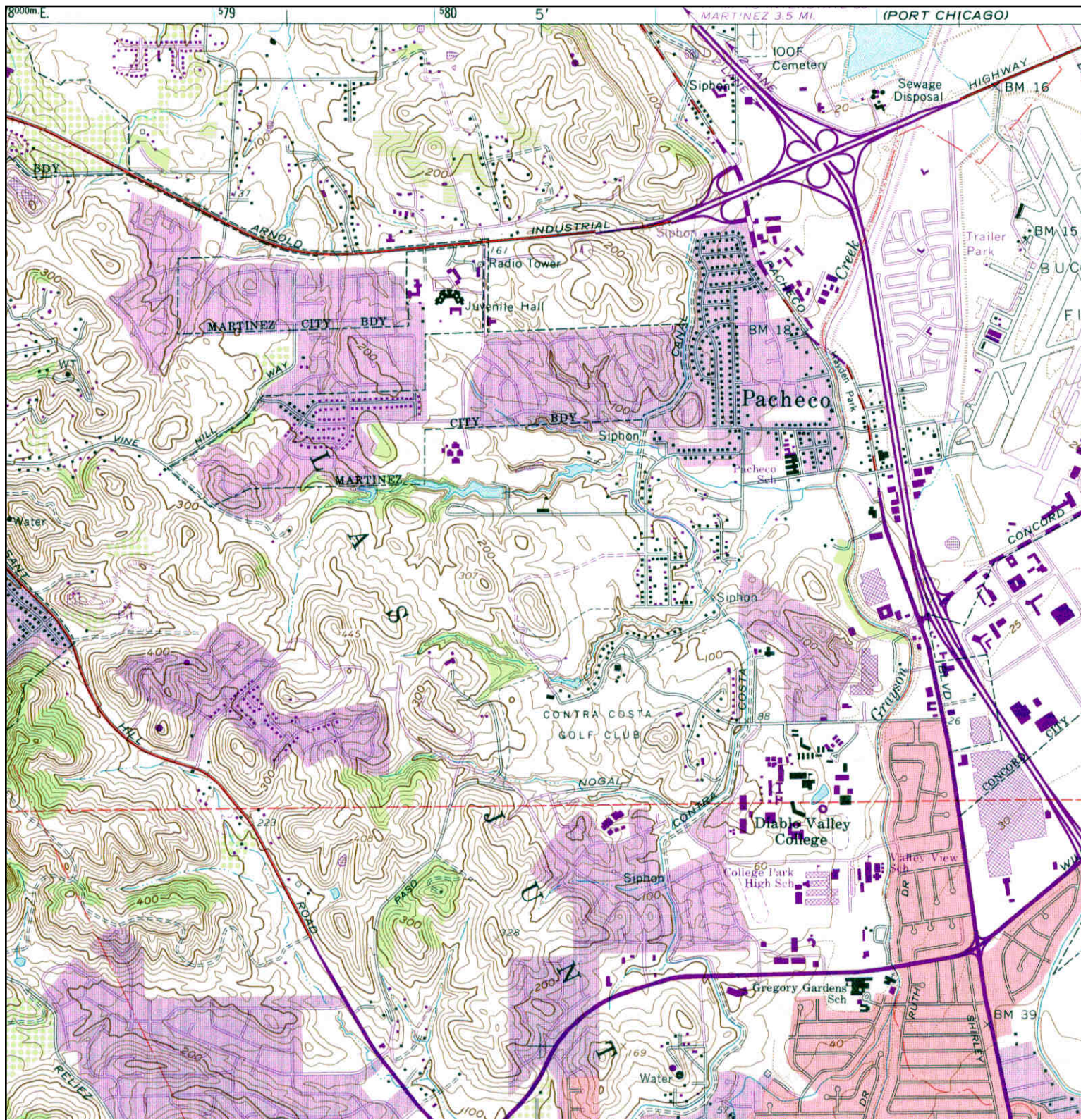
N 	TARGET QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: CONCORD	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1959	Martinez, CA 94553	INQUIRY#: 4389624.4
	SERIES: 15	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SCALE: 1:62500		

Historical Topographic Map



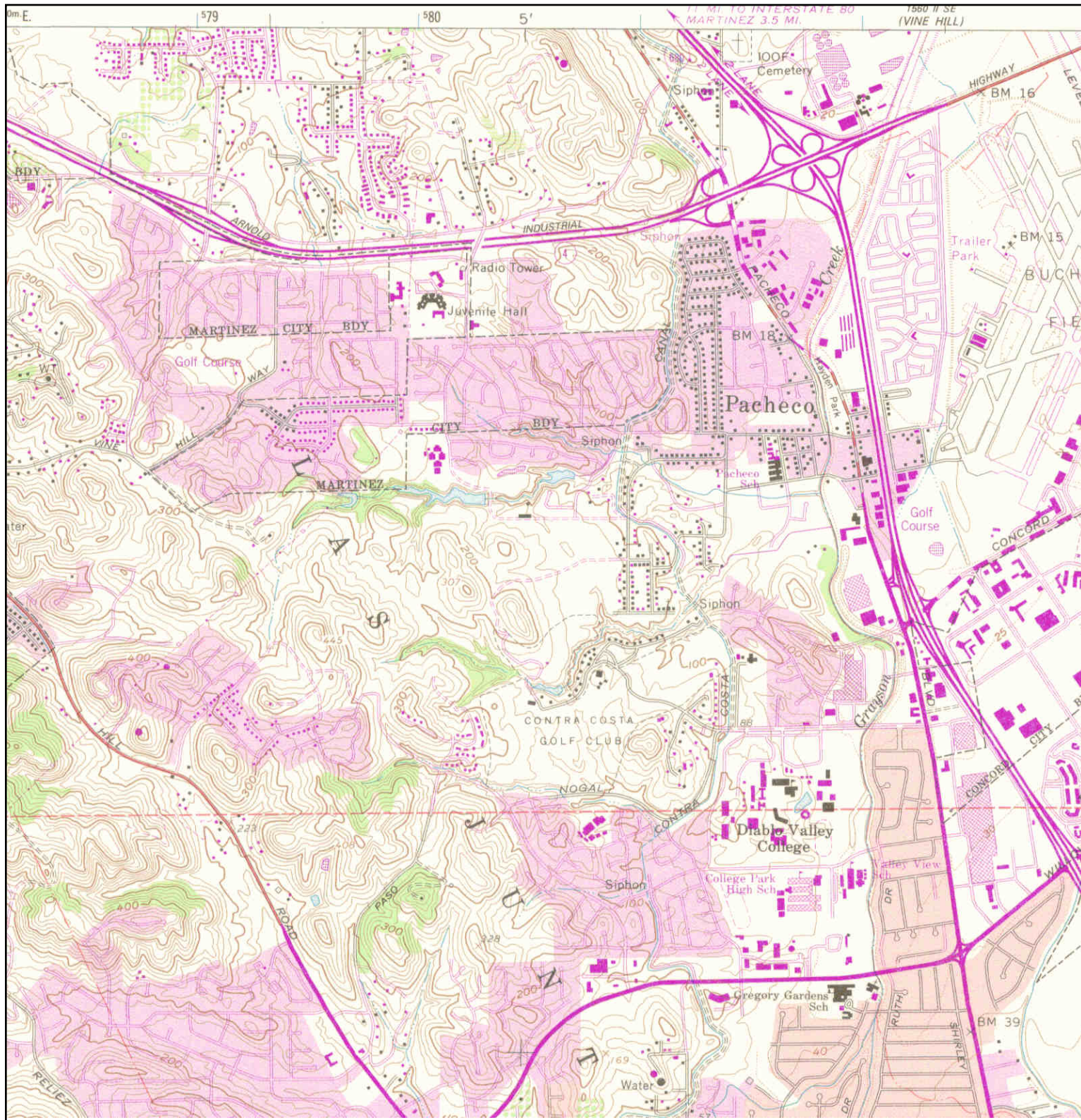
<p>N</p> 	TARGET QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: WALNUT CREEK	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1968	Martinez, CA 94553	INQUIRY#: 4389624.4
	PHOTOREVISED FROM :1959	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SERIES: 7.5		
	SCALE: 1:24000		


Historical Topographic Map



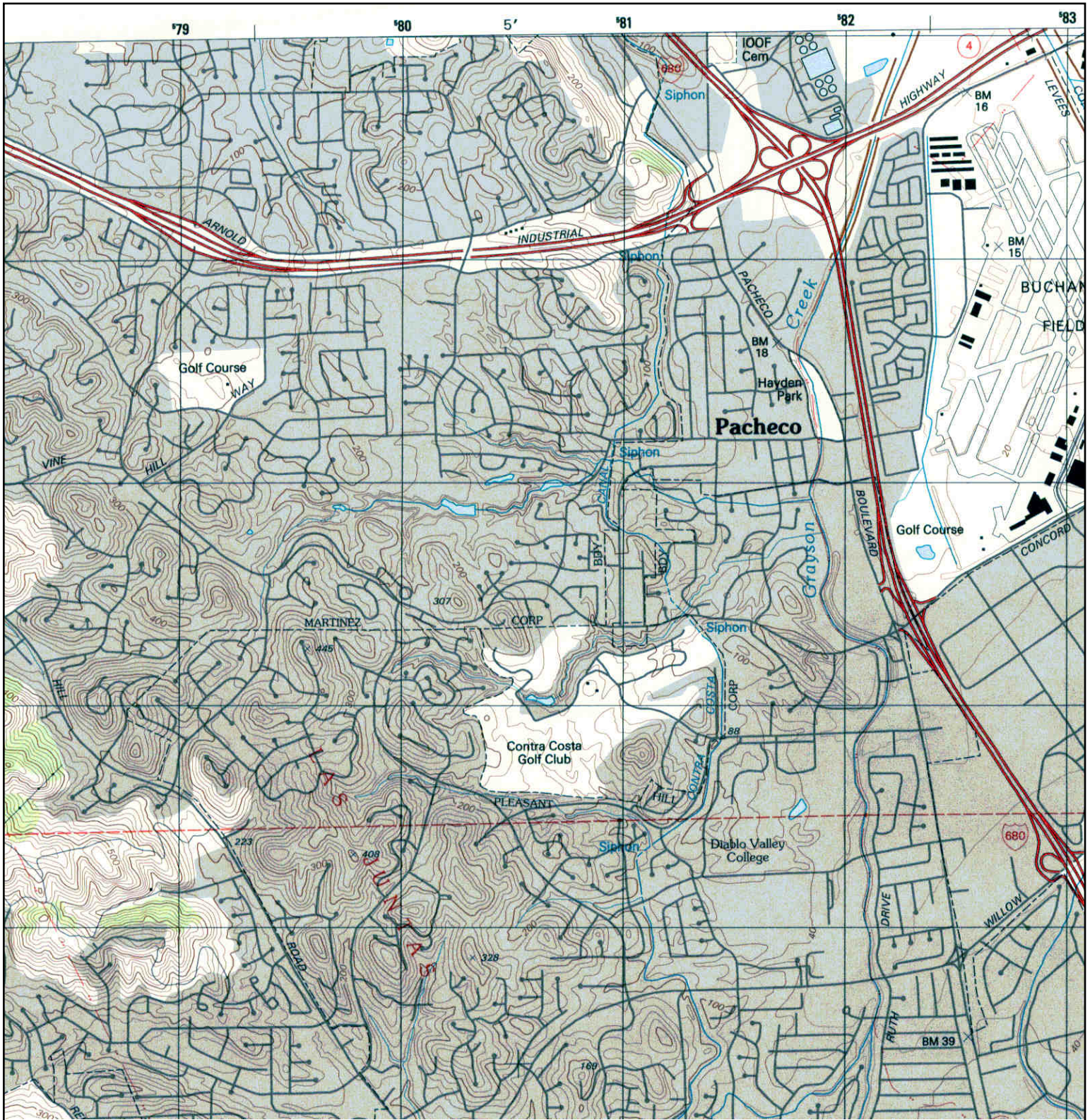
<p>N ↑</p>	TARGET QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: WALNUT CREEK	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1973	Martinez, CA 94553	INQUIRY#: 4389624.4
	PHOTOREVISED FROM :1959	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SERIES: 7.5		
	SCALE: 1:24000		


Historical Topographic Map



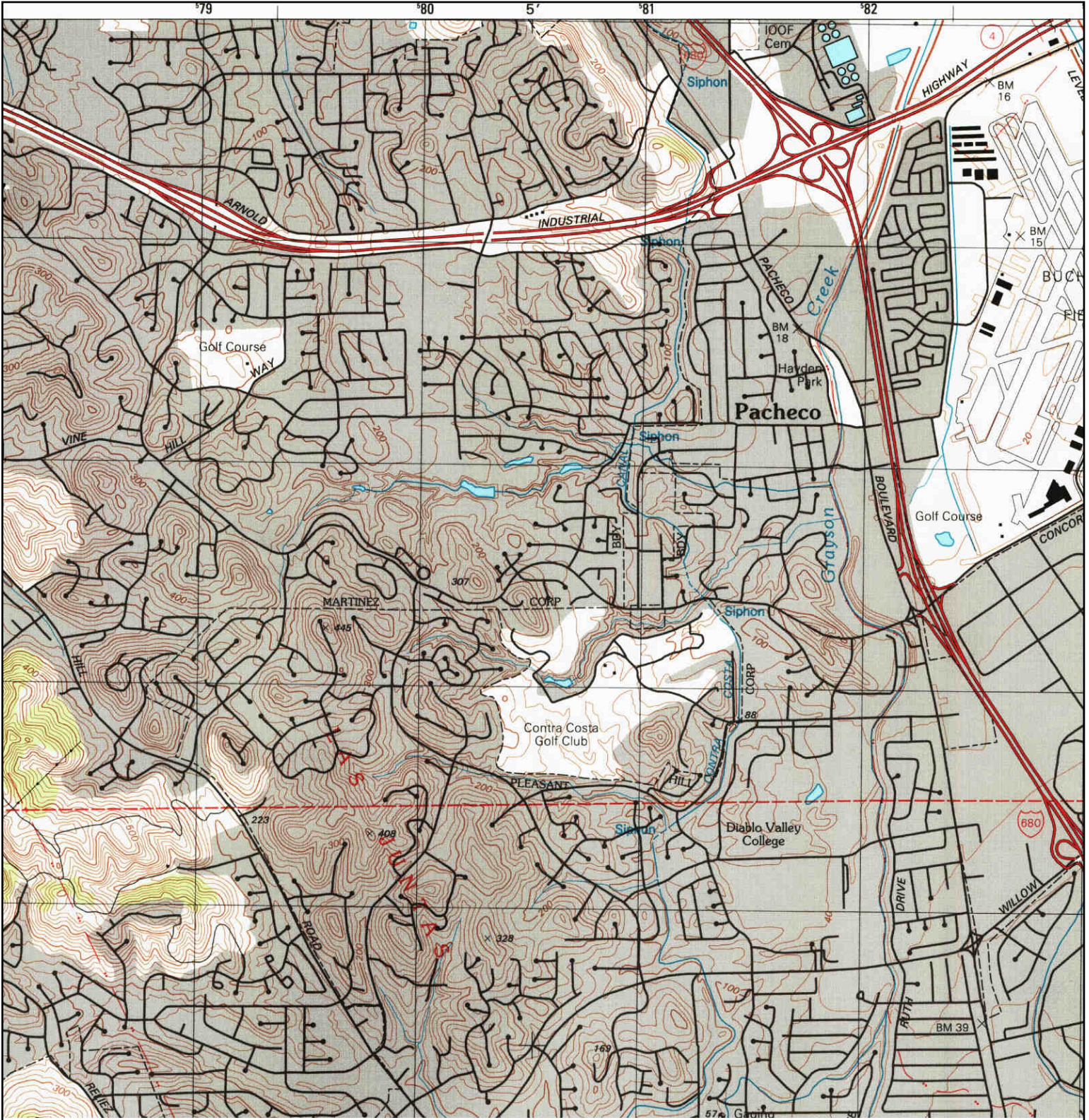
	TARGET QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: WALNUT CREEK	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1980	Martinez, CA 94553	INQUIRY#: 4389624.4
	PHOTOREVISED FROM :1959	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SERIES: 7.5		
	SCALE: 1:24000		


Historical Topographic Map



<p>N</p> 	<p>TARGET QUAD NAME: WALNUT CREEK MAP YEAR: 1993</p>	<p>SITE NAME: Martinez ADDRESS: ARNOLD DR Martinez, CA 94553 LAT/LONG: 37.9922 / -122.0827</p>	<p>CLIENT: Env. Resource Group, Inc CONTACT: Ben Wells INQUIRY#: 4389624.4 RESEARCH DATE: 08/20/2015</p>
	<p>SERIES: 7.5 SCALE: 1:24000</p>		


Historical Topographic Map



	TARGET QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: WALNUT CREEK	ADDRESS: ARNOLD DR Martinez, CA 94553	CONTACT: Ben Wells
	MAP YEAR: 1995	LAT/LONG: 37.9922 / -122.0827	INQUIRY#: 4389624.4
	SERIES: 7.5		RESEARCH DATE: 08/20/2015
	SCALE: 1:24000		

Historical Topographic Map



	ADJOINING QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: KARQUINES	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1898	Martinez, CA 94553	INQUIRY#: 4389624.4
	SERIES: 15	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SCALE: 1:62500		

Historical Topographic Map



	ADJOINING QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: CARQUINEZ	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1901	Martinez, CA 94553	INQUIRY#: 4389624.4
	SERIES: 15	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SCALE: 1:62500		

Historical Topographic Map



	ADJOINING QUAD	SITE NAME:	CLIENT:
	NAME: NAPA	Martinez	Env. Resource Group, Inc
	MAP YEAR: 1902	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	SERIES: 30	Martinez, CA 94553	INQUIRY#: 4389624.4
	SCALE: 1:125000	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015

Historical Topographic Map



	ADJOINING QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: CARQUINEZ STRAIT	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1940	Martinez, CA 94553	INQUIRY#: 4389624.4
	SERIES: 15	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SCALE: 1:62500		

Historical Topographic Map



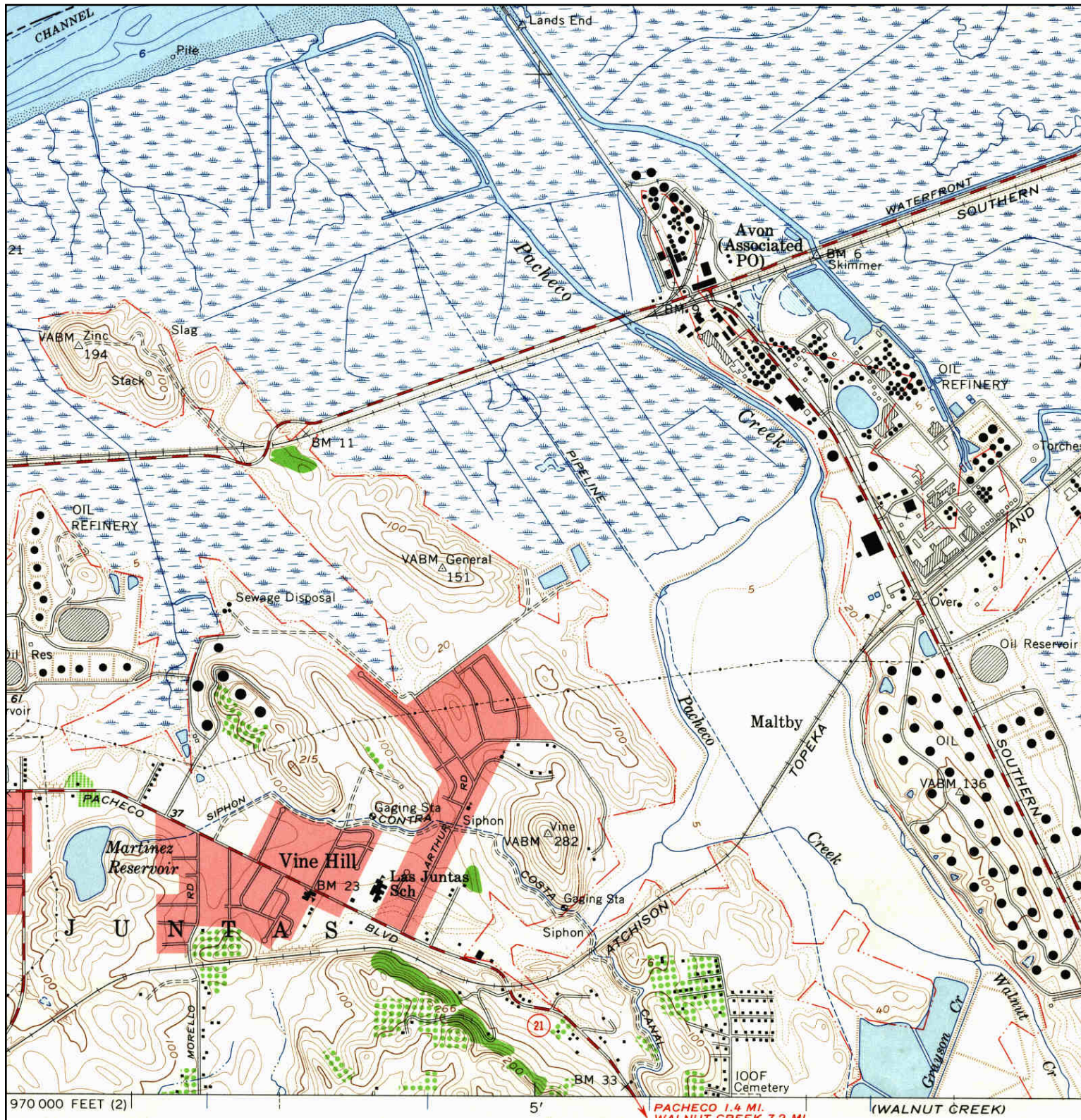
	ADJOINING QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: PORT CHICAGO	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1947	Martinez, CA 94553	INQUIRY#: 4389624.4
	SERIES: 15	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SCALE: 1:50000		

Historical Topographic Map



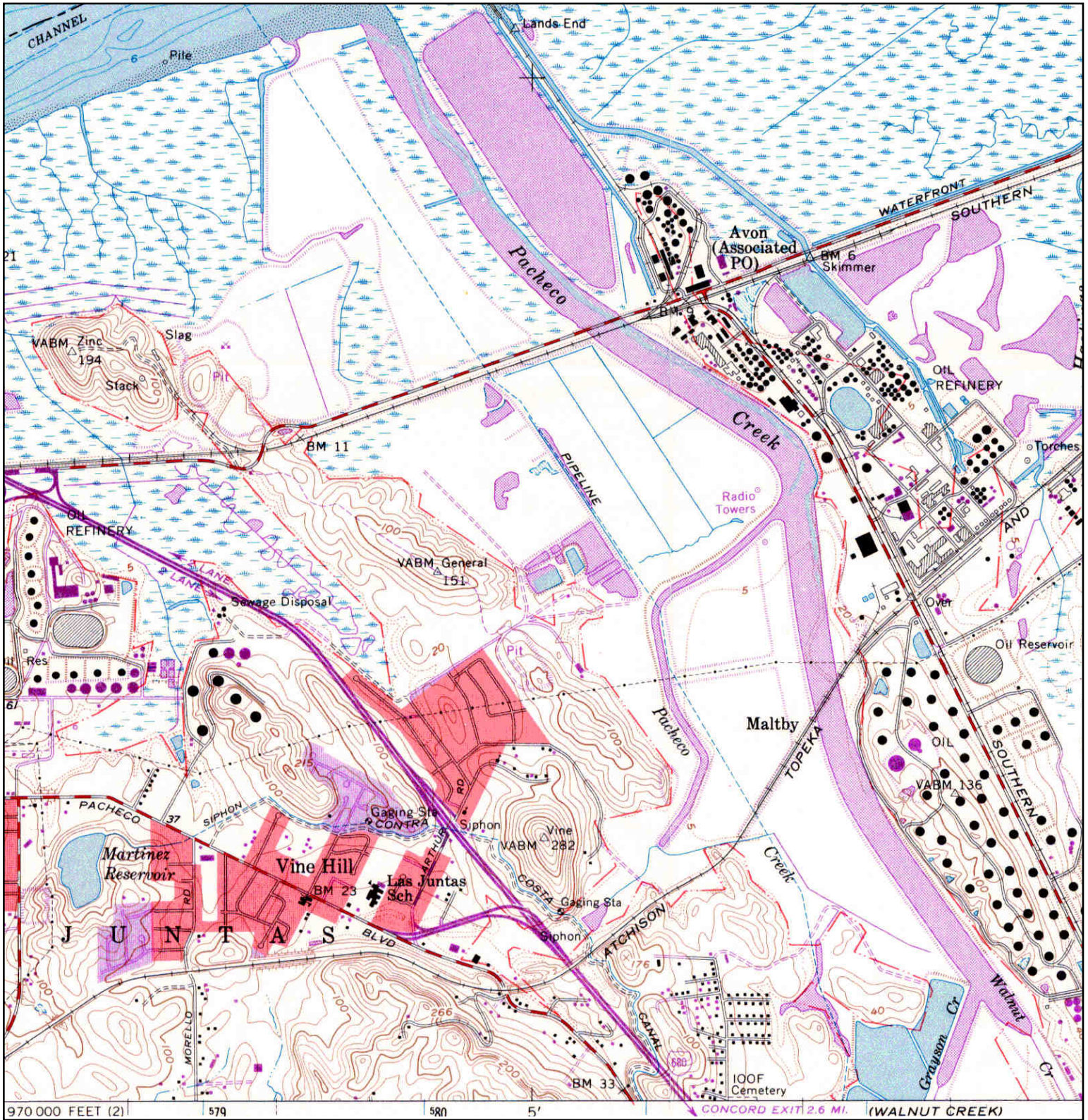
<p>N</p>	ADJOINING QUAD			
	NAME:	PORT CHICAGO	SITE NAME:	Martinez
	MAP YEAR:	1951	ADDRESS:	ARNOLD DR Martinez, CA 94553
	SERIES:	7.5	LAT/LONG:	37.9922 / -122.0827
	SCALE:	1:24000	CLIENT:	Env. Resource Group, Inc
		CONTACT:	Ben Wells	
		INQUIRY#:	4389624.4	
		RESEARCH DATE:	08/20/2015	

Historical Topographic Map



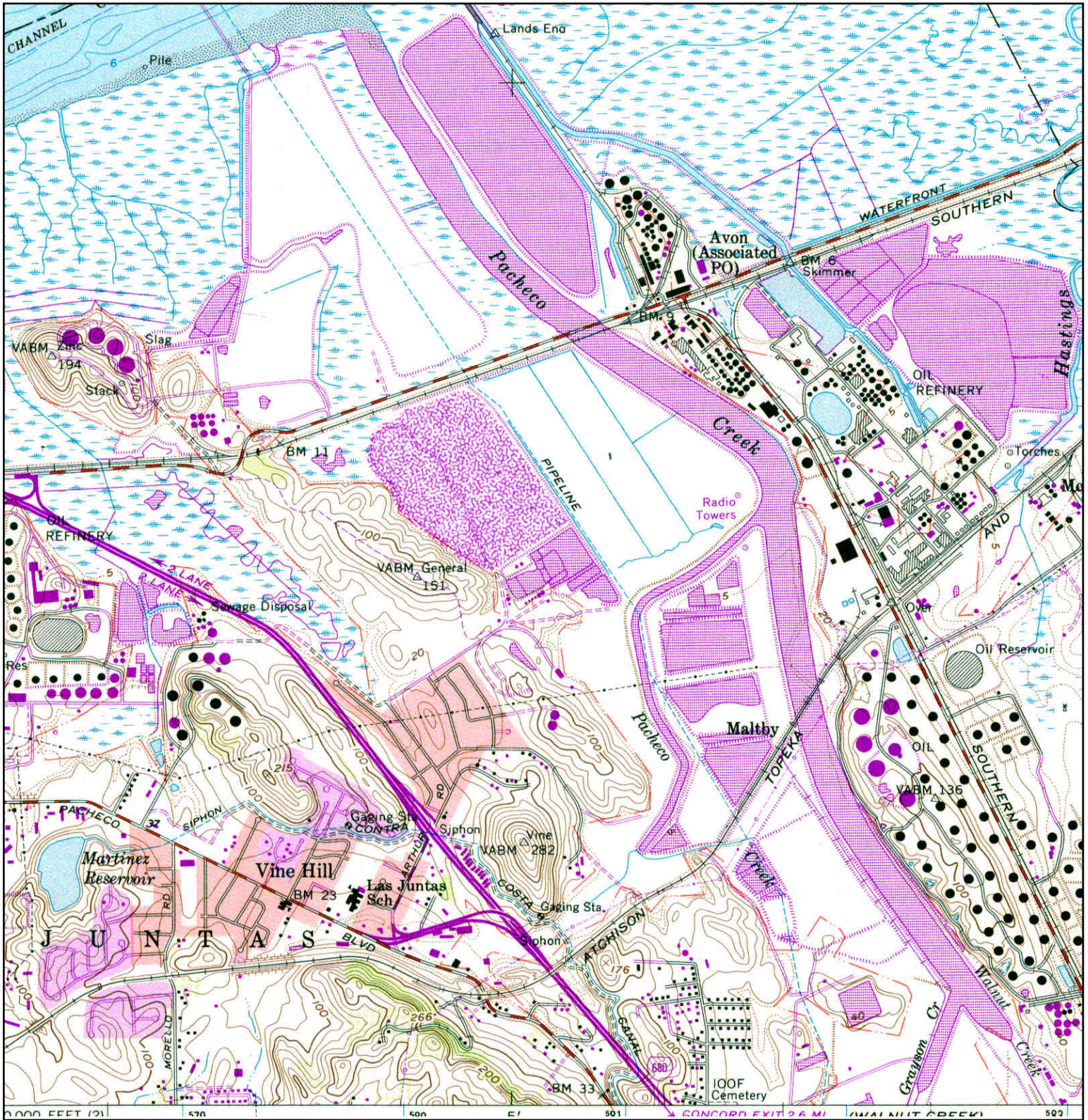
	ADJOINING QUAD	SITE NAME: Martinez	CLIENT: Env. Resource Group, Inc
	NAME: PORT CHICAGO	ADDRESS: ARNOLD DR	CONTACT: Ben Wells
	MAP YEAR: 1959	Martinez, CA 94553	INQUIRY#: 4389624.4
	SERIES: 7.5	LAT/LONG: 37.9922 / -122.0827	RESEARCH DATE: 08/20/2015
	SCALE: 1:24000		

Historical Topographic Map



<p>N ↑</p>	ADJOINING QUAD			
	NAME:	PORT CHICAGO	SITE NAME:	Martinez
	MAP YEAR:	1968	ADDRESS:	ARNOLD DR Martinez, CA 94553
	PHOTOREVISED FROM :	1959	LAT/LONG:	37.9922 / -122.0827
	SERIES:	7.5	CLIENT:	Env. Resource Group, Inc
	SCALE:	1:24000	CONTACT:	Ben Wells
		INQUIRY#:	4389624.4	
		RESEARCH DATE:	08/20/2015	

Historical Topographic Map



	ADJOINING QUAD		
	NAME:	VINE HILL	SITE NAME: Martinez
	MAP YEAR:	1980	ADDRESS: ARNOLD DR
	PHOTOREVISED FROM :	1959	Martinez, CA 94553
	SERIES:	7.5	LAT/LONG: 37.9922 / -122.0827
	SCALE:	1:24000	CLIENT: Env. Resource Group, Inc
		CONTACT: Ben Wells	INQUIRY#: 4389624.4
		RESEARCH DATE: 08/20/2015	

APPENDIX B-4
SANBORN FIRE INSURANCE MAPS



Martinez

ARNOLD DR

Martinez, CA 94553

Inquiry Number: 4389624.3

August 20, 2015

Certified Sanborn® Map Report



6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

8/20/15

Site Name:

Martinez
ARNOLD DR
Martinez, CA 94553

Client Name:

Env. Resource Group, Inc
1038 Redwood Hwy
Mill Valley, CA 94941



EDR Inquiry # 4389624.3

Contact: Ben Wells

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: Martinez
Address: ARNOLD DR
City, State, Zip: Martinez, CA 94553
Cross Street:
P.O. # ARA Phase I
Project: Martinez
Certification # 5629-4D6F-9AEE



Sanborn® Library search results
Certification # 5629-4D6F-9AEE

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

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- University Publications of America
- EDR Private Collection

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APPENDIX B-5
CITY DIRECTORIES

Martinez

ARNOLD DR
Martinez, CA 94553

Inquiry Number: 4389624.5
August 26, 2015

The EDR-City Directory Image Report

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
2008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1999	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1995	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1989	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1985	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1980	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1975	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory

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FINDINGS

TARGET PROPERTY STREET

ARNOLD DR
Martinez, CA 94553

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

ARNOLD DR

2013	pg A2	Cole Information Services
2008	pg A9	Cole Information Services
2003	pg A16	Cole Information Services
1999	pg A23	Cole Information Services
1995	pg A31	Cole Information Services
1992	pg A37	Cole Information Services
1989	pg A41	Haines Criss-Cross Directory
1989	pg A42	Haines Criss-Cross Directory
1985	pg A43	Haines Criss-Cross Directory
1980	pg A44	Haines Criss-Cross Directory
1975	pg A45	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

ARNOLD DR 2013

1	007 EMERGENCY TOWING
737	SASCO SCHETTER ELECTRIC
742	MARTINEZ FURNITURE COMPANY MERIDIAN DENTAL PAINTERS & ALLIED TRADE UNION LOCAL WILLIAM JORDAN
777	LOCKSMITH A 1 24 7 MUSTANG ENGINEERING WORLEYPARSONS
815	AMERICA GLAZING & ALUMINUM AMERICAN GLAZING ANDERSON BROTHERS MOVERS LOCKSMITH 1 & A 24 HOUR MARES DOW CONSTRUCTION NEWTRON INC PHARMACY STAFFING SERVICES SERVPRO
817	ABSOLUTE AIR APOLLO SHUTTLE SERVICE ARTISTIC BATH & SHOWER ASSOCIATES PRINTING SERVICE BALCO PROPERTIES BOYDSTUN CONSTRUCTION INC ICE COMMUNICATION SYSTEMS INC IMEX DESIGNS CORP INNOVOX AUDIO KIRBY FLOOR WORKS INC KOOLER DESIGN STUDIO INC REALTY EXECUTIVESOLYMPIC REALTORS SP GEAR VELOCITY EXPRESS WE THE WEST MEDIA LLC WINDRIX MEDICAL TRANSCRIPTION
825	AGBAYANI CONSTRUCTION PRODUCT COMPONENTS CORP SERVPRO WESTERN REHAB SOLUTIONS XTREME SCAFFOLDING
827	ACCESS AVENUE INSURANCE ADAMS DIGITAL ADVANCED MARKETING BEL DESIGN MFG DRAEGER CONSTRUCTION EAST BAY AUTO DIRECT ELEGANT OCCASIONS SERVICES ELITE 1 ON 1 HOVEROUND ILLUMEFFECTS IRIE MANAGEMENT

ARNOLD DR 2013 (Cont'd)

827	KEYS POOL SERVICE INC MUIRTECH COMPUTER SERVICES N C C APPRAISAL SERVICES NO DRUGS INC PACIFIC PULMONARY SERVICE PETER ROSSELLI PETERSON COMMUNICATIONS GROUP INC ROBERT E SEGERDELL INSURANCE AGENCY SAN FRANCISCO BAY APPRAISALS SEGERDELL ROBERT INS AGENCY SELL HELPU SMILE FX TESTING ENGINEERS INC WEST COAST APPRAISALS WILLIAM P LAW OFFICE WOODY HUNT
835	IN MOTION DANCE CENTER MODULAR INFORMATION SYSTEMS
837	ALERTING SOLUTIONS INC APPLE APPRAISAL CALIFORNIA AMBULANCE CIFAC DYNAMIC MAINTENANCE SERVICE E5 LLC MASON CONSTRUCTION NCC APPRAISAL SVCS NETWORK CRANE & RIGGING CO PACIFIC SAUNA & STEAM SAN FRANCISCO BAY APPRAISAL SCANNX SONITROL
839	SEQUOIA ENGINEERING & DESIGN ASSOCIA
841	ABBOTT ROBERT PUBLIC ACCOUNTANT BALCO PROPERTIES CYGNUS SERVICES CORP HANSES CHIROPRACTIC INTEGRITY MACVOLKS
847	GATEWAY CHURCH
901	PUBLIC STORAGE
1021	CELLULAR WAREHOUSE FIRSTSIGHT VISION SERVICES MCDONALDS WALMART
1029	CALI HAIR CUT CONCEPCIONMANALO JANET DDS INC CUE & BREW L&L HAWAIIAN BARBECUE METROPCS NAIL USA

ARNOLD DR 2013 (Cont'd)

1029	WINGSTOP YO SUSHI
1033	OILSTOP DRIVE THRU OIL CHANGE
1037	THE HOME DEPOT
1047	DOLLAR TREE STARBUCKS COFFEE COFFEE
1055	WIRELESS STORE INC
1059	ARNOLD RETAIL PARTNERS LLC
1125	BETTY HANNON CERTIFIED FLOOR COVERING SERVICE CHASE CLEAR VISION INVESTMENT GROUP LLC DISCOUNT LIQUORS MAIL BOXES ETC MOJEES HAIR STUDIO SCOTT J ESPARZA & CO BAIL BONDS INC
1135	AUTOLOCKSMITH 24 HOUR COUNTRY WAFFLES TOGOS
1143	DANIEL ADAMS
1145	LUCKY SUPERMARKET
1150	DOUBLE HEADER DARTS SMOKING ACCESSOR PACIFIC TAN
1155	ALHAMBRA GARAGE DOORS BRENDA DICKS CARL RISCH CHINA GOURMET RESTAURANT & BAR CHRISTOPHER GRABLE DIVYA SAWHNEY HANABI SUSHI JOHN RYNCARZ JPS STORE THE KEITH HALL KELLY PERRY KENNETH GOOCH KIM DERRYBERRY MA4 COMPUTER SERVICES MARY FELLOWS MCDONALDS MICHAEL GARVEY MICHAEL SLANEY PAPA MURPHYS TAKE N BAKE PIZZA PARK FLORIST PRETTY NAIL SALON RADIOSHACK ROBERT ARMSTRONG ROBERT POINDEXTER RONALD STEGGALL SARAH GALLAMORE SUPERCUTS

ARNOLD DR 2013 (Cont'd)

1155	THE UPS STORE VILLAGE OAKS CLEANER
1160	5 STAR CHECK CASHING AMERICAN CLEANERS BEST HAIRCUTS BRIGHT NOW DENTAL CASH1 CAXTON INVESTMENTS LOCKSMITH EXPRESS MOUNTAIN MIKES PIZZA SUNRISE DONUTS
1165	AJR WATCH REPAIR RITE AID PHARMACY
1170	ACME EXPRESS KFC LISAS BEAUTY CENTER MANGIA BENE RESTAURANT PETCO SUBWAY SANDWICHES
1175	BASKINROBBINS CHARM SALON SPA EVANS RONALD DDS
1190	IHOP
1203	KATHI LECORENC
1205	JEREMY BARGY
1207	OCCUPANT UNKNOWN
1209	VICTORIA PORTANIER
1211	MALIKA GRIFFITH MALIKA SEAFORTH
1213	KRISTIN WEICHERS MATT THAYER
1217	OCCUPANT UNKNOWN
1219	DHARMINDER SINGH
1221	OCCUPANT UNKNOWN
1225	ELITE CARE
1227	JESSICA MARTIN
1229	OCCUPANT UNKNOWN
1231	OCCUPANT UNKNOWN
1233	OCCUPANT UNKNOWN
1237	OCCUPANT UNKNOWN
1239	MARTA ROUEIHEB
1241	OCCUPANT UNKNOWN
1243	JOSE GUERRERO
1245	JACQUELINE FOLEY
1247	ROBERT TIUJILLO
1251	PHILLIP WALTON
1255	OCCUPANT UNKNOWN
1257	OCCUPANT UNKNOWN
1259	ALFREDO MARISCAL
1261	ELAINE BRAZILL

ARNOLD DR 2013 (Cont'd)

1263	OCCUPANT UNKNOWN
1265	DAVID GALLAGHER
1267	OCCUPANT UNKNOWN
1271	OCCUPANT UNKNOWN
1273	OCCUPANT UNKNOWN
1277	OCCUPANT UNKNOWN
1279	JOHN FERNANDEZ
1281	LORENA TREVINO
1283	OCCUPANT UNKNOWN
1285	DIANE MCNULTY
1287	JUAN VENTURA
1289	MICHAEL BOKAMPER
1291	WAYNE HANSON
1303	TIM JACOBS
1305	OCCUPANT UNKNOWN
1307	VINCE WRIGHT
1309	MARK BAKER
1313	EVELYN PITTS
1315	DJUANA STARKS
1317	WENDY DEHAYDU
1319	BYRON BERTRAND
1320	COUNTY OF CONTRA COSTA
	FSC SECURITIES
	HEARTS DESIRE PROPERTIES
	MICHELLE ALLMAN STATE FARM INSURAN
	STATE FARM INSURANCE
	WALL STREET MONEY BROKERS
	YWCA
1321	OCCUPANT UNKNOWN
1323	OCCUPANT UNKNOWN
1325	OCCUPANT UNKNOWN
1327	ANGELA HENKELL
1329	TOTA RAM
1330	BOHREN HARRY E CPA
	CARATHIMAS & ASSOCIATES
	CONSTRUCTION FUNDS CONTROL SERVICES
	CONTRA COSTA ELECTRICAL COMPLIANCE
	COUCH & ASSOCIATES INC
	LARSONCLARK INSURANCE ASSOCIATES IN
	LILLIPUT CHILDRENS SERVICES
	NALCO
	PLANT MAINTENANCE INC
	SFG EMPLOYEE BENEFITS INC
	SREBROW INVESTMENT RESOURCES
	WALLACE GROUP
1331	LLINA SERRANO
1333	JAIME PAREDES
1335	MIGUEL GUTIERREZ
1337	STAFANI SHEPPARD
1339	HEE PAE

ARNOLD DR 2013 (Cont'd)

1340	APPSAMERICAN PARA PROFESSION ARC CONTRA COSTA BAY AREA DIABLO PETROLEUM CO CARE PARENT NETWORK CHECKPOINT COUNTY OF CONTRA COSTA DOMINION INSURANCE SERVICES GOLDEN GATE PETROLEUM HILLTOP FINANCIAL MORTGAGE
1347	OCCUPANT UNKNOWN
1349	OCCUPANT UNKNOWN
1350	ARC CONTRA COSTA CONTRA COSTA COUNTY CAER GROUP INC FULL CIRCLE FINANCIAL & INSURANCE SE JAMES STANLEY ALLSTATE AGENT PACIFIC COAST COFFEE ASSOCIATION SCHADLER BUSINESS SERVICES THE OLIVE BRANCH CAFE VULCRAFT
1351	REYNA ROJAS
1353	RON SOUTHWICK
1361	JULIO LOPEZ
1363	OCCUPANT UNKNOWN
1365	OCCUPANT UNKNOWN
1367	OCCUPANT UNKNOWN
1369	DOUGLAS LAMMI
1375	OCCUPANT UNKNOWN
1377	OCCUPANT UNKNOWN
1405	OCCUPANT UNKNOWN
1407	CINDY JOY
1409	DON SIEBERT
1411	STEVEN WRIGHT
1413	MARY SEATON
1415	JEROME MCCOY
1417	OCCUPANT UNKNOWN
1419	OCCUPANT UNKNOWN
1421	MARY BACTAD
1423	TONY LORENSEN
1425	MICHAEL AGUIRRE
1429	THOMAS TRIPP
1431	OCCUPANT UNKNOWN
1455	ELLANORE LETTICH FRANCES DAVIS GREG ERICSON JUSTIN GARVEY LAWRENCE FORREST MANIL SHRESTHA MARY JIMENEZ NIKHIL NANDA PATRICK POWERS

ARNOLD DR 2013 (Cont'd)

- 1455 RAJASEKHAR PANTANGI
RICHARD MALDONADO
RODRIGO LEAL
SHEENA GALLARDO
SHERRY ALCAZAR
SOMERSET APARTMENTS
- 1785 CITATION NORTHERN
- 1815 S H E L T E R INC
SHELTER INC
- 1865 CHURCH OF CHRIST
HELPING HANDS CHRISTIAN PRESCHOOL
OKALEE SCHREIBER
- 1875 IBEW LU 302
IBEW MEMBERS CREDIT UNION
INTERNATIONAL BROTHERHOOD OF ELECTRI
- 1999 DESMOND COMINOS
- 2020 OCCUPANT UNKNOWN
- 2030 OCCUPANT UNKNOWN
SAMUEL SMITH
VOSINC
- 2034 MICHAEL LARSEN
- 2040 JEFFREY VIER
- 2045 ANNABELLE LEE
LOWELL RICHARDS
- 2050 CHRISTINE LEFFEL
- 2530 CITY OF RICHMOND
COUNTY OF CONTRA COSTA



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ARNOLD DR 2008

737 CENCOM
SASCO ELECTRIC INC

742 WILLIAM JORDAN

757 IRIDIAN TECHNOLOGIES INC
SECURIMETRICS INC

777 COMMONWEALTH LAND TITLE INSURANCE CO
LAND AMERICA FINANCIAL GROUP
LAND AMERICA TECHNOLOGY RESOURCES
T I G SPECIALTY INSURANCE CO

815 AMERICAN GLAZING & ALUMINUM
AMERICAS YOUTH OUTREACH PROGRAM
BEASLEY PLUMBING
CFM SF INC
DB ELECTRIC
MARES & DOW CONSTRUCTION INC
NEWTRON INC
SCHADLER BUSINESS SERVICES
WESTERN STATES CONTROLS LLC

817 ALHAMBRA GARAGE DOORS
ARTISTIC BATH & SHOWER
AVIS HARDWOOD FLOORING
BOLTTECH
CASTILLO INC
DECORUM
DUCAS FLUID CONTROLS INC
INNOVOX AUDIO
KELLEY DAVE REALTOR
NEXT MILLENNIUM INC
REALTY EXECUTIVE OWN A PICK
SP GEAR
SUNRISE LANDSCAPING

825 BOBS CHEM DRY
CARLTON SENIOR LIVING
CHATEAU ON BROADWAY
CHATEAU POETS CORNER LLC
DANS AIR DUCT CLEANING
DECLAN MEDICAL EQUIPMENT INC
DRIVE MEDICAL
INTERCONTINENTAL SERVICES CORP
PRODUCT COMPONENTS CORP
SERVPRO OF MARTINEZ
WESTERN REHABILITATION SOLUTION

827 ADVISOR FUNDING GROUP
AQUATICS UNLIMITED IEC
ASPENAIR
BEL DESIGN MFG
BICKHAM INSURANCE AGENCY
DALE TOMY ASSOCIATES
DAVIS WILLIAM P LAW OFFICE
DR ADLERS ADVENTURES INC

ARNOLD DR 2008 (Cont'd)

827	ELEGANT OCCASIONS CATERING & EVENT HELP U SELL ILLUMEFFECTS KEYS POOL SERVICE INC MATTHEW BULL PACIFIC PULMONARY SERVICES PARTY & WEDDING PETER ROSSELLI PETERSON COMMUNICATIONS GROUP PFS PREMIER BUSINESS HOLDINGS INC PRIMERICA ROBERT ABBOTT PUBLIC ACCOUNTANT ROBERT E SEGEREELL INSURANCE AGENCY SCOTT SCHMITT WOODY HUNT
835	FIRE DETECTION UNLIMITED INC OPEN HEART MINISTRY
837	BARONS SPECIALTY FOODS CARTER GOUGH & CO CHECKPOINT BUSINESS SERVICES INC CONSTRUCTION IND FORCE ACCNT COUNCIL EUV TECHNOLOGY FUTURE COM HISPANIC CHAMBER OF COMMERCE HORMANN AMERICA INC INLINE BOOKKEEPING SERVICE IVCI JUDIEH PLUMBING CO NALORAC CRYOGENICS CORP NYAD INC PACIFIC SAUNA & STEAM SIERO & ASSOCIATES
839	ELI YAGOR SEQUOIA ENGINEERING & DESIGN ASSOCIA
841	INTEGRITY RESIDENTIAL & COMMERCIAL PROS
847	AMBASSADOR CHRISTN FELLOWSHIP NEW BIRTH CHURCH
901	PUBLIC STORAGE
1021	FIRST SIGHT SERVICES MCDONALDS WAL MART
1029	CELLULAR WAREHOUSE INC CREATIVE SANDWICHES & SALADS CUE & BREW NAIL USA
1033	OIL EXPRESS OIL STOP DRIVE THRU OIL CHANGE WELLS QUICK LUBE INC

ARNOLD DR 2008 (Cont'd)

1037	YARDBIRDS HOME CENTER
1125	ANDRES FISH & CHIPS
	CARPET MARSHALL
	CHURCH OF THE HEALING LIGHT
	DISCOUNT CIGARETTE & LIQUOR
	EYERARTS CONSULTING
	FRANKIE THORNTON
	MARK PHILLIPS
	MICHAEL MCKAY
	NUMERO UNO TAQUERIA INC
	PAM NELSON
	PHILIP LAPPIN
	PRECISION CUT DIAMONDS LLC
	ROBERTA KING
	SAN FRANCISCO LADDER CO
	SIDWELL & SINGLETON INVESTIGATIONS
	SUPERIOR HEALTHCARE EQUIPMENT
1135	BARNARD INC
	COUNTRY WAFFLES
	DESIGNER CUTS GBEC
	DIABLO WIRELESS INC
	TOGOS
1143	DANIEL ADAMS
1150	BLOCKBUSTER VIDEO
	DOUBLE HEADER
	DOUBLE HEADER DARTS & BILLARDS
	GEORGIA GRIFFIN
	PACIFIC TAN
1155	BRIGHT HORIZONS REI INC
	CHINA GOURMET RESTAURANT
	CYPRESS REAL ESTATE GROUP INC
	HANABI SUSHI
	PAPA MURPHYS TAKE N BAK PZZ
	PRETTY NAIL SALON
	RADIOSHACK
	SUPERCUTS INC
1160	5 STAR CHECK CASHING
	AMERICAN CLEANERS
	BEST HAIRCUTTERS
	BRIGHT NOW DENTAL
	EXPRESS CASH ADVANCE
	MARTINEZ DENTAL
	MOUNTAIN MIKES PIZZA
	PHILIP K NISHINO DDS
	SUNRISE DONUTS
1170	HARMAN MANAGEMENT CORP
	HARMAN TEJEDA KFC
	LISAS BEAUTY CENTER
	MANGIA BENE RESTAURANT
	PETCO

ARNOLD DR 2008 (Cont'd)

1170	SUBWAY SANDWICHES & SALADS
1175	BANK OF AMERICA
	BASKIN ROBBINS ICE CREAM
	CHARM SALON & SPA
	RONALD W EVANS DDS
1185	DUSTIN OLGE
1190	IHOP
1203	KATHI LECORENC
1205	OCCUPANT UNKNOWN
1207	OCCUPANT UNKNOWN
1209	OCCUPANT UNKNOWN
1213	SHERYLL FLAUDING
	SHERYLL SOLIVEN
1215	OCCUPANT UNKNOWN
1217	MOLLY DOTSON
1219	OCCUPANT UNKNOWN
1221	MARY RIGGS
1227	OCCUPANT UNKNOWN
1231	OCCUPANT UNKNOWN
1233	SRIVASTAVA CHEEMAKURTHI
1237	OCCUPANT UNKNOWN
1239	IVAN COLLAZO
1241	OCCUPANT UNKNOWN
1243	CARLENE JONES
1245	SHAM KUMAR
1247	ANTONIO GONZALEZ
1255	OCCUPANT UNKNOWN
1257	KATHY SY
1259	OCCUPANT UNKNOWN
1261	ELAINE LOPEZ
1263	YUHGEE KIM
1265	DAVID GALLAGHER
1267	OCCUPANT UNKNOWN
1271	OCCUPANT UNKNOWN
1273	OCCUPANT UNKNOWN
1275	MIGUEL ALEJO
1277	OCCUPANT UNKNOWN
1279	HUGH BIRDSONG
1281	KATHIE LABRIE
1285	THOMAS WIDEMANN
1287	JOE BAYLISS
1289	ROSSANNA DAVIS
1291	OCCUPANT UNKNOWN
1293	VICTOR HUERTA
1303	TIM JACOBS
1305	RYAN ENDRISS
1307	PATRICK MCSORLEY
	VINCE WRIGHT
1309	OCCUPANT UNKNOWN
1311	FRANCISCO OROZCO

ARNOLD DR 2008 (Cont'd)

1313	ERNESTINE SANCHEZ
1315	MUIR PARK CONDOMINIUMS SHARON REED
1317	THOMAS ARNESON
1319	BYRON BERTRAND
1320	BEN SREBROW CARATHIMAS ASSOCS CONTRA COSTA HEALTH SERVICES H & Y ARCHITECTS INC PADGETT BUSINESS SERVICES SCHNABEL GENE SSC SECURITIES VANGUARD CLEANING SYSTEMS INC WALL STREET MONEY BROKERS YWCA CONTRA COSTA COUNTRY
1321	OCCUPANT UNKNOWN
1323	OCCUPANT UNKNOWN
1325	ANGELA HENKELL
1329	OCCUPANT UNKNOWN
1330	BOHREN HARRY E CPA CARATHIMAS & ASSOCIATES CFCS CONSTRUCTION FUNDS CONTROL SERVICE CONTRA COSTA COUNTY CARE GROUP COUNTY OF CONTRA COSTA LARSON CLARK INSURANCE ASSOCIATES IN NALCO CO PARSONS BRINCKERHOFF INC PB AMERICAS INC SENIOR NUTRITION PROGRAM SFG EMPLOYEE BENEFITS INC SREBROWS INVESTMENT STATE FARM INSURANCE T J CHEN VANGUARD CLEANING SYSTEMS WILLIAMS CHARLES J
1331	OCCUPANT UNKNOWN
1335	SUSAN LAWSON
1337	OCCUPANT UNKNOWN
1339	HEEKY PAE
1340	RHL DESIGN GROUP INC
1341	PETE ALLEN
1347	MARVIN JACKSON
1350	BAYVIEW LENDING CONTRA COSTA ASSOCS A HEARTS DESIRE PROPERTIES MEDICAL FINANCIAL MANAGEMENT PHOENIX REALTY RESOURCES THE OLIVE BRANCH CAFE
1351	OCCUPANT UNKNOWN

ARNOLD DR 2008 (Cont'd)

1353	OCCUPANT UNKNOWN
1357	ROBERT CAMPBELL
1359	TAFFY HEALD
1361	OCCUPANT UNKNOWN
1363	OCCUPANT UNKNOWN
1365	MAGGIE GILLESPIE
1367	MARK DURAN
1369	CATHERINE JOAQUIN
1371	OCCUPANT UNKNOWN
1375	OCCUPANT UNKNOWN
1377	OCCUPANT UNKNOWN
1379	JANA EMMONS
1403	OCCUPANT UNKNOWN
1405	OCCUPANT UNKNOWN
1407	CINDY JOY
1409	OCCUPANT UNKNOWN
1411	OCCUPANT UNKNOWN
1413	JILL SEATON
1415	OCCUPANT UNKNOWN
1417	OCCUPANT UNKNOWN
1419	MARIA MARISCAL
1421	ERICA CRUZADO
1423	REBECCA HAYES
1425	OCCUPANT UNKNOWN
1427	DAVID PAZ
1429	THOMAS TRIPP
1431	OCCUPANT UNKNOWN
1433	MONIKA NEURAD
1445	S MCCLURE
1455	ALEJANDRO FERNANDEZ
	ELLANORE LETTICH
	INGRID MEDINA
	JOHN MCCART
	JOSE MONTELLANO
	LANCE WILLIAMS
	LAWRENCE FORREST
	MARJORIE BURDETTE
	MARY PHIFER
	MICHELLE MERCURIO
	PRISCILLA CASTILLO
	RICHARD MALDONADO
	RODNEY LOBOS
	S ERICSON
	SHARON LEHR-GARRETTY
	SOMERSET APARTMENTS
	SORAYA CALATAYUD
	TREVOR LANGO
1705	CONTRA COSTA COUNTY HOUSING AUTHORIT
1715	SHELTER INC
1785	CITATION NORTHERN INC

ARNOLD DR 2008 (Cont'd)

1785 OCCUPANT UNKNOWN
1815 SHELTER INC CONTRA COSTA CNTY
1865 CHURCH OF CHRIST
HELPING HANDS CHRISTIAN PRESCHOOL
OKALEE SCHREIBER
1875 IBEW MEMBERS PLUS CREDIT UNION
INTERNATIONAL BROHD ELC WRK 302
1999 DESMOND COMINOS
2020 MARIA GARCIA
2030 DANIEL LANGTON
OCCUPANT UNKNOWN
SAMUEL SMITH
VIRTUAL OFFICE SOLUTIONS INC
VOSINC
2034 SARA HAZELWOOD
2040 JEFFREY VIER
2045 LOWELL RICHARDS
2046 MARIUS GHEREBEN
2050 MARIUS GHEREBEN
2530 ADOPTION & FOSTER CARE LIFE
CONTRA COSTA ASSESSORS OFFICE
CONTRA COSTA COUNTY RISK MANAGEMENT
GENERAL MOTORS ACCEPTANCE
JACOBS ENGINEERING GROUP INC
KENNETH BRANS
SENIOR INFORMATION REFERRAL

ARNOLD DR 2003

737 ANGELA UNTERREINER
GERTRUDE LOVEDAY
TD SERVICE FINANCIAL CORP

757 STEVEN WHIPPLE

777 AMBER SHINDLER
COMMONWEALTH LAND TITLE CO
MARIE GAOIRAN
TERESITA PASION
TIG INSURANCE
TRANSAMERICA WORKERS CMPNSTN

815 ALBERT RANKIN
ANDERSON BROTHERS MOVERS
BROOKSTONE TELECOM INC
CFM SF INC
CONTINENTAL BUILDING MNTNNC
GATEWAY CONSTRUCTION & PRPRTY
HORMANN AMERICA INC
KIM CORDOVA
MARES & DOW CONSTRUCTION INC
PINPOINT LEAK DETECTION
RAMONA NALL
SERVICEMASTER CLNNG & RSTRTN
TERRY L NALL
UNITED AIR COMFORT

817 ACE PAINTING
AMATO SHIRLEY REALTY EXCTV
AMATO SHIRLEYN OLYMPIC RLTR
ANTIQUE CONNECTION INC
ARTISTIC BATH & SHOWER
ASSOCS PRINTING SERVICE
OLYMPIC REALTORS
RATANAWADEE PROMBERD
SUNRISE LANDSCAPING & CNSTRCTN

825 AREA SENIOR HSING RFRRL SRVC
DC PRECISION
HY YIELD INDOOR TECHNOLOGIES
INTERCONTINENT SERVICES
PRODUCT COMPONENTS CORP
SALT WATER CONNECTION
US AUSSIE SHEET METAL
WESTERN REHABILITATION EQPMNT

827 AQUATIC ENVIRONMENTAL SERVICES
BEL DESIGN MFG
COMMERCIAL OFFICE PRODUCTS
DALE TOMY ASSOCS
DRAEGER CONSTRUCTION INC
ELEGANT OCSN CTRNG & EVENT
PETER ROSSELLI
PRIMERICA FINANCIAL SERVICES
ROBERT BUTLER

ARNOLD DR 2003 (Cont'd)

827	SCOTT SCHMITT TESTING ENGINEERS INC
835	BMAO AMUSEMENT & REPAIR PACIFIC ECORISK
837	AMERICA CAL CARTER GOUGH CO CIFAC CUSTOM BODY COVERS MDC SERVICE CORP MUIR TEK DENTAL LAB NYAD INC PACIFIC SAUNA & STEAM SCHADLER BUSINESS SERVICES THORN TECHNOLOGIES L L C
839	ROBERT ABBOTT ROBERT E ABBOTT SEQUOIA ENGINEERING
841	ALL COUNTY ELECTRIC CYGNUS SERVICES CORP SHANE KELLEY SOLO PACIFIC ENVRNMNTL HZMT SOLOPACIFIC CORP
901	OCCUPANT UNKNOWN
921	SUMMIT SPRINGS WATER CO WARREN ZEE
996	OAK PARK ASSOCS OCCUPANT UNKNOWN
1021	OCCUPANT UNKNOWN WALMART
1029	BUM OH CELLULAR WAREHOUSE LEGALLY BLND SALON & BTY SPLY NAIL U S A
1033	PENNZOIL 10 MNT OIL CHNG CTR
1037	HOUSE2HOME OCCUPANT UNKNOWN YARDBIRDS
1125	ALLAN BURGOS ALLBAY ELECTRIC CO ANTHONY MARION BETTY HANNON BRUCE BRITE BRUCE KRAMER CERTIFIED FLOOR COVERING SRVC CHARLES JEWETT CREATIVE CROISSANTS DAVID SINGLETON DISCOUNT CIGARETTE & LIQUOR ELLAMARIE HAVER HAAG CONSULTING

ARNOLD DR 2003 (Cont'd)

1125	JEFFRY BOGUSZ JODINE DIXON JOHN MCKIERNAN MAIL BOXES ETC MARK PHILLIPS MARY FELLOWS MICHAEL MAAS MICHAEL MCKAY NAK NIK WAK NEW PRODUCTS NUMERO UNO TAQUERIA INC PAUL STARZYK PHILIP JAMES PHILLIP BARBER PRECISION CUT DIAMONDS PROVIDENCE PUBLISHING SAN FRANCISCO LADDER CO SANDRA MCNEIL SAYERS ENTREPRENEURIA SIDWELL & SINGLETON INVSTGTM
1135	CHINA GOURMET RESTAURANT & BAR CLEARCOM WIRELESS COUNTRY WAFFLES
1145	ALBERTSONS FOOD & DRUG OCCUPANT UNKNOWN
1150	BLOCKBUSTER INC DOUBLE HEADER DARTS & BILLARDS GARY BEARD GARY HUBBELL GEORGIA GRIFFIN PACIFIC TAN STEVEN SWANSON
1155	J SHEN MARTINEZ PARK FLORIST MCDONALDS RSTRNT OF MRTNZ PAPA MRPHYS TAKENBAKE PIZZA PRETTY NAIL SALON SUPERCUTS MARTINEZ
1160	BEST HAIRCUTS BRIGHT NOW DENTAL EXPRESS CASH ADVANCE MOUNTAIN MIKES PIZZA NISHINO PHILIP K DDS PHILIP K NISHINO DDS SUNRISE DONUTS
1165	AJR WATCH REPAIR MARIA PUERTO-BOLLOZOS RITE AID EXPRESS HOUR PHOTO
1170	BLIMPIE OF MARTINEZ GUNG HO KITCHEN



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ARNOLD DR 2003 (Cont'd)

1170	HAIR CTR KENTUCKY FRIED CHICKEN PETCO SUBWAY SANDWICHES & SALADS
1175	BASKIN ROBBINS ICE CREAM CHARM CHARM SALON & SPA CHARM SALON SPA & BEAUTY SRC OCCUPANT UNKNOWN RONALD W EVANS DDS VILLAGE OAKS VET HOSPITAL
1185	DUSTIN OLGE OCCUPANT UNKNOWN
1190	INTERNATIONAL HOUSE OF PNCK
1203	OCCUPANT UNKNOWN
1205	OCCUPANT UNKNOWN
1207	STEPHANIE FALLAS
1209	ROBERT GHARIBEH
1215	OCCUPANT UNKNOWN
1219	OCCUPANT UNKNOWN
1221	MARY RIGGS
1223	OCCUPANT UNKNOWN
1225	ROYAN JOSHAN
1227	JUDI BROUSSARD
1229	SHARLY SLOAN
1233	OCCUPANT UNKNOWN
1237	TASMIN VALKO
1239	MELIZZA DEALA
1243	AHMAD POPAL
1247	DONNA FRY OCCUPANT UNKNOWN
1251	OCCUPANT UNKNOWN
1253	ROSANO LOJAN
1255	OCCUPANT UNKNOWN
1257	HARRY BROTTEN
1259	OCCUPANT UNKNOWN
1261	TERESA PARENTI
1263	JUDITH KOCH
1265	BRIAN MCDONAGH
1267	OCCUPANT UNKNOWN
1271	OCCUPANT UNKNOWN
1273	OCCUPANT UNKNOWN
1275	JONG LEE
1279	HUGH BIRDSONG
1281	OCCUPANT UNKNOWN
1285	RICHARD BURNS
1287	JACKIE BOWERS
1289	OCCUPANT UNKNOWN
1291	CHRIS ELLINGTON
1293	OCCUPANT UNKNOWN



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ARNOLD DR 2003 (Cont'd)

1303	C HERMAN
1305	OCCUPANT UNKNOWN
1307	DOROTHY MEAD
1309	SCOT SKIDMORE
1313	OCCUPANT UNKNOWN
1315	MUIR PARK CONDOMINIUMS OCCUPANT UNKNOWN
1317	JORGE RIVERA
1319	VIRGINIA BASH
1320	CLTN FOR OPEN SPACE & CLEAN COLLEEN CALLAHAN CONDOMINIUM FINANCIAL MNGMNT INC HY ARCHITECHTS JOSEPH NAYLOR PADGETT BUSINESS SERVICES PROFESSIONAL COMPUTER SERVICES SUPPLIES GUYS YWCA YWCA OF CONTRA COSTA
1321	OCCUPANT UNKNOWN
1323	COUNTRY GRILL COUNTRY STORE OCCUPANT UNKNOWN
1325	OCCUPANT UNKNOWN
1327	KEVIN KIRBY
1329	DUANE BUCANNON
1330	AMERICAN ASSOCIATION OF APRSR APPLE APPRAISAL BETTY LARSON BUSINESS INSURANCE CARATHIMAS & ASSOCS CHARLES J WILLIAMS G CARATHIMAS HIRSCH & BEN SHMUEL JONATHAN FRYE LAW OFFICE OF CHARLES J WLM OCONNOR MORTGAGE CO SILVA STACEY M CPA SREBROW INVESTMENT RESOURCES SWANSON INTERNATIONAL ENGNRNG TOWNE INC VOLDAR DVID CRTF PB ACCOUNTANT VOLKAR DAVID CERTIFIED PUBLIC WILLIAMS CHARLS J A PRF CORP
1331	OCCUPANT UNKNOWN
1333	REGINA GILLIS
1335	SUSAN LAWSON
1337	OCCUPANT UNKNOWN
1339	HEEKY PAE
1340	AMERICAN PARA PROF SYSTEMS



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ARNOLD DR 2003 (Cont'd)

1340	AMERICAN VANPAC CARRIERS INC APPS AMRCN PARA PRFSNL SYSTM ASSOCIATION FOR RETARDED CTZN CONTRA COSTA ASCTN FOR RTRDD DISCOVERY EMPLOYMNT SCRNNNG SRVC DISCOVERY INVESTIGATIVE SRVC DOMINION FIRST DOMINION CORP QST ENVIRONMENTAL INC RAHLVES & RAHLVES INC RHL DESIGN GROUP INC SERVICE SWANSON VANGUARD CLEANING SYSTEMS INC VULCRAFT SALES CORP
1341	PAMELA WESTFALL
1347	OCCUPANT UNKNOWN
1349	MARTIN BELTRAN
1350	BARBARA FEYH BOHREN CO CARE PARENT NETWORK MARK JONAS MORTGAGE EXPRESS SERVICES INC MUIR PARKWAY OFFICE CTR R PATTERSON INVESTIGATIONS RW HERTEL & SONS INC SEARS HOME IMPROVEMENT PRDCT SMOKING GRILL CAFE TRANSYLVANIA INC
1351	HAHUY TRINH
1353	ANNE BARNES
1357	SIMON VASQUEZ
1359	OCCUPANT UNKNOWN
1361	OCCUPANT UNKNOWN
1363	SHAWN WILEY
1365	LOUISE GARCIA
1367	RYAN BELL
1369	SUSAN FERREIRA
1371	DENISE WIGHT
1373	SHARON LITTLE
1375	OCCUPANT UNKNOWN
1377	OCCUPANT UNKNOWN
1379	OCCUPANT UNKNOWN
1405	OCCUPANT UNKNOWN
1407	MATT LONERGAN
1409	OCCUPANT UNKNOWN
1411	OCCUPANT UNKNOWN
1413	JILL SEATON
1415	ROY NIELSEN
1417	MARINA ACEDO

ARNOLD DR 2003 (Cont'd)

1419	OCCUPANT UNKNOWN
1421	OCCUPANT UNKNOWN
1425	STEPHAN PHILLIPS
1427	JUDY PAZ
1429	THOMAS TRIPP
1431	MICHELLE MCSHERRY
1433	OCCUPANT UNKNOWN
1445	S MCCLURE
1455	ALI AYDIN
	ELLANORE LETTICH
	ELLEN GILLAND
	ERIK KRUSE
	ERIK RATHERT
	JOHNNA DAVID
	LACEY GRAZIANO
	LAURA BEARDEN
	MARIE FROYD
	MICHELLE MERCURIO
	SARAH THOMAS
	TRACY MUTTER
1785	OCCUPANT UNKNOWN
1805	CC DENTAL
	EHLING DETLEF MD
1815	PILLAR FINANCIAL SERVICES
	ROBERT SCHADLER
	S CONTRA
	SHELTER CONTRA COSTA COUNTY
1865	HELPING HANDS CHRISTIAN PRSCHL
	OKALEE SCHREIBER
1871	OCCUPANT UNKNOWN
1875	IBEW MEMBERS CREDIT UNION
	INTRNTNL BRTHRHD OF ELCTRCL
1999	BOBBI RUTLEDGE
2030	DANIEL LANGTON
2034	NANINE BEAL
2040	JEFFERY VIER
2045	LOWELL RICHARDS
2046	MARIUS GHEREBEN
2050	ROBERT MIKESELL
2530	AREA AGENCY OF CNTR COSTA CNTY
	ASTRO CRAFT INC
	CCC ADMINISTRATIVE
	CNTR COSTA CNTY OF RISK MNGMNT
	CONTRA COSTA COUNTY EMPLYMNT
	LAW OFFICE OF KENNETH BRANS
	SUNBRIDGE HEALTHCARE CORP
	SUNRISE HEALTHCARE CORP

ARNOLD DR 1999

737	OLNEY JR BOYD M SANTA FE PACIFIC PIPE LINES T D SERVICE COMPANY TRUST DEED SERVICE COMPANY VALCOM
742	WILLIAM JORDAN
757	FLUOR DANIEL G T I INCORPORATED FLUOR DANIEL GTI
815	B J REFURBISHING COMPANY CASA REAL CFM-SF INCORPORATED CONTINENTAL BUILDING MAINTENANCE COMPANY GATEWAY CONSTRUCTION & PROPERTY CONSTRUCTION MARES & DOW CONSTRUCTION INCORPORATED OCCUPANT UNKNOWN
817	AD BAG ANTIQUE CONNECTION ARTISTIC BATH & SHOWER ASSOCIATES PRINTING SERVICE BECK BUSINESS FORMS CAULFIELD RICHARD PAINTING LACASA REAL MY IMPORTS SUNRISE LANDSCAPING
825	AMERICAN DESIGN AMERICAN ROOF SERVICE ARIS ENVIRONMENTAL CALVARY OF GRACE CHURCH INTERCONTINENTAL SERVICES PRODUCT COMPONENTS CORPORATION SALT WATER CONNECTION SERVICE MASTER CLEANING & RESTORATION SERVICE MASTER OF ANTIOCH & MARTINEZ SERVICE MASTER OF LAMORINDA U S AUSSIE SHEET METAL
827	A A APPRAISAL SERVICES ALLSTATE INSURANCE COMPANIES SALES OFFICES AMERICAN LAKE AND CANAL AQUATICS UNLIMITED ENVIRONMENTAL EQUIPMENT CORPORATION BEL DESIGN MANUFACTURING DALE TOMY ASSOCIATES ELEGANT OCCASIONS CATERING & EVENT PLANNING HI TECHNOLOGY PRESSURE WASHERS INTERGRATED FULFILLMENT SERVICES KENT SANDI INS MICHELLE BULL ON SITE COPY PACIFIC ECO RISK LABORATORIES PACIFIC FULFILLMENT SYSTEMS INCORPORATED PETER ROSSELLI

ARNOLD DR 1999 (Cont'd)

827	PETERSON ELECTRONICS TELPHN EQUIP SERVCNG PR APPRAISAL SERVICES TESTING ENGINEERS INCORPORATED WOODY HUNT
835	BMAO AMUSEMENT & REPAIR COMPANY
837	AMERI CAL ASSET MANAGEMENT ASSOCIATES CARTER-GOUGH CONSTRUCTION INCORPORATED DESI DATA ENTRY SERVICES HELO SAUNA & FITNESS OF CALIFORNIA MDC SERVICE CORPORATION MUIRTEK DENTAL LABORATORY NALORAC CRYOGENICS CORPORATION NYAD INCORPORATED PACIFIC SAUNA & STEAM INCORPORATED
841	MACVOLKS TABCO CONSTRUCTION COMPANY INCORPORATED
847	ANTENNA STRUCTURES INCORPORATED ASI OCCUPANT UNKNOWN WCTI WESTERN COMM TOWER INCORPORATED
921	GENMARK PRODUCTS
996	CHIROPRACTIC CLINIC R F SOWINSKI NATURAL GAS FILTRATION COMPANY OAK PARK ASSOCIATES SOWINSKI R F DC
1021	COSTCO FOOD COURT COSTCO WHOLESALE COSTCO WHOLESALE MARTINEZ
1029	CELLULAR WAREHOUSE INCORPORATED CREATIVE CROISSANTS CUE & BREW FAMILY BEAUTY SUPPLY OCCUPANT UNKNOWN SPA AND STOVE EXPO WATER WISE
1033	PENNZOIL 10 MINUTE OIL CHANGE CENTER
1037	HOMEbase HOME IMPROVEMENT WAREHOUSE
1125	A 1 MARTINEZ BEAUTY SUPPLIES CERTIFIED FLOOR COVERING SERVICE OFFICE EAST COUNTY BEAUTY SUPPLIES FRANKIE THORNTON IRONWOOD GOLF MAIL BOXES ETC MARTINEZ MARTINEZ BEAUTY SALON MARTINEZ BEAUTY SUPPLIES NUMERO UNO TAQUERIA PAM NELSON
1135	CALIFORNIA CREDIT RESTORATION

ARNOLD DR 1999 (Cont'd)

1135	CLEAR COMM COUNTRY WAFFLES DESIGNER CUTS ERA OLYMPIC REALTORS ERA PROPERTY MANAGEMENT GRAND CHINA RESTAURANT JONES JIM ERA OLYMPIC REALTORS K & W LIQUORS KELLEY DAVE ERA OLYMPIC REA LONGLIFE CUSTOM FOOTWEAR & SHOE REPAIR OCCUPANT UNKNOWN VILLAGE OAKS CLEANERS
1143	DANIEL ADAMS
1145	LUCKY FOOD CENTERS MARTINEZ
1150	BLOCKBUSTER VIDEO DOUBLE HEADER DARTS DOUBLE HEADER II PACIFIC TAN
1155	CARLSON WAGONLIT TRAVEL KENNETH PEARCE L & N PRINTING LUIS MALDONADO MARTINEZ PARK FLORIST MARY FELLOWS MCDONALDS RESTAURANT OF MARTINEZ MISTER PRINT MURPHYS PIZZA PAPA MURPHYS PIZZA PARK FLORIST PRETTY NAIL SALON PRINT CENTER RONALD STEGGALL
1160	ALPINE DENTAL GROUP AMERICAN CLEANERS BEST HAIRCUTS CARPETCO CONSUMER DENTAL OFFICES FACER HANS DDS NISHINO PHILIP K DDS SUNRISE DONUTS
1165	AJR WATCH REPAIR PAY LESS DRUG STORES MARTINEZ STORE WESTERN UNION MARTINEZ
1170	GUNG HO KITCHEN HAIR CENTER KENTUCKY FRIED CHICKEN CARRY OUT & DINE IN MANGIA BENE RESTAURANT PETCO
1175	BASKIN-ROBBINS ICE CREAM & YOGURT EVANS RONALD W DDS A PROFESSIONAL CORPORATION

ARNOLD DR 1999 (Cont'd)

1175	HERDER JIMISON MELODY ANNE DVM VILLAGE OAKS VETERINARY HOSPITAL
1185	DUSTIN OLGE
1190	INTERNATIONAL HOUSE OF PANCAKES
1203	KATHI LECORENC OCCUPANT UNKNOWN
1205	OCCUPANT UNKNOWN PETER KOSKI
1207	DEEPA ULAHANNAN OCCUPANT UNKNOWN
1209	KENNETH MOORE OCCUPANT UNKNOWN
1213	JEREMY FLAUDING OCCUPANT UNKNOWN
1215	OCCUPANT UNKNOWN
1217	OCCUPANT UNKNOWN
1221	MARY RIGGS
1225	OCCUPANT UNKNOWN
1227	OCCUPANT UNKNOWN
1229	DIANE KICERA
1231	OCCUPANT UNKNOWN
1237	OCCUPANT UNKNOWN
1239	IVAN COLLAZO OCCUPANT UNKNOWN
1241	BRIDGET FARMER
1243	OCCUPANT UNKNOWN RASHEEDA JONES
1245	SHAM KUMAR
1247	ANTONIO GONZALEZ
1253	OCCUPANT UNKNOWN
1255	OCCUPANT UNKNOWN
1261	ELAINE BRAZIL
1263	YUHGEE KIM
1265	KATHLEEN SEWELL OCCUPANT UNKNOWN
1267	EDUARDO PAREDES OCCUPANT UNKNOWN
1273	OCCUPANT UNKNOWN
1275	MIGUEL ALEJO
1279	HUGH BIRDSONG OCCUPANT UNKNOWN
1281	KATHIE LABRIE OCCUPANT UNKNOWN
1285	ARON REED
1287	OCCUPANT UNKNOWN
1289	MICHAEL BOKAMPER OCCUPANT UNKNOWN
1293	OCCUPANT UNKNOWN VICTOR HUERTA
1303	TIM JACOBS

ARNOLD DR 1999 (Cont'd)

1307	GEORGE HA VINCE WRIGHT
1311	FRANCISCO OROZCO OCCUPANT UNKNOWN
1313	OCCUPANT UNKNOWN
1315	MUIR PARK CONDOMINIUMS OCCUPANT UNKNOWN
1317	STEVEN JOSKOWITZ
1319	RAMON SALAZAR
1320	ALABANZA MANUEL INS ALLSTATE INSURANCE COMPANIES SALES OFFICES ASSURED MANAGEMENT SERVICES CAL FARM INSURANCE COMPANY CALFARM INSURANCE COMPANY CARATHIMAS GEORGE ACCOUNTANTS CONDOMINIUM FINANCIAL MANAGEMENT INCORPORATED GOOCH BARBARA S CIVIL & PROBATE PARALEGAL H & Y ARCHITECTS INCORPORATED HODGSON ROBERT INS JAGEMAN DONALD L LAW OFFICE OF LAMPHERE PAUL O ATTORNEY NBS INSURANCE AGENCY PADGETT BUSINESS SERVICES SREBROW INVESTMENT RESOURCES WILLIAMS CHARLES J ATTORNEY YAMAMOTO KENNETH Y
1321	OCCUPANT UNKNOWN
1325	ANGELA HENKELL
1327	OCCUPANT UNKNOWN
1329	MICHELLE MERCURIO OCCUPANT UNKNOWN
1330	ABBOTT ROBERT E PUB ACCOUNTANTS B MAJOR BJM CONSULTING BROWN MILLER COMMUNICATIONS CORPORATE INTELLIGENCE RESOURCES COX CHIROPRACTIC DAVIDSON EDUCATIONAL THERAPY DIVISION SEVEN CONSULTANTS INCORPORATED DIVISION SEVEN CONSULTING INCORPORATED ENVIRONMENTAL MANAGEMENT CONSULTANTS INCORPORATED HORACK DENNY KRUSEMARK HARLAN ARCHITECT MCWILLIAMS & ASSOCIATES MURDOCH MAGAZINES DISTRIBUTION INCORPORATED REYNOLDS MICHAEL J DC SANTA FE PACIFIC PIPE LINES SANTA FE PACIFIC PIPE LINES BAY DISTRICT SEQUOIA ENGINEERING & DESIGN ASSOCIATES SFG EMPLOYEE BENEFITS

ARNOLD DR 1999 (Cont'd)

1330	STAC SECURITY STATE FARM INSURANCE COMPANIES AGENTS TC CLINIC TSURUDA SCOTT TV GUIDE S F REGIONAL CIRCULATION OFFICE VOLKAR DAVID CERTIFIED PUBLIC ACCOUNTANT
1331	LLINA SERRANO
1339	HEEKY PAE OCCUPANT UNKNOWN
1340	AMERICAN VAN PAC CARRIERS APPS AMERICAN PARA PROFESSIONAL SYSTEMS INCORPORATED ASSOCIATION FOR RETARDED CITIZENS CONTRA COSTA BOHREN HARRY E CPA CONTRA COSTA ASSOCIATION FOR RETARDED CITIZENS COUNTRYWIDE MORTGAGE GATEWAY RESIDENTIAL PROGRAMS PROFESSIONAL RESOURCE SCREEN SOA INCORPORATED VULCRAFT SALES CORPORATION WHEELER ROBERT C ATTORNEY AT LAW
1341	OCCUPANT UNKNOWN PETE ALLEN
1347	MARVIN JACKSON OCCUPANT UNKNOWN
1350	A T ASSOCIATES AMERICAN HOME IMPROVEMENT PRODUCTS INCORPORATED ASSOCIATION FOR RETARDED CITIZENS CONTRA COSTA ASTRALYS LIMITED CAL SIERRA FUNDING INCORPORATED CALI-FRESH CAFE CALZADA CATES & PATTERSON INVESTIGATIVE SERVICES CARE FEYH BARBARA MUIR PARKWAY OFFICE CENTER PRESLEY HOMES PROFESSIONAL RESOURCE SCREENING INCORPORATED R PATTERSON INVESTIGATIONS STROUD & ASSOCIATES
1351	ENRIQUE GUERRERO
1353	RON SOUTHWICK
1357	ROBERT CAMPBELL
1363	OCCUPANT UNKNOWN
1365	MAGGIE GILLESPIE OCCUPANT UNKNOWN
1367	MARK DURAN
1369	CATHERINE JOAQUIN
1371	CHARLES TOLLEFSON
1375	OCCUPANT UNKNOWN SILVANA FLORES
1377	OCCUPANT UNKNOWN

ARNOLD DR 1999 (Cont'd)

1379	OCCUPANT UNKNOWN
1403	OCCUPANT UNKNOWN
1405	OCCUPANT UNKNOWN
1407	CINDY JOY OCCUPANT UNKNOWN
1409	OCCUPANT UNKNOWN
1413	JILL SEATON
1421	ERICA CRUZADO OCCUPANT UNKNOWN
1423	OCCUPANT UNKNOWN REBECCA HAYES
1427	LUIS AYALA OCCUPANT UNKNOWN
1429	OCCUPANT UNKNOWN THOMAS TRIPP
1433	MONIKA NEURAD OCCUPANT UNKNOWN
1445	STEPHANIE MCCLURE
1455	AMY VARGAS DIANE MCCART DONNA DUBOIS ELLANORE LETTICH FRANCES DAVIS INGRID MEDINA JOHN JACKSON JOSE MONTELLANO JUSTIN GARVEY K CORRIEA LANCE WILLIAMS LAWRENCE FORREST MARJORIE BURDETTE RHONDA CORMIER RICHARD MALDONADO RODNEY LOBOS RODRIGO LEAL SOMERSET APARTMENTS TREVOR LANGO
1805	CONTRA COSTA DENTAL REZAPOUR HAMID DDS CONTRA COSTA DENTAL SACK KENT L MD
1815	BARTZ T L CONSTRUCTION COMPANY DREAM HOME ROOFING HOYIN INDUSTRIES INCORPORATED J B AUTO WHOLESALE MARTINEZ NAIL COMPANY OCONNOR MORTGAGE COMPANY PILLAR FINANCIAL SERVICES SCHADLER BUSINESS SERVICES
1865	CHURCH OF CHRIST CHURCH OF CHRIST YOUTH DIRECTOR

ARNOLD DR 1999 (Cont'd)

1865	HELPING HANDS CHRISTIAN PRESCHOOL OKALEE SCHREIBER
1871	CONCORD KOREAN BAPTIST CHURCH KOREAN BAPTIST CHURCH
1999	DESMOND COMINOS
2020	MARIA GARCIA
2030	JENNIFER BENSON SAMUEL SMITH
2034	MICHAEL LARSEN
2040	JEFFREY VIER
2045	LOWELL RICHARDS
2046	MARIUS GHEREBEN
2050	MARIUS GHEREBEN
2530	BRANS KENNETH R ATTORNEY CONTRA COSTA COUNTY OF RISK MANAGEMENT SUITE 140 LANIER WORLDWIDE INCORPORATED POHANG STEEL AMERICA CORPORATION SUNRISE HEALTHCARE CORPORATION

ARNOLD DR 1995

737	G E SUPPLY ZETA GRAPHICS CORP
757	ALLSTATE INSURANCE ALTA MORTGAGE CO
777	OCE BRUNING INC
815	B J REFURBISHING CO CFM SF INC J & D ENTERPRISES MARES & DOW CONSTRUCTION INC PACIFIC FULFILLMENT SYSTEMS SUNRISE LANDSCAPING
817	ANTIQUE CONNECTION CAULFIELD, RICHARD P C SKILL CTR RECONDITIONED OFFICE SYSTEMS SECURITY SPECIALIST
825	BOBERTZ, THOMAS NORCAL MOLECULAR INC PRODUCT COMPONENTS CORP SALT WATER CONNECTION SUPERIOR ANALYTICAL U S AUSSIE SHEET METAL
827	BEACH ASSOCIATES COMMERCIAL OFFICE PRODUCTS CO COMMUNICATIONS CABLE CO LEEMAN LABS MEGA POWER CHEMICAL POS MARKETING R PAUL DRISCOLL TESTING ENGINEERS INC
835	AKTON ASSOCIATES INC BAY ALARM
837	AMERI CAL ASSET MANAGEMENT ASSOC COMMUNITY SERVICES TO SPANISH FUTURE LEADERS OF AMERICA HELO SAUNA & FITNESS MINEX ENGINEERING CORP MUIRTEK DENTAL LABORATORY NALORAC CRYOGENICS CORP UNITED COUNCIL SPANISH SPKNG
841	ALL COUNTY ELECTRIC PROFESSIONAL MANAGEMENT TABCO CONSTRUCTION CO
921	BRAND SCAFFOLD SVC
996	CHIROPRACTIC CLINIC
1021	PRICE COSTCO
1029	BEER KEG BUSINESS PROMOTION CTR CARPET CLUB

ARNOLD DR 1995 (Cont'd)

1029	CREATIVE CROISSANTS FAMILY BEAUTY SUPPLY OCCUPANT UNKNOWNN SPA ENVIRONMENTS WINDOWS ETC
1037	HOME BASE HOME IMPROVEMENT
1125	A 1 MARTINEZ BEAUTY SUPPLIES ALL AMERICAN CARPET CLEANING ANDRES INTERNATIONAL DELI BALKE, FRED BARRINGTON, JEFF C BRABBS, ARTHUR D DIMITROV, GIVKO KEARY, DENISE LLEWELLYN, WILLIAM W MAIL BOXES ETC MARTINEZ BEAUTY SALON NUMERO UNO TAQUERIA OSBORN, ROBERT PERDUE, RONALD RECTOR, DONALD E WOMEN AT WORK A PAINTING CO
1135	DESIGNER CUTS GRAND CHINA RESTAURANT K & W LIQUORS LONGLIFE CUSTOM FOOTWEAR OLYMPIC BUSINESS BROKERS OLYMPIC REALTORS VILLAGE OAKS CLEANERS
1145	LUCKY STORE
1150	FUBARS COMEDY CLUB SIMPLY TANNING
1155	MARTINEZ PARK FLORIST OCCUPANT UNKNOWNN PHOTO QUIK RADIO SHACK VIDEO OUTLET VILLAGE OAKS TRAVEL
1160	ALPINE DENTAL CARE AMERICAN CLEANERS BEST HAIRCUTS CONSUMER DENTAL OFFICES L & N PRINTING LITTLE CAESARS PIZZA PHILLIP K NISHINO DDS SUNRISE DONUTS
1165	PAYLESS DRUG STORE
1170	GUNG HO KITCHEN HAIR CENTER MC PHEES JUNIOR BOOTERY

ARNOLD DR 1995 (Cont'd)

1170	MR PHILLY NATIONAL VIDEO PARK IT MARKET PETCO ROCKET PIZZA WATER WISE YUMYGURT
1175	BASKIN ROBBINS ICE CREAM OCCUPANT UNKNOWNN RONALD W EVANS DDS VILLAGE OAKS VETERINARY HOSP WILLIAM F YOHLER DVM
1185	MC DONALDS
1190	INTERNATIONAL HOUSE PANCAKES
1203	OCCUPANT UNKNOWNN
1207	KLEIN, WILLIAM O
1209	OCCUPANT UNKNOWNN
1211	JOHANSEN, IRMA J
1213	OCCUPANT UNKNOWNN
1215	OCCUPANT UNKNOWNN
1217	DAVIS, TAMILLE S
1219	WRIGHT, SALLY A
1221	OCCUPANT UNKNOWNN
1223	OCCUPANT UNKNOWNN
1225	TURNER, MONIQUE
1227	KAPOI, C V
1229	AHENS, TRACEY E
1231	BROWETT, D A
1233	VU, HLEN
1237	RAKYART, PRATIN
1239	OCCUPANT UNKNOWNN
1241	ECKHOFF, BRIAN
1243	OCCUPANT UNKNOWNN
1247	OCCUPANT UNKNOWNN
1249	ALLEN, PATRICK
1251	STRAIN, SCOTT
1253	OCCUPANT UNKNOWNN
1255	OCCUPANT UNKNOWNN
1257	OCCUPANT UNKNOWNN
1259	HUNT, P
1261	OCCUPANT UNKNOWNN
1263	OCCUPANT UNKNOWNN
1265	OCCUPANT UNKNOWNN
1267	OCCUPANT UNKNOWNN
1273	TAYLOR, RICHARD
1275	DODD, LAURA
1277	MCPHAIL, ANDRE
1279	OCCUPANT UNKNOWNN
1281	OCCUPANT UNKNOWNN
1285	WOOLLEY, ROBIN

ARNOLD DR 1995 (Cont'd)

1287	OCCUPANT UNKNOWNN
1289	OCCUPANT UNKNOWNN
1291	OCCUPANT UNKNOWNN
1293	HUNNICUTT, S J
1305	SAULOG, SANDRA
1307	OCCUPANT UNKNOWNN
1311	OCCUPANT UNKNOWNN
1313	OCCUPANT UNKNOWNN
1315	MUIR PARK CONDOMINIUMS
1319	GOLD, ARLENE
1320	BARBARA S GOOCH CIVIL
	CAL FARM INSURANCE
	COMPUTER CONTROLLED ACCOUNTING
	CONDOMINIUM FINANCIAL MGMT INC
	COOK METAL SALES
	FIRST CALIFORNIA MORTGAGE CO
	FIVE STAR TRAVEL & TOURS
	H & Y ARCHITECTS INC
	MASSOLA, DAVID W
	PAUL O LAMPHERE
	QUEZON INSURANCE
	REALITY FINANCIAL
	RICHARD KRAUSE
	SREBROW INVESTMENT RESOURCES
	TERRY SHIMAMOTO
	TSM INVESTMENT CORP
	WILLIAMS & WOODS
1321	OCCUPANT UNKNOWNN
1323	OCCUPANT UNKNOWNN
1325	OCCUPANT UNKNOWNN
1327	OCCUPANT UNKNOWNN
1329	KING, MICHAEL
1330	BEVERLY SPURS DPM
	BROWN MILLER COMMUNICATIONS
	CITLAND INTERNATIONAL
	DAVID VOLKAR CPA
	ENGINEERING COLLABORATIVE INC
	FALK CORP
	KNEEBONE CHIROPRACTIC CTR
	MISSION HILLS MORTGAGE BANKERS
	PACIFIC WEST RESIDENTIAL SVC
	PINKERTON SECURITY SVC
	ROBERT E ABBOTT
	SEQUOIA ENGINEERING & DESIGN
	STATE FARM INSURANCE
	TV GUIDE
	WALTER HUMPHREY & ASSOC INS
	WILLIAM J KNEEBONE DC
1331	OCCUPANT UNKNOWNN
1333	OCCUPANT UNKNOWNN



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ARNOLD DR 1995 (Cont'd)

1335	OCCUPANT UNKNOWNN
1337	OCCUPANT UNKNOWNN
1339	MONTOUR, CYNTHIA
1340	AGR APPRAISAL SVC
	ASSOCIATION RETARDED CITIZENS
	CABO LUCAS ENTERPRISES
	CHAR STANTON INSURANCE
	COMMERCIAL SUPPORT SVC
	CONTRA COSTA CONCRETE
	FARMERS INSURANCE GROUP
	GATEWAY RESIDENTIAL PROGRAMS
	INDEPENDENT ORDER OF FORESTERS
	JOHN H CONVERY
	MKJ APPRAISAL SVC
	SWANSON OSWALD ASSOC INC
1341	STEARNS, LRINDA C
1347	OCCUPANT UNKNOWNN
1349	PACHECO, DAVE
1350	DEPENDABLE REPORT SVC
	NEUMANN INVESTIGATIONS
	ON LINE APPRAISAL SVC
	RONS CAFE
	STROUD & ASSOC
1351	HOY, JOHN F
1353	DOUGLAS, GALLOP
1359	OCCUPANT UNKNOWNN
1363	WEAKLEY, SHERI L
1365	GANASSIN, ROSALIE C
1367	WIGHT, D S
1369	OCCUPANT UNKNOWNN
1371	WIGHT, DENISE
1377	OCCUPANT UNKNOWNN
1379	OCCUPANT UNKNOWNN
1403	SEPS, JOEL B
1405	OCCUPANT UNKNOWNN
1407	OCCUPANT UNKNOWNN
1409	ACHSTEIN, SCOTT
1411	ERWIN, KIM
1413	MCLAIN, MARY
1415	OCCUPANT UNKNOWNN
1417	OCCUPANT UNKNOWNN
1419	OCCUPANT UNKNOWNN
1421	STOCKDALE, MICHAEL Y
1423	OCCUPANT UNKNOWNN
1425	KERSEVAN, LARRY
	REIKER, TONY
1427	OCCUPANT UNKNOWNN
1429	LITTMAN, BARUCH
1431	GORDON, ROBIN L
1433	LUMPKIN, IDA M

ARNOLD DR 1995 (Cont'd)

1455	ABBEY, BOB BEACH, ERICA BILLINGS, JANICE L FORCHIONE, JOANNE FRAIRE, LOU LIEDTKE, STEVEN MUTH, SUZANNE QUERUBIN, B SOMERSET APARTMENTS
1805	BLANTON, LEE CONTRA COSTA DENTAL ARTS DYNAMIC DENTURES
1815	ALL THATS TECHNICAL C BAKER & ASSOC CERTIFIED CARPET CARE HOYIN INDUSTRIES INC KINGSTON CONSTRUCTORS MARTINEZ NAIL CO NORTHWEST BUILDING MAINTENANCE RELIABLE TRANSCRIPTION REYNOLDS CHIROPRACTIC OFFICE VOORHEES, JOHN
1865	CHURCH OF CHRIST
1871	CONCORD KOREAN BAPTIST CHURCH SCHREIBER, OKALEE
2030	ROSS, WYNANA
2034	WATERMAN, DONALD E
2040	MORALES, NESTOR
2045	COPENHAVER, RAYMOND
2046	ROBINSON, JOHN
2050	MIKESELL, ROBERT
2530	BARRY, F J GMAC CORP JACOBS ARCHITECTS JACOBS ENGINEERING GROUP INC LANIER WORLDWIDE INC MISSION HILLS MORTGAGE SUMMIT CENTRE DELI
8270	BAY AREA CARPET CLEANING

ARNOLD DR 1992

737	CAL SIERRA LTD
757	ALLSTATE INS AGENT ALTA MRTG LOAN
777	A M BRUNING BRUNING CMPTR GRPHC
815	B J REFURBISHING CO BURNS&ASSOCIATES C F M SF INC CALTECH CONSTR CENTRL BLDG ASSOCTS J&D ENTERPRISES LANIER WRDLWDE COPY MARES&DOW CONSTR PAC FULFILLMENT SYS SUNRISE LANDSCAPING
825	BARNETT SRGCL SPLY BELZONA MOLECULAR GLOBAL HEAT MED VET LAB PARTNRS PRODUCT COMPONENTS SALT WATER CNNCTN SUPERIOR ANALYTICAL US AUSSIE SHEET MTL
827	ALEXANDER COMPANY ANTIQUÉ CONNECTION ASSET MANGMNT ASSOC BEACH ASSOCIATES HUNTER PRECSN TSTNG LEEMAN LABS OMNI SCIENTIFIC INC P O S MARKETING TESTING ENGINEERS
835	BAY SIERRA SWORD PLAY ENTPRS TECHNICAL ROOF SERV
837	AVTECH AUTO BROKRG COMNTY SERV SPANISH HELO SAUNA&FTNSS CA MUIRTEK DENTAL LAB NALORAC CRYOGENICS STANLEY CONSTR&ENGR
839	MINEX ENGRG CORP
841	TABCO CONSTRUCTION
847	ENGINEERING ENTPRS
996	CHIRO CLINIC OAK PARK ASSOCIATES SOWINSKI, R F
1021	COSTCO WHSL INFO
1029	ANTIQUÉ CONNECTION BEER KEG THE

ARNOLD DR 1992 (Cont'd)

1029	CARPET CLUB CELLULAR WAREHOUSE WINDOWS ETC
1037	HOME CLUB
1125	ALLBAY ELECTRIC CO BENTELINOS DELI DESIGNER NAILS G F M CONSTRUCTION MAIL BOXES ETC MARTINEZ BEAUTY SPL MESA, MICHAEL NUMERIO UNO TAQURIA
1135	BUSINESS BROKERS DESIGNER CUTS GRAND CHINA RSTRNT K&W LIQUORS KELLEY DAVE LONGLIFE CSTM FTWR VILLAGE OAKS CLNRS
1145	LUCKY FOOD CENTERS
1150	ANIMAL EXPRESS FUBARS COMEDY CLUB SIMPLY TANNING
1155	ARTISTIC JEWELRY CA FDRL BANK J&P JEWELERS MCDONALDS REST PARK FLORIST PHOTO QUIK RADIO SHACK T N T ENTERPRISES VIDEO OUTLET VILLAGE OAKS TRAVEL
1160	BEST HAIRCUTS DRYCLEAN USA FACER HANS DDS LITTLE CAESARS PZZA MR PRINT NUTRI SYS WGHT LOSS SUNRISE DONUTS
1165	PAY LESS DRG ST ATO
1170	CIRCLE K CORP 5083 EXPRESS CLEANERS FANTASTIC SAMS GUNG HO KITCHEN MCPHEES JR BOOTERY MR PHILLY NATL VIDEO PETCO WATER WISE



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ARNOLD DR 1992 (Cont'd)

1170	YUMYGURT
1175	BASKIN&ROBBINS 31 EVANS RONALD W DDS FRANCIS STEPHEN DDS VILLAGE OAKS VET
1215	STIELER, LEE
1243	ONEIL, KEVIN
1275	HOSKINS, WILARD
1315	MUIR PARK CONDOS
1320	AMER INTERNATL RLTY C C A S CALFARM INS AGENCY CC CO PUB WKS MNTNC COOK METAL SALES FIRST CA MRTG CO GOOCH BARBARA GOOCH, BARBARA H&Y ARCHITECTS INC HOSPITALITY GROUP LAMPHERE PAUL ATTY MUIR PARKWAY OFFICE QUEZON INSURANCE ROUX ASSOCIATES INC YAMAMOTO, KENNETH Y
1330	ABBOTT ROBERT E AID ASSN FOR LUTH ASSOCTS PRINTING SV CARROLL GARY CASTRO PHIL INS AG DEVICTORIA INS AGCY FALK CORPORATION FESTIVAL INC HARMON CONTRACT HONEYWELL FDRL SYST HUMPHREY W&ASC INS MISSN HLS MRTG RSLE MORTGAGE MRKT WKLY PINKERTONS INC RATES ONLINE SEQUOIA ENGRG&DSGN SPURS BEVERLY DPM STATE FARM INS AGNT T V GUIDE CRCLTN VOLKAR DAVID CPA
1340	ASSOCTN RETRDD CTZN BLAIR V A CONST INC CC CO SOCL SV APPLS CHAR STANTON INS AG COMMERCL SUPPORT SV CONVERY J H ATTY

ARNOLD DR 1992 (Cont'd)

1340	FREEMAN A RAY&CO GANO MARK INSURANCE INDEP ORDER 1967 MISSN HILLS MRTG MOLLER CORINNE MOLLER, CORINNE ROUX ASSOCIATES INC SWANSON OSWALD ASC
1350	AMISYS INC ASBESTOS ADVISORY BUILDERS APPRAISAL DANDA ENTERPRISES DELS CAFE 108 HAMILTON SAVINGS BK JARVIS DENNIS&ASCTS NEUMANN INVSTGNS NEWARK ELECTRONICS
1371	FAHY, JERRY
1415	MILLS, MIKE
1421	STOCKDALE, MICHAEL Y
1431	GORDON, R L
1455	IRANMAHD, KAMBIZ SOMERSET APARTMENTS THUEMMLER, KEITH
1805	INTL BROTHRHD ELCTL
1815	CLASSIC ELEC&DATA KNEEBONE C A DC KNEEBONE, C A MACOMBER G CONSTR PILLAR FINANCIAL SV RAINBOW CLNG SERV REYNOLDS CHIRO OFC REYNOLDS, MICHAEL J SAFAR TANK ENGRG CO T W T ASSOCIATES UNITD AUTO WANLASS J BKKPG
1865	CHURCH OF CHRIST
1871	CONCORD KRN BAPT CH SCHREIBER, OKALEE
2046	ROBINSON, JOHN
2050	ALHAMBRA TRMT CNTRL
2530	DISCOVERY TOYS HDQ GENL MTRS ACCEPTNCE INTELOGIC TRACE INC JACOBS ARCHITECTS SCHEIDIG K C ATTY SUMMIT CENTRE DELI

ARNOLD DR 1989

911	XXXX	00	
913	XXXX	00	
921	*BOND MFG CO	229-0656	5
991	XXXX	00	
996	*CHIRO CLINIC	228-1170	7
	*OAK PARK ASSOCIATES	372-8291	5
	*SOWINSKI R F DC	228-1170	
1021	*COSTCO WHOLESALE	372-3721	+9
	*COSTCO WHSL INFO	372-3777	8
	*COSTCO WHSL PHAR	372-3796	8
	*COSTCO WHSL RECEIVG	372-0129	8
1125	*CAREY CRAFTERS	228-1171	7
	*EAST CO BTY SPLY	372-8232	6
	*INTL TRIADE CORP	372-7150	+9
	*MAIL BOXES ETC USA	372-7662	7
	*VALENTIS INTL DELI	229-2111	8
	B *ALL BAY ELECTRIC CO	228-3376	8
	B *G F M CONSTRUCTION	229-4008	+9
	B *WESTRN UNION SERV	372-7662	7
1135	*PET PRO	372-7767	7
	*PIZZA COMPANY THE	229-1420	6
	*VILLAGE OAKS CLNRS	228-7181	4
	B *BUSINESS BROKERS	228-7280	8
	B *E R A OLYMPIC RLTRS	228-7200	4
	B *JONES JIM	228-7200	4
	B *KELLEY DAVE	228-7200	4
	B *OLYMPIC BSNS BROKRS	228-7280	8
	B *OLYMPIC REALTORS	228-7200	4
	C *K&W LIQUORS	228-5070	5
	D *DESIGNER CUTS	372-3202	8
	G *GRAND CHINA REST	372-3322	4
1140	*ANIMAL EXPRESS	370-1201	+9
1145	*LUCKY FOOD CENTERS	372-8661	4
1150	*FUBARS COMEDY CLUB	370-1222	+9
	*FUBARS SPORTS BAR	370-1282	+9

ARNOLD DR 1989

ARNOLD DR	94553 CONT..
★SIMPLY TANNING	370-2088 +9
1155 ★CHELSEA LTD	372-3680 6
★MCDONALDS REST	229-0757 6
★NEW U	372-8864 7
★VILLAGE OAKS TRAVEL	228-3616 7
A★RADIO SHACK	372-7736
A★RADIO SHACK DIV	372-7736
A★TANDY	372-7736 8
B★BALLOONS BALLOONS	372-8892 7
C★MARTINEZ PARK FLRST	228-7160 5
C★PARK FLORIST	228-7160 6
D★VIDEO OUTLET	372-3373 8
1160 ★ALPINE DENTAL CARE	372-7100 +9
★BEST HAIRCUTS	370-7737 +9
★CONSMR DNTL OFFICE	372-7100 +9
★DRYCLEAN USA	372-0955 +9
FACER Hans DDS	372-7100 +9
★LITTLE CAESARS PZA	372-8800 +9
★MR PRINT	370-0507 +9
★NUTRI SYS WGHT LOSS	228-5100 +9
★SUNRISE DONUTS	370-1835 +9
1165 ★PAY LESS DRUG	372-0945 4
★PAY LESS DRUG CAMRA	372-0947 4
★PAY LESS DRUG INFO	372-0941 4
1175 ★BASKIN&ROBBINS 31	229-3999 5
★EVANS RONALD W DDS	229-3232 5
★FRANCIS STEPHEN DDS	229-3232 5
B★BANK AM CHCKNG&SVGS	682-4644 +9
D★ADAMS RUTH E DVM	372-9200 8
D★GAMMON RONALD L DVM	372-9200 6
D★VILLAGE OAKS VET	372-9200 +9
1203 XXXX	00
1215 STIELER L	372-5535 7
1219 CALLAN Charla	370-7936 +9
SNIDER Martin	370-7936 +9
1225 EINEVOLL Shane	228-8818 8
1229 AHRENS Tracy	372-0502 8
1233 BLOMQUIST Brian J	370-1548 +9
1247 XXXX	00
1259 XXXX	00
1261 MANCIK Ralph J	370-8568 +9
1263 SURGES R	372-5503 7
1265 XXXX	00
1273 MILLEN Patrick	370-7929 +9
MILLEN Rebecca	370-7929 +9
1275 HOSKINS Williard	370-9324 8
1277 XXXX	00
1281 WATKIN Julie	228-8583 8
WATKIN Steve	228-8583
1283 XXXX	00
1285 CONWAY Diane	228-1536
CONWAY Paul	228-1536
1289 XXXX	00
1307 SHIFFER L	370-8751 +9

15	228-1900 + 8	TARCO CONSTRUCTION	
15	00	XXXX	
15	00	XXXX	
15	228-0668 + 8	BOND MFG CO	
15	00	XXXX	
15	00	XXXX	
15	372-8291 + 8	OAK PARK ASSOCIATES	
15	228-1170 9	SOWINSKI R F DC	
15	228-9111 + 8	PRO TRAIN	1135
15	228-1420 4	SHAKERS PIZZA WRTNZ	
15	228-7181 4	VILLAGE OAKS CLMRS	
15	228-7200 4	E R A OLYMPIC RLTRS	B
15	228-7200 4	JONES J W	B
15	228-7200 4	KELLEY DAVE	B
20	228-7200 4	OLYMPIC REALTORS	B
20	228-8070 + 8	KAW LIQORS	C
20	372-3203 4	COSMETIC FCTRY OLT	D
20	372-3202 4	DESIGNER CUTS	D
20	372-3322 4	GRAND CHINA	G
20	372-8881 4	LUCKY STORES	1145
21	372-3373 4	VIDEO OUTLET	1155
21	372-8282 4	VILLAGE OAKS GIFTS	
21	372-7738 4	RADIO SHACK	A
21	228-7180 + 8	MARTINEZ PARK FLRST	C
21	372-8148 4	CLASSIC OAK ANTRS	G
21	372-0841 4	PAY LESS DRUG STRS	1165
21	372-0847 4	PAY LESS DRUG STRS	
21	372-0848 4	PAY LESS DRUG STRS	
21	228-3889 + 8	BASKIN&ROBINS 31	1175
21	228-3232 + 8	EVANS RONALD W DOS	
21	228-3232 + 8	FRANCIS STEPHEN DOS	
21	372-3383 + 8	J C H CONSTRUCTION	1330

ARNOLD DR 1985

ARNOLD DR 1980

ARNOLD DR 94553
MARTINEZ

911*	A&A SUPPLY	229-2810	9
	* A&A TRANSPORTATION	229-2810	
	* NORTHERN COMMODITS	229-3535+0	
991	XXXX	00	
996*	SOWINSKI R F DC	228-1170	9
1665	HILLMAN ERNEST M	229-2520	5

ARNOLD DR 1975

+ARNOLD DR 94553 MMARTINEZ

996*SOWINSKI R F

228-1170+5

1665 HILLMAN ERNEST M4

229-2520+5

1785 JAMES JESSE M

228-2803+5

APPENDIX B-6

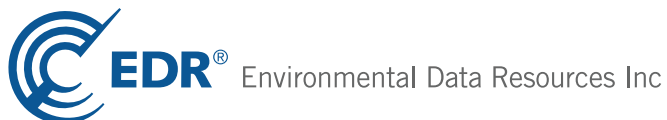
ENVIRONMENTAL DATA RESOURCES RADIUS REPORT

Martinez

ARNOLD DR
Martinez, CA 94553

Inquiry Number: 4389624.2s
August 20, 2015

The EDR Radius Map™ Report with GeoCheck®



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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

ARNOLD DR
MARTINEZ, CA 94553

COORDINATES

Latitude (North): 37.9922000 - 37° 59' 31.92"
Longitude (West): 122.0827000 - 122° 4' 57.72"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 580547.9
UTM Y (Meters): 4205141.0
Elevation: 123 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5641124 WALNUT CREEK, CA
Version Date: 2012

North Map: 5602176 VINE HILL, CA
Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20120520
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 ARNOLD DR
 MARTINEZ, CA 94553

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	CCC SHERIFF FORENSIC	1960 MUIR RD 201	CONTRA COSTA CO. SITE LIST, HAZNET	Higher	943, 0.179, SW
2	CCC FORENSIC SERVICE	2530 ARNOLD DR	CONTRA COSTA CO. SITE LIST	Higher	1110, 0.210, ENE
A3	CCC SHERIFF/CORONER	1980 MUIR RD	UST	Lower	1256, 0.238, ESE
A4	GEN & STORAGE FAC CO	1980 MUIR RD	CONTRA COSTA CO. SITE LIST, SWEEPS UST	Lower	1256, 0.238, ESE
5	SHERIFF'S COMMUNICAT	50 GLACIER	HIST CORTESE, LUST, CONTRA COSTA CO. SITE LIST,...	Higher	1527, 0.289, WSW
6	CENTRAL CC SANITARY	5019 IMHOFF PL	NPDES, HIST CORTESE, HIST UST, AST, CONTRA COSTA...	Lower	4174, 0.791, ENE
7	TOSCO REFINING CO.,	SOLANO WAY	ENVIROSTOR	Lower	5006, 0.948, East
B8	IT, BENSON RIDGE FAC	4575 PACHECO BOULEVA	Toxic Pits	Lower	5069, 0.960, NNW
B9	IT, MONTEZUMA HILLS	4575 PACHECO BOULEVA	Toxic Pits	Lower	5069, 0.960, NNW
B10	IT CORP ENVIRON SERV	4575 PACHECO BLVD	CORRACTS, RCRA-SQG, FINDS, HAZNET, ENVIROSTOR	Lower	5069, 0.960, NNW
11	CONTRA COSTA TOPSOIL	5030 IMHOFF DRIVE	Toxic Pits, EMI	Lower	5256, 0.995, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls
LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

EXECUTIVE SUMMARY

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

SLIC..... Statewide SLIC Cases

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST..... Aboveground Petroleum Storage Tank Facilities

INDIAN UST..... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

SWRCY..... Recycler Database

HAULERS..... Registered Waste Tire Haulers Listing

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

WMUDS/SWAT..... Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs

HIST Cal-Sites..... Historical Calsites Database

SCH..... School Property Evaluation Program

CDL..... Clandestine Drug Labs

US HIST CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database

EXECUTIVE SUMMARY

HIST UST..... Hazardous Substance Storage Container Database

Local Land Records

LIENS 2..... CERCLA Lien Information
LIENS..... Environmental Liens Listing
DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
US MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
RMP..... Risk Management Plans
CA BOND EXP. PLAN..... Bond Expenditure Plan
NPDES..... NPDES Permits Listing
UIC..... UIC Listing
Cortese..... "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings..... CUPA Resources List
Notify 65..... Proposition 65 Records
DRYCLEANERS..... Cleaner Facilities
WIP..... Well Investigation Program Case List
ENF..... Enforcement Action Listing
HAZNET..... Facility and Manifest Data
EMI..... Emissions Inventory Data
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
WDS..... Waste Discharge System
Financial Assurance..... Financial Assurance Information Listing
PROC..... Certified Processors Database

EXECUTIVE SUMMARY

HWT.....	Registered Hazardous Waste Transporter Database
HWP.....	EnviroStor Permitted Facilities Listing
MWMP.....	Medical Waste Management Program Listing
MINES.....	Mines Site Location Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
WASTEWATER PITS.....	Oil Wastewater Pits Listing
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
EPA WATCH LIST.....	EPA WATCH LIST
US FIN ASSUR.....	Financial Assurance Information
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
COAL ASH DOE.....	Steam-Electric Plant Operation Data
2020 COR ACTION.....	2020 Corrective Action Program List
PRP.....	Potentially Responsible Parties

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat.....	EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners.....	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank
RGA LF.....	Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/10/2015 has revealed that there is 1

EXECUTIVE SUMMARY

CORRACTS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>IT CORP ENVIRON SERV</i>	<i>4575 PACHECO BLVD</i>	<i>NNW 1/2 - 1 (0.960 mi.)</i>	<i>B10</i>	<i>41</i>

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/04/2015 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>CENTRAL CC SANITARY</i> Facility Id: 7490039 Status: Certified / Operation & Maintenance	<i>5019 IMHOFF PL</i>	<i>ENE 1/2 - 1 (0.791 mi.)</i>	<i>6</i>	<i>18</i>
TOSCO REFINING CO., Facility Id: 71002101 Status: Refer: Other Agency	SOLANO WAY	E 1/2 - 1 (0.948 mi.)	7	39
<i>IT CORP ENVIRON SERV</i> Facility Id: 7340005 Facility Id: 7490011 Status: Refer: RCRA	<i>4575 PACHECO BLVD</i>	<i>NNW 1/2 - 1 (0.960 mi.)</i>	<i>B10</i>	<i>41</i>

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 06/15/2015 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SHERIFF'S COMMUNICAT</i> Status: Completed - Case Closed Facility Id: 07-0304 Facility Status: Case Closed Global Id: T0601300283 date9: 1/8/2002	<i>50 GLACIER</i>	<i>WSW 1/4 - 1/2 (0.289 mi.)</i>	<i>5</i>	<i>11</i>

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 06/15/2015 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CCC SHERIFF/CORONER Facility Id: 770961	1980 MUIR RD	ESE 1/8 - 1/4 (0.238 mi.)	A3	10

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

Toxic Pits: The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. The data come from the State Water Resources Control Board.

A review of the Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there are 3 Toxic Pits sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
IT, BENSON RIDGE FAC Closure Date: 06/28/91 Task #: 85049 Status: CLOSED	4575 PACHECO BOULEVA	NNW 1/2 - 1 (0.960 mi.)	B8	40
IT, MONTEZUMA HILLS Closure Date: 04/29/91 Task #: 85048 Status: CLOSED	4575 PACHECO BOULEVA	NNW 1/2 - 1 (0.960 mi.)	B9	40
CONTRA COSTA TOPSOIL Closure Date: / / Task #: 02020 Status: CLOSED	5030 IMHOFF DRIVE	NE 1/2 - 1 (0.995 mi.)	11	46

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is

EXECUTIVE SUMMARY

1 SWEEPS UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GEN & STORAGE FAC CO Status: A Tank Status: A Comp Number: 70961	1980 MUIR RD	ESE 1/8 - 1/4 (0.238 mi.)	A4	10

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTATES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHERIFF'S COMMUNICAT Reg Id: 07-0304	50 GLACIER	WSW 1/4 - 1/2 (0.289 mi.)	5	11

CONTRA COSTA CO. SITE LIST: Lists includes sites from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program

A review of the CONTRA COSTA CO. SITE LIST list, as provided by EDR, and dated 05/26/2015 has revealed that there are 3 CONTRA COSTA CO. SITE LIST sites within approximately 0.25 miles of the target property.

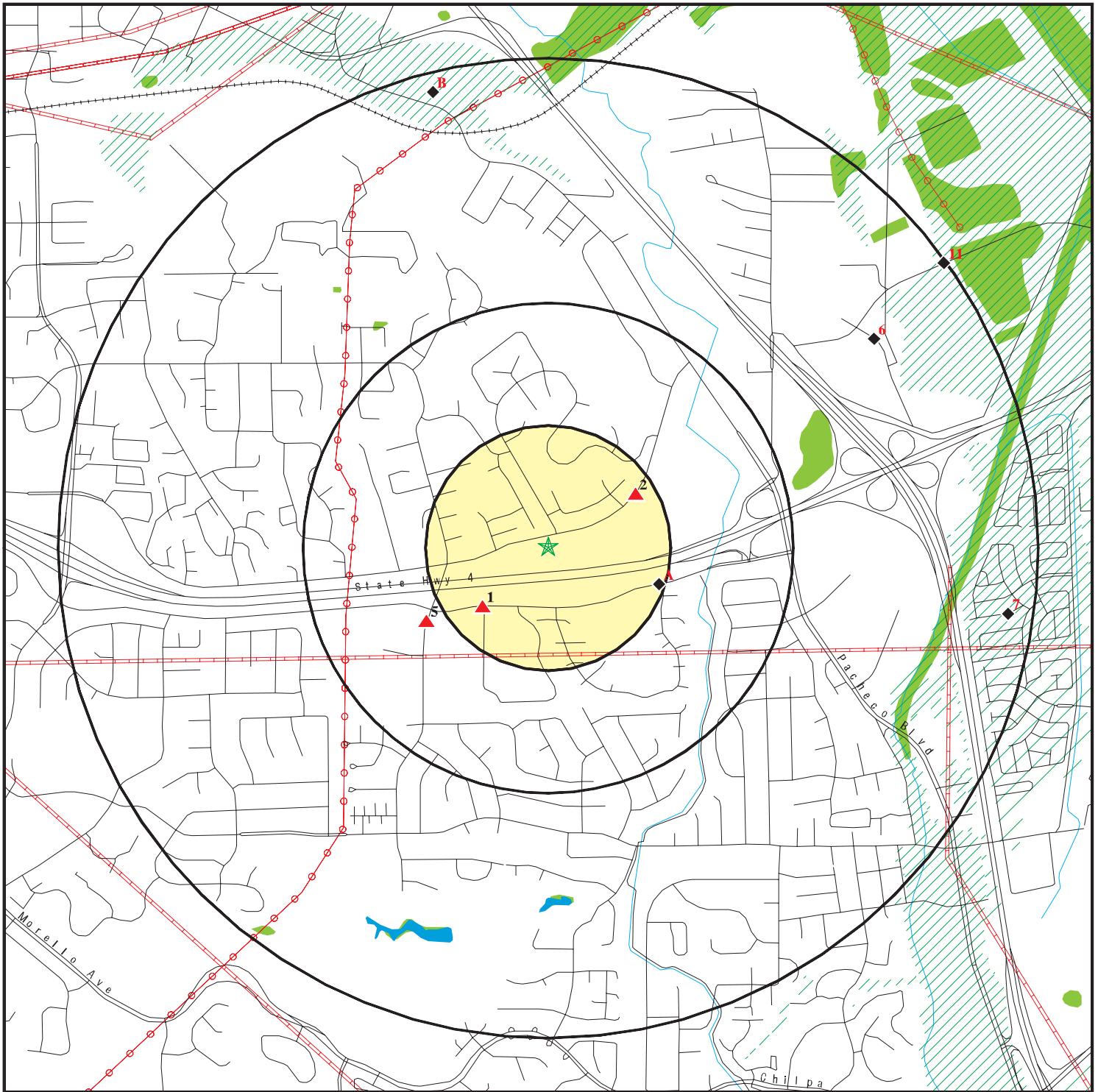
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CCC SHERIFF FORENSIC Facility Id: 773157	1960 MUIR RD 201	SW 1/8 - 1/4 (0.179 mi.)	1	8
CCC FORENSIC SERVICE Facility Id: 774617	2530 ARNOLD DR	ENE 1/8 - 1/4 (0.210 mi.)	2	9
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GEN & STORAGE FAC CO Facility Id: 770961	1980 MUIR RD	ESE 1/8 - 1/4 (0.238 mi.)	A4	10

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

<u>Site Name</u>	<u>Database(s)</u>
GSX SERVICES OF CALIFORNIA INC MAR	RCRA-TSDF, CERC-NFRAP, CORRACTS,
VILLAGE OAKS CLEANERS	RCRA-SQG, FINDS
CONTRA COSTA CO SAN DIST STP	DRYCLEANERS
	CERC-NFRAP

OVERVIEW MAP - 4389624.2S



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ⚡ Manufactured Gas Plants
- 🏠 National Priority List Sites
- 🏠 Dept. Defense Sites
- 🏠 Indian Reservations BIA
- ⚡ Power transmission lines
- 🔴 Pipelines
- 🌊 100-year flood zone
- 🌊 500-year flood zone
- 🌿 National Wetland Inventory
- 🔴 Areas of Concern

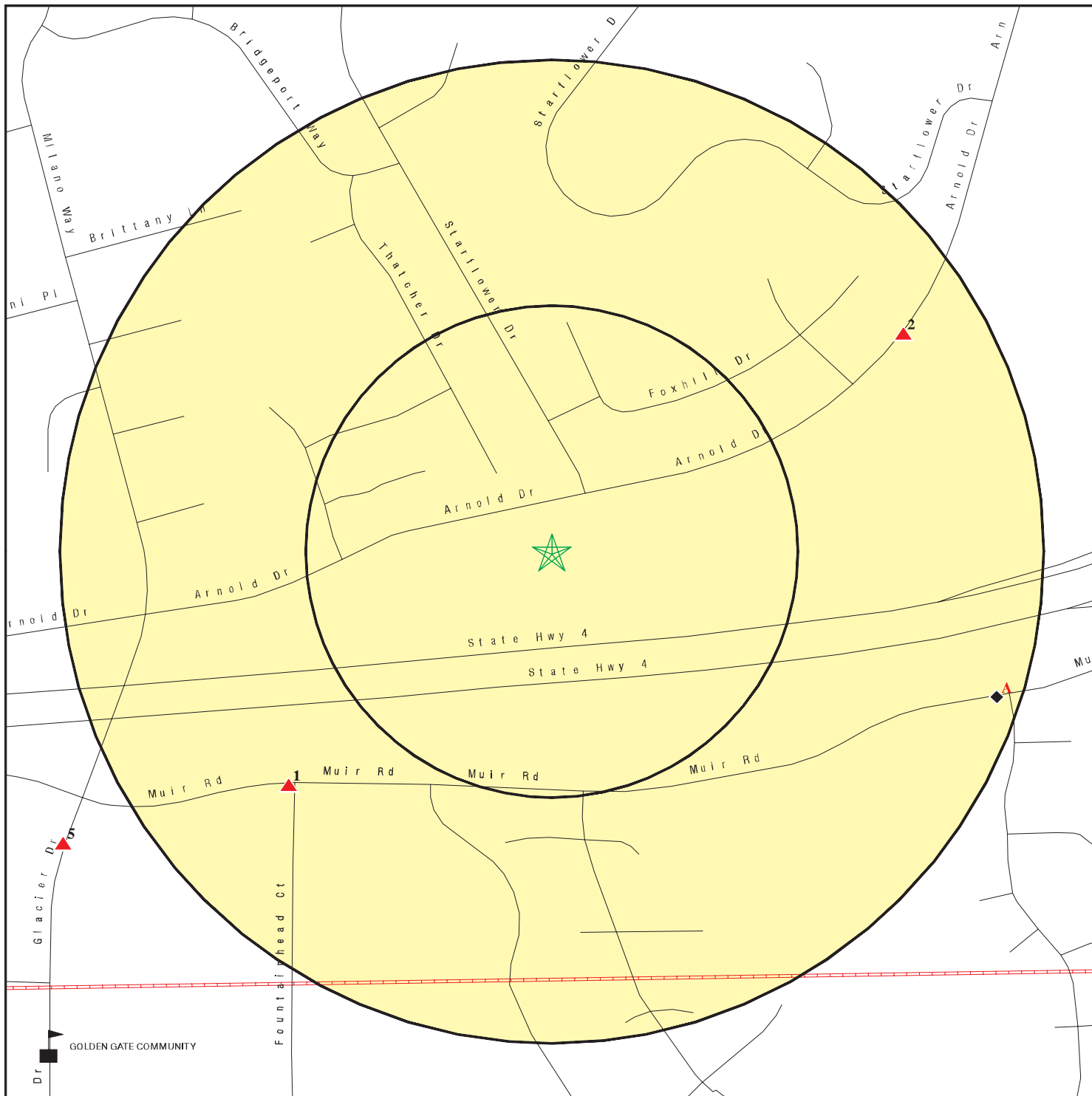









This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.






SITE NAME: Martinez
 ADDRESS: ARNOLD DR
 Martinez CA 94553
 LAT/LONG: 37.9922 / 122.0827

CLIENT: Env. Resource Group, Inc
 CONTACT: Ben Wells
 INQUIRY #: 4389624.2s
 DATE: August 20, 2015 9:43 pm

DETAIL MAP - 4389624.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  Pipelines
-  100-year flood zone
-  500-year flood zone
-  Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Martinez
 ADDRESS: ARNOLD DR
 Martinez CA 94553
 LAT/LONG: 37.9922 / 122.0827

CLIENT: Env. Resource Group, Inc
 CONTACT: Ben Wells
 INQUIRY #: 4389624.2s
 DATE: August 20, 2015 9:44 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	1	NR	1
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL RESPONSE</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i>								
ENVIROSTOR	1.000		0	0	0	3	NR	3
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	3	NR	3
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
SWEEPS UST	0.250		0	1	NR	NR	NR	1
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
CONTRA COSTA CO. SITE	0.250		0	3	NR	NR	NR	3
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
MINES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1
SW
1/8-1/4
0.179 mi.
943 ft.

CCC SHERIFF FORENSIC MUIR LAB
1960 MUIR RD 201
MARTINEZ, CA 94553

CONTRA COSTA CO. SITE LIST
HAZNET S113168565
N/A

Relative:
Higher

CONTRA COSTA CO. SITE LIST:

Facility ID: 773157
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: LESS THAN 1000 LBS
Region: CONTRA COSTA

Actual:
195 ft.

Facility ID: 773157
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA

HAZNET:

envid: S113168565
Year: 2013
GEPaid: CAL923245042
Contact: NIVANJIT GILL
Telephone: 9253132800
Mailing Name: Not reported
Mailing Address: 1960 MUIR RD RM 201
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Contra Costa
TSD EPA ID: CAD980884183
TSD County: Sacramento
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1325
Facility County: Not reported

envid: S113168565
Year: 2013
GEPaid: CAL923245042
Contact: NIVANJIT GILL
Telephone: 9253132800
Mailing Name: Not reported
Mailing Address: 1960 MUIR RD RM 201
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Contra Costa
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Not reported
Disposal Method: Neutralization Only
Tons: 0.0105
Facility County: Not reported

envid: S113168565
Year: 2013
GEPaid: CAL923245042
Contact: NIVANJIT GILL
Telephone: 9253132800
Mailing Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CCC SHERIFF FORENSIC MUIR LAB (Continued)

S113168565

Mailing Address: 1960 MUIR RD RM 201
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Contra Costa
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery
(H010-H129) Or (H131-H135)
Tons: 0.283
Facility County: Not reported

envid: S113168565
Year: 2013
GEPaid: CAL923245042
Contact: NIVANJIT GILL
Telephone: 9253132800
Mailing Name: Not reported
Mailing Address: 1960 MUIR RD RM 201
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Contra Costa
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery
(H010-H129) Or (H131-H135)
Tons: 0.041
Facility County: Not reported

envid: S113168565
Year: 2012
GEPaid: CAL923245042
Contact: NIVANJIT GILL
Telephone: 9253132800
Mailing Name: Not reported
Mailing Address: 1960 MUIR RD RM 201
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Contra Costa
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Not reported
Disposal Method: Neutralization Only
Tons: 0.005
Facility County: Contra Costa

[Click this hyperlink](#) while viewing on your computer to access
167 additional CA_HAZNET: record(s) in the EDR Site Report.

2
ENE
1/8-1/4
0.210 mi.
1110 ft.

CCC FORENSIC SERVICES SUMMIT CENTER
2530 ARNOLD DR
MARTINEZ, CA 94553

CONTRA COSTA CO. SITE LIST **S113407818**
N/A

Relative:
Higher

CONTRA COSTA CO. SITE LIST:
Facility ID: 774617
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR

Actual:
152 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CCC FORENSIC SERVICES SUMMIT CENTER (Continued)

S113407818

Region: CONTRA COSTA

A3
ESE
1/8-1/4
0.238 mi.
1256 ft.

CCC SHERIFF/CORONER
1980 MUIR RD
MARTINEZ, CA 94553
Site 1 of 2 in cluster A

UST **U003784370**
N/A

Relative:
Lower

UST:
Facility ID: 770961
Permitting Agency: CONTRA COSTA COUNTY
Latitude: 37.9912175
Longitude: -122.0846418

Actual:
81 ft.

A4
ESE
1/8-1/4
0.238 mi.
1256 ft.

GEN & STORAGE FAC CONTRA COSTA
1980 MUIR RD
MARTINEZ, CA 94553
Site 2 of 2 in cluster A

CONTRA COSTA CO. SITE LIST **S106516798**
SWEEPS UST **N/A**

Relative:
Lower

CONTRA COSTA CO. SITE LIST:
Facility ID: 770961
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: 1K-10K LBS, 20+ EMPLOYEES
Region: CONTRA COSTA

Facility ID: 770961
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: UNDERGROUND STORAGE TANK SITE
Region: CONTRA COSTA

Actual:
81 ft.

SWEEPS UST:

Status: Active
Comp Number: 70961
Number: 5
Board Of Equalization: Not reported
Referral Date: 05-20-91
Action Date: 05-20-91
Created Date: 05-20-91
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-070961-000001
Tank Status: A
Capacity: 10000
Active Date: 05-20-91
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

5
WSW
1/4-1/2
0.289 mi.
1527 ft.

SHERIFF'S COMMUNICATIONS
50 GLACIER
MARTINEZ, CA 94553

HIST CORTESE
LUST
CONTRA COSTA CO. SITE LIST
SWEEPS UST
ENF

S103177099
N/A

Relative:
Higher

HIST CORTESE:
Region: CORTESE
Facility County Code: 7
Reg By: LTNKA
Reg Id: 07-0304

Actual:
168 ft.

LUST:
Region: STATE
Global Id: T0601300283
Latitude: 37.9902534
Longitude: -122.0871646
Case Type: Not reported
Status: Completed - Case Closed
Status Date: 01/08/2002
Lead Agency: Not reported
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 07-0304
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:
Global Id: T0601300283
Contact Type: Local Agency Caseworker
Contact Name: SUE LOYD
Organization Name: CONTRA COSTA COUNTY
Address: 4333 PACHECO BLVD.
City: MARTINEZ
Email: sloyd@hsd.co.contra-costa.ca.us
Phone Number: Not reported

Status History:
Global Id: T0601300283
Status: Completed - Case Closed
Status Date: 01/08/2002

Global Id: T0601300283
Status: Open - Case Begin Date
Status Date: 03/25/1987

Global Id: T0601300283
Status: Open - Site Assessment
Status Date: 06/08/1994

Global Id: T0601300283
Status: Open - Site Assessment
Status Date: 11/08/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHERIFF'S COMMUNICATIONS (Continued)

S103177099

Regulatory Activities:

Global Id:	T0601300283
Action Type:	Other
Date:	04/27/1987
Action:	Leak Reported
Global Id:	T0601300283
Action Type:	ENFORCEMENT
Date:	01/08/2002
Action:	Clean Up Fund - Case Closure Review Summary Report (RSR)
Global Id:	T0601300283
Action Type:	Other
Date:	03/25/1987
Action:	Leak Stopped
Global Id:	T0601300283
Action Type:	ENFORCEMENT
Date:	04/12/2001
Action:	* Historical Enforcement
Global Id:	T0601300283
Action Type:	Other
Date:	03/25/1987
Action:	Leak Discovery

LUST REG 2:

Region:	2
Facility Id:	07-0304
Facility Status:	Case Closed
Case Number:	30678
How Discovered:	Tank Closure
Leak Cause:	Corrosion
Leak Source:	Tank
Date Leak Confirmed:	6/8/1994
Oversight Program:	LUST
Prelim. Site Assessment Wokplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	11/8/2001
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

CONTRA COSTA CO. SITE LIST:

Facility ID:	730678
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: >10K-100K LBS, 20+ EMPLOYEES
Region:	CONTRA COSTA
Facility ID:	730678
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	UNDERGROUND STORAGE TANK SITE
Region:	CONTRA COSTA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHERIFF'S COMMUNICATIONS (Continued)

S103177099

SWEEPS UST:

Status: Not reported
Comp Number: 30678
Number: Not reported
Board Of Equalization: 44-002353
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-030678-000001
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 2

Status: Not reported
Comp Number: 30678
Number: Not reported
Board Of Equalization: 44-002353
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-030678-000002
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

ENF:

Region: 2
Facility Id: 260999
Agency Name: Contra Costa County General Services Dept
Place Type: Facility
Place Subtype: Not reported
Facility Type: All other facilities
Agency Type: County Agency
Of Agencies: 1
Place Latitude: 37.990141
Place Longitude: -122.087178
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHERIFF'S COMMUNICATIONS (Continued)

S103177099

NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	2 07-0304
Reg Measure Id:	168591
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	238802
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	11/08/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 07-0304
Description:	Work Plan Approval Letter
Program:	UST

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHERIFF'S COMMUNICATIONS (Continued)

S103177099

Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	2
Facility Id:	260999
Agency Name:	Contra Costa County General Services Dept
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	County Agency
# Of Agencies:	1
Place Latitude:	37.990141
Place Longitude:	-122.087178
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	2 07-0304
Reg Measure Id:	168591
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHERIFF'S COMMUNICATIONS (Continued)

S103177099

Application Fee Amt Received: Not reported
Status: Never Active
Status Date: 02/20/2013
Effective Date: Not reported
Expiration/Review Date: Not reported
Termination Date: Not reported
WDR Review - Amend: Not reported
WDR Review - Revise/Renew: Not reported
WDR Review - Rescind: Not reported
WDR Review - No Action Required: Not reported
WDR Review - Pending: Not reported
WDR Review - Planned: Not reported
Status Enrollee: N
Individual/General: I
Fee Code: Not reported
Direction/Voice: Passive
Enforcement Id(EID): 238342
Region: 2
Order / Resolution Number: UNKNOWN
Enforcement Action Type: 13267 Letter
Effective Date: 09/19/2001
Adoption/Issuance Date: Not reported
Achieve Date: Not reported
Termination Date: Not reported
ACL Issuance Date: Not reported
EPL Issuance Date: Not reported
Status: Historical
Title: Enforcement - 2 07-0304
Description: Not reported
Program: UST
Latest Milestone Completion Date: Not reported
Of Programs1: 1
Total Assessment Amount: 0.00
Initial Assessed Amount: 0.00
Liability \$ Amount: 0.00
Project \$ Amount: 0.00
Liability \$ Paid: 0.00
Project \$ Completed: 0.00
Total \$ Paid/Completed Amount: 0.00

Region: 2
Facility Id: 260999
Agency Name: Contra Costa County General Services Dept
Place Type: Facility
Place Subtype: Not reported
Facility Type: All other facilities
Agency Type: County Agency
Of Agencies: 1
Place Latitude: 37.990141
Place Longitude: -122.087178
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHERIFF'S COMMUNICATIONS (Continued)

S103177099

NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	2 07-0304
Reg Measure Id:	168591
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	237533
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	04/17/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	9/19/2001
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SHERIFF'S COMMUNICATIONS (Continued)

S103177099

Title: Enforcement - 2 07-0304
 Description: Not reported
 Program: UST
 Latest Milestone Completion Date: 9/19/2001
 # Of Programs1: 1
 Total Assessment Amount: 0.00
 Initial Assessed Amount: 0.00
 Liability \$ Amount: 0.00
 Project \$ Amount: 0.00
 Liability \$ Paid: 0.00
 Project \$ Completed: 0.00
 Total \$ Paid/Completed Amount: 0.00

6
ENE
1/2-1
0.791 mi.
4174 ft.

Relative:
Lower

Actual:
23 ft.

CENTRAL CC SANITARY DISTRICT
5019 IMHOFF PL
MARTINEZ, CA

NPDES 1000419158
HIST CORTESE N/A
HIST UST
AST
CONTRA COSTA CO. SITE LIST
SWEEPS UST
DEED
VCP
ENF
HAZNET
EMI
ENVIROSTOR
WDS

NPDES:

Npdes Number: CA0038849
 Facility Status: Active
 Agency Id: 220151
 Region: 2
 Regulatory Measure Id: 360491
 Order No: R2-2007-0077
 Regulatory Measure Type: Co-Permitee
 Place Id: 213875
 WDID: 2 071008001
 Program Type: NPDMUNILRG
 Adoption Date Of Regulatory Measure: 11/01/2007
 Effective Date Of Regulatory Measure: 03/01/2008
 Expiration Date Of Regulatory Measure: 12/31/2012
 Termination Date Of Regulatory Measure: Not reported
 Discharge Name: Central Contra Costa Sanitary District
 Discharge Address: 5019 Imhoff Place
 Discharge City: Martinez
 Discharge State: CA
 Discharge Zip: 94553-4392
 RECEIVED DATE: Not reported
 PROCESSED DATE: Not reported
 STATUS CODE NAME: Not reported
 STATUS DATE: Not reported
 PLACE SIZE: Not reported
 PLACE SIZE UNIT: Not reported
 FACILITY CONTACT NAME: Not reported
 FACILITY CONTACT TITLE: Not reported
 FACILITY CONTACT PHONE: Not reported
 FACILITY CONTACT PHONE EXT: Not reported
 FACILITY CONTACT EMAIL: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERCIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESCRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CA0038849
Facility Status:	Active
Agency Id:	220151
Region:	2
Regulatory Measure Id:	378704
Order No:	R2-2011-0012
Regulatory Measure Type:	Co-Permittee
Place Id:	213875
WDID:	2 071008001
Program Type:	NPDMUNILRG
Adoption Date Of Regulatory Measure:	03/09/2011

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Effective Date Of Regulatory Measure: 04/01/2011
Expiration Date Of Regulatory Measure: 12/31/2012
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Central Contra Costa Sanitary District
Discharge Address: 5019 Imhoff Place
Discharge City: Martinez
Discharge State: CA
Discharge Zip: 94553-4392
RECEIVED DATE: Not reported
PROCESSED DATE: Not reported
STATUS CODE NAME: Not reported
STATUS DATE: Not reported
PLACE SIZE: Not reported
PLACE SIZE UNIT: Not reported
FACILITY CONTACT NAME: Not reported
FACILITY CONTACT TITLE: Not reported
FACILITY CONTACT PHONE: Not reported
FACILITY CONTACT PHONE EXT: Not reported
FACILITY CONTACT EMAIL: Not reported
OPERATOR NAME: Not reported
OPERATOR ADDRESS: Not reported
OPERATOR CITY: Not reported
OPERATOR STATE: Not reported
OPERATOR ZIP: Not reported
OPERATOR CONTACT NAME: Not reported
OPERATOR CONTACT TITLE: Not reported
OPERATOR CONTACT PHONE: Not reported
OPERATOR CONTACT PHONE EXT: Not reported
OPERATOR CONTACT EMAIL: Not reported
OPERATOR TYPE: Not reported
DEVELOPER NAME: Not reported
DEVELOPER ADDRESS: Not reported
DEVELOPER CITY: Not reported
DEVELOPER STATE: Not reported
DEVELOPER ZIP: Not reported
DEVELOPER CONTACT NAME: Not reported
DEVELOPER CONTACT TITLE: Not reported
CONSTYPE LINEAR UTILITY IND: Not reported
EMERGENCY PHONE NO: Not reported
EMERGENCY PHONE EXT: Not reported
CONSTYPE ABOVE GROUND IND: Not reported
CONSTYPE BELOW GROUND IND: Not reported
CONSTYPE CABLE LINE IND: Not reported
CONSTYPE COMM LINE IND: Not reported
CONSTYPE COMMERTIAL IND: Not reported
CONSTYPE ELECTRICAL LINE IND: Not reported
CONSTYPE GAS LINE IND: Not reported
CONSTYPE INDUSTRIAL IND: Not reported
CONSTYPE OTHER DESCRIPTION: Not reported
CONSTYPE OTHER IND: Not reported
CONSTYPE RECONS IND: Not reported
CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Not reported
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CA0037648
Facility Status:	Active
Agency Id:	220151
Region:	2
Regulatory Measure Id:	383409
Order No:	R2-2012-0016
Regulatory Measure Type:	NPDES Permits
Place Id:	213875
WDID:	2 071008001
Program Type:	NPDMUNILRG
Adoption Date Of Regulatory Measure:	02/08/2012
Effective Date Of Regulatory Measure:	04/01/2012
Expiration Date Of Regulatory Measure:	03/31/2017
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Central Contra Costa Sanitary District
Discharge Address:	5019 Imhoff Place
Discharge City:	Martinez
Discharge State:	CA
Discharge Zip:	94553-4392
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CA0038849
Facility Status:	Active
Agency Id:	220151
Region:	2
Regulatory Measure Id:	389079
Order No:	R2-2012-0096
Regulatory Measure Type:	Co-Permittee
Place Id:	213875
WDID:	2 071008001
Program Type:	NPDMUNILRG
Adoption Date Of Regulatory Measure:	12/12/2012
Effective Date Of Regulatory Measure:	01/01/2013
Expiration Date Of Regulatory Measure:	12/31/2017
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Central Contra Costa Sanitary District
Discharge Address:	5019 Imhoff Place
Discharge City:	Martinez
Discharge State:	CA
Discharge Zip:	94553-4392
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

OPERATOR NAME: Not reported
OPERATOR ADDRESS: Not reported
OPERATOR CITY: Not reported
OPERATOR STATE: Not reported
OPERATOR ZIP: Not reported
OPERATOR CONTACT NAME: Not reported
OPERATOR CONTACT TITLE: Not reported
OPERATOR CONTACT PHONE: Not reported
OPERATOR CONTACT PHONE EXT: Not reported
OPERATOR CONTACT EMAIL: Not reported
OPERATOR TYPE: Not reported
DEVELOPER NAME: Not reported
DEVELOPER ADDRESS: Not reported
DEVELOPER CITY: Not reported
DEVELOPER STATE: Not reported
DEVELOPER ZIP: Not reported
DEVELOPER CONTACT NAME: Not reported
DEVELOPER CONTACT TITLE: Not reported
CONSTYPE LINEAR UTILITY IND: Not reported
EMERGENCY PHONE NO: Not reported
EMERGENCY PHONE EXT: Not reported
CONSTYPE ABOVE GROUND IND: Not reported
CONSTYPE BELOW GROUND IND: Not reported
CONSTYPE CABLE LINE IND: Not reported
CONSTYPE COMM LINE IND: Not reported
CONSTYPE COMMERCIAL IND: Not reported
CONSTYPE ELECTRICAL LINE IND: Not reported
CONSTYPE GAS LINE IND: Not reported
CONSTYPE INDUSTRIAL IND: Not reported
CONSTYPE OTHER DESCRIPTION: Not reported
CONSTYPE OTHER IND: Not reported
CONSTYPE RECONS IND: Not reported
CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Not reported
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: Not reported
RECEIVING WATER NAME: Not reported
CERTIFIER NAME: Not reported
CERTIFIER TITLE: Not reported
CERTIFICATION DATE: Not reported
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

HIST CORTESE:

Region: CORTESE
Facility County Code: 7
Reg By: CALSI
Reg Id: 07490039

HIST UST:

Region: STATE
Facility ID: 0000032224
Facility Type: Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Other Type: SEWAGE TREATMENT PLA
Contact Name: Not reported
Telephone: 4156893890
Owner Name: CENTRAL CONTRA COSTA SANITARY
Owner Address: 5019 IMHOFF PLACE
Owner City,St,Zip: MARTINEZ, CA 94553
Total Tanks: 0006

Tank Num: 001
Container Num: T52244
Year Installed: 1975
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 5/16"
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: T51244
Year Installed: 1975
Tank Capacity: 00000290
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 1/4"
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: T81225
Year Installed: 1968
Tank Capacity: 00000500
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 1/4"
Leak Detection: Stock Inventor, None

Tank Num: 004
Container Num: T14415
Year Installed: Not reported
Tank Capacity: 00003000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: #2
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: #1
Year Installed: Not reported
Tank Capacity: 00003000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

AST:

Certified Unified Program Agencies: Contra Costa
Owner: Not reported
Total Gallons: 2,000

CONTRA COSTA CO. SITE LIST:

Facility ID: 772454
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: >10K-100K LBS, 0-19 EMPLOYEES
Region: CONTRA COSTA

Facility ID: 772454
Billing Status: INACTIVE, NON-BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG GENERAL
Region: CONTRA COSTA

Facility ID: 732224
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: APSA: 100K - <1M GALLONS
Region: CONTRA COSTA

Facility ID: 732224
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: >500K-2.5M LBS
Region: CONTRA COSTA

Facility ID: 732224
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: 5 - <12 TONS/YEAR
Region: CONTRA COSTA

Facility ID: 732224
Billing Status: INACTIVE, NON-BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: UNDERGROUND STORAGE TANK SITE
Region: CONTRA COSTA

SWEEPS UST:

Status: Not reported
Comp Number: 32224
Number: Not reported
Board Of Equalization: 44-002357
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

SWRCB Tank Id: 07-000-032224-000001
Tank Status: Not reported
Capacity: 290
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 5

Status: Not reported
Comp Number: 32224
Number: Not reported
Board Of Equalization: 44-002357
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-032224-000002
Tank Status: Not reported
Capacity: 550
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 32224
Number: Not reported
Board Of Equalization: 44-002357
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-032224-000003
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 32224
Number: Not reported
Board Of Equalization: 44-002357
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-032224-000004
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 32224
Number: Not reported
Board Of Equalization: 44-002357
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-032224-000005
Tank Status: Not reported
Capacity: 3000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

DEED:

Envirostor ID: 7490039
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Upload: Not reported
Deed Date(s): 05/20/2004

VCP:

Facility ID: 7490039
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: REM, DAY, ELD, HOS, EX, GW, OIL, NOWN, NDAM, NSUB, HS, SCH, FOOD, COV, RES
Acres: 22
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP, RWQCB 2 - San Francisco Bay, CONTRA COSTA COUNTY
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Milly Pekke
Supervisor: Daniel Murphy
Division Branch: Cleanup Berkeley
Site Code: 200303
Assembly: 14
Senate: 07
Special Programs Code: Designation of Single Agency
Status: Certified / Operation & Maintenance
Status Date: 07/07/2004
Restricted Use: YES
Funding: Responsible Party
Lat/Long: 37.99808 / -122.0679
APN: 159-140-058-3, 159-150-057-2, 159150057
Past Use: MANUFACTURING - PETROLEUM, WASTE - SEWAGE TREATMENT PLANT
Potential COC: 30003, 30005, 30013, 30019, 30024, 30108, 30272, 30550, 30593

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Confirmed COC: 30550,30019,30024,30108,30272,30003,30005,30013,30593
 Potential Description: OTH, SOIL
 Alias Name: Not reported
 Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
 Completed Sub Area Name: Not reported
 Completed Document Type: Not reported
 Completed Date: Not reported
 Comments: Not reported

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

ENF:

Region: 2
 Facility Id: 213875
 Agency Name: Central Contra Costa Sanitary District
 Place Type: Utility
 Place Subtype: Wastewater Treatment Facility
 Facility Type: Municipal/Domestic
 Agency Type: Special District
 # Of Agencies: 1
 Place Latitude: 38.000327
 Place Longitude: -122.068798
 SIC Code 1: 4952
 SIC Desc 1: Sewerage Systems
 SIC Code 2: Not reported
 SIC Desc 2: Not reported
 SIC Code 3: Not reported
 SIC Desc 3: Not reported
 NAICS Code 1: Not reported
 NAICS Desc 1: Not reported
 NAICS Code 2: Not reported
 NAICS Desc 2: Not reported
 NAICS Code 3: Not reported
 NAICS Desc 3: Not reported
 # Of Places: 1
 Source Of Facility: Reg Meas
 Design Flow: 53.8
 Threat To Water Quality: 1
 Complexity: A
 Pretreatment: Y - POTW has EPA approved pretreatment program
 Facility Waste Type: Domestic wastewater
 Facility Waste Type 2: Not reported
 Facility Waste Type 3: Not reported
 Facility Waste Type 4: Not reported
 Program: NPDMUNILRG
 Program Category1: NPDESWWW

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Program Category2: NPDESWW
Of Programs: 1
WDID: 2 071008001
Reg Measure Id: 148418
Reg Measure Type: NPDES Permits
Region: 2
Order #: R2-2001-0068
Npdes# CA#: CA0037648
Major-Minor: Major
Npdes Type: MUN
Reclamation: 1 - Producer
Dredge Fill Fee: Not reported
301H: N
Application Fee Amt Received: 10000
Status: Historical
Status Date: 04/01/2007
Effective Date: 06/19/2001
Expiration/Review Date: 05/31/2006
Termination Date: 04/01/2007
WDR Review - Amend: Not reported
WDR Review - Revise/Renew: Not reported
WDR Review - Rescind: Not reported
WDR Review - No Action Required: Not reported
WDR Review - Pending: Not reported
WDR Review - Planned: Not reported
Status Enrollee: N
Individual/General: I
Fee Code: 66 - NPDES Based on Flow
Direction/Voice: Passive
Enforcement Id(EID): 378432
Region: 2
Order / Resolution Number: R2-2004-0098
Enforcement Action Type: Admin Civil Liability
Effective Date: 06/15/2005
Adoption/Issuance Date: Not reported
Achieve Date: Not reported
Termination Date: Not reported
ACL Issuance Date: 06/15/2005
EPL Issuance Date: Not reported
Status: Historical
Title: ACLC R2-2004-0098
Description: ACLC issued to CCCSD for 28 SSOs totalling approximately 271,000 gal discharged to waters of the state. ACL amount is \$165,000 with \$155,000 suspended in lieu of completing an SEP

Program: NPDMMUNILRG
Latest Milestone Completion Date: 10/6/2009
Of Programs1: 1
Total Assessment Amount: 165,000.00
Initial Assessed Amount: 0.00
Liability \$ Amount: 10,000.00
Project \$ Amount: 0.00
Liability \$ Paid: 10,000.00
Project \$ Completed: 0.00
Total \$ Paid/Completed Amount: 165,000.00

Region: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Facility Id:	213875
Agency Name:	Central Contra Costa Sanitary District
Place Type:	Utility
Place Subtype:	Wastewater Treatment Facility
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	38.000327
Place Longitude:	-122.068798
SIC Code 1:	4952
SIC Desc 1:	Sewerage Systems
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	53.8
Threat To Water Quality:	1
Complexity:	A
Pretreatment:	Y - POTW has EPA approved pretreatment program
Facility Waste Type:	Domestic wastewater
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDMUNILRG
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	2 071008001
Reg Measure Id:	148418
Reg Measure Type:	NPDES Permits
Region:	2
Order #:	R2-2001-0068
Npdes# CA#:	CA0037648
Major-Minor:	Major
Npdes Type:	MUN
Reclamation:	1 - Producer
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	10000
Status:	Historical
Status Date:	04/01/2007
Effective Date:	06/19/2001
Expiration/Review Date:	05/31/2006
Termination Date:	04/01/2007
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	66 - NPDES Based on Flow
Direction/Voice:	Passive
Enforcement Id(EID):	227513
Region:	2
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	10/29/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 071008001
Description:	Not reported
Program:	NPDMUNILRG
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	2
Facility Id:	213875
Agency Name:	Central Contra Costa Sanitary District
Place Type:	Utility
Place Subtype:	Wastewater Treatment Facility
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	38.000327
Place Longitude:	-122.068798
SIC Code 1:	4952
SIC Desc 1:	Sewerage Systems
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	53.8
Threat To Water Quality:	1
Complexity:	A
Pretreatment:	Y - POTW has EPA approved pretreatment program

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Facility Waste Type:	Domestic wastewater
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDMUNILRG
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	2 071008001
Reg Measure Id:	148418
Reg Measure Type:	NPDES Permits
Region:	2
Order #:	R2-2001-0068
Npdes# CA#:	CA0037648
Major-Minor:	Major
Npdes Type:	MUN
Reclamation:	1 - Producer
Dredge Fill Fee:	Not reported
301H:	N
Application Fee Amt Received:	10000
Status:	Historical
Status Date:	04/01/2007
Effective Date:	06/19/2001
Expiration/Review Date:	05/31/2006
Termination Date:	04/01/2007
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	66 - NPDES Based on Flow
Direction/Voice:	Passive
Enforcement Id(EID):	221921
Region:	2
Order / Resolution Number:	R2-1998-0087
Enforcement Action Type:	Admin Civil Liability
Effective Date:	10/21/1998
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	04/02/2001
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 071008001
Description:	ACL-\$30,000 FOR 3 SUPPLIMENTAL ENV PROJECTS, \$11,000 FOR C.A FUND
Program:	NPDMUNILRG
Latest Milestone Completion Date:	9/26/2003
# Of Programs1:	1
Total Assessment Amount:	55,700.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	9,800.00
Project \$ Amount:	0.00
Liability \$ Paid:	9,800.00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Project \$ Completed: 0.00
Total \$ Paid/Completed Amount: 55,700.00

HAZNET:

envid: 1000419158
Year: 2013
GEPaid: CAC002715378
Contact: CENTRAL CONTRA COSTA SANITARY DISTR
Telephone: 9252289500
Mailing Name: Not reported
Mailing Address: 5019 IMHOFF PLACE
Mailing City,St,Zip: MARTINEZ, CA 94553
Gen County: Contra Costa
TSD EPA ID: CAD981382732
TSD County: Alameda
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To
Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Facility County: Not reported

EMI:

Year: 1987
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 19
Reactive Organic Gases Tons/Yr: 6
Carbon Monoxide Emissions Tons/Yr: 12
NOX - Oxides of Nitrogen Tons/Yr: 87
SOX - Oxides of Sulphur Tons/Yr: 115
Particulate Matter Tons/Yr: 2
Part. Matter 10 Micrometers & Smlr Tons/Yr: 2

Year: 1990
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 36
Reactive Organic Gases Tons/Yr: 12
Carbon Monoxide Emissions Tons/Yr: 14
NOX - Oxides of Nitrogen Tons/Yr: 112
SOX - Oxides of Sulphur Tons/Yr: 1
Particulate Matter Tons/Yr: 2
Part. Matter 10 Micrometers & Smlr Tons/Yr: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Year: 1993
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 25
Reactive Organic Gases Tons/Yr: 12
Carbon Monoxide Emissions Tons/Yr: 6
NOX - Oxides of Nitrogen Tons/Yr: 72
SOX - Oxides of Sulphur Tons/Yr: 1
Particulate Matter Tons/Yr: 2
Part. Matter 10 Micrometers & Smlr Tons/Yr: 2

Year: 1995
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 18
Reactive Organic Gases Tons/Yr: 10
Carbon Monoxide Emissions Tons/Yr: 32
NOX - Oxides of Nitrogen Tons/Yr: 95
SOX - Oxides of Sulphur Tons/Yr: 1
Particulate Matter Tons/Yr: 2
Part. Matter 10 Micrometers & Smlr Tons/Yr: 2

Year: 1996
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 21
Reactive Organic Gases Tons/Yr: 12
Carbon Monoxide Emissions Tons/Yr: 25
NOX - Oxides of Nitrogen Tons/Yr: 66
SOX - Oxides of Sulphur Tons/Yr: 1
Particulate Matter Tons/Yr: 4
Part. Matter 10 Micrometers & Smlr Tons/Yr: 4

Year: 1997
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 22
Reactive Organic Gases Tons/Yr: 13
Carbon Monoxide Emissions Tons/Yr: 29
NOX - Oxides of Nitrogen Tons/Yr: 72
SOX - Oxides of Sulphur Tons/Yr: 1
Particulate Matter Tons/Yr: 4
Part. Matter 10 Micrometers & Smlr Tons/Yr: 4

Year: 1998
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 23
Reactive Organic Gases Tons/Yr: 14
Carbon Monoxide Emissions Tons/Yr: 25
NOX - Oxides of Nitrogen Tons/Yr: 66
SOX - Oxides of Sulphur Tons/Yr: 1
Particulate Matter Tons/Yr: 5
Part. Matter 10 Micrometers & Smlr Tons/Yr: 5

Year: 1999
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4959
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 26
Reactive Organic Gases Tons/Yr: 16
Carbon Monoxide Emissions Tons/Yr: 23
NOX - Oxides of Nitrogen Tons/Yr: 82
SOX - Oxides of Sulphur Tons/Yr: 1
Particulate Matter Tons/Yr: 5
Part. Matter 10 Micrometers & Smlr Tons/Yr: 4

Year: 2000
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4959
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 26
Reactive Organic Gases Tons/Yr: 16
Carbon Monoxide Emissions Tons/Yr: 23

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

NOX - Oxides of Nitrogen Tons/Yr:	82
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	5
Part. Matter 10 Micrometers & Smlr Tons/Yr:	4
Year:	2001
County Code:	7
Air Basin:	SF
Facility ID:	907
Air District Name:	BA
SIC Code:	4952
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	22
Reactive Organic Gases Tons/Yr:	13
Carbon Monoxide Emissions Tons/Yr:	25
NOX - Oxides of Nitrogen Tons/Yr:	72
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smlr Tons/Yr:	4
Year:	2002
County Code:	7
Air Basin:	SF
Facility ID:	907
Air District Name:	BA
SIC Code:	4952
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	22
Reactive Organic Gases Tons/Yr:	13
Carbon Monoxide Emissions Tons/Yr:	25
NOX - Oxides of Nitrogen Tons/Yr:	72
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smlr Tons/Yr:	4
Year:	2003
County Code:	7
Air Basin:	SF
Facility ID:	907
Air District Name:	BA
SIC Code:	4952
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	21
Reactive Organic Gases Tons/Yr:	12
Carbon Monoxide Emissions Tons/Yr:	24
NOX - Oxides of Nitrogen Tons/Yr:	60
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smlr Tons/Yr:	4
Year:	2004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 21.142
Reactive Organic Gases Tons/Yr: 11.1073803
Carbon Monoxide Emissions Tons/Yr: 23.791
NOX - Oxides of Nitrogen Tons/Yr: 59.594
SOX - Oxides of Sulphur Tons/Yr: 0.649
Particulate Matter Tons/Yr: 4.407
Part. Matter 10 Micrometers & Smllr Tons/Yr: 3.922496

Year: 2005
County Code: 7
Air Basin: SF
Facility ID: 907
Air District Name: BA
SIC Code: 4952
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 22.377
Reactive Organic Gases Tons/Yr: 12.0259188
Carbon Monoxide Emissions Tons/Yr: 24.273
NOX - Oxides of Nitrogen Tons/Yr: 65.136
SOX - Oxides of Sulphur Tons/Yr: .672
Particulate Matter Tons/Yr: 4.382
Part. Matter 10 Micrometers & Smllr Tons/Yr: 3.864532

ENVIROSTOR:

Facility ID: 7490039
Status: Certified / Operation & Maintenance
Status Date: 07/07/2004
Site Code: 200303
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 22
NPL: NO
Regulatory Agencies: SMBRP, RWQCB 2 - San Francisco Bay, CONTRA COSTA COUNTY
Lead Agency: SMBRP
Program Manager: Milly Pekke
Supervisor: Daniel Murphy
Division Branch: Cleanup Berkeley
Assembly: 14
Senate: 07
Special Program: Designation of Single Agency
Restricted Use: YES
Site Mgmt Req: REM, DAY, ELD, HOS, EX, GW, OIL, NOWN, NDAM, NSUB, HS, SCH, FOOD, COV, RES
Funding: Responsible Party
Latitude: 37.99808
Longitude: -122.0679
APN: 159-140-058-3, 159-150-057-2, 159150057

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

Past Use: MANUFACTURING - PETROLEUM, WASTE - SEWAGE TREATMENT PLANT
Potential COC: Benzene Total Chromium (1:6 ratio Cr VI:Cr III Lead Polynuclear aromatic hydrocarbons (PAHs TPH-diesel Cadmium and compounds Ethylbenzene Toluene Xylenes
Confirmed COC: Toluene Polynuclear aromatic hydrocarbons (PAHs TPH-diesel Cadmium and compounds Ethylbenzene Benzene Total Chromium (1:6 ratio Cr VI:Cr III Lead Xylenes
Potential Description: OTH, SOIL
Alias Name: Not reported
Alias Type: Not reported
Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported
Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

WDS:

Facility ID: San Francisco Bay 01L900010
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000005 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 2
Facility Telephone: 9252289500
Facility Contact: Tad Pilecki
Agency Name: CENTRAL CONTRA COSTA SAN DIS
Agency Address: 5019 Imhoff Pl
Agency City,St,Zip: Martinez 94553
Agency Contact: Tad Pilecki
Agency Telephone: 9252289500
Agency Type: ?
SIC Code: 0
SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported
Waste Type2: Not reported
Waste2: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CENTRAL CC SANITARY DISTRICT (Continued)

1000419158

POTW: Not reported
 Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
 Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

7
East
1/2-1
0.948 mi.
5006 ft.

TOSCO REFINING CO., AVON REFINERY
SOLANO WAY
MARTINEZ, CA 94553

ENVIROSTOR **S110494383**
N/A

Relative:
Lower

ENVIROSTOR:
 Facility ID: 71002101
 Status: Refer: Other Agency
 Status Date: Not reported
 Site Code: Not reported
 Site Type: Tiered Permit
 Site Type Detailed: Tiered Permit
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: NONE SPECIFIED
 Lead Agency: NONE SPECIFIED
 Program Manager: Not reported
 Supervisor: Not reported
 Division Branch: Cleanup Berkeley
 Assembly: 14
 Senate: 07
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: Not reported
 Latitude: 37.99025
 Longitude: -122.0655
 APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: CAD000072751
 Alias Type: EPA Identification Number
 Alias Name: 110018994123
 Alias Type: EPA (FRS #)
 Alias Name: 71002101
 Alias Type: Envirostor ID Number

Actual:
14 ft.

Completed Info:
 Completed Area Name: Not reported
 Completed Sub Area Name: Not reported
 Completed Document Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO REFINING CO., AVON REFINERY (Continued)

S110494383

Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

B8
NNW
1/2-1
0.960 mi.
5069 ft.

IT, BENSON RIDGE FACILITY
4575 PACHECO BOULEVARD
MARTINEZ, CA 94553

Toxic Pits S100676325
N/A

Site 1 of 3 in cluster B

Relative:
Lower

TOXIC PITS:

Region: 05S
Task #: 85049
Owner: IT CORPORATION
1/2 Mi Limit: Y
Num. of Pits: 3
Cease Discharge Due: 10/15/91
Cease Discharge Complete: 06/28/91
Closure Due: 11/01/92
Closure Completed: 06/28/91
Status: CLOSED
Hydro Geological Assessment Report Due: //
Final Hydro Geological Assessment Review Completed: //

Actual:
12 ft.

B9
NNW
1/2-1
0.960 mi.
5069 ft.

IT, MONTEZUMA HILLS FACILITY
4575 PACHECO BOULEVARD
MARTINEZ, CA 94553

Toxic Pits S100925121
N/A

Site 2 of 3 in cluster B

Relative:
Lower

TOXIC PITS:

Region: 05S
Task #: 85048
Owner: IT CORPORATION
1/2 Mi Limit: Y
Num. of Pits: 12
Cease Discharge Due: 10/30/88
Cease Discharge Complete: //
Closure Due: //
Closure Completed: 04/29/91
Status: CLOSED
Hydro Geological Assessment Report Due: //
Final Hydro Geological Assessment Review Completed: //

Actual:
12 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

B10
NNW
1/2-1
0.960 mi.
5069 ft.

IT CORP ENVIRON SERV MTZ
4575 PACHECO BLVD
MARTINEZ, CA 94553
Site 3 of 3 in cluster B

CORRACTS 1000180431
RCRA-SQG CAD982519001
FINDS
HAZNET
ENVIROSTOR

Relative:
Lower

CORRACTS:

Actual:
12 ft.

EPA ID: CAD982519001
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19980601
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): Not reported
Original schedule date: 19980601
Schedule end date: Not reported

EPA ID: CAD982519001
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19980601
Action: CA050 - RFA Completed
NAICS Code(s): Not reported
Original schedule date: 19980601
Schedule end date: Not reported

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: IT CORP ENVIRON SERV MTZ
Facility address: 4575 PACHECO BLVD
MARTINEZ, CA 94553
EPA ID: CAD982519001
Mailing address: 23456 HAWTHORNE BLVD STE 220
TORRANCE, CA 90505
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

IT CORP ENVIRON SERV MTZ (Continued)

1000180431

Owner/operator name: IT CORPORATION
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 06/27/1989
Site name: IT CORP ENVIRON SERV MTZ
Classification: Large Quantity Generator

Corrective Action Summary:

Event date: 06/01/1998
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 06/01/1998
Event: RFA Completed

Violation Status: No violations found

FINDS:

Registry ID: 110002839910

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid: 1000180431

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

IT CORP ENVIRON SERV MTZ (Continued)

1000180431

Year: 1995
GEPaid: CAD982519001
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 23456 HAWTHORNE BLVD #220
Mailing City,St,Zip: TORRANCE, CA 905050000
Gen County: Not reported
TSD EPA ID: CAD083166728
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Tons: .1668
Facility County: 7

envid: 1000180431
Year: 1993
GEPaid: CAD982519001
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 23456 HAWTHORNE BLVD #220
Mailing City,St,Zip: TORRANCE, CA 905050000
Gen County: Not reported
TSD EPA ID: UTD991301748
TSD County: Not reported
Waste Category: Polychlorinated biphenyls and material containing PCBs
Disposal Method: Invalid Code
Tons: 2.97869999999
Facility County: 7

envid: 1000180431
Year: 1993
GEPaid: CAD982519001
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 23456 HAWTHORNE BLVD #220
Mailing City,St,Zip: TORRANCE, CA 905050000
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Not reported
Tons: 0.59999999999
Facility County: 7

envid: 1000180431
Year: 1993
GEPaid: CAD982519001
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 23456 HAWTHORNE BLVD #220
Mailing City,St,Zip: TORRANCE, CA 905050000
Gen County: Not reported
TSD EPA ID: CAD982521460

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

IT CORP ENVIRON SERV MTZ (Continued)

1000180431

TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Transfer Station
Tons: 0.625
Facility County: 7

envid: 1000180431
Year: 1993
GEPaid: CAD982519001
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 23456 HAWTHORNE BLVD #220
Mailing City,St,Zip: TORRANCE, CA 905050000
Gen County: Not reported
TSD EPA ID: UTD991301748
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Transfer Station
Tons: 1.04
Facility County: 7

[Click this hyperlink](#) while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

ENVIROSTOR:

Facility ID: 7340005
Status: Refer: RCRA
Status Date: 06/06/1994
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Berkeley
Assembly: 14
Senate: 03
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 38.00569
Longitude: -122.0870
APN: 380042003
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

IT CORP ENVIRON SERV MTZ (Continued)

1000180431

Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 7490011
Status: Refer: RCRA
Status Date: 06/06/1994
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Berkeley
Assembly: Not reported
Senate: Not reported
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 0
Longitude: 0
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * HALOGENATED SOLVENTS * HYDROCARBON SOLVENTS * ORGANIC LIQUIDS WITH METALS * Pesticides - Wastes From Production * Sludge - Paint * UNSPECIFIED ACID SOLUTION * UNSPECIFIED ALKALINE SOLUTIONS * UNSPECIFIED SOLVENT MIXTURES * WASTE OIL & MIXED OIL
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

IT CORP ENVIRON SERV MTZ (Continued)

1000180431

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

**11
NE
1/2-1
0.995 mi.
5256 ft.**

**CONTRA COSTA TOPSOIL, INC
5030 IMHOFF DRIVE
MARTINEZ, CA 94553**

**Toxic Pits S100676221
EMI N/A**

**Relative:
Lower**

TOXIC PITS:

Region: 02
Task #: 02020
Owner: IT CORPORATION
1/2 Mi Limit: N
Num. of Pits: 8
Cease Discharge Due: 11/01/91
Cease Discharge Complete: / /
Closure Due: 11/01/94
Closure Completed: / /
Status: CLOSED
Hydro Geological Assessment Report Due: 03/15/92
Final Hydro Geological Assessment Review Completed: 06/18/91

**Actual:
20 ft.**

EMI:

Year: 2006
County Code: 7
Air Basin: SF
Facility ID: 16828
Air District Name: BA
SIC Code: 711
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .026
Reactive Organic Gases Tons/Yr: .0217542
Carbon Monoxide Emissions Tons/Yr: .141
NOX - Oxides of Nitrogen Tons/Yr: 1.625
SOX - Oxides of Sulphur Tons/Yr: .05
Particulate Matter Tons/Yr: .006
Part. Matter 10 Micrometers & Smllr Tons/Yr: .005856

Year: 2007
County Code: 7
Air Basin: SF
Facility ID: 16828
Air District Name: BA
SIC Code: 711
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: .002
NOX - Oxides of Nitrogen Tons/Yr: .023

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CONTRA COSTA TOPSOIL, INC (Continued)

S100676221

SOX - Oxides of Sulphur Tons/Yr: .002
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2008
County Code: 7
Air Basin: SF
Facility ID: 16828
Air District Name: BA
SIC Code: 711
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: .002
NOX - Oxides of Nitrogen Tons/Yr: .023
SOX - Oxides of Sulphur Tons/Yr: .002
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2009
County Code: 7
Air Basin: SF
Facility ID: 16828
Air District Name: BA
SIC Code: 711
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 3.0000000000000001E-3
NOX - Oxides of Nitrogen Tons/Yr: 2.9999999999999999E-2
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 3.0000000000000001E-3
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.0023

Year: 2010
County Code: 7
Air Basin: SF
Facility ID: 16828
Air District Name: BA
SIC Code: 711
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.002
NOX - Oxides of Nitrogen Tons/Yr: 0.024
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 3.0000000000000001E-3
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.0023

Year: 2011
County Code: 7

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CONTRA COSTA TOPSOIL, INC (Continued)

S100676221

Air Basin: SF
Facility ID: 16828
Air District Name: BA
SIC Code: 711
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.002
NOX - Oxides of Nitrogen Tons/Yr: 0.024
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2012
County Code: 7
Air Basin: SF
Facility ID: 16828
Air District Name: BA
SIC Code: 711
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.002
NOX - Oxides of Nitrogen Tons/Yr: 0.024
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.0025396825397
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.002

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MARTINEZ	S105093365	VILLAGE OAKS CLEANERS	55 E ARNOLD DRIVE	94553	DRYCLEANERS
MARTINEZ	1000419448	GSX SERVICES OF CALIFORNIA INC MAR	4501 PACHECO BLVD	94553	RCRA-TSDF, CERC-NFRAP, CORRAI RCRA-SQG, FINDS
PACHECO	1003878422	CONTRA COSTA CO SAN DIST STP	PACHECO RD-FWY680/H4	94553	CERC-NFRAP

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/09/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 10/19/2015
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/09/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 10/19/2015
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/09/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 10/19/2015
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/08/2015	Telephone: 703-603-8704
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 07/10/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/19/2015
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2015	Telephone: 703-603-0695
Date Made Active in Reports: 06/02/2015	Last EDR Contact: 06/01/2015
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/14/2015
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2015	Telephone: 703-603-0695
Date Made Active in Reports: 06/02/2015	Last EDR Contact: 06/01/2015
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/14/2015
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 08/12/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 11/30/2015
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/30/2015	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 03/31/2015	Telephone: 202-267-2180
Date Made Active in Reports: 06/02/2015	Last EDR Contact: 06/26/2015
Number of Days to Update: 63	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/04/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/05/2015	Telephone: 916-323-3400
Date Made Active in Reports: 05/14/2015	Last EDR Contact: 08/04/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 11/16/2015
	Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/04/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/05/2015	Telephone: 916-323-3400
Date Made Active in Reports: 05/14/2015	Last EDR Contact: 08/04/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 11/16/2015
	Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/18/2015	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 05/20/2015	Telephone: 916-341-6320
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 05/20/2015
Number of Days to Update: 16	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004	Source: California Regional Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 09/07/2004	Telephone: 213-576-6710
Date Made Active in Reports: 10/12/2004	Last EDR Contact: 09/06/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004	Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-622-2433
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 03/17/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 52

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 53

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/30/2015	Source: EPA, Region 5
Date Data Arrived at EDR: 05/29/2015	Telephone: 312-886-7439
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/03/2015	Source: EPA Region 10
Date Data Arrived at EDR: 02/12/2015	Telephone: 206-553-2857
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/15/2015	Source: SWRCB
Date Data Arrived at EDR: 06/17/2015	Telephone: 916-341-5851
Date Made Active in Reports: 07/06/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 19	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-327-5092
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 07/13/2015
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/03/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 04/30/2015	Telephone: 617-918-1313
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/31/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/30/2014	Source: EPA Region 4
Date Data Arrived at EDR: 03/03/2015	Telephone: 404-562-9424
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/30/2015	Source: EPA Region 5
Date Data Arrived at EDR: 05/26/2015	Telephone: 312-886-6136
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 03/17/2015	Source: EPA Region 6
Date Data Arrived at EDR: 05/01/2015	Telephone: 214-665-7591
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 52	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 65	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/30/2015	Source: EPA Region 8
Date Data Arrived at EDR: 05/05/2015	Telephone: 303-312-6137
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 48	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014	Source: EPA Region 9
Date Data Arrived at EDR: 02/13/2015	Telephone: 415-972-3368
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 07/31/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/06/2015	Source: EPA Region 10
Date Data Arrived at EDR: 05/19/2015	Telephone: 206-553-2857
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 07/10/2015
Number of Days to Update: 55	Next Scheduled EDR Contact: 10/28/2015
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 10/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 06/26/2015
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/04/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/05/2015	Telephone: 916-323-3400
Date Made Active in Reports: 05/14/2015	Last EDR Contact: 08/04/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 11/16/2015
	Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/08/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/09/2015	Telephone: 916-323-7905
Date Made Active in Reports: 07/10/2015	Last EDR Contact: 06/05/2015
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/23/2015
Date Data Arrived at EDR: 03/24/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/24/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 47

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/12/2015
Next Scheduled EDR Contact: 11/30/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/01/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 07/22/2015
Number of Days to Update: 37	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 06/11/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/16/2015	Telephone: 916-323-3400
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/05/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/08/2015	Source: DTSC and SWRCB
Date Data Arrived at EDR: 06/09/2015	Telephone: 916-323-3400
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/09/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/30/2015	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/31/2015	Telephone: 202-366-4555
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 06/26/2015
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/15/2015	Source: Office of Emergency Services
Date Data Arrived at EDR: 07/28/2015	Telephone: 916-845-8400
Date Made Active in Reports: 08/03/2015	Last EDR Contact: 07/28/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 06/15/2015	Source: State Water Quality Control Board
Date Data Arrived at EDR: 06/17/2015	Telephone: 866-480-1028
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 06/15/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/17/2015	Telephone: 866-480-1028
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/31/2015	Telephone: (415) 495-8895
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 06/26/2015
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 08/04/2015
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/16/2015
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 07/08/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/25/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 07/09/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/17/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/04/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/07/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/09/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/18/2015	Source: EPA
Date Data Arrived at EDR: 02/27/2015	Telephone: (415) 947-8000
Date Made Active in Reports: 03/25/2015	Last EDR Contact: 06/10/2015
Number of Days to Update: 26	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/13/2015	Telephone: 202-564-8600
Date Made Active in Reports: 03/25/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011	Source: EPA/NTIS
Date Data Arrived at EDR: 02/26/2013	Telephone: 800-424-9346
Date Made Active in Reports: 04/19/2013	Last EDR Contact: 05/29/2015
Number of Days to Update: 52	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/20/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 45

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/19/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 18

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/18/2015
Date Data Arrived at EDR: 02/20/2015
Date Made Active in Reports: 03/12/2015
Number of Days to Update: 20

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 12

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 35

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/17/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 03/25/2014
Date Made Active in Reports: 04/28/2014
Number of Days to Update: 34

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/25/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/26/2014	Telephone: 703-603-8787
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 07/07/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/19/2015
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 07/31/2015
Number of Days to Update: 83	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/07/2015	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 06/10/2015	Telephone: 916-445-4038
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/10/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/15/2015	Source: Department of Conservation
Date Data Arrived at EDR: 06/17/2015	Telephone: 916-322-1080
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board's review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 04/15/2015	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 04/17/2015	Telephone: 559-445-5577
Date Made Active in Reports: 06/23/2015	Last EDR Contact: 07/13/2015
Number of Days to Update: 67	Next Scheduled EDR Contact: 10/28/2015
	Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/14/2015
Number of Days to Update: 339	Next Scheduled EDR Contact: 10/28/2015
	Data Release Frequency: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/13/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 07/14/2015	Telephone: 916-440-7145
Date Made Active in Reports: 08/03/2015	Last EDR Contact: 07/14/2015
Number of Days to Update: 20	Next Scheduled EDR Contact: 10/28/2015
	Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/26/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/28/2015	Telephone: 916-323-3400
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 05/28/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Quarterly

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014	Source: EPA
Date Data Arrived at EDR: 10/31/2014	Telephone: 202-564-2496
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 06/22/2015
Number of Days to Update: 17	Next Scheduled EDR Contact: 10/05/2015
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/16/2014	Source: EPA
Date Data Arrived at EDR: 10/31/2014	Telephone: 202-564-2496
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 06/22/2015
Number of Days to Update: 17	Next Scheduled EDR Contact: 10/22/2015
	Data Release Frequency: Annually

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/10/2015	Telephone: 202-566-1917
Date Made Active in Reports: 03/25/2015	Last EDR Contact: 08/12/2015
Number of Days to Update: 15	Next Scheduled EDR Contact: 11/30/2015
	Data Release Frequency: Quarterly

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 06/12/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/07/2015	Source: Department of Public Health
Date Data Arrived at EDR: 06/09/2015	Telephone: 916-558-1784
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/09/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 07/13/2015
Number of Days to Update: 76	Next Scheduled EDR Contact: 10/28/2015
	Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/18/2015	Source: California Integrated Waste Management Board
Date Data Arrived at EDR: 05/22/2015	Telephone: 916-341-6066
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 05/18/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/30/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/01/2015	Telephone: 916-255-3628
Date Made Active in Reports: 05/13/2015	Last EDR Contact: 07/24/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/15/2015	Source: Department of Conservation
Date Data Arrived at EDR: 06/17/2015	Telephone: 916-323-3836
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/05/2015
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 08/10/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/22/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 06/05/2015
Date Data Arrived at EDR: 06/09/2015
Date Made Active in Reports: 07/10/2015
Number of Days to Update: 31

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 07/15/2015
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 17

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

COLUSA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list.

Date of Government Version: 06/11/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/07/2014
Number of Days to Update: 24

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 08/10/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 08/03/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List

Cupa Facility list

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 7

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 08/03/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/13/2015
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 20

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA facility list.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 15

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 06/18/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

LAKE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 13

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/20/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/10/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 07/21/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 13

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/21/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/10/2015
Number of Days to Update: 14

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/20/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/15/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/17/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 16

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/27/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/03/2015
Date Data Arrived at EDR: 06/04/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 32

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 06/04/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 17

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 10

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MONO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA Facility List

Date of Government Version: 06/01/2015
Date Data Arrived at EDR: 06/03/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 33

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/30/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 07/16/2015
Number of Days to Update: 9

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 06/03/2015
Date Data Arrived at EDR: 06/04/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 48

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/06/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/11/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 07/01/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 08/05/2015
Number of Days to Update: 29

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/15/2015
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/15/2015
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 10

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 7

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/30/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 7

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/10/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010	Source: San Diego County Department of Environmental Health
Date Data Arrived at EDR: 06/15/2010	Telephone: 619-338-2371
Date Made Active in Reports: 07/09/2010	Last EDR Contact: 06/03/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008	Source: Department Of Public Health San Francisco County
Date Data Arrived at EDR: 09/19/2008	Telephone: 415-252-3920
Date Made Active in Reports: 09/29/2008	Last EDR Contact: 08/06/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 11/23/2015
	Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010	Source: Department of Public Health
Date Data Arrived at EDR: 03/10/2011	Telephone: 415-252-3920
Date Made Active in Reports: 03/15/2011	Last EDR Contact: 08/06/2015
Number of Days to Update: 5	Next Scheduled EDR Contact: 11/23/2015
	Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2015	Source: Environmental Health Department
Date Data Arrived at EDR: 06/26/2015	Telephone: N/A
Date Made Active in Reports: 07/06/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 10/05/2015
	Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 05/22/2015	Source: San Luis Obispo County Public Health Department
Date Data Arrived at EDR: 05/26/2015	Telephone: 805-781-5596
Date Made Active in Reports: 06/10/2015	Last EDR Contact: 05/20/2015
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 07/22/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 12

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/15/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/10/2015
Date Data Arrived at EDR: 06/16/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 28

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 06/10/2015
Date Data Arrived at EDR: 06/16/2015
Date Made Active in Reports: 07/10/2015
Number of Days to Update: 24

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List CUPA facility listing.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 13

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List Cupa Facility List.

Date of Government Version: 06/12/2015
Date Data Arrived at EDR: 06/16/2015
Date Made Active in Reports: 07/10/2015
Number of Days to Update: 24

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/19/2015
Date Data Arrived at EDR: 06/24/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 20

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 06/19/2015
Date Data Arrived at EDR: 06/30/2015
Date Made Active in Reports: 07/07/2015
Number of Days to Update: 7

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List Cupa Facility list

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 18

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2015	Source: Department of Health Services
Date Data Arrived at EDR: 07/07/2015	Telephone: 707-565-6565
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/22/2015
Number of Days to Update: 7	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/05/2015	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 06/09/2015	Telephone: 530-822-7500
Date Made Active in Reports: 07/06/2015	Last EDR Contact: 06/05/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 07/13/2015	Source: Division of Environmental Health
Date Data Arrived at EDR: 07/28/2015	Telephone: 209-533-5633
Date Made Active in Reports: 08/03/2015	Last EDR Contact: 07/24/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 06/26/2015	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 07/17/2015	Telephone: 805-654-2813
Date Made Active in Reports: 08/03/2015	Last EDR Contact: 08/12/2015
Number of Days to Update: 17	Next Scheduled EDR Contact: 11/30/2015
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 06/26/2015
Number of Days to Update: 49	Next Scheduled EDR Contact: 10/19/2015
	Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 08/12/2015
Number of Days to Update: 37	Next Scheduled EDR Contact: 11/30/2015
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 04/27/2015	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 04/29/2015	Telephone: 805-654-2813
Date Made Active in Reports: 05/13/2015	Last EDR Contact: 07/27/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/27/2015	Source: Environmental Health Division
Date Data Arrived at EDR: 06/17/2015	Telephone: 805-654-2813
Date Made Active in Reports: 07/06/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 19	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 07/08/2015	Source: Yolo County Department of Health
Date Data Arrived at EDR: 07/13/2015	Telephone: 530-666-8646
Date Made Active in Reports: 07/22/2015	Last EDR Contact: 07/06/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/05/2015
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 05/18/2015	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 05/19/2015	Telephone: 530-749-7523
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 07/31/2015
Number of Days to Update: 17	Next Scheduled EDR Contact: 11/16/2015
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 08/19/2013	Telephone: 860-424-3375
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 05/18/2015
Number of Days to Update: 45	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/06/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 14

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/06/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/20/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/11/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation
Telephone: 281-546-1505

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation
Telephone: 800-823-6277

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MARTINEZ
ARNOLD DR
MARTINEZ, CA 94553

TARGET PROPERTY COORDINATES

Latitude (North):	37.9922 - 37° 59' 31.92"
Longitude (West):	122.0827 - 122° 4' 57.72"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	580547.9
UTM Y (Meters):	4205141.0
Elevation:	123 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5641124 WALNUT CREEK, CA
Version Date:	2012
North Map:	5602176 VINE HILL, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

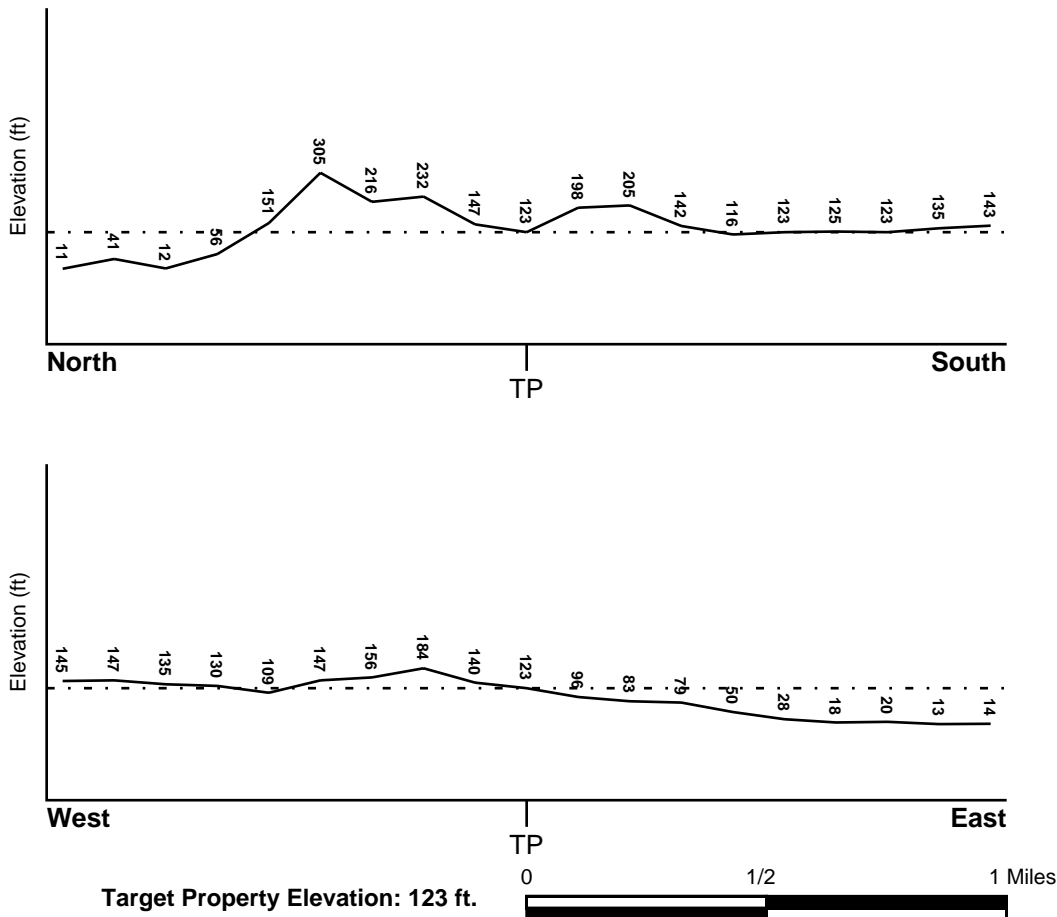
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u> CONTRA COSTA, CA	FEMA Flood <u>Electronic Data</u> YES - refer to the Overview Map and Detail Map
---	--

Flood Plain Panel at Target Property: 06013C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> WALNUT CREEK	NWI Electronic <u>Data Coverage</u> YES - refer to the Overview Map and Detail Map
--	--

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
1	1/2 - 1 Mile ESE	Not Reported
2	1/2 - 1 Mile ENE	Not Reported
3	1/2 - 1 Mile NNW	NNW

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

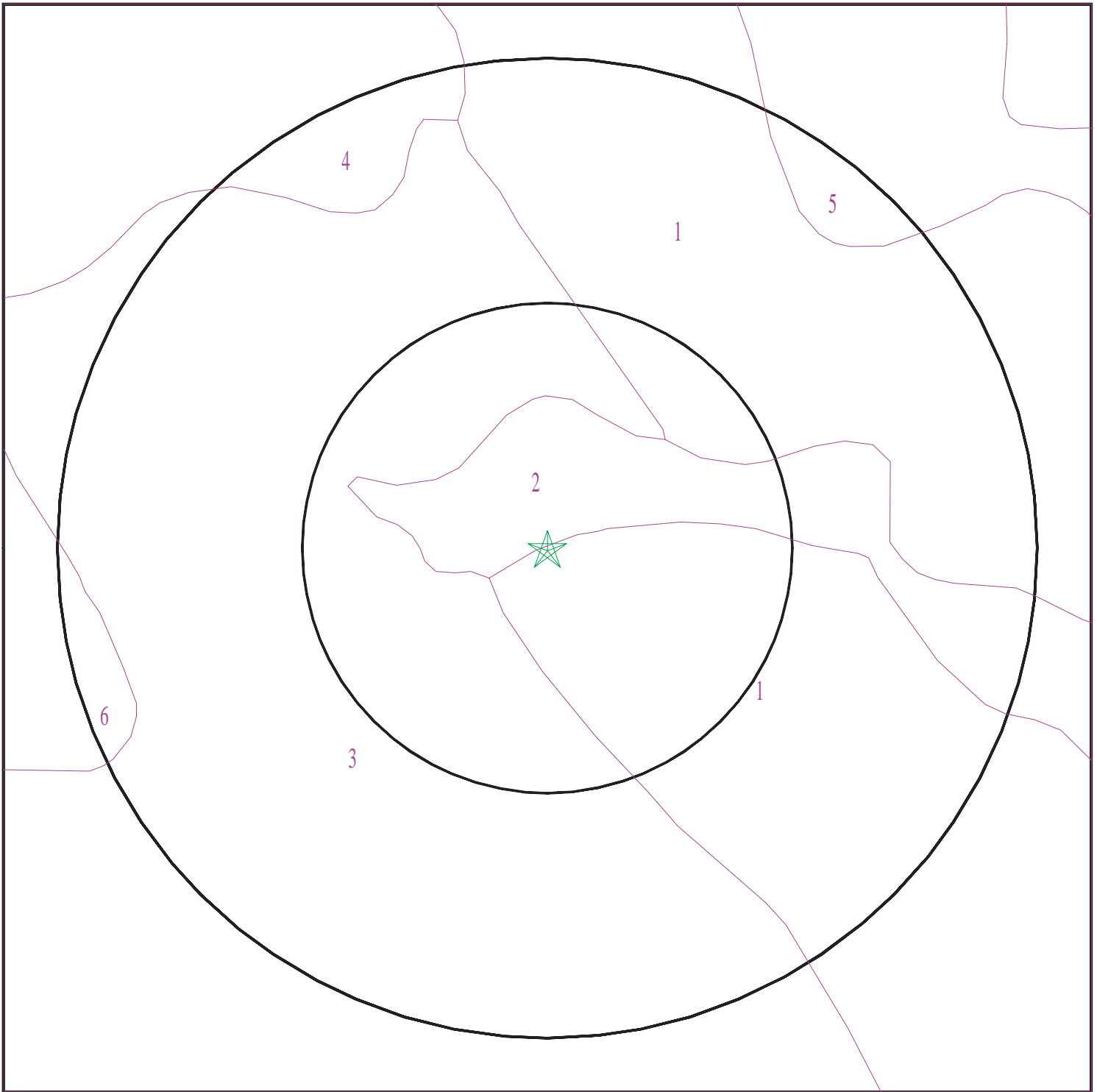
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Te <i>(decoded above as Era, System & Series)</i>

GEOLOGIC AGE IDENTIFICATION

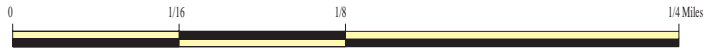
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4389624.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Martinez
ADDRESS: ARNOLD DR
Martinez CA 94553
LAT/LONG: 37.9922 / 122.0827

CLIENT: Env. Resource Group, Inc
CONTACT: Ben Wells
INQUIRY #: 4389624.2s
DATE: August 20, 2015 9:45 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: GAVIOTA

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 43 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	16 inches	20 inches	unweathered bedrock	Not reported	Not reported	Max: 14 Min: 1.4	Max: Min:

Soil Map ID: 2

Soil Component Name: POSITAS

Soil Surface Texture: loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	20 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 5.6
2	20 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 7.8 Min: 5.6

Soil Map ID: 3

Soil Component Name: LODO

Soil Surface Texture: clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 46 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6
2	18 inches	22 inches	unweathered bedrock	Not reported	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 4

Soil Component Name: BRIONES

Soil Surface Texture: loamy sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	9 inches	25 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.1
3	25 inches	29 inches	weathered bedrock	Not reported	Not reported	Max: 4 Min: 1.4	Max: Min:

Soil Map ID: 5

Soil Component Name: GAVIOTA

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 43 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	16 inches	20 inches	unweathered bedrock	Not reported	Not reported	Max: 14 Min: 1.4	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 6

Soil Component Name: TIERRA

Soil Surface Texture: loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	25 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6 Min: 5.1
2	25 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 7.3 Min: 5.6
3	59 inches	70 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

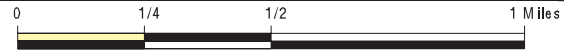
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 4389624.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Martinez
 ADDRESS: ARNOLD DR
 Martinez CA 94553
 LAT/LONG: 37.9922 / 122.0827

CLIENT: Env. Resource Group, Inc
 CONTACT: Ben Wells
 INQUIRY #: 4389624.2s
 DATE: August 20, 2015 9:45 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1 ESE 1/2 - 1 Mile Lower	Site ID:	11020	AQUIFLOW	64846
	Groundwater Flow:	Not Reported		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	14		
Date:	02/1999			
<hr/>				
2 ENE 1/2 - 1 Mile Lower	Site ID:	10300	AQUIFLOW	64817
	Groundwater Flow:	Not Reported		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	>17		
Date:	08/08/1991			
<hr/>				
3 NNW 1/2 - 1 Mile Lower	Site ID:	07-0088	AQUIFLOW	38478
	Groundwater Flow:	NNW		
	Shallow Water Depth:	4		
	Deep Water Depth:	13		
	Average Water Depth:	Not Reported		
Date:	02/18/1993			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94553	24	3

Federal EPA Radon Zone for CONTRA COSTA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level \geq 2 pCi/L and \leq 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 94553

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.500 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.600 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX B-7

EDR ENVIRONMENTAL LIEN AND ACTIVITY USE LIMITATION REPORTS

Martinez

ARNOLD DR
Martinez, CA 94553

Inquiry Number: 4389624.7
August 24, 2015

EDR Environmental Lien and AUL Search

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

ARNOLD DR
Martinez
Martinez, CA 94553

RESEARCH SOURCE

Source 1:

Contra Costa Recorder
Contra Costa, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed: deed
Title is vested in: Hill Valley Oaks LLC
Title received from: Louise Harvey & Steven Clark Trustees
Deed Dated: 8/17/2011
Deed Recorded: 8/28/2012
Book: NA
Page: na
Volume: na
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Hill Valley Oaks LLC

Parcel # / Property Identifier: 161-400-010-5, 161-400-009-7

Comments: See Exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found Not Found

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found Not Found

Deed Exhibit 1

22

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:

Timothy S. Williams
Wendel, Rosen, Black & Dean LLP
P.O. Box 2047
Oakland, CA 94604

CONTRA COSTA Co Recorder Office
STEPHEN L. WEIR, Clerk-Recorder
DOC- 2012-0331448-00

Acct 6-First American Title
Friday, DEC 28, 2012 08:00:00
S28 \$10.00:MOD \$5.00:REC \$15.00
FTC \$4.00:RED \$1.00:ERD \$1.00
Ttl Pd \$36.00 Rcpt # 0001519885
MLB/R2/1-5

SPACE ABOVE THIS LINE FOR RECORDER'S USE

APN 161-400-009-7
161-400-010-5

Grant Deed

The undersigned grantor(s) declare(s):
Documentary transfer tax is: \$; City Tax is \$

Transfer tax information set forth on separate
unrecorded affidavit

- computed on full value of property conveyed, or
- computed on full value less value of liens
and encumbrances remaining at time of sale
- Unincorporated area
- Realty not sold.

FOR VALUABLE CONSIDERATION, the receipt of which is hereby acknowledged,

**LOUISE HARVEY CLARK and STEVEN CLARK, Co-Trustees of the Marital Deduction
Trust U/A Clark Family Trust dated December 18, 1981 ("Grantor"),**

hereby GRANT to

HILL VALLEY OAKS, LLC, a California limited liability company ("Grantee"),

that certain real property in the City of Martinez, County of Contra Costa, State of California, more
particularly described in the attached **Exhibit A.**

(A.P.N. 161-400-009-7 and 161-400-010-5)

Date: August 17th, 2011

Louise Harvey Clark

Louise Harvey Clark, Co-Trustee of the
Marital Deduction Trust U/A Clark Family
Trust dated December 18, 1981

Steven Clark

Steven Clark, Co-Trustee of the Marital
Deduction Trust U/A Clark Family Trust
dated December 18, 1981

State of California

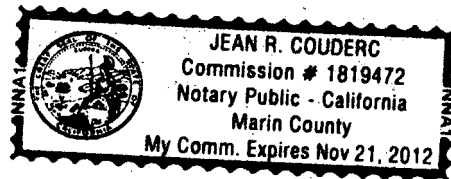
County of SONOMA

On August 17th, 2011 before me, Jean R. Couderc, Notary Public, personally appeared Louise Harvey Clark, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~ are subscribed to the within instrument and acknowledged to me that he ~~she~~ they executed the same in his ~~her~~ their authorized capacity(ies), and that by his ~~her~~ their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Jean R. Couderc
Notary Public



State of California

County of SONOMA

On August 17th, 2011 before me, Jean R. Couderc, Notary Public, personally appeared STEVEN Clark, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~ are subscribed to the within instrument and acknowledged to me that he ~~she~~ they executed the same in his ~~her~~ their authorized capacity(ies), and that by his ~~her~~ their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Jean R. Couderc
Notary Public

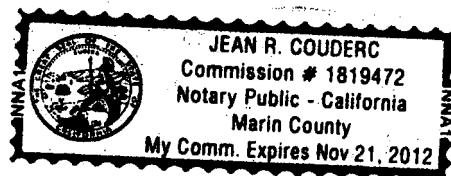


EXHIBIT A

Legal Description of Property

REAL PROPERTY IN THE CITY OF MARTINEZ, COUNTY OF CONTRA COSTA, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL ONE:

PORTION OF RANCHO LAS JUNTAS BEING A PORTION OF LOT I AS DESIGNATED ON THE MAP ENTITLED, MAP OF VINE HILL HOMESTEAD TRACT, FILED APRIL 17, 1884, MAP BOOK B, PAGE 42, CONTAINING 7.34 ACRES, MORE OR LESS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST LINE OF SAID LOT I AT THE NORTH LINE OF THE PARCEL OF LAND DESCRIBED AS PARCEL ONE IN THE DEED TO THE STATE OF CALIFORNIA, RECORDED NOVEMBER 21, 1938, BOOK 488, OFFICIAL RECORDS, PAGE 98; THENCE FROM SAID POINT OF BEGINNING ALONG THE NORTH LINE OF SAID STATE OF CALIFORNIA PARCEL 488 OFFICIAL RECORDS 98 AS FOLLOWS: SOUTH 78 53' 37" WEST, 560.15 FEET; SOUTH 87 07' 15" WEST, 540.48 FEET AND SOUTH 80 36' 05" WEST, 245.37 FEET TO THE EAST LINE OF THE PARCEL OF LAND DESCRIBED IN THE DEED TO HERBERT HERRING, ET UX, RECORDED NOVEMBER 27, 1941, BOOK 627, OFFICIAL RECORDS, PAGE 264; THENCE NORTH 8 15' WEST, ALONG SAID EAST LINE 309.17 FEET TO THE NORTH LINE OF SAID LOT I; THENCE ALONG THE EXTERIOR LINE OF SAID LOT I AS FOLLOWS:

NORTH 79 EAST 414.99 FEET; SOUTH 86 45' EAST, 598 FEET AND SOUTH 64 58' EAST, 410.2 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:

1. THE INTEREST CONVEYED TO CONTRA COSTA COUNTY BY DEED RECORDED ON OCTOBER 10, 1896, BOOK 73, DEEDS, PAGE 262 FOR USE AS A "PUBLIC HIGHWAY".

2. THAT PORTION THEREOF DESCRIBED AS PARCELS 1 AND 2 IN THE DEED TO STATE OF CALIFORNIA, RECORDED OCTOBER 10, 1972, BOOK 6769, OFFICIAL RECORDS, PAGE 134.

3. THAT PORTION THEREOF DESCRIBED AS PARCEL 1 IN THE DEED TO COUNTY OF CONTRA COSTA, RECORDED NOVEMBER 2, 1972, BOOK 6789, OFFICIAL RECORDS, PAGE 329.

4. THAT PORTION AS GRANTED IN THE DEED TO MT. VIEW SANITARY DISTRICT, RECORDED JANUARY 25, 1991 IN BOOK 16369, PAGE 57, OFFICIAL RECORDS.

PARCEL TWO:

PORTION OF THE RANCHO LAS JUNTAS, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTH LINE OF THE OLD COUNTY ROAD AT THE EAST LINE OF THE PARCEL OF LAND DESCRIBED IN THE DEED FROM ALEXANDER A. PETERSON TO CLARENCE GEARHARD, DATED APRIL 17, 1944, RECORDED JUNE 23, 1944 IN BOOK 773, PAGE 491, OFFICIAL RECORDS; THENCE FROM SAID POINT OF BEGINNING SOUTH 86 46' EAST ALONG THE NORTH LINE OF SAID COUNTY ROAD, 608.11 FEET; THENCE LEAVING SAID NORTH LINE NORTH 12 16' EAST, 718.90 FEET; THENCE SOUTH 80 37' 10" WEST, 1063.02 FEET TO A POINT ON THE EAST LINE OF SAID GEARHARD PARCEL (773 OFFICIAL RECORDS 491) DISTANT THEREON NORTH 30 16' WEST, 572.99 FEET FROM THE POINT OF BEGINNING; THENCE SOUTH 30 16' EAST, ALONG THE EAST LINE OF SAID GEARHARD PARCEL, 572.99 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM: ALL THAT PORTION OF HEREIN DESCRIBED PROPERTY LYING NORTH OF THE SOUTH LINE OF THE PARCEL OF LAND DESCRIBED IN THE DEED TO THE STATE OF CALIFORNIA OF THE PARCEL OF LAND, RECORDED AUGUST 16, 1972 IN BOOK 6726 AT PAGE 232, SERIES NO. 76836, OFFICIAL RECORDS, CONTRA COSTA COUNTY.

ALSO EXCEPTING THEREFROM:

THAT PORTION AS GRANTED IN THE DEED TO MT. VIEW SANITARY DISTRICT, RECORDED JANUARY 25, 1991 IN BOOK 16369, PAGE 57, OFFICIAL RECORDS.

PARCEL THREE:

THAT PORTION OF BARNEY HILL LANE ABANDONED IN RESOLUTION NO. 128-77 RECORDED, AUGUST 26, 1977 IN BOOK 8482, PAGE 243, SERIES NO. 119879, OFFICIAL RECORDS CONTRA COSTA COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY OF ARNOLD DRIVE AND THE SOUTHERLY BOUNDARY OF THE PARCEL OF LAND TO CLARK RECORDED IN BOOK 6502, PAGE 143; THENCE SOUTH 85 27' 57" EAST 431.36 FEET; THENCE SOUTH 12 16' 50" WEST 15.17 FEET; THENCE SOUTH 64 38' EAST 292.82 FEET; THENCE ALONG A CURVE TO THE RIGHT OF RADIUS 4156 FEET TO A NORTHEASTERLY BOUNDARY OF THE PARCEL OF LAND TO ANDERSON, AS RECORDED IN BOOK 554, PAGE 138; THENCE NORTH 64 58' WEST AND NORTH 86 27' 57" WEST ALONG THE NORTHEASTERLY BOUNDARY OF SAID ANDERSON PARCEL TO THE SOUTHERLY RIGHT OF WAY LINE OF ARNOLD DRIVE; THENCE EASTERLY ALONG SAID RIGHT OF WAY LINE TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM:

THAT PORTION AS GRANTED IN THE DEED TO MT. VIEW SANITARY DISTRICT, RECORDED JANUARY 25, 1991 IN BOOK 16369, PAGE 57, OFFICIAL RECORDS.

PARCEL FOUR:

A NON-EXCLUSIVE EASEMENT FOR DRIVEWAY AND UNDERGROUND UTILITIES PURPOSES TO BE APPURTENANT TO PARCEL TWO ABOVE, AS GRANTED IN THE DRIVEWAY EASEMENT RECORDED APRIL 3, 1981 IN BOOK 10267, PAGE 179, DESCRIBED AS FOLLOWS:

PORTION OF RANCHO LAS JUNTAS, DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST WESTERLY CORNER OF LOT "D" AS SHOWN ON THE MAP ENTITLED "MAP OF VINE HILL HOMESTEAD TRACT, CONTRA COSTA COUNTY, CALIFORNIA", FILED APRIL 17, 1884 IN VOLUME B OF MAPS, PAGE 42, CONTRA COSTA COUNTY RECORDS; THENCE NORTH 15 17' 22" EAST, 16.79 FEET ALONG THE NORTHWEST LINE OF SAID LOT "D" (B M 42); THENCE NORTH 12 17' 53" EAST, 84.83 FEET ALONG THE NORTHWEST LINE OF SAID LOT "D" (B M 42) TO THE POINT OF BEGINNING FOR THIS DESCRIPTION; THENCE FROM SAID POINT OF BEGINNING NORTH 12 17' 53" EAST, 129.98 FEET TO THE SOUTH LINE OF ARNOLD DRIVE; THENCE NORTHEASTERLY ALONG THE SOUTH LINE OF ARNOLD DRIVE ALONG THE ARC OF A CURVE, CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 1030.0 FEET, THE CENTER OF WHICH BEARS NORTH 34 06' 31" WEST, THROUGH A CENTRAL ANGLE OF 0 16' 41" AND AN ARC DISTANCE OF 5.00 FEET; THENCE SOUTH 32 59' 46" EAST, 43.32 FEET; THENCE SOUTH 12 17' 53" WEST, 48.95 FEET; THENCE SOUTHERLY ALONG THE ARC OF A TANGENT CURVE, CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 60.00 FEET, THROUGH A CENTRAL ANGLE OF 64 33' 42" AND AN ARC DISTANCE OF 67.61 FEET TO THE POINT OF BEGINNING.

APN: 161-400-009-7 (AFFECTS PARCEL TWO AND A PORTION OF PARCEL THREE) AND 161-400-010-5 (AFFECTS PARCEL ONE AND A PORTION OF PARCEL THREE)

"END OF DOC"

APPENDIX C

INTERVIEW RECORDS/ENVIRONMENTAL QUESTIONNAIRE

Environmental Resource Group

1038 Redwood Hwy, Ste. 1
Mill Valley, CA 94941
Tel: 415/381-6574
Fax: 415/381-6320
www.environmentalrg.com

PHASE I ENVIRONMENTAL SITE ASSESSMENT ENVIRONMENTAL QUESTIONNAIRE

Today's Date: 10-7-15

Target Property:

County Assessor's Parcel No. 161-400-009-700 and 161-400-010-500

Target Property Representative: Charles Clark

Owner Tenant Property Manager User Other _____

Number of Years Associated with Target Property: 4

Type of Transaction:

Purchase Refinance Exchange Other _____

Unknown

Please answer the following questions to the best of your knowledge:

1. Are you aware of any environmental liens on the Target Property?

Yes No

If yes, explain:

2. Are you aware of any Activity and Land Use Limitations (AULs) for the Target Property?

Yes No

If yes, explain:

3. Do you have any specialized knowledge, specific information, or direct experience with respect to chemical use at the Target Property?

Yes No

If yes, explain:

4. If this transaction is for a purchase or exchange, does the price being paid for the Target Property reasonably reflect the fair market value of the Property?

Not applicable Yes No Unknown

If yes, explain:

5. Are you aware of any information that would help the environmental professional identify potential environmental concerns at the Target Property?

Yes No

If yes, explain:

a. Specific chemicals:

b. Historical practices:

c. Chemical spills or releases:

d. Environmental cleanups:

e. Environmental violations: _____

6. Are you aware of any obvious indicators that point to the presence or likely presence of contamination at the Target Property?

Yes No

If yes, explain:

7. Based on your knowledge and experience, were the Target Property or adjoining properties historically used for industrial use?

Target Property: Yes No

If yes, explain:

If no, cite historical uses:

Adjoining Properties: Yes No

If yes, explain:

If no, cite historical uses:

8. Check Property Current Uses:

- Gas Station Motor Repair Commercial Printing Dry Cleaning Landfill Junkyard
 Photo Developing Waste TSD Facility Waste Processing Waste Recycling
 Other: Vacant Land Unknown

Check Adjoining Property Current Uses:

- Gas Station Motor Repair Commercial Printing Dry Cleaning Landfill Junkyard
 Photo Developing Waste TSD Facility Waste Processing Waste Recycling
 Other: Residential-West, Commercial-East Unknown

9. Based on your knowledge and experience, are there currently or were there previously any discarded auto or industrial batteries, or other chemicals > 5 gallons, or 50 gallons in aggregate on the Target Property?

- Yes No

If yes, explain:

10. Based on your knowledge and experience, has contaminated fill or fill of unknown origin ever been imported on the Target Property?

- Yes No

If yes, explain:

11. Based on your knowledge and experience, are there currently, or were there previously, any pits, ponds, or lagoons associated with waste treatment or waste disposal located on the Target Property?

- Yes No

If yes, explain:

12. Based on your knowledge and experience, is there currently, or was there previously, stained soil located on the Target Property?

- Yes No

If yes, explain:

13. Based on your knowledge and experience, are there currently, or were there previously, any registered or unregistered chemical storage tanks (aboveground [AST] or underground [UST]) on the Target Property?

- Yes No

If yes, explain their capacities, contents, and current dispositions:

14. Based on your knowledge and experience, are there currently, or were there previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the Target Property?

Yes No

If yes, explain:

15. Based on your knowledge and experience, is there currently, or was there previously, any evidence of leaks, spills, staining by substances other than water, foul odors associated with any floor drains, walls, ceilings on the Target Property?

Yes No

If yes, explain:

16. If the Target Property is served by a private well or a non-public water system, are you aware of any contaminants that have been identified in the well or system that exceed allowable limits?

Yes No Not applicable – no known non-public wells on the Target Property

If yes, explain:

17. Are you aware of any past threatened or pending violations of environmental laws, environmental lawsuits, or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the Target Property by any owner or occupant of the Target Property?

Yes No

If yes, explain:

18. Have you been informed of current or past existence of hazardous substances or petroleum products with respect to the Property or any facility currently or previously located on the Target Property?

Yes No

If yes, explain:

19. Are you aware of any environmental assessments (e.g., Phase I or II ESA) of the Target Property that indicated the current or past existence of hazardous substances or petroleum products or contamination on the Property, or recommendations for further assessment of the Property?

Yes No

If yes, explain and present copies of associated documents to the Environmental Professional:

20. Does the Target Property discharge any wastewater (not including sanitary waste or storm water) onto the Target Property or adjacent property and/or into a sanitary sewer system or storm drain system?

Yes No Unknown

If yes, explain:

21. Are you aware of any transformers, capacitors, or any other hydraulic equipment on the Target Property for which there are records indicating the presence of PCBs?

Yes No

If yes, explain:

22. Are you aware if any hazardous substances, petroleum products, tires, industrial batteries, or other waste materials have been dumped above grade, buried, or burned at the Target Property?

Yes No

If yes, explain:

23. Are you aware of any current or previous groundwater monitoring wells (for purposes of monitoring contamination) on the Target Property?

Yes No

If yes, explain:

24. Are you aware of any current or previous groundwater monitoring wells (for purposes of monitoring contamination) on adjacent and/or nearby properties?

Yes No

If yes, explain:

Are you having this Phase I Environmental Site Assessment performed to qualify for the Innocent Landowners Protection under CERCLA?

Yes No Unknown - Sale

Any additional comments:

By signing this form, I represent that to the best of my knowledge the information and statements presented above are correct and to the best of my knowledge no material facts have been suppressed or misstated.

Print Name: Charles Clark

Signature: Charles Clark

Date: 10-7-15

APPENDIX D
QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Ben Wells, Principal Geologist & ERG President. Mr. Wells is the Senior Client Contact and responsible for overall program implementation, and project quality assurance. His expertise includes management and removal of underground tank systems, collection and interpretation of air, soil and water quality data, coordination with regulatory agencies, and management of remedial investigations and activities.

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Appendix GEO

Preliminary Geotechnical Investigation and Peer Review

TYPE OF SERVICES	Preliminary Geotechnical Investigation
PROJECT NAME	Hill Valley Oaks Apartments
LOCATION	Arnold Drive Martinez, California
CLIENT	Hill Valley Oaks, LLC
PROJECT NUMBER	351-1-1
DATE	November 17, 2009 Revised December 11, 2009



GEOTECHNICAL

Type of Services	Preliminary Geotechnical Investigation
Project Name	Hill Valley Oaks Apartments
Location	Arnold Drive Martinez, California
Client	Hill Valley Oaks, LLC
Client Address	PO Box 1869 Pleasanton, California
Project Number	351-1-1
Date	November 17, 2009 Revised December 11, 2009

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Type of Services	Preliminary Geotechnical Investigation
Project Name	Hill Valley Oaks Apartments
Location	Arnold Drive Martinez, California

SECTION 1: INTRODUCTION

This preliminary geotechnical report was prepared for the sole use of Hill Valley Oaks, LLC for the Hill Valley Oaks Apartments in Martinez, California. The location of the site is shown on the Vicinity Map, Figure 1. For our use, we were provided with the following documents:

- A set of preliminary architectural plans (Sheets A1 through A18) prepared by JGA Architects dated August 13, 2009.

1.1 PROJECT DESCRIPTION

The project site is located just south of the intersection of Arnold Drive and Starflower Avenue, in Martinez, California. The approximately 5.1-acre site (currently designated as APN Nos. 161-400-009 & 010) is undeveloped and covered with low grasses and numerous mature trees. We understand that an apartment complex is currently planned for the site that will include seven buildings.

The planned 121-unit development will be 3 to 4 stories with one to two levels of below-grade parking. A concrete podium will likely support wood-frame construction. A portion of the ground floor space for one of the buildings may be used for retail or restaurant space. Appurtenant parking, retaining walls, utilities, landscaping and other improvements necessary for site development are also planned.

1.2 SCOPE OF SERVICES

Our scope of services was presented in our proposal dated October 5, 2009, and consisted of field and laboratory programs to evaluate physical and engineering properties of the subsurface soils, engineering analysis to prepare recommendations for site work and grading, building foundations, flatwork, retaining walls, and pavements, and preparation of this report. Brief descriptions of our exploration and laboratory programs are presented below.

1.3 EXPLORATION PROGRAM

Field exploration consisted of four borings drilled on October 21, 2009, with truck-mounted hollow-stem auger drilling equipment. The borings were drilled to depths ranging from approximately 19 to 39 feet. The borings were backfilled with cement grout in accordance with local requirements; exploration permits were obtained as required by local jurisdictions.

The approximate locations of our exploratory borings are shown on the Site Plan & Preliminary Geologic Map, Figure 2. Details regarding our field program are included in Appendix A.

1.4 LABORATORY TESTING PROGRAM

In addition to visual classification of samples, the laboratory program focused on obtaining data for foundation design and seismic ground deformation estimates. Testing included moisture contents (ASTM D2216), dry densities (ASTM D2937), grain size analyses (ASTM D 422), washed sieve analyses (ASTM D1140), and Plasticity Index (ASTM D4318) tests. Details regarding our laboratory program are included in Appendix B.

1.5 ENVIRONMENTAL SERVICES

Environmental services were not requested for this project. If environmental concerns are determined to be present during future evaluations, the project environmental consultant should review our geotechnical recommendations for compatibility with the environmental concerns.

SECTION 2: REGIONAL SETTING

2.1 GEOLOGICAL SETTING

The site is located in the western Diablo Range of the Coast Ranges structural and geomorphic province of California. This represents one mountain range in a series of northwesterly-aligned mountains forming the Coast Ranges geomorphic province of California that stretches from the Oregon border nearly to Point Conception. In the San Francisco Bay area, most of the Coast Ranges have developed on a basement of tectonically mixed Cretaceous- and Jurassic-age (70- to 200-million years old) rocks of the Franciscan Complex. Locally younger sedimentary and volcanic rocks cap these basement rocks. Still younger surficial deposits that reflect geologic conditions for the last million years or so cover most of the Coast Ranges.

The geology of this region is influenced by its setting within the active tectonic boundary between the Pacific and North American plates. The overall relative movement between these two plates is ideally represented by horizontal right slip of about 6 cm/yr on a vertical interface oriented to the northwest. Throughout coastal California, the surface expression of this interface is the San Andreas Fault, including its principal northwest-aligned branches. In the San Francisco Bay region the San Andreas Fault system includes several major branches, in addition to maintaining a relatively continuous main trace. The study site is near one such branch, the Concord-Green Valley Fault, crossing through the Walnut Creek area. The Hayward Fault, roughly 14 miles west of the site, is a well known, active feature exhibiting

abundant geologic evidence of recurring movement and are the sources of both nearly continuous micro-seismicity and also of several large historic earthquakes.

In addition to the deformation and sporadic large earthquakes resulting from predominately right-lateral shear movements along major branches of the San Andreas Fault system, the Coast Ranges are also affected by tectonic compression acting normal to the tectonic boundary. This compression drives the uplift and much of the internal deformation within the fault system.

Graymer et al. (1994) identify bedrock of the site area as Muir sandstone of Weaver (1953), as shown on the Regional Geologic Map, Figure 3. This is described as non-marine sandstone, massive, yellow, weathering arkosic sandstone. This unit is thought to be Miocene or Pliocene in age. Their map shows bedding dipping roughly 60 to 75 degrees to the southwest in the hills north, south and east of the site. A splayed trace of a Concord-Green Valley fault covered by Quaternary alluvium is shown east of the site, crossing the Concord area. Numerous smaller unnamed, inactive faults cross the site vicinity, including one mapped near the east end of the site.

2.2 REGIONAL SEISMICITY

The San Francisco Bay area is one of the most seismically active areas in the Country. While seismologists cannot predict earthquake events, the U.S. Geological Survey’s Working Group on California Earthquake Probabilities 2007 estimates there is a 63 percent chance of at least one magnitude 6.7 or greater earthquake occurring in the Bay Area region between 2007 and 2036. As seen with damage in San Francisco and Oakland due to the 1989 Loma Prieta earthquake that was centered about 50 miles south of San Francisco, significant damage can occur at considerable distances. Higher levels of shaking and damage would be expected for earthquakes occurring at closer distances.

The faults considered capable of generating significant earthquakes are generally associated with the well-defined areas of crustal movement, which trend northwesterly. The table below presents the State-considered active faults within 30 kilometers of the site.

Table 1: Approximate Fault Distances

Fault Name	Distance	
	(miles)	(kilometers)
Concord-Green Valley	1.7	2.7
Greenville	8.0	12.9
Calaveras (north)	10.1	16.3
Hayward (Total Length)	14.2	22.8
West Napa	16.4	26.4

A regional fault map is presented as Figure 4, illustrating the relative distances of the site to significant fault zones.

SECTION 3: SITE CONDITIONS

3.1 SITE BACKGROUND

Based on our review of historic topographic maps and aerial photographs dating back to 1915 and 1939, respectively, the site has undergone several significant changes in the past 40 years. Prior to the 1970s, the site was primarily an undeveloped parcel located northwest of Pacheco and just north of the former Arnold Industrial Highway (present day Highway 4). Prior to the construction of Highway 4, a farm road reportedly named Barney Hill Lane was present near the current alignment of Arnold Drive as far back as 1915. Barney Hill Lane connected to former Highway 21 (present day Interstate 680 corridor), but was bisected when the 2-lane Highway 4 was constructed. A drainage channel and two rows of trees are visible on the site in the 1939 aerial photograph lining the farm road that crossed the east end of the site. The drainage channel in the 1939 photograph appears to be the same channel presently located at the site. The farm road appears to be partially paved in the 1958 aerial photograph.

The remainder of the site appears to have been covered with low grasses and a few small bushes or trees until the 1960's. The 1965 photograph shows the trees lining the channel and farm road to be mature and form a denser canopy over the channel. Highway 4 was widened to a 4-lane freeway in the 1965 photograph from about the eastern half of the site towards the east.

Between 1965 and 1975, significant grading appears to have occurred along the Highway 4 corridor to further widen the freeway to four lanes adjacent to the entire site, and to re-align, resurface and extend the farm road into what is now present day Arnold Drive all the way to Pacheco Boulevard to the east. Significant cuts appear in the vicinity of the Highway 4 widening and surrounding hillsides as evidenced by the light-colored bedrock exposed during grading. The drainage channel is still visible in the 1975 photograph, but all mature trees have been removed. The north-facing slopes appear to be vegetated with low grasses. The remainder of the site appears to have been cut or filled with man-made fill, possibly from the adjacent Arnold Drive grading activities.

The 1982 photograph shows little change from the 1975 photograph, except that the existing storm drain pipe is visible just north of the drainage channel, which reportedly diverts all upstream water from the original channel. Several small trees and bushes are visible on the north-facing slope.

The 1993 photograph shows the existing sewer pump station has been constructed, as well as the office building and parking lot to the east. Residential development to the north was also observed. The drainage channel and storm drain pipeline are visible, and the trees on the slope are more mature. No other changes were observed in the 1995 and 2003 photographs, except for the increased size and extent of the slope vegetation.

3.2 SURFACE DESCRIPTION

The project site is located just south of the intersection of Arnold Drive and Starflower Avenue, in Martinez, California. The approximately 5.1-acre site (currently designated as APN Nos. 161-400-009 & 010) is undeveloped and covered with low grasses and numerous mature trees. The flat portions of the site have recently been tilled.

The site is bounded by Arnold Drive and existing residential development to the north, Highway 4 to the south, and existing commercial development to the east and west. In addition, an existing sanitary sewer pump station and parking lot is located adjacent to Arnold Drive, just east of the Starflower Avenue intersection. A sewer force main pipeline reportedly extends from the pump station along the Arnold Drive.

As discussed, an existing drainage channel crosses the eastern end of the site, as shown on Figure 2. Based on our discussions with you, a storm drain pipeline reportedly extends from the north end of the drainage channel, drains east parallel to Arnold Drive, and turns southeast along the eastern property line. The top of the reinforced concrete pipe (RCP) is partially exposed along the east end of the site.

Based on our review of available topographic data, site grades range from approximately Elevation 153 feet near the southwest corner of the site (top of ridge) to approximately Elevation 95 feet in the existing drainage channel (datum unknown). A ridgeline extends from the southwest corner of the site eastward along the southern property boundary; the ridgeline grades range from approximately Elevation 140 to 153 feet. The ridge slopes down to the north at an inclination ranging from approximately 3:1 to 4:1 (horizontal:vertical). The northern portion of the site slopes more gently downward towards Arnold Drive and the middle of the site (existing drainage channel) at roughly 3 to 6 percent.

As shown on Figure 2, the existing drainage channel starts near the north middle portion of the site and crosses towards the southeast corner of the site. The channel slopes are at an inclination of roughly 2:1 and the channel is about 3 to 6 feet deep.

3.3 SUBSURFACE CONDITIONS

As discussed, most of the site had recently been tilled to a depth of about 8 to 12 inches that exposed loose surficial soils. Borings EB-1 and EB-2 generally encountered approximately 8 to 10 feet of artificial (undocumented) fill consisting of soft to hard lean clay with varying amounts of sand and gravel and medium dense to dense clayey sand. The fill was underlain by native alluvial soils consisting of stiff to very stiff lean clay to a depth of approximately 12 to 22 feet. The alluvial clay was interbedded with thin layers of medium dense clayey sand. The alluvial clay was underlain by 4 to 6 feet of medium dense silty sand (possibly residual soil derived from the underlying sandstone bedrock), with fines contents ranging from approximately 26 to 40 percent.

In Borings EB-1 and EB-2, Muir Formation sandstone was encountered at a depth of 26 and 18 feet, respectively, beneath the alluvial soils. The sandstone was generally friable to weak, low

hardness, moderately weathered, massive, with very little to moderate cementation. The sandstone extended to the maximum depth explored at a depth of 39 feet.

In Boring EB-3, our explorations encountered 2 feet of artificial fill consisting of very stiff lean clay with sand underlain by Muir sandstone interbedded with sandy siltstone to a depth of 19 feet. In Boring EB-4, medium dense silty sand was encountered to a depth of approximately 5 feet that was underlain by Muir sandstone to the exploration depth of 24 feet.

3.3.1 Plasticity/Expansion Potential

We performed one Plasticity Index (PI) test on representative near-surface soil sample. Test results were used to evaluate expansion potential of surficial soils. The results of the surficial PI tests indicated a PI of 5, indicating low expansion potential to wetting and drying cycles.

3.3.2 In-Situ Moisture Contents

Laboratory testing indicated that the in-situ moisture contents within the upper 15 feet range from 0 to 10 percent over the estimated laboratory optimum moisture.

3.4 GROUND WATER

Ground water was encountered in Borings EB-1 and EB-2 at depths ranging from 10 to 13½ feet below current grades, corresponding to Elevations 88 to 89½ feet (datum unknown). Ground water was not encountered in Borings EB-3 or EB-4 during drilling. All measurements were taken at the time of drilling and may not represent the stabilized levels that can be higher than the initial levels encountered.

Fluctuations in ground water levels occur due to many factors including seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.

SECTION 4: GEOLOGIC HAZARDS

4.1 FAULT RUPTURE

As discussed above several significant faults are located within 30 kilometers of the site. The site is not located within a State-designated Alquist Priolo Earthquake Fault Zone. As shown in Figure 4, no known surface expression of active fault traces is thought to cross the site; therefore, fault rupture hazard is not a significant geologic hazard at the site.

4.2 ESTIMATED GROUND SHAKING

Moderate to severe (design-level) earthquakes can cause strong ground shaking, which is the case for most sites within the Bay Area. The California Geologic Survey maintains a website based on the USGS/CGS Probabilistic Seismic Hazards Assessment (PSHA) Model, 2002 (revised April 2003). The pseudo-peak acceleration for the site with a 10 percent chance of exceedance in 50 years is approximately 0.57g.

4.3 LIQUEFACTION POTENTIAL

Contra Costa County is not currently included in the State-designated Liquefaction Hazard Zone mapping performed by the California Geologic Survey (Walnut Creek 7½-Minute Quadrangle). The Association of Bay Area Governments (ABAG) has mapped the site as being in an area of very low to low liquefaction potential. Our field and laboratory programs addressed this issue by sampling potentially liquefiable layers above the underlying bedrock formation, performing visual classification on sampled materials, and performing various tests to further classify the soil properties.

4.3.1 Background

During strong seismic shaking, cyclically induced stresses can cause increased pore pressures within the soil matrix that can result in liquefaction triggering, soil softening due to shear stress loss, potentially significant ground deformation due to settlement within sandy liquefiable layers as pore pressures dissipate, and/or flow failures in sloping ground or where open faces are present (lateral spreading) (NCEER 1998). Limited field and laboratory data is available regarding ground deformation due to settlement; however, in clean sand layers settlement on the order of 2 to 3 percent of the liquefied layer thickness can occur. Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt layers bedded with a cohesive cap.

4.3.2 Analysis and Results

As discussed in the “Subsurface” section above, native alluvial sand layers were encountered in Borings EB-1 and EB-2 ranging from approximately 2 to 6 feet thick. These layers were encountered beneath the artificial fill area and below the design ground water depth of approximately 10 feet (corresponding to approximately Elevation 88 to 91 feet). Following the procedures in the 1998 NCEER Workshop Proceedings (Youd et. al., 2001) and in accordance with CDMG Special Publication 117A guidelines (CDMG, 2008), these layers were screened for liquefaction triggering and potential post-liquefaction settlement. These methods compare ratio of the estimated cyclic shaking (Cyclic Stress Ratio - CSR) to the soil’s estimated resistance to cyclic shaking (Cyclic Resistance Ratio - CRR), providing a factor of safety against liquefaction triggering. Factors of safety less than or equal to 1.0 are considered to be potentially liquefiable.

The CSR for each layer quantifies the stresses anticipated to be generated due to a design-level seismic event, is based on the peak horizontal acceleration generated at the ground surface discussed in the “Estimated Ground Shaking” section above, and is corrected for overburden and stress reduction factors as discussed in the procedure developed by Seed and Idriss (1971).

The soil’s CRR is estimated from the in-situ density and strength obtained from field SPT blowcounts (“N” value) from the exploratory borings. The “N” values are corrected for effective overburden stresses, taking into consideration both the ground water level at the time of

exploration and the design ground water level, and stress reduction versus depth factors. The “N” values are also corrected for fines content, hammer efficiency, boring diameter, rod length, and sampler type (with or without liners).

Soils with significant quantities of plastic fines (PI greater than 12) and soils with “N” values of 30 are typically considered too plastic or too dense/stiff to liquefy. These soil layers have been screened out during our analyses and are not presented below. The results of our preliminary SPT analyses are presented in the table below.

Table 2: Results of Liquefaction Analyses – SPT Method

Boring Number	Depth to Top of Layer (feet)	Layer Thickness (feet)	SPT (N _{160,CS})	Factor of Safety	Potential for Liquefaction	Estimated Total Settlement (inches)
EB-1	17½	2	38	1.0	Likely	¼
EB-1	22	4	40	1.3	Low	0
EB-2	12	6	30	0.6	Likely	1½

4.3.3 Summary

Our analyses indicate that two of the sand layers encountered in Borings EB-1 and EB-2 could potentially experience liquefaction triggering that could result in soil softening and post-liquefaction total settlement ranging from approximately ¼ to 1½ inches based on the Ishihara and Yoshimine (1992) method. As discussed in the SCEC report, differential movement for level ground sites over deep soil sites will be about half of the total settlement. Since the alluvial soil thickness along the alignment of the former drainage channel appears to vary abruptly, in our opinion, differential settlement could be greater than half the estimated total settlement.

Based on our preliminary analysis, we estimate that differential settlement due to liquefaction beneath Building 5 could be on the order of 1 inch across a horizontal distance of 50 feet. Portions of Building 6 could experience differential settlement on the order of ¼ inch or more, depending on the lateral extent and variable thickness of alluvial soils in that area. We recommend that additional subsurface exploration, laboratory testing and engineering analysis be performed during the design-level geotechnical investigation to further evaluate the potential for liquefaction-induced settlement beneath buildings that will straddle the fill/alluvial soil area of the site.

4.3.4 Ground Rupture Potential

The methods used to estimate liquefaction settlement assume that there is a sufficient cap of non-liquefiable material to prevent ground rupture or sand boils. For ground rupture to occur, the pore water pressure within the liquefiable soil layer will need to be great enough to break through the overlying non-liquefiable layer, which could cause significant ground deformation and settlement. Cuts on the order of 2 to 13 feet are proposed for Buildings 4 through 6 and the

podium garage, which will straddle the fill and alluvial soil area. The proposed cuts will remove some of the existing fill and native alluvial soil in the vicinity of Boring EB-2, leaving about only 6 feet of non-liquefiable fill and native soil above potential liquefiable material. For Building 6, cuts on the order of 2 to 5 feet are proposed in the fill and alluvial soil area. In the vicinity of Boring EB-1, approximately 14 feet of non-liquefiable material will remain over potential liquefiable materials.

The work of Youd and Garris (1995) indicates that the 6-foot thick layer of non-liquefiable cap in the area of Boring EB-2 may not be sufficient to prevent ground rupture; therefore, the above settlement estimates in the vicinity of EB-2 may be too low if cracks or fissures occur in the native soils immediately below the proposed improvements. Further discussion of potential impacts due to liquefaction is presented in the “Conclusions” section.

4.4 LATERAL SPREADING

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. As failure tends to propagate as block failures, it is difficult to analyze and estimate where the first tension crack will form.

A 3 to 6 foot deep drainage channel crosses the eastern half of the site. Based on the conceptual site plans, we understand that this channel will be filled during site development. Therefore, in our opinion, the potential for lateral spreading to affect the site is low.

4.5 SEISMIC SETTLEMENT/UNSATURATED SAND SHAKING

Loose unsaturated sandy soils can settle during strong seismic shaking. As the soils encountered at the site above the ground water level were predominantly stiff to very stiff clays and medium dense to dense sands, in our opinion, the potential for significant differential seismic settlement affecting the proposed improvements is low.

4.6 LANDSLIDING

The south end of the site is flanked by a 20 to 25 foot high slope that is inclined at approximately 3:1 to 4:1 (horizontal:vertical). Numerous mature trees and low bushes are present on the slope face; the remainder of the slope is covered with sparse low grasses. Based on our site observations, shallow bedrock was exposed near the top of the slope with the topsoil layer gradually increasing in thickness towards the bottom of the slope. The topsoil mantling the slope generally consists of loose silty sand. Bedrock within the ridgeline generally dips steeply towards the southwest, which based on our review of geologic maps for the region, is typical for this area.

Based on our site observations and review of available subsurface data, the potential for deep-seated slope instability is considered low due to the generally favorable bedrock orientation and moderate slope inclinations. The sandy topsoil mantling the slope, and the underlying

weathered shallow bedrock, may be susceptible to shallow sloughing or erosion during periods of heavy rainfall. Further discussion of the potential impacts due to development adjacent to the existing slopes is presented in the “Conclusions” section of this report.

4.7 FLOODING

Based on our internet search of the Federal Emergency Management Agency (FEMA) flood map public database, the site is located within Zone X, described as an area outside of the 0.2% of annual flood plain. We recommend the project civil engineer be retained to confirm this information and verify the base flood elevation, if appropriate.

The Association of Bay Area Governments has compiled a database of Dam Failure Inundation Hazard Maps (ABAG, 1995). The generalized hazard maps were prepared by dam owners as required by the State Office of Emergency Services; they are intended for planning purposes only. Based on our review of these maps, the site is not located within a dam failure inundation area.

SECTION 5: CONCLUSIONS

From a geotechnical viewpoint, the project is feasible provided the concerns listed below are addressed in the project design. The preliminary recommendations that follow are intended for conceptual planning and preliminary design. A design-level geotechnical investigation should be performed once site development plans are finalized. The design-level investigation findings will be used to confirm the preliminary recommendations and develop detailed recommendations for design and construction. Descriptions of each geotechnical concern with brief outlines of our preliminary recommendations follow the listed concerns.

- Potential for significant post-construction settlement in the vicinity of Buildings 4, 5, 6 and the podium garage due to:
 - ✓ Potentially liquefiable alluvial soils
 - ✓ Cut/fill or material transitions
 - ✓ Presence of artificial (undocumented) fill
- Shallow ground water
- Potential for shallow soil creep or erosion on north-facing slopes

5.1 POST-CONSTRUCTION SETTLEMENTS

5.1.1 Liquefaction Settlement

As discussed, our preliminary liquefaction analysis indicates that there is a potential for liquefaction of localized sand layers during a significant seismic event. These sand layers were encountered in Borings EB-1 and EB-2 within the former alluvial soil area that has subsequently been filled by artificial (undocumented) fill.

Our preliminary analysis indicates that liquefaction-induced settlement on the order of ¼ to 1½ inches could occur, resulting in differential settlement up to 1 inch. Due to the proposed cuts for portions of Building 6, the potential for liquefied sands to vent to the ground surface through cracks in the surficial soils is considered moderate. Therefore, the magnitude of total settlement may be greater than that predicted in our analysis.

5.1.2 Cut/Fill or Material Transitions

Material transitions occur when two or more materials with differing geotechnical characteristics interface in a small area, such as within a single lot or building pad. The materials that comprise these transitions can include bedrock, surficial soils, and engineered fill. Because the geotechnical characteristics of the materials are different, the long-term and seismic performance of these materials is also different. For instance, fill materials, even if well compacted, are typically more compressible than bedrock materials and as a result will usually experience a greater amount of settlement. The differences in the amount of settlement or expansion between fill materials and bedrock materials can cause distress to building foundations and other site improvements. Such distress will often either add to the long-term maintenance costs or reduce the design life associated with the structure.

5.1.3 Undocumented Fill

As previously discussed, undocumented fill on the order of 2- to 10-feet-thick was encountered in Borings EB-1, EB-2 and EB-3 drilled at the site. The fill is highly variable and may not uniformly support the proposed structures. To support structures on a shallow foundation system, the existing fill within the footprint of Buildings 4, 5, 6 and podium garage would need to be removed and reworked as engineered fill prior to placing any new fill. Preliminary recommendations for mitigating undocumented fills are provided in the “Earthwork” section.

5.1.4 Settlement Mitigation Options

The above geotechnical concerns will all contribute to post-construction settlement of buildings straddling the fill and alluvial soil area of the site, and will likely exceed tolerable limits of differential movement. Therefore, the use of conventional shallow footings in these areas may not be feasible. There are several options that can be considered to mitigate differential settlement due to liquefaction, material transitions and undocumented fills. These options include:

1. Support shallow foundations over one of the following ground improvement options:
 - A. Over-excavate potentially liquefiable soil, undocumented fills or material transitions and replacing with engineered fill material,
 - B. Perform ground improvement (such as rammed aggregate piers, soil-cement mixing, or vibro-compaction/impact piers) to densify potential liquefiable layers and fill materials

2. Support buildings on a deep foundation system that derives support from the underlying bedrock with structural slabs designed to span unsupported between deep foundations and grade beams.

Options 1A and 1B can be designed and constructed to also mitigate the potential for ground rupture, allowing conventional slabs-on-grade to be utilized. Option 2 will likely include designing the deep foundations to accommodate the potential liquefaction-induced downdrag and ground rupture; therefore, conventional slabs-on-grade may not be utilized and structural slabs required.

On a preliminary basis, we recommend that Buildings 4, 5, 6 and the podium garage be supported on a deep foundation system, such as drilled, cast-in-placed friction piers deriving support from the underlying bedrock materials, or be supported on shallow footings bearing on engineered or ground improved soils. In shallow bedrock areas where liquefiable soils are not present, buildings can be supported on shallow footings. Preliminary foundation recommendations are presented in the “Foundations” section.

5.2 SHALLOW GROUND WATER

Shallow ground water was measured at depths ranging from approximately 10 to 13½ feet below the existing ground surface in the artificial (undocumented) fill area. Our experience with similar sites indicates that shallow ground water could significantly impact grading and underground construction for excavations extending near or below the ground water level. These impacts typically consist of potentially wet and unstable pavement or building pad subgrade, difficulty achieving compaction, and difficult underground utility installation. Dewatering and shoring of utility trenches and basement excavations may be required in some isolated areas of the site. Preliminary recommendations addressing this concern are presented in the “Earthwork” section of this report.

5.3 SHALLOW SLOPE CREEP OR EROSION

Due to the loose, sandy nature of the topsoil mantling the north-facing slopes, shallow soil creep or erosion is expected to occur at the site during periods of heavy rainfall. Such movement is generally slow and gradual and occurs in the upper few inches or few feet of soils under the influence of gravity or during periods of intense rainfall. Though not a serious geologic hazard, this condition could be a nuisance to the proposed development where slow displacement or erosion of surficial soil could impact site improvements. Adequate erosion protection will need to be considered by the design team in these areas.

5.4 DESIGN-LEVEL GEOTECHNICAL INVESTIGATION

The preliminary recommendations contained in this report were based on limited site development information and limited exploration. As site conditions may vary significantly between the small-diameter borings performed during this investigation, we also recommend that we be retained to 1) perform a design-level geotechnical investigation once detailed site development plans are available; 2) to review the geotechnical aspects of the project structural,

civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing the plans for construction; and 3) be present to provide geotechnical observation and testing during earthwork and foundation construction.

SECTION 6: PRELIMINARY EARTHWORK RECOMMENDATIONS

6.1 SITE DEMOLITION, CLEARING AND PREPARATION

6.1.1 Site Stripping

The site should be stripped of all surface vegetation, and surface and subsurface improvements within the proposed development area. A discussion of removal of existing fills is provided later in this report. Surface vegetation and topsoil should be stripped to a sufficient depth to remove all material greater than 3 percent organic content by weight. Based on our site observations, surficial stripping should extend about 2 to 4 inches below existing grade in vegetated areas to receive fill.

6.1.2 Tree and Shrub Removal

Trees and shrubs designated for removal should have the rootballs and any roots greater than ½-inch diameter removed completely. Grade depressions resulting from rootball removal should be cleaned of loose material and backfilled in accordance with the recommendations in the “Compaction” section of this report.

6.1.3 Abandonment of Existing Utilities

All utilities should be completely removed from within planned building areas. For any utility line to be considered acceptable to remain within building areas, the utility line must be completely backfilled with grout or sand-cement slurry (sand slurry is not acceptable), the ends outside the building area capped with concrete, and the trench fills either removed and replaced as engineered fill with the trench side slopes flattened to at least 1:1, or the trench fills are determined not to be a risk to the structure. The assessment of the level of risk posed by the particular utility line will determine whether the utility may be abandoned in place or needs to be completely removed. The contractor should assume that all utilities will be removed from within building areas unless provided written confirmation from both the owner and the geotechnical engineer.

Utilities extending beyond the building area may be abandoned in place provided the ends are plugged with concrete, they do not conflict with planned improvements, and that the trench fills do not pose significant risk to the planned surface improvements.

The risks associated with abandoning utilities in place include the potential for future differential settlement of existing trench fills, and/or partial collapse and potential ground loss into utility lines that are not completely filled with grout. In general, the risk is relatively low for single utility lines less than 4 inches in diameter, and increases with increasing pipe diameter.

6.2 REMOVAL OF EXISTING FILLS

As discussed, portions of the site are blanketed by 2 to 10 feet of undocumented fill. If buildings in these areas are to be supported by deep foundations to mitigate post-construction settlement, on a preliminary basis, we recommend that the upper 2 feet of remaining fill in building pad areas be over-excavated and replaced with compacted fill to a lateral distance of at least 5 feet beyond the building footprint. If shallow foundations are considered for buildings straddling the fill areas, then all undocumented fill will need to be removed and replaced with engineered fill.

Provided the fills meet the “Material for Fill” requirements below, the fills may be reused when backfilling the excavations. Based on review of the samples collected from our borings, it appears that the fill may be reused. If materials are encountered that do not meet the requirements, such as debris, wood, trash, those materials should be screened out of the remaining material and be removed from the site. Backfill of excavations should be placed in lifts and compacted in accordance with the “Compaction” section below.

Fills extending into planned pavement and flatwork areas may be left in place provided they are determined to be a low risk for future differential settlement and that the upper approximately 12 inches of fill below pavement subgrade is re-worked and compacted as discussed in the “Compaction” section below.

6.3 TEMPORARY CUT AND FILL SLOPES

The contractor is responsible for maintaining all temporary slopes and providing temporary shoring where required. Temporary shoring, bracing, and cuts/fills should be performed in accordance with the strictest government safety standards.

Excavations performed during site demolition and fill removal should be sloped at 3:1 (horizontal:vertical) within the upper 5 feet below building subgrade. Excavations extending more than 5 feet below building subgrade and excavations in pavement and flatwork areas should be sloped at a 1:1 inclination unless the OSHA soil classification indicates that slope should not exceed 1.5:1.

6.4 MATERIAL FOR FILL

6.4.1 Re-Use of On-site Soils

On-site soils with an organic content less than 3 percent by weight may be reused as general fill. General fill should not have lumps, clods or cobble pieces larger than 6 inches in diameter; 85 percent of the fill should be smaller than 2½ inches in diameter. Minor amounts of oversize material (smaller than 12 inches in diameter) may be allowed provided the oversized pieces are not allowed to nest together and the compaction method will allow for loosely placed lifts not exceeding 12 inches, such as an 815 or REX compactor.

6.4.2 Potential Import Sources

Imported and non-expansive material should be inorganic with a Plasticity Index (PI) of 15 or less, and not contain recycled asphalt concrete where it will be used within interior habitable building areas. To prevent significant caving during trenching or foundation construction, imported material should have sufficient fines. Samples of potential import sources should be delivered to our office at least 10 days prior to the desired import start date. Information regarding the import source should be provided, such as any site geotechnical reports. If the material will be derived from an excavation rather than a stockpile, potholes will likely be required to collect samples from throughout the depth of the planned cut that will be imported. At a minimum, laboratory testing will include PI tests. Material data sheets for select fill materials (Class 2 aggregate base, ¾-inch crushed rock, quarry fines, etc.) listing current laboratory testing data (not older than 6 months from the import date) may be provided for our review without providing a sample. If current data is not available, specification testing will need to be completed prior to approval.

Environmental and soil corrosion characterization should also be considered by the project team prior to acceptance. Suitable environmental laboratory data to the planned import quantity should be provided to the project environmental consultant; additional laboratory testing may be required based on the project environmental consultant's review. The potential import source should also not be more corrosive than the on-site soils, based on pH, saturated resistivity, and soluble sulfate and chloride testing.

6.5 COMPACTION REQUIREMENTS

Imported and engineered fill material should be placed in loose lifts 8 inches thick or less and compacted to at least 90 percent relative compaction in accordance with ASTM D1557 (latest version) requirements. Fill placed below the upper 5 feet of finished grade should be compacted to at least 93 percent relative compaction. In general, fill should be compacted at moisture contents at least 1 to 3 percent above the laboratory optimum.

In general, clayey soils should be compacted with sheepfoot equipment and sandy/gravelly soils with vibratory equipment; open-graded materials such as crushed rock should be placed in lifts no thicker than 18 inches consolidated in place with vibratory equipment. Each lift of fill and all subgrade should be firm and unyielding under construction equipment loading in addition to meeting the compaction requirements to be approved.

6.6 TRENCH BACKFILL

Utility lines constructed within public right-of-way should be trenched, bedded and shaded, and backfilled in accordance with the local or governing jurisdictional requirements. Utility lines in private improvement areas should be constructed in accordance with the following requirements unless superseded by other governing requirements.

All utility lines should be bedded and shaded to at least 6 inches over the top of the lines with crushed rock (¾-inch-diameter or greater) or well-graded sand and gravel materials conforming to the pipe manufacturer's requirements. Open-graded shading materials should be consolidated in place with vibratory equipment and well-graded materials should be compacted

to at least 90 percent relative compaction with vibratory equipment prior to placing subsequent backfill materials.

General backfill over shading materials may consist of on-site native materials provided they meet the requirements in the “Material for Fill” section, and are moisture conditioned and compacted in accordance with the requirements in the “Compaction” section.

6.7 PERMANENT CUT AND FILL SLOPES

All permanent cut and fill slopes in soil should have a maximum inclination of 2:1 (horizontal:vertical) for slopes up to 10 feet high; slopes greater than 10 feet should be inclined at no greater than 3:1. All permanent cuts in competent bedrock may have a maximum inclination of 2:1. Fill slopes should be overbuilt and trimmed back, exposing engineered fill when complete. Erosion control will be needed on all disturbed and engineered fill slopes.

6.8 SITE DRAINAGE

6.8.1 General Surface Drainage

Surface runoff should not be allowed to flow over the top of or pond at the top or toe of engineered slopes or retaining walls. Ponding should also not be allowed on or adjacent to pavements or concrete flatwork. Surface drainage should be directed towards suitable drainage facilities such as lined v-ditches or drain inlets. Lined v-ditches should be included at the top of slopes and intermediate benches, and at the toe of open space adjacent to planned development. All v-ditches and drain inlets should be sized to accommodate the design storm events for the upslope tributary area. Concrete-lined v-ditches should be reinforced as required and have adequate control and construction joints, and should be constructed neat in excavations; backfill around formed ditches should not be allowed.

Upslope sources of water should be evaluated. If upslope irrigation of is present or planned, additional surface and subsurface drainage, or construction of drained buttress fills may be needed to protect site improvements. We should be consulted if this issue will affect the project.

6.8.2 Building Pad Surface Drainage

Ponding should not be allowed adjacent to building foundations, slabs-on-grade, or pavements. Hardscape surfaces should slope at least 2 to 3 percent towards suitable discharge facilities; landscape areas should slope at least 3 to 5 percent. Roof runoff should be directed away from building areas. Landscape drainage such as drain inlets and storm water filtration and/or infiltration trenches should be provided to collect and transmit storm water runoff to project storm drains, and/or detention or retention facilities.

6.8.3 Subsurface Drainage

Subdrains should be installed at the toe of any proposed cut slopes and behind site retaining and basement walls, depending on the actual conditions observed during construction. The actual location of subdrains should be determined in the field at the time of construction.

6.9 BELOW-GRADE EXCAVATIONS

Below-grade excavations may be constructed with temporary slopes in accordance with the “Temporary Cut and Fill Slopes” section above if space allows. Alternatively, temporary shoring may support the planned cuts up to 15 to 20 feet. The choice of shoring method should be left to the contractor’s judgment based on experience, economic considerations and adjacent improvements such as utilities, pavements, and foundation loads. Temporary shoring should support adjacent improvements without distress and should be the contractor’s responsibility. A pre-condition survey including photographs and installation of monitoring points for existing site improvements should be included in the contractor’s scope. We should be provided the opportunity to review the geotechnical parameters of the shoring design prior to implementation; the project structural engineer should be consulted regarding support of adjacent structures.

6.9.1 Temporary Shoring

Based on the site conditions encountered during our investigation, the proposed cuts into bedrock and surficial soils can likely be supported by soldier beams and tie-backs, braced excavations, soil nailing, or potentially other methods. Where shoring will extend more than about 10 feet, restrained shoring will most likely be required to limit detrimental lateral deflections and settlement behind the shoring. In addition to soil earth pressures, the shoring system will need to support adjacent loads such as construction vehicles and incidental loading, existing structure foundation loads, and street loading. Heavy construction loads (cranes, etc.) and material stockpiles will need to be kept at least 15 feet behind the shoring. Where this loading cannot be set back, the shoring will need to be designed to support the loading. The shoring designer should provide for timely and uniform mobilization of soil pressures that will not result in excessive lateral deflections. Detailed design criteria for shoring design should be developed during the design-level geotechnical investigation.

We performed our borings with hollow-stem auger drilling equipment and as such were not able to evaluate the potential for caving soils, which can create difficult conditions during soldier beam, tie-back, or soil nail installation; caving soils can also be problematic during excavation and lagging placement. The contractor is responsible for evaluating excavation difficulties prior to construction. Where relatively clean sands (especially encountered below ground water) were encountered during our exploration, pilot holes performed by the contractor may be desired to further evaluate these conditions prior to the finalization of the shoring budget. Shoring contractors should take into consideration the potential for slower production rates, and increased tie-back/soil nail shaft diameter (i.e. higher grout take) due to caving sands.

In addition to anticipated deflection of the shoring system, other factors such as voids created by soil sloughing, and erosion of granular layers due to perched water conditions can create

adverse ground subsidence and deflections. The contractor should attempt to cut the excavation as close to neat lines as possible; where voids are created they should be backfilled as soon as possible with sand, gravel, or grout.

The above information is for the use of the design team; the contractor in conjunction with input from the shoring designer should perform additional subsurface exploration they deem necessary to design the chosen shoring system. A California-licensed civil or structural engineer must design and be in responsible charge of the temporary shoring design. The contractor is responsible for means and methods of construction, as well as site safety.

6.9.2 Construction Dewatering

Ground water levels in the existing fill areas are expected to be at about 5 to 7 feet below the planned excavation bottom. However, perched ground water could be encountered during excavation for basement parking. Therefore, temporary dewatering may be necessary during construction. Design, selection of the equipment and dewatering method, and construction of temporary dewatering should be the responsibility of the contractor. Modifications to the dewatering system are often required in layered alluvial soils and should be anticipated by the contractor. The dewatering plan, including planned dewatering well filter pack materials, should be forwarded to our office for review prior to implementation.

Depending on the ground water quality and previous environmental impacts to the site and surrounding area, settlement and storage tanks, particulate filtration, and environmental testing may be required prior to discharge, either into storm or sanitary, or trucked to an off-site facility.

SECTION 7: PRELIMINARY FOUNDATION RECOMMENDATIONS

7.1 SUMMARY OF RECOMMENDATIONS

As discussed, due to the potential for differential settlement for the proposed structures that will straddle cut/fill or material transitions or be underlain by potentially liquefiable materials, the proposed buildings should be supported on a deep foundation system consisting of drilled, cast-in-place friction piers. As an alternative to deep foundations, the differential settlement and ground rupture potential can be mitigated by either over-excavating material transitions or performing ground improvement in fill and alluvial soil areas. Differential foundation movement is anticipated to impact all or portions of Buildings 4, 5, 6 and the podium garage. If earthwork mitigation or ground improvement is performed, these buildings can likely be supported on shallow foundations. Buildings 1 through 3 can likely be supported on shallow footings without requiring settlement mitigation. Preliminary foundation recommendations are presented in the following sections.

7.2 SHALLOW FOUNDATIONS

7.2.1 Spread Footings

For buildings located in bedrock or non-fill areas, the buildings may be supported on shallow spread or continuous strip footings. Footings should bear on natural, undisturbed soil or engineered fill, be at least 18 inches wide, and extend at least 18 inches below the lowest adjacent grade. Lowest adjacent grade is defined as the deeper of the following: 1) bottom of the adjacent interior slab-on-grade, or 2) finished exterior grade, excluding landscaping topsoil.

On a preliminary basis, footings constructed to the above dimensions will likely be capable of supporting maximum allowable bearing pressures on the order of 3,000 to 4,000 psf for dead plus live loads. This pressure is a net value; the weight of the footing may be neglected for the portion of the footing extending below grade (typically, the full footing depth). Top and bottom mats of reinforcing steel should be considered in continuous footings to help span irregularities and differential settlement.

7.2.2 Footing Settlement

Structural loads were not provided to us at the time this report was prepared. Based on the range of allowable bearing pressures presented above and assuming buildings supported on shallow footings are bearing entirely in native bedrock, stiff soil, engineered fill, or overlying ground improvement, we estimate that the total static footing settlement will be on the order of 1 inch or less, with approximately ½-inch or less of post-construction differential settlement between adjacent foundation elements. Seismic settlements are assumed to be negligible where footings overly shallow bedrock or based on the ground mitigation requirements.

7.2.3 Spread Footing Construction Considerations

Where utility lines will cross perpendicular to strip footings, the footing should be deepened to encase the utility line, providing sleeves or flexible cushions to protect the pipes from anticipated foundation settlement, or the utility lines should be backfilled to the bottom of footing with sand-cement slurry or lean concrete. Where utility lines will parallel footings and will extend below the “foundation plane of influence,” an imaginary 1:1 plane projected down from the bottom edge of the footing, either the footing will need to be deepened so that the pipe is above the foundation plane of influence or the utility trench will need to be backfilled with sand-cement slurry or lean concrete within the influence zone. Sand-cement slurry used within foundation influence zones should have a minimum compressive strength of 75 psi.

7.3 DRILLED PIERS

To mitigate potential post-construction settlement for Buildings 4, 5, 6 and the podium garage, on a preliminary basis, these buildings should be supported on drilled, cast-in-place, straight-shaft friction piers. The piers should have a minimum diameter of 18 inches and extend to a depth of at least 5 feet into bedrock. Adjacent piers centers should be spaced at least three diameters apart, otherwise, a reduction for group effects may be required. Grade beams should

span between piers and/or pier caps in accordance with structural requirements. Slabs should be designed to span unsupported between piers and grade beams to mitigate the effects of differential movement from liquefaction-induced ground rupture.

On a preliminary basis, the vertical capacity of the piers may be evaluated based on an allowable skin friction of approximately 600 psf for combined dead plus live loads based on a factor of safety of 2.0; dead loads should not exceed two-thirds of the allowable capacities. The allowable skin friction may be increased by one-third for wind and seismic loads. Depending on the finished foundation elevation, it may be necessary to neglect all or a portion of the skin friction within the fill or native alluvial soils. Total settlement of individual piers or pier groups of four or less should not exceed ½ inch to mobilize static capacities.

The excavation of all drilled shafts should be observed by a Cornerstone representative to confirm the soil profile, verify that the piers extend the minimum depth into suitable materials and that the piers are constructed in accordance with our recommendations and project requirements. The drilled shafts should be straight, dry, and relatively free of loose material before reinforcing steel is installed and concrete is placed. If ground water cannot be removed from the excavations prior to concrete placement, drilling slurry or casing may be required to stabilize the shaft and the concrete should be placed using a tremie pipe, keeping the tremie pipe below the surface of the concrete to avoid entrapment of water or drilling slurry in the concrete. Due to the relatively high ground water and loose nature of some of the sand layers, the use of drilling slurry and/or casing of each drilled shaft may be required.

7.4 GROUND IMPROVEMENT

7.4.1 General

Another option to mitigate potential post-construction settlement for Buildings 4, 5, 6 and the podium garage, would be to perform ground improvement in areas where increased settlement is estimated to occur. Ground improvement, such as impact or vibro-piers, stone columns, or other similar system, should improve the subsurface soils to reduce total differential (static and seismic) settlements to an allowable level for spread footings. Rather than eliminating all of the potential settlement, ground improvement would be used to reduce settlements to acceptable levels for a shallow foundation system. The intent of ground improvement is to increase the density of potentially liquefiable soils or loose fill material by laterally displacing and/or densifying the existing in-place soils. The degree to which the density is increased will depend on the improvement method and spacing. In addition to increasing the density, ground improvement may also provide an additional increase in bearing capacity and soil stiffness at individual improvement locations. Ground improvement can also provide better support for slab-on-grade areas so that the potential for adverse slab differential movement is reduced after strong seismic shaking.

7.4.2 Rammed Aggregate Piers Foundation System

Rammed Aggregate Piers (RAPs), such as the Geopier® Impact RAPs foundation system are typically 20- to 24-inch-diameter elements spaced approximately 4 to 8 feet on center. They are

constructed by driving a hollow steel pipe mandrel into the ground and compacting layers of crushed rock with a 150-ton vibratory hammer. Typical improvement depths range from approximately 15 to 50 feet. Since Impact Piers displace existing soils as they are densified, no additional spoils are generated during construction. Conventional RAPs are constructed by drilling a 30-inch diameter shaft (similar to drilled piers) and compacting layers of either crushed rock or Class 2 aggregate base with a high-impact ramming tool attached to an excavator. Typical improvement depths range from approximately 15 to 30 feet. Drill spoils would need to be re-used on-site or off-hauled.

Ground improvement designs should typically include, but not be limited to the following:

- drawings showing the ground improvement layout, spacing and diameter
- the foundation layout plan
- proposed ground improvement length
- top and bottom elevations
- Post-construction CPT tip resistance criteria to be achieved in the sand layers after installation and refusal criteria

Additional exploration will be required during the design-level investigation to further characterize the subsurface conditions in ground improvement areas.

7.4.3 Ground Improvement Performance Testing

In our opinion, performing ground improvement for the portions from approximately 10 to 20 feet of the subsurface profile in the fill and alluvial soil areas could potentially reduce the estimated settlements to tolerable levels. However, design of ground improvement including depths and limits will be the responsibility of the design-build ground improvement contractor. The performance criteria should be based on reducing the estimated total foundation settlements to tolerable levels approved by the structural engineer. Cornerstone should work with and provide geotechnical input and design parameters to the ground improvement design-built contractor. We should review the final design and plans to confirm foundation estimates and recommendations following the design-level geotechnical investigation.

SECTION 8: CONCRETE SLABS

The following recommendations are for buildings supported on shallow foundations overlying shallow bedrock or ground improvement, as previously discussed. If Buildings 4, 5, 6 and the podium garage are supported on deep foundations, portions of the lower level garage slab may need to be designed as a structural slab that is capable of spanning between deep foundation elements.

8.1 GARAGE SLABS-ON-GRADE

Garage slabs-on-grade should be at least 5 inches thick and if constructed with minimal reinforcement intended for shrinkage control only, should have a minimum compressive strength of 3,000 psi. If the slab will have heavier reinforcing because the slab will also serve as a structural diaphragm, the compressive strength may be reduced to 2,500 psi at the structural engineer's discretion.

In general, garage slabs should be supported on at least 4 inches of which should consist of either Class 2 aggregate base or $\frac{3}{4}$ -inch clean, crushed rock place and compacted in accordance with the "Compaction" section of this report. If there will be areas within the garage that are moisture sensitive, such as equipment and elevator rooms, the recommendations in the "Interior Slabs Moisture Protection Considerations" section below may be incorporated in the project design if desired. Consideration should be given to limiting the control joint spacing to a maximum of about 2 feet in each direction for each inch of concrete thickness.

8.2 INTERIOR SLABS MOISTURE PROTECTION CONSIDERATIONS

The following general guidelines for concrete slab-on-grade construction where floor coverings are planned are presented for the consideration by the developer, design team, and contractor. These guidelines are based on information obtained from a variety of sources, including the American Concrete Institute (ACI) and are intended to reduce the potential for moisture-related problems causing floor covering failures, and may be supplemented as necessary based on project-specific requirements. The application of these guidelines or not will not affect the geotechnical aspects of the slab-on-grade performance.

- Place a 10-mil vapor retarder conforming to ASTM E 1745, Class C requirements or better directly below the concrete slab; the vapor retarder should extend to the slab edges and be sealed at all seams and penetrations in accordance with manufacturer's recommendations and ASTM E 1643 requirements. A 4-inch-thick capillary break, consisting of $\frac{1}{2}$ - to $\frac{3}{4}$ -inch crushed rock with less than 5 percent passing the No. 200 sieve, should be placed below the vapor retarder and consolidated in place with vibratory equipment.
- The concrete water:cement ratio should be 0.45 or less. Mid-range plasticizers may be used to increase concrete workability and facilitate pumping and placement.
- Water should not be added after initial batching unless the slump is less than specified and/or the resulting water:cement ratio will not exceed 0.45.
- Polishing the concrete surface with metal trowels should not be allowed versus light broom or limited trowel finishing.

SECTION 9: VEHICULAR PAVEMENTS

9.1 ASPHALT CONCRETE

The following preliminary asphalt concrete pavement recommendations tabulated below are based on the Procedure 608 of the Caltrans Highway Design Manual, estimated traffic indices for various pavement-loading conditions, and on a design R-value of 20. The design R-value was chosen based on the relatively sandy and low plasticity soils encountered within the upper 10 feet and engineering judgment considering the variable surface conditions.

Table 4: Preliminary Asphalt Concrete Pavement Recommendations

Design Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Aggregate Base* (inches)	Total Pavement Section Thickness** (inches)
4.0	2.5	6.0	8.5
4.5	2.5	7.0	9.5
5.0	3.0	7.0	10.0
5.5	3.0	9.0	12.0
6.0	3.5	10.0	13.5
6.5	4.0	11.0	15.0

*Caltrans Class 2 aggregate base; minimum R-value of 78

**Preliminary subgrade design R-value = 20

Additional laboratory testing should be performed during the design-level geotechnical investigation to further evaluate the design R-value for potential subgrade materials on site.

SECTION 10: RETAINING WALLS

10.1 LATERAL EARTH PRESSURES

The structural design of any site retaining walls should include resistance to lateral earth pressures that develop from the soil behind the wall, any undrained water pressure, and surcharge loads acting behind the wall. A drainage system should be constructed behind the walls to prevent the build-up of hydrostatic pressures. The following preliminary lateral earth pressures may be considered for preliminary cost estimating and conceptual design:

Table 5: Preliminary Lateral Earth Pressures

Sloping Backfill Inclination (horizontal:vertical)	Lateral Earth Pressure*	
	Unrestrained – Cantilever Wall	Restrained – Braced Wall
Level	40 pcf	40 pcf + 8H (in psf)
3:1	50 pcf	50 pcf + 8H (in psf)
2½:1	55 pcf	55 pcf + 8H (in psf)
2:1	60 pcf	60 pcf + 8H (in psf)
Additional Surcharge Loads	1/3 of vertical loads at top of wall	1/2 of vertical loads at top of wall

* Lateral earth pressures are based on an equivalent fluid pressure

** H is the distance in feet between the bottom of footing and top of retained soil

Basement walls should be designed as restrained walls. If adequate drainage cannot be provided behind the wall, an additional equivalent fluid pressure of 40 pcf should be added to the values above for both restrained and unrestrained walls for the portion of the wall that will not have drainage. Damp proofing or waterproofing of the walls may be considered where moisture penetration and/or efflorescence are not desired.

10.2 BELOW-GRADE WALL DRAINAGE

Miradrain, AmerDrain or other equivalent drainage matting should be used for wall drainage where below-grade walls are temporarily shored and the shoring will be flush with the back of the permanent walls. The drainage panel should be connected at the base of the wall by a horizontal drainage strip and closed or through-wall system such as the TotalDrain system from AmerDrain. Drainage panels should terminate 18 to 24 inches from final exterior grade unless capped by hardscape. The drainage panel filter fabric should be extended over the top of and behind the panel to protect it from intrusion of the adjacent soil.

SECTION 11: LIMITATIONS

This report, an instrument of professional service, has been prepared for the sole use of Hill Valley Oaks, LLC specifically to support the design of the Hill Valley Oaks Apartments project in Martinez, California. The opinions, conclusions, and recommendations presented in this report have been formulated in accordance with accepted geotechnical engineering practices that exist in Northern California at the time this report was prepared. No warranty, expressed or implied, is made or should be inferred.

Recommendations in this report are based upon the soil and ground water conditions encountered during our subsurface exploration. If variations or unsuitable conditions are encountered during construction, Cornerstone must be contacted to provide supplemental recommendations, as needed.

Hill Valley Oaks, LLC may have provided Cornerstone with plans, reports and other documents prepared by others. Hill Valley Oaks, LLC understands that Cornerstone reviewed and relied on the information presented in these documents and cannot be responsible for their accuracy.

Cornerstone prepared this report with the understanding that it is the responsibility of the owner or his representatives to see that the recommendations contained in this report are presented to other members of the design team and incorporated into the project plans and specifications, and that appropriate actions are taken to implement the geotechnical recommendations during construction.

Conclusions and recommendations presented in this report are valid as of the present time for the development as currently planned. Changes in the condition of the property or adjacent properties may occur with the passage of time, whether by natural processes or the acts of other persons. In addition, changes in applicable or appropriate standards may occur through legislation or the broadening of knowledge. Therefore, the conclusions and recommendations presented in this report may be invalidated, wholly or in part, by changes beyond Cornerstone's control. This report should be reviewed by Cornerstone after a period of three (3) years has elapsed from the date of this report. In addition, if the current project design is changed, then Cornerstone must review the proposed changes and provide supplemental recommendations, as needed.

An electronic transmission of this report may also have been issued. While Cornerstone has taken precautions to produce a complete and secure electronic transmission, please check the electronic transmission against the hard copy version for conformity.

Recommendations provided in this report are based on the assumption that Cornerstone will be retained to provide observation and testing services during construction to confirm that conditions are similar to that assumed for design, and to form an opinion as to whether the work has been performed in accordance with the project plans and specifications. If we are not retained for these services, Cornerstone cannot assume any responsibility for any potential claims that may arise during or after construction as a result of misuse or misinterpretation of Cornerstone's report by others. Furthermore, Cornerstone will cease to be the Geotechnical-Engineer-of-Record if we are not retained for these services.

SECTION 12: REFERENCES

California Building Code, 2007, Structural Engineering Design Provisions, Vol. 2.

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AERIAL PHOTOGRAPHS:

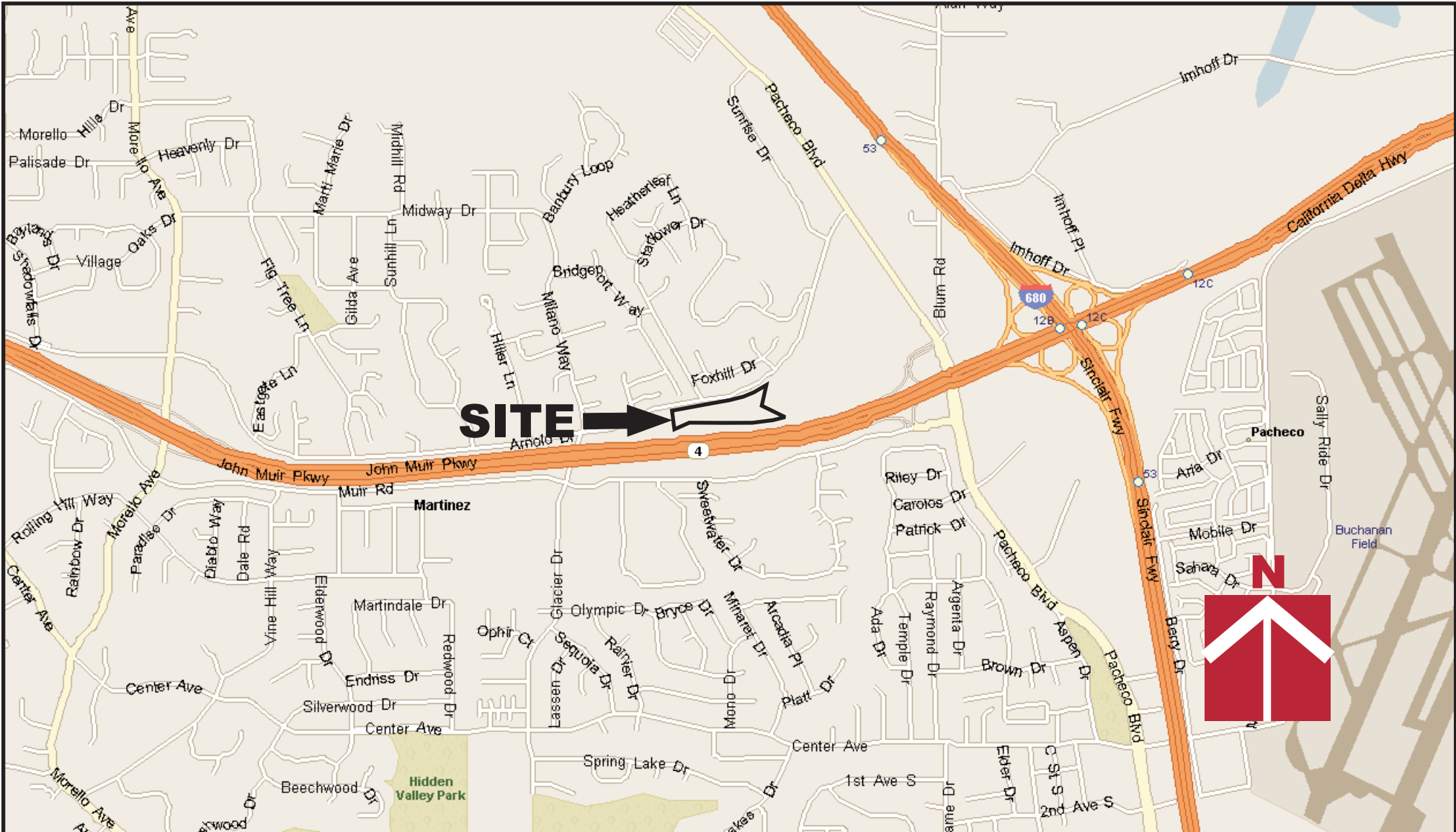
Geomorphic features on the following aerial photographs obtained from Environmental Data Resources (EDR) were interpreted as part of this investigation:

<u>Year</u>	<u>Source</u>	<u>Type</u>	<u>Scale</u>
1939	Fairchild	Black & white	1" = 555'
1946	Jack Ammann	Black & white	1" = 655'
1958	Cartwright	Black & white	1" = 555'
1965	Cartwright	Black & white	1" = 333'
1975	NASA	Black & white	1" = 550'
1982	USGS	Black & white	1" = 690'
1993	USGS	Black & white	1" = 666'
1998	USGS	Black & white	1" = 666'
2005	EDR	Color	1" = 604'

HISTORIC TOPOGRAPHIC MAPS:

Geomorphic features on the following USGS topographic maps obtained from Environmental Data Resources (EDR) were interpreted as part of this investigation:

<u>Year</u>	<u>Quad</u>	<u>Series</u>	<u>Scale</u>
1915	Concord	15-Minute	1:62500
1948	Concord	15-Minute	1:50000
1949	Walnut Creek	7.5-Minute	1:24000
1959	Concord	7.5-Minute	1:62500
1968	Walnut Creek	7.5-Minute	1:24000
1973	Walnut Creek	7.5-Minute	1:24000
1980	Walnut Creek	7.5-Minute	1:24000
1993	Walnut Creek	7.5-Minute	1:24000



Vicinity Map

Hill Valley Oaks Apartments
Martinez, CA

Project Number
351-1-1

Figure Number
Figure 1

Date
November 2009

Drawn By
FLL



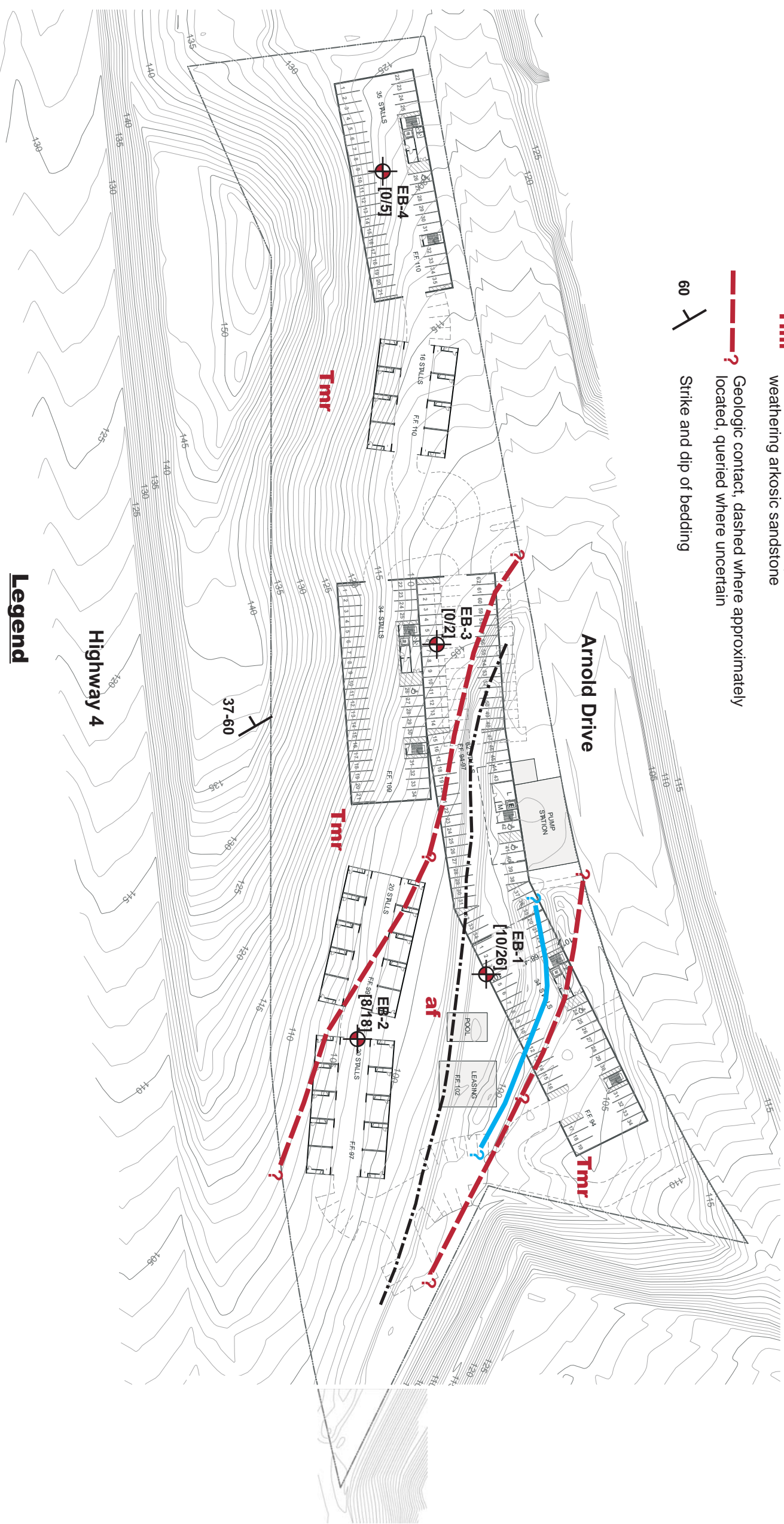
Geologic Explanation

af Artificial Fill - Locally underlain by alluvial soils or bedrock

Tmr Muir Sandstone - massive, yellow, weathering arkosic sandstone

--- Geologic contact, dashed where approximately located, queried where uncertain

60 Strike and dip of bedding



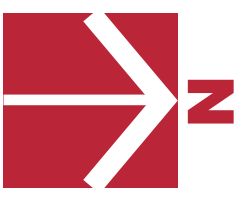
Legend

Approximate location of exploratory boring

[10/26] Approximate thickness of undocumented fill / approximate depth to bedrock (feet)

--- Approximate centerline of existing drainage channel

--- Approximate location of observed existing storm drain pipeline (R.C.P.)



Base map by JGA Architects, Dated 8-13-09.

Site Plan and Preliminary Geologic Map

Hill Valley Oaks Apartments
Martinez, CA

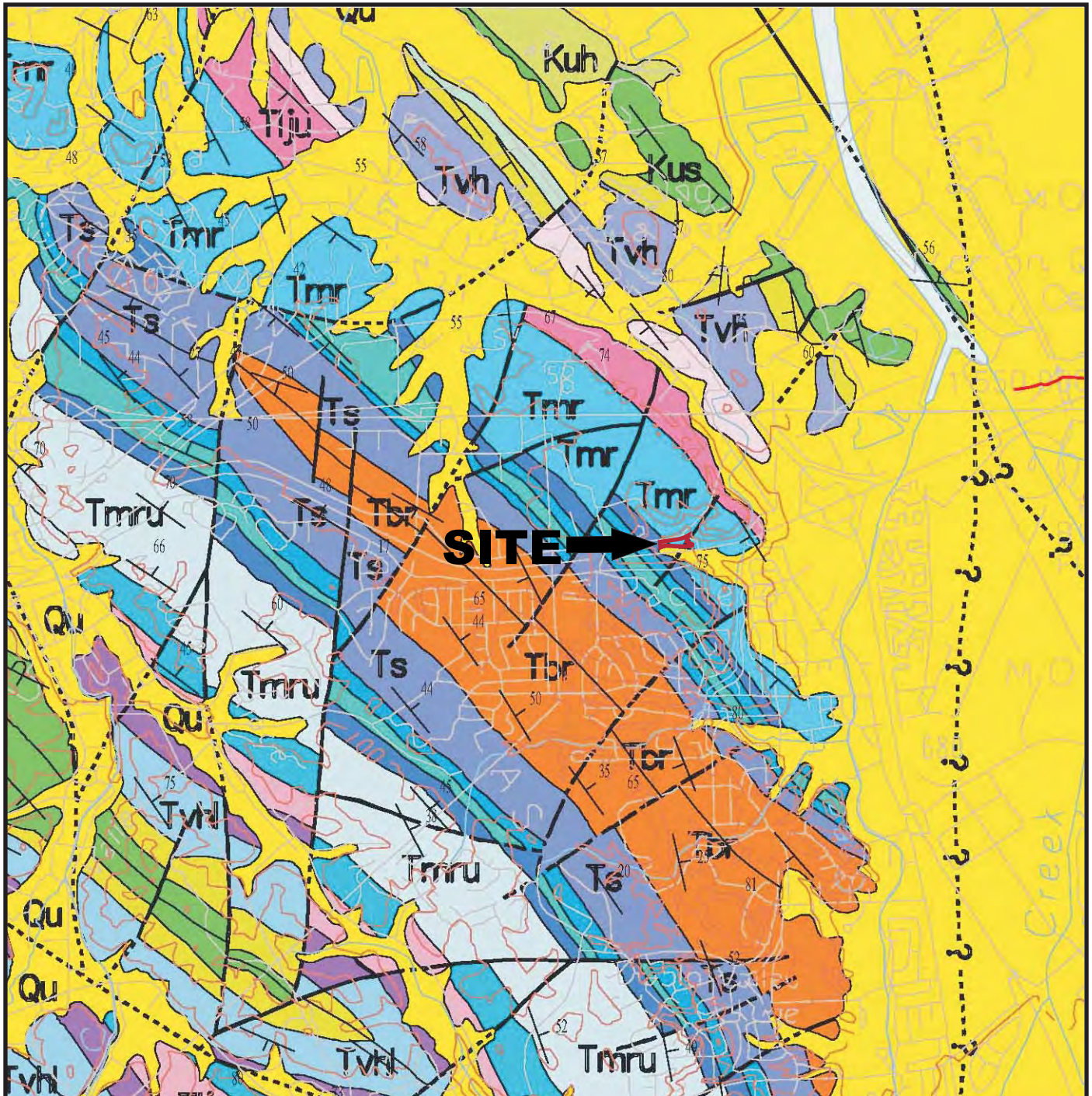
Project Number
351-1-1

Figure Number
Figure 2

Date
November 2009

Drawn By
FLL



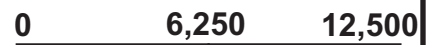


Local Geologic Units

- Tmr Muir Sandstone - massive, yellow, weathering arkosic sandstone
- Tbr Briones Formation, sandstone, siltstone, conglomerate and shell breccia

Explanation

- Geologic contact, dashed where approximately located
- Fault, dashed where approximately located, queried where uncertain
- Strike and dip of bedding



APPROXIMATE SCALE (FEET)

Base by Graymer, R.W., Jones, D.L., and Brabb, E.E., 1994, Preliminary Geologic Map Emphasizing Bedrock Formations in Contra Costa County, California: a digital database: USGS Open File Report 94-622.



Regional Geologic Map

**Hill Valley Oaks Apartments
Martinez, CA**

Project Number

351-1-1

Figure Number

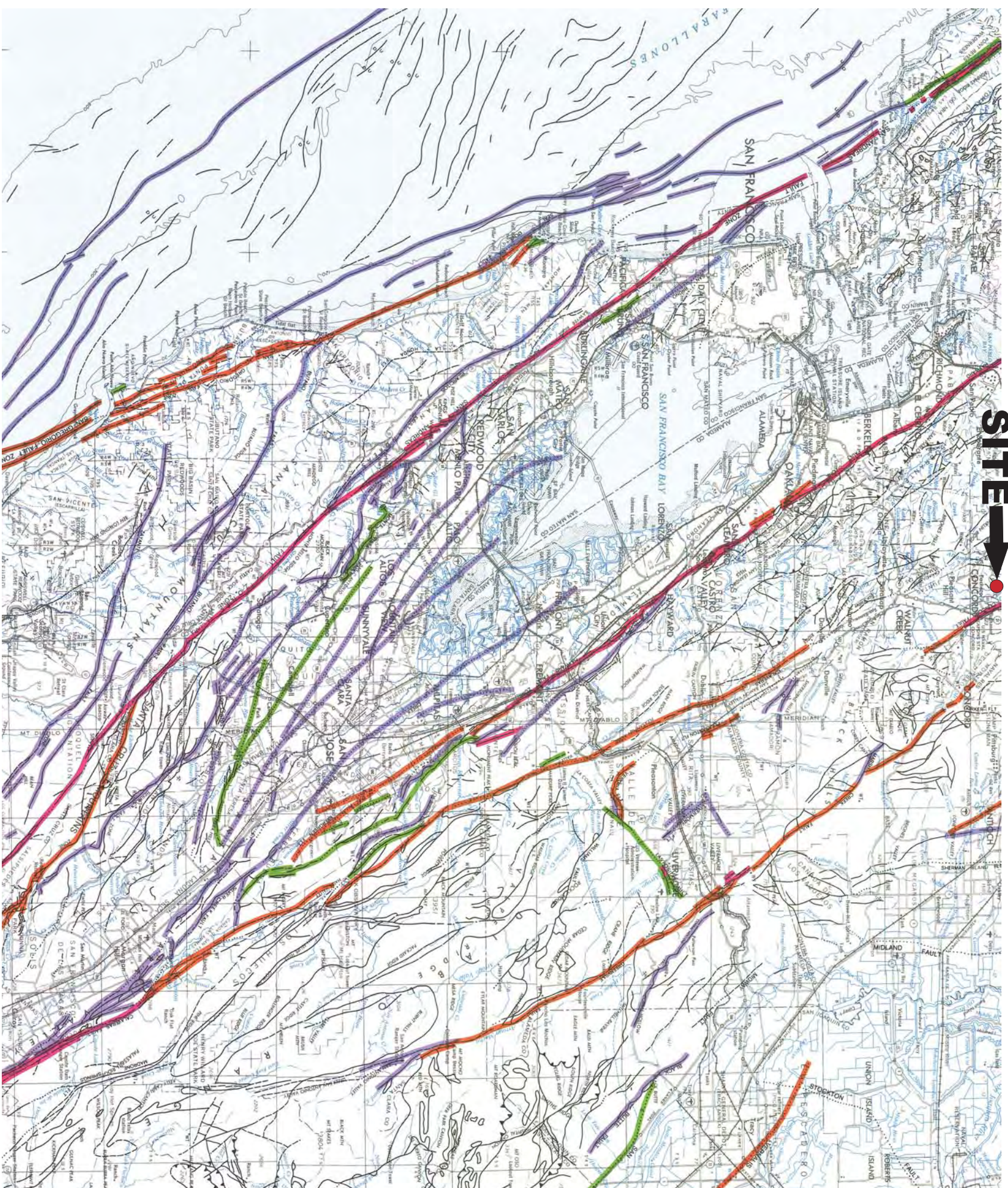
Figure 3

Date

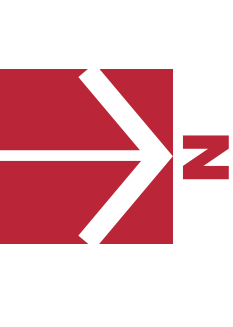
November 2009

Drawn By

FLL



Geologic Time Scale	Quaternary		Years Before Present (Approx.)	Fault Symbol	Recency of Movement on Land/Offshore	DESCRIPTION
	Early Quaternary	Late Quaternary				
Pre-Quaternary	Pliocene	Pleistocene	200	[Red line]	[Red line]	Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.
			10,000	[Orange line]	[Orange line]	
			700,000	[Green line]	[Green line]	Faults showing evidence of displacement during late Quaternary time.
			2,000,000	[Purple line]	[Purple line]	Quaternary (undifferentiated) faults - most faults in the region are Quaternary in age. Displacement during the last 2,000,000 years; possible exceptions are faults which displace rocks of undifferentiated Pleistocene age.
			5,000,000	[Purple line]	[Purple line]	Faults showing evidence of no displacement during Quaternary time, but with possible displacement during tertiary displacement.
				[Purple line]	[Purple line]	



0 10 20
APPROXIMATE SCALE (MILES)

Base Map: "Map showing recency of faulting, San Francisco - San Jose Quadrangle California," by Bortugno, et.al. (California Division of Mines and Geology) dated 1991.



Regional Fault Map
Hill Valley Oaks Apartments
Martinez, CA

Project Number	351-1-1
Figure Number	Figure 4
Date	November 2009
Drawn By	FLL

APPENDIX A: FIELD INVESTIGATION

The field investigation consisted of a surface reconnaissance and a subsurface exploration program using truck-mounted, hollow-stem auger drilling equipment. Four 8-inch-diameter exploratory borings were drilled on October 27, 2009, to depths of approximately 19 to 39 feet. The approximate locations of exploratory borings are shown on the Site Plan & Preliminary Geologic Map, Figure 2. The soils encountered were continuously logged in the field by our representative and described in accordance with the Unified Soil Classification System (ASTM D2488). Boring logs, as well as a key to the classification of the soil and bedrock, are included as part of this appendix.
















Boring locations were approximated using existing site boundaries and other site features as references. Boring elevations were based on interpolation of plan contours. The locations and elevations of the borings should be considered accurate only to the degree implied by the method used.















Representative soil samples were obtained from the borings at selected depths. All samples were returned to our laboratory for evaluation and appropriate testing. The standard penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The 2-inch O.D. split-spoon sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration (ASTM D1586). 2.5-inch I.D. samples were obtained using a Modified California Sampler driven into the soil with the 140-pound hammer previously described. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows required to drive the last 12 inches. The various samplers are denoted at the appropriate depth on the boring logs.

Field tests included an evaluation of the unconfined compressive strength of the soil samples using a pocket penetrometer device. The results of these tests are presented on the individual boring logs at the appropriate sample depths.







Attached boring logs and related information depict subsurface conditions at the locations indicated and on the date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these boring locations. The passage of time may result in altered subsurface conditions due to environmental changes. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual.

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-98)


MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND	
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	$Cu > 4$ AND $1 < Cc < 3$	GW	WELL-GRADED GRAVEL	
			$Cu > 4$ AND $1 > Cc > 3$	GP	POORLY-GRADED GRAVEL	
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL	
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL	
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	$Cu > 6$ AND $1 < Cc < 3$	SW	WELL-GRADED SAND	
			$Cu > 6$ AND $1 > Cc > 3$	SP	POORLY-GRADED SAND	
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND	
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND	
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT < 50	INORGANIC	$Pl > 7$ AND PLOTS > "A" LINE	CL	LEAN CLAY	
			$Pl > 4$ AND PLOTS < "A" LINE	ML	SILT	
	SILTS AND CLAYS LIQUID LIMIT > 50	INORGANIC	LL (oven dried)/LL (not dried) < 0.75	OL	ORGANIC CLAY OR SILT	
			PI PLOTS > "A" LINE	CH	FAT CLAY	
			PI PLOTS < "A" LINE	MH	ELASTIC SILT	
			LL (oven dried)/LL (not dried) < 0.75	OH	ORGANIC CLAY OR SILT	
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT	

OTHER MATERIAL SYMBOLS	
	Poorly-Graded Sand with Clay
	Clayey Sand
	Sandy Silt
	Artificial/Undocumented Fill
	Poorly-Graded Gravelly Sand
	Topsoil
	Well-Graded Gravel with Clay
	Well-Graded Gravel with Silt
	Sand
	Silt
	Well Graded Gravelly Sand
	Gravelly Silt
	Asphalt
	Boulders and Cobble

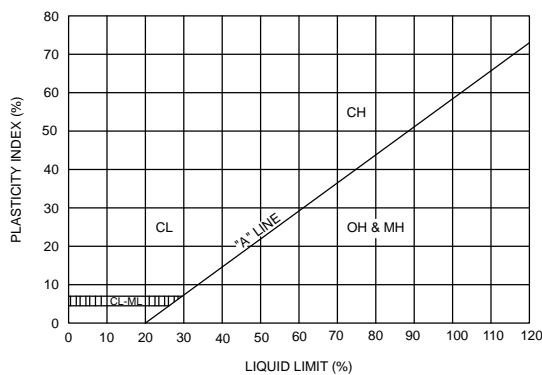
SAMPLER TYPES

	SPT		Shelby Tube
	Modified California (2.5" I.D.)		No Recovery
	Rock Core		Grab Sample

ADDITIONAL TESTS

CA - CHEMICAL ANALYSIS (CORROSIVITY)	PI - PLASTICITY INDEX
CD - CONSOLIDATED DRAINED TRIAXIAL	SW - SWELL TEST
CN - CONSOLIDATION	TC - CYCLIC TRIAXIAL
CU - CONSOLIDATED UNDRAINED TRIAXIAL	TV - TORVANE SHEAR
DS - DIRECT SHEAR	UC - UNCONFINED COMPRESSION
PP - POCKET PENETROMETER (TSF)	(1.5) - (WITH SHEAR STRENGTH IN KSF)
(3.0) - (WITH SHEAR STRENGTH IN KSF)	-
RV - R-VALUE	UU - UNCONSOLIDATED UNDRAINED TRIAXIAL
SA - SIEVE ANALYSIS: % PASSING #200 SIEVE	
 - WATER LEVEL	

PLASTICITY CHART



PENETRATION RESISTANCE (RECORDED AS BLOWS / FOOT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	STRENGTH** (KSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 2	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 4	0.25 - 0.5
MEDIUM DENSE	10 - 30	MEDIUM STIFF	4 - 8	0.5 - 1.0
DENSE	30 - 50	STIFF	8 - 15	1.0 - 2.0
VERY DENSE	OVER 50	VERY STIFF	15 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

** UNDRAINED SHEAR STRENGTH IN KIPS/SQ. FT. AS DETERMINED BY LABORATORY TESTING OR APPROXIMATED BY THE STANDARD PENETRATION TEST, POCKET PENETROMETER, TORVANE, OR VISUAL OBSERVATION.



PROJECT NAME Hill Valley Oaks Apartments

PROJECT NUMBER 351-1-1

PROJECT LOCATION Martinez, CA

DATE STARTED 10/27/09 DATE COMPLETED 10/27/09

GROUND ELEVATION 98.5 FT +/- BORING DEPTH 39 ft.

DRILLING CONTRACTOR Exploration Geoservices, Inc.

NORTHING _____ EASTING _____

DRILLING METHOD Mobile B-56, 8 inch Hollow-Stem Auger

GROUND WATER LEVELS:

LOGGED BY JLF

▽ AT TIME OF DRILLING 10 ft.

NOTES _____

▼ AT END OF DRILLING 10 ft.

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf
98.5	0	[Cross-hatched]	Sandy Lean Clay (CL) [Fill] hard, moist, olive brown with light brown mottles, fine to medium sand, low plasticity	62	MC-1B	94	24			○
95.3	5	[Diagonal lines]	Clayey Sand with Gravel (SC) [Fill] dense to medium dense, moist, light brown and gray mottled, fine to medium sand, fine to coarse subangular gravel (claystone), some clay nodules	55	MC-2B	104	19			
				21	MC-3B	106	21			
90.5	10	[Dotted]	Sandy Lean Clay (CL) [Fill] soft, moist, dark gray, fine sand, low to moderate plasticity (sample lost with MC, recovered with SPT sampler)	3	SPT-4A		22		50	○
88.5	10	[Diagonal lines]	Lean Clay with Sand (CL) stiff, moist, dark gray to olive gray, fine sand, moderate plasticity	28	MC-5A	103	21			
81.0	20	[Diagonal lines]	Clayey Sand (SC) medium dense, moist to wet, gray and brown mottled, fine sand, fine to medium sand	38	MC-6A	100	20		33	
79.0	20	[Diagonal lines]	Sandy Lean Clay (CL) stiff, moist, olive gray, fine sand, low to moderate plasticity							
76.5	25	[Dotted]	Silty Sand (SM) medium dense, moist, reddish brown, fine to medium sand	47	MC-7A	106	20		26	
72.5	30	[Dotted]	Muir Sandstone [Tmr] low hardness, friable to weak, moderate weathering, light gray, light cementation	50 3"	SPT-8		18			
				50 3"	SPT					
63.5	35	[Dotted]								

Continued Next Page

CORNERSTONE EARTH GROUP - CORNERSTONE.GDT - 11/11/09 11:41 - P:\DRAFTING\GINT FILES\351-1-1 HILL VALLEY OAKS APARTMENTS.GPJ



PROJECT NAME Hill Valley Oaks Apartments

PROJECT NUMBER 351-1-1

PROJECT LOCATION Martinez, CA

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf										
										○ HAND PENETROMETER	△ TORVANE	● UNCONFINED COMPRESSION	▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL	1.0	2.0	3.0	4.0	5.0		
63.5	35	•••••	Muir Sandstone [Tmr] low hardness, friable to weak, moderate weathering, light gray, light cementation																	
59.5	40		Bottom of Boring at 39.0 feet.	50 2"	X SPT															
	45																			
	50																			
	55																			
	60																			
	65																			
	70																			
	75																			



BORING NUMBER EB-2

PROJECT NAME Hill Valley Oaks Apartments

PROJECT NUMBER 351-1-1

PROJECT LOCATION Martinez, CA

DATE STARTED 10/27/09 DATE COMPLETED 10/27/09

GROUND ELEVATION 103 FT +/- BORING DEPTH 19 ft.

DRILLING CONTRACTOR Exploration Geoservices, Inc.

NORTHING _____ EASTING _____

DRILLING METHOD Mobile B-56, 8 inch Hollow-Stem Auger

GROUND WATER LEVELS:

LOGGED BY JLF

▽ AT TIME OF DRILLING 13.5 ft.

NOTES _____

▼ AT END OF DRILLING 13.5 ft.

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf
103.0	0	[Cross-hatch]	Lean Clay with Sand (CL) [Fill] hard, moist, light brown, fine sand, low plasticity	50	MC-1	107	15			
101.0	2	[Cross-hatch]	Clayey Sand with Gravel (SC) [Fill] dense, moist, light gray and brown mottled, fine to coarse sand, fine to coarse subangular gravel	73	MC					
100.0	5	[Cross-hatch]	Lean Clay with Sand (CL) [Fill] very stiff, moist, olive, gray and brown mottled, fine to coarse sand, moderate plasticity	42	MC-3B	99	22			
95.0	10	[Cross-hatch]	Lean Clay with Sand (CL) very stiff, moist, gray with brown mottles, fine sand, moderate plasticity	38	MC-4B	111	18			
91.0	15	[Dotted]	Silty Sand (SM) medium dense, moist to wet, gray and brown mottled, fine to medium sand	27	MC-5A		16	40		
85.0	20	[Dotted]	Muir Sandstone [Tmr] low hardness, friable to weak, moderate weathering, light gray, light cementation	50	SPT					
83.0	20		Bottom of Boring at 19.0 feet.							

CORNERSTONE EARTH GROUP - CORNERSTONE.GDT - 11/11/09 11:41 - P:\DRAFTING\GINT FILES\351-1-1 HILL VALLEY OAKS APARTMENTS.GPJ



PROJECT NAME Hill Valley Oaks Apartments

PROJECT NUMBER 351-1-1

PROJECT LOCATION Martinez, CA

DATE STARTED 10/27/09 DATE COMPLETED 10/27/09

GROUND ELEVATION 106 FT +/- BORING DEPTH 19 ft.

DRILLING CONTRACTOR Exploration Geoservices, Inc.

NORTHING _____ EASTING _____

DRILLING METHOD Mobile B-56, 8 inch Hollow-Stem Auger

GROUND WATER LEVELS:

LOGGED BY JLF

▽ AT TIME OF DRILLING Not Encountered

NOTES _____

▼ AT END OF DRILLING Not Encountered

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf
106.0	0	[Cross-hatch symbol]	Lean Clay with Sand (CL) [Fill] very stiff, moist, light brown and gray mottled, fine to medium sand, moderate plasticity	68	MC-1A	97	19			
104.0	5	[Dotted symbol]	Muir Sandstone [Tmr] low to moderate hardness, friable to weak, moderate weathering, light gray and light brown mottled, light cementation	50 5"	MC					
				50 2"	MC-3		7			
	10		increasing silt and clay	31	SPT-4		17			
	15			50 6"	SPT-5		14			
89.0	20	[Cross-hatch symbol]	Sandy Siltstone [Tmr] low hardness, weak, fine to medium sand, bluish gray	50 5"	SPT					
87.0	19.0		Bottom of Boring at 19.0 feet.							

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APPENDIX B: LABORATORY TEST PROGRAM

The laboratory testing program was performed to evaluate the physical and mechanical properties of the soils retrieved from the site to aid in verifying soil classification.

Moisture Content

The natural water content was determined (ASTM D2216) on 19 samples of the materials recovered from the borings. These water contents are recorded on the boring logs at the appropriate sample depths.

Dry Densities

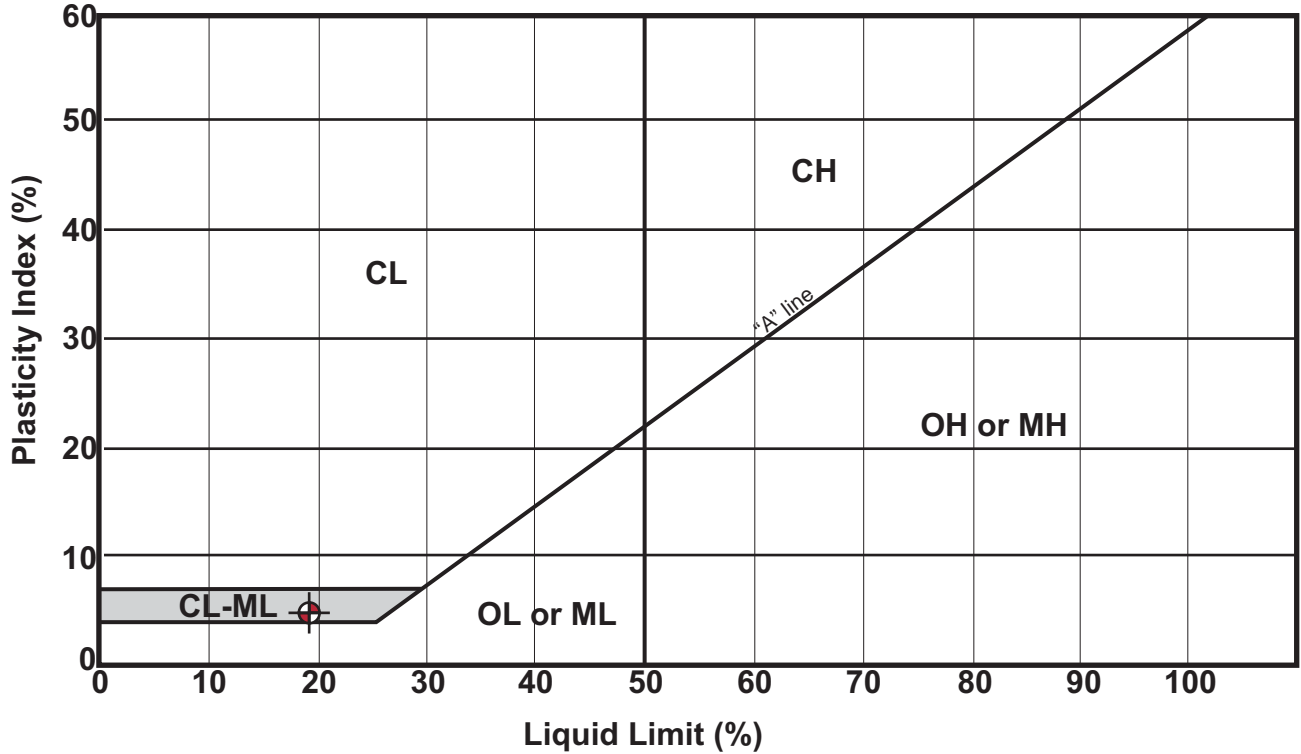
In place dry density determinations (ASTM D2937) were performed on 13 samples to measure the unit weight of the subsurface soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Washed Sieve Analyses

The percent soil fraction passing the No. 200 sieve (ASTM D1140) was determined on five samples of the subsurface soils to aid in the classification of these soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Plasticity Index: One Plasticity Index determinations (ASTM D4318) was performed on samples of the subsurface soils to measure the range of water contents over which this material exhibits plasticity. The Plasticity Index was used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil expansion potential. Results of these tests indicate that the surficial soil is low plasticity. Results of this test are shown on the boring log at the appropriate sample depths and the attached Figure B-1.

Plasticity Index (ASTM D4318) Testing Summary



Symbol	Boring No.	Depth (ft)	Natural Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index	Passing No. 200 (%)	Group Name (USCS - ASTM D2487)
⊕	EB-4	2.0	12	19	14	5	48	Silty Sand (SM)



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2 May 2016

City of Martinez
525 Henrietta Street
Martinez, California 94553
Attention: Khalil Yowakim, P.E.

RE: Geotechnical Report Peer Review
Amare Apartment Homes
Martinez, California

Dear Mr. Yowakim:

At your request, we have completed our geologic and geotechnical review of the geotechnical report and preliminary project plans for the proposed Amare Apartment Homes development to be constructed between 2050 Arnold Drive and 2530 Arnold Drive in Martinez, California.

The following project documents were reviewed:

- Geotechnical Report by Cornerstone Earth Group titled, "Preliminary Geotechnical Investigation, Hill Valley Oaks Apartments, Arnold Drive, Martinez, California, Hill Valley Oaks, LCC," dated 17 November 2009.
- Plans by Humann Company, Inc. titled, "Amare Apartment Homes, APN 161-400-009 & 010, Arnold Drive, Martinez, California," sheets C01, C02, and C03 dated 11 April 2016 and sheets C3.1 and C3.2 dated 10 March 2016.

Our review has included examination of the above referenced materials for pertinent information regarding the technical feasibility of the project. We have also performed reconnaissance level observations of the project site and reviewed information in our files which include published soils and geologic information.

PROPOSED PROJECT

We understand that it is currently proposed to develop the property with nine apartment buildings and associated on-grade parking. Each apartment building will be two stories tall and contain between 12 and 15 units.

REVIEW OF GEOTECHNICAL REPORT

Our review of the Cornerstone geotechnical report revealed that the report is generally complete with respect to identifying the geotechnical conditions that will impact the project. However, the 2009 Cornerstone geotechnical report does not reflect the current project depicted on Human Company's plans.

We have the following comments based on our review of the geotechnical report:

Comment 1. Due to the age of the report, it will be necessary for Cornerstone to prepare an update or supplement to their 2009 report.

Comment 2. Page 1 of the report describes the project as consisting of 121 units with buildings that will be 3 to 4 stories tall. This description is inconsistent with the current plans, which show 128 units with building that are two stories tall.

The report should be updated and reissued to reflect the current project and building code requirements.

Comment 3. Page 6, Section 3.3.1, "Plasticity/Expansion Potential," indicates that one plasticity index (PI) test was completed on a representative near-surface soil sample. The PI test was completed on sample number MC-1A from boring EB-4 at a depth of approximately 2 feet. The soil had was classified as a silty sand (SM) having a PI of 5 percent.

Borings EB-1, EB-2, and EB-3 encountered sandy lean clay (CL) and lean clay with sand (CL) within 3 feet from the ground surface. In addition, surficial soils maps published by the United States Department of Agriculture (USDA) National Resource Conservation Service (NRCS) maps indicate that the northern half of the site is underlain by soils of the Positas loam series which consist of silt (ML) and clay (CL, CH) with plasticity indices between 20 and 35 percent.

The expansion potential of the near surface soils should be reevaluated by taking into account the near surface clay encountered in borings EB-1, EB-2, and EB-3 and the USDA NRCS soil mapping.

Comment 4. Page 8 recommends that additional subsurface exploration, laboratory testing and engineering analysis (additional geotechnical work) be performed during the design-level geotechnical investigation to further evaluate the potential for liquefaction-induced settlement beneath building that will straddle the fill/alluvial soil area of the site.

The additional geotechnical work should be completed prior to finalizing the project plans.

Comment 5. Page 23, Section 9, "Asphalt Concrete," recommends using a subgrade R-Value of 20 based on the relatively sandy and low plasticity soils encountered within the upper 10 feet. This, however, seems high for the clayey soil encountered at the site.

This R-Value should be reevaluated by completing R-Value tests during the course of the additional geotechnical work and by taking into account the near surface clay encountered in borings EB-1, EB-2, and EB-3 and the USDA NRCS soil mapping.

Comment 6. After completion of a supplement or update to the Cornerstone report, we should be provided with a copy to complete a review of responses to our comments. Similarly, Cornerstone should review the project plans prepared by Humann Company to confirm that the plans have been prepared in conformance with their recommendations. Cornerstone's review should be documented in writing and provided to the City.

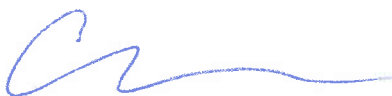
CLOSURE

This review has been performed by request of the City of Martinez. Our role has been to provide technical advice to assist the City in its discretionary permit decisions, and we are afforded the same protection under state law. Our services have been limited to the review of the documents listed above, and a visual review of the property. We have no control over the future construction on this property and make no representations regarding its future conditions.

We have employed accepted engineering geology and civil and geotechnical engineering procedures, and our professional opinions and conclusions are made in accordance with generally accepted engineering geology and civil and geotechnical engineering principles and practices. This standard is in lieu of all other warranties, either expressed or implied.

Yours truly,

CAL ENGINEERING & GEOLOGY, INC.



Chris Hockett, G.E. 2928
Associate Engineer



Appendix GHG

Greenhouse Gas – California Emissions Estimator Model (CalEEMod) Output and Supplemental Calculations

Amare Apartments - Contra Costa County, Annual

Amare Apartments
Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	265.00	Space	1.27	106,000.00	0
----- Apartments Mid Rise	----- 182.00	----- Dwelling Unit	----- 4.79	----- 182,000.00	----- 437

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	298.65	CH4 Intensity (lb/MWhr)	0.014	N2O Intensity (lb/MWhr)	0.003

1.3 User Entered Comments & Non-Default Data

Amare Apartments - Contra Costa County, Annual

Project Characteristics - Adjusted to 2030 for GHG

Land Use - project details from project plans
 population calculated from average household size of 2.4 people per household = 436.8 = 437 POP

Construction Phase - from applicant-provided construction schedule

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Off-road Equipment - Applicant provided equipment list

Trips and VMT - Applicant provided truck hauling

Grading - grading amounts from applicant-provided info

Architectural Coating -

Vehicle Trips - weekday trip generation based on project specific TIA

Woodstoves - applicant provided info on natural gas fireplaces for the main lobby and one in the outdoor rec area

Energy Use -

Land Use Change -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Applicant identified improvements, all buildings except building 5 are required to be net zero.

Water Mitigation - applicant-provided info

Waste Mitigation -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	41.00
tblConstructionPhase	NumDays	20.00	79.00
tblConstructionPhase	NumDays	230.00	390.00
tblConstructionPhase	NumDays	20.00	208.00

Amare Apartments - Contra Costa County, Annual

tblConstructionPhase	NumDays	20.00	30.00
tblFireplaces	NumberGas	27.30	2.00
tblFireplaces	NumberNoFireplace	7.28	180.00
tblFireplaces	NumberWood	30.94	0.00
tblGrading	AcresOfGrading	158.00	6.06
tblGrading	MaterialImported	0.00	12,673.00
tblLandUse	LotAcreage	2.38	1.27
tblLandUse	Population	521.00	437.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014
tblProjectCharacteristics	CO2IntensityFactor	641.35	298.65
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00

Amare Apartments - Contra Costa County, Annual

tblVehicleTrips	:	WD_TR	:	6.65	:	7.32
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2.0 Emissions Summary

Amare Apartments - Contra Costa County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2765	2.9153	2.2860	5.2700e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	472.0599	472.0599	0.0993	0.0000	474.5420
2022	1.2387	2.2863	3.0497	6.9500e-003	0.2344	0.0934	0.3278	0.0631	0.0895	0.1526	0.0000	621.6715	621.6715	0.0711	0.0000	623.4498
2023	0.4158	0.5464	0.7974	1.7900e-003	0.0540	0.0226	0.0766	0.0145	0.0215	0.0360	0.0000	159.4537	159.4537	0.0226	0.0000	160.0175
Maximum	1.2387	2.9153	3.0497	6.9500e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	621.6715	621.6715	0.0993	0.0000	623.4498

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					
2021	0.2765	2.9153	2.2860	5.2700e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	472.0596	472.0596	0.0993	0.0000	474.5416
2022	1.2387	2.2863	3.0497	6.9500e-003	0.2344	0.0934	0.3278	0.0631	0.0895	0.1526	0.0000	621.6711	621.6711	0.0711	0.0000	623.4494
2023	0.4158	0.5464	0.7974	1.7900e-003	0.0540	0.0226	0.0766	0.0145	0.0215	0.0360	0.0000	159.4535	159.4535	0.0226	0.0000	160.0174
Maximum	1.2387	2.9153	3.0497	6.9500e-003	0.4480	0.1197	0.5677	0.2214	0.1112	0.3326	0.0000	621.6711	621.6711	0.0993	0.0000	623.4494

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-5-2021	7-4-2021	1.0317	1.0317
2	7-5-2021	10-4-2021	1.4768	1.4768
3	10-5-2021	1-4-2022	0.6771	0.6771
4	1-5-2022	4-4-2022	0.6033	0.6033
5	4-5-2022	7-4-2022	0.7803	0.7803
6	7-5-2022	10-4-2022	1.0837	1.0837
7	10-5-2022	1-4-2023	1.0845	1.0845
8	1-5-2023	4-4-2023	0.8428	0.8428
9	4-5-2023	7-4-2023	0.0669	0.0669
		Highest	1.4768	1.4768

Amare Apartments - Contra Costa County, Annual

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9029	0.0179	1.4803	5.0000e-004		0.0287	0.0287		0.0287	0.0287	2.8386	2.4619	5.3005	0.0154	0.0000	5.6866
Energy	8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	193.9094	193.9094	6.7400e-003	2.6500e-003	194.8678
Mobile	0.1984	0.9296	2.2154	9.8100e-003	1.0946	6.4100e-003	1.1011	0.2936	5.9600e-003	0.2995	0.0000	903.0779	903.0779	0.0272	0.0000	903.7589
Waste						0.0000	0.0000		0.0000	0.0000	16.9944	0.0000	16.9944	1.0043	0.0000	42.1029
Water						0.0000	0.0000		0.0000	0.0000	3.7620	12.2364	15.9984	0.3870	9.2500e-003	28.4281
Total	1.1099	1.0207	3.7268	0.0108	1.0946	0.0411	1.1357	0.2936	0.0406	0.3342	23.5950	1,111.6856	1,135.2806	1.4407	0.0119	1,174.8443

Amare Apartments - Contra Costa County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8885	0.0158	1.3503	7.0000e-005		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	2.4619	2.4619	2.1200e-003	0.0000	2.5162
Energy	7.9700e-003	0.0681	0.0290	4.3000e-004		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	87.6493	87.6493	1.9200e-003	1.5300e-003	88.1546
Mobile	0.1977	0.9259	2.1987	9.7200e-003	1.0837	6.3600e-003	1.0901	0.2906	5.9100e-003	0.2965	0.0000	894.7925	894.7925	0.0271	0.0000	895.4688
Waste						0.0000	0.0000		0.0000	0.0000	12.7458	0.0000	12.7458	0.7533	0.0000	31.5772
Water						0.0000	0.0000		0.0000	0.0000	3.0096	8.9505	11.9601	0.3095	7.3900e-003	21.9004
Total	1.0942	1.0098	3.5780	0.0102	1.0837	0.0194	1.1031	0.2906	0.0189	0.3096	15.7554	993.8542	1,009.6097	1.0939	8.9200e-003	1,039.6171

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.41	1.07	3.99	5.19	1.00	52.79	2.87	1.00	53.37	7.36	33.23	10.60	11.07	24.07	25.04	11.51

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	0.0000
Total	0.0000

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/5/2021	5/31/2021	5	41	
2	Grading	Grading	6/1/2021	9/17/2021	5	79	
3	Building Construction	Building Construction	9/18/2021	3/17/2023	5	390	
4	Architectural Coating	Architectural Coating	6/1/2022	3/17/2023	5	208	
5	Paving	Paving	3/18/2023	4/28/2023	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.06

Acres of Paving: 1.27

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**Residential Indoor: 368,550; Residential Outdoor: 122,850; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 6,360
(Architectural Coating – sqft)**

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Off-Highway Tractors	1	4.00	124	0.44
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38

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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
Site Preparation	5	13.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	1,584.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	176.00	37.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1235	0.0000	0.1235	0.0679	0.0000	0.0679	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0378	0.3824	0.2616	5.2000e-004		0.0182	0.0182		0.0167	0.0167	0.0000	45.8963	45.8963	0.0148	0.0000	46.2674
Total	0.0378	0.3824	0.2616	5.2000e-004	0.1235	0.0182	0.1416	0.0679	0.0167	0.0846	0.0000	45.8963	45.8963	0.0148	0.0000	46.2674

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3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.7000e-004	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0749	0.0749	0.0000	0.0000	0.0750
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	8.3000e-004	5.8000e-004	6.1000e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7886	1.7886	4.0000e-005	0.0000	1.7896
Total	8.4000e-004	8.5000e-004	6.1500e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.8634	1.8634	4.0000e-005	0.0000	1.8645

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					0.1235	0.0000	0.1235	0.0679	0.0000	0.0679	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0378	0.3824	0.2616	5.2000e-004		0.0182	0.0182		0.0167	0.0167	0.0000	45.8963	45.8963	0.0148	0.0000	46.2674
Total	0.0378	0.3824	0.2616	5.2000e-004	0.1235	0.0182	0.1416	0.0679	0.0167	0.0846	0.0000	45.8963	45.8963	0.0148	0.0000	46.2674

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3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.7000e-004	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0749	0.0749	0.0000	0.0000	0.0750
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	8.3000e-004	5.8000e-004	6.1000e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7886	1.7886	4.0000e-005	0.0000	1.7896
Total	8.4000e-004	8.5000e-004	6.1500e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.8634	1.8634	4.0000e-005	0.0000	1.8645

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2418	0.0000	0.2418	0.1312	0.0000	0.1312	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1483	1.6272	1.1184	2.1600e-003		0.0712	0.0712		0.0655	0.0655	0.0000	189.5476	189.5476	0.0613	0.0000	191.0802
Total	0.1483	1.6272	1.1184	2.1600e-003	0.2418	0.0712	0.3130	0.1312	0.0655	0.1967	0.0000	189.5476	189.5476	0.0613	0.0000	191.0802

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3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1500e-003	0.2121	0.0420	6.1000e-004	0.0134	6.7000e-004	0.0141	3.6900e-003	6.4000e-004	4.3300e-003	0.0000	59.3149	59.3149	2.6000e-003	0.0000	59.3800
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	2.2000e-003	1.5400e-003	0.0163	5.0000e-005	5.6400e-003	4.0000e-005	5.6800e-003	1.5000e-003	3.0000e-005	1.5300e-003	0.0000	4.7717	4.7717	1.1000e-004	0.0000	4.7744
Total	8.3500e-003	0.2136	0.0583	6.6000e-004	0.0191	7.1000e-004	0.0198	5.1900e-003	6.7000e-004	5.8600e-003	0.0000	64.0866	64.0866	2.7100e-003	0.0000	64.1544

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					0.2418	0.0000	0.2418	0.1312	0.0000	0.1312	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1483	1.6272	1.1184	2.1600e-003		0.0712	0.0712		0.0655	0.0655	0.0000	189.5473	189.5473	0.0613	0.0000	191.0799
Total	0.1483	1.6272	1.1184	2.1600e-003	0.2418	0.0712	0.3130	0.1312	0.0655	0.1967	0.0000	189.5473	189.5473	0.0613	0.0000	191.0799

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3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1500e-003	0.2121	0.0420	6.1000e-004	0.0134	6.7000e-004	0.0141	3.6900e-003	6.4000e-004	4.3300e-003	0.0000	59.3149	59.3149	2.6000e-003	0.0000	59.3800
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	2.2000e-003	1.5400e-003	0.0163	5.0000e-005	5.6400e-003	4.0000e-005	5.6800e-003	1.5000e-003	3.0000e-005	1.5300e-003	0.0000	4.7717	4.7717	1.1000e-004	0.0000	4.7744
Total	8.3500e-003	0.2136	0.0583	6.6000e-004	0.0191	7.1000e-004	0.0198	5.1900e-003	6.7000e-004	5.8600e-003	0.0000	64.0866	64.0866	2.7100e-003	0.0000	64.1544

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0563	0.5334	0.6539	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4467	90.4467	0.0177	0.0000	90.8893
Total	0.0563	0.5334	0.6539	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4467	90.4467	0.0177	0.0000	90.8893

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3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.1000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0576	0.0576	0.0000	0.0000	0.0577
Vendor	4.5400e-003	0.1434	0.0364	3.7000e-004	9.1300e-003	3.2000e-004	9.4500e-003	2.6400e-003	3.1000e-004	2.9500e-003	0.0000	35.8675	35.8675	1.6700e-003	0.0000	35.9091
Worker	0.0204	0.0143	0.1512	4.9000e-004	0.0524	3.4000e-004	0.0527	0.0139	3.1000e-004	0.0142	0.0000	44.2942	44.2942	1.0100e-003	0.0000	44.3193
Total	0.0250	0.1579	0.1876	8.6000e-004	0.0615	6.6000e-004	0.0622	0.0166	6.2000e-004	0.0172	0.0000	80.2193	80.2193	2.6800e-003	0.0000	80.2862

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	0.0563	0.5334	0.6539	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4466	90.4466	0.0177	0.0000	90.8892
Total	0.0563	0.5334	0.6539	1.0400e-003		0.0290	0.0290		0.0277	0.0277	0.0000	90.4466	90.4466	0.0177	0.0000	90.8892

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3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.1000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0576	0.0576	0.0000	0.0000	0.0577
Vendor	4.5400e-003	0.1434	0.0364	3.7000e-004	9.1300e-003	3.2000e-004	9.4500e-003	2.6400e-003	3.1000e-004	2.9500e-003	0.0000	35.8675	35.8675	1.6700e-003	0.0000	35.9091
Worker	0.0204	0.0143	0.1512	4.9000e-004	0.0524	3.4000e-004	0.0527	0.0139	3.1000e-004	0.0142	0.0000	44.2942	44.2942	1.0100e-003	0.0000	44.3193
Total	0.0250	0.1579	0.1876	8.6000e-004	0.0615	6.6000e-004	0.0622	0.0166	6.2000e-004	0.0172	0.0000	80.2193	80.2193	2.6800e-003	0.0000	80.2862

3.4 Building Construction - 2022

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	0.1761	1.6587	2.2547	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.6254	313.6254	0.0609	0.0000	315.1476
Total	0.1761	1.6587	2.2547	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.6254	313.6254	0.0609	0.0000	315.1476

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3.4 Building Construction - 2022

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	2.0000e-005	6.5000e-004	1.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1971	0.1971	1.0000e-005	0.0000	0.1973
Vendor	0.0147	0.4696	0.1185	1.2900e-003	0.0316	9.7000e-004	0.0326	9.1500e-003	9.3000e-004	0.0101	0.0000	123.1625	123.1625	5.4700e-003	0.0000	123.2994
Worker	0.0659	0.0444	0.4813	1.6300e-003	0.1815	1.1500e-003	0.1826	0.0483	1.0600e-003	0.0493	0.0000	147.8519	147.8519	3.1300e-003	0.0000	147.9301
Total	0.0806	0.5147	0.5999	2.9200e-003	0.2132	2.1200e-003	0.2153	0.0574	1.9900e-003	0.0594	0.0000	271.2115	271.2115	8.6100e-003	0.0000	271.4267

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	0.1761	1.6586	2.2547	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.6250	313.6250	0.0609	0.0000	315.1472
Total	0.1761	1.6586	2.2547	3.6100e-003		0.0849	0.0849		0.0812	0.0812	0.0000	313.6250	313.6250	0.0609	0.0000	315.1472

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3.4 Building Construction - 2022

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	2.0000e-005	6.5000e-004	1.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1971	0.1971	1.0000e-005	0.0000	0.1973
Vendor	0.0147	0.4696	0.1185	1.2900e-003	0.0316	9.7000e-004	0.0326	9.1500e-003	9.3000e-004	0.0101	0.0000	123.1625	123.1625	5.4700e-003	0.0000	123.2994
Worker	0.0659	0.0444	0.4813	1.6300e-003	0.1815	1.1500e-003	0.1826	0.0483	1.0600e-003	0.0493	0.0000	147.8519	147.8519	3.1300e-003	0.0000	147.9301
Total	0.0806	0.5147	0.5999	2.9200e-003	0.2132	2.1200e-003	0.2153	0.0574	1.9900e-003	0.0594	0.0000	271.2115	271.2115	8.6100e-003	0.0000	271.4267

3.4 Building Construction - 2023

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	0.0344	0.3213	0.4760	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3643	66.3643	0.0128	0.0000	66.6837
Total	0.0344	0.3213	0.4760	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3643	66.3643	0.0128	0.0000	66.6837

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3.4 Building Construction - 2023

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	9.0000e-005	3.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0401	0.0401	0.0000	0.0000	0.0401
Vendor	2.3400e-003	0.0756	0.0223	2.6000e-004	6.6900e-003	9.0000e-005	6.7800e-003	1.9300e-003	9.0000e-005	2.0200e-003	0.0000	25.3284	25.3284	9.5000e-004	0.0000	25.3522
Worker	0.0130	8.4300e-003	0.0936	3.3000e-004	0.0384	2.4000e-004	0.0386	0.0102	2.2000e-004	0.0104	0.0000	30.0614	30.0614	5.9000e-004	0.0000	30.0762
Total	0.0153	0.0841	0.1160	5.9000e-004	0.0451	3.3000e-004	0.0455	0.0122	3.1000e-004	0.0125	0.0000	55.4298	55.4298	1.5400e-003	0.0000	55.4685

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	0.0344	0.3213	0.4760	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3642	66.3642	0.0128	0.0000	66.6836
Total	0.0344	0.3213	0.4760	7.6000e-004		0.0155	0.0155		0.0148	0.0148	0.0000	66.3642	66.3642	0.0128	0.0000	66.6836

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3.4 Building Construction - 2023

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	9.0000e-005	3.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0401	0.0401	0.0000	0.0000	0.0401
Vendor	2.3400e-003	0.0756	0.0223	2.6000e-004	6.6900e-003	9.0000e-005	6.7800e-003	1.9300e-003	9.0000e-005	2.0200e-003	0.0000	25.3284	25.3284	9.5000e-004	0.0000	25.3522
Worker	0.0130	8.4300e-003	0.0936	3.3000e-004	0.0384	2.4000e-004	0.0386	0.0102	2.2000e-004	0.0104	0.0000	30.0614	30.0614	5.9000e-004	0.0000	30.0762
Total	0.0153	0.0841	0.1160	5.9000e-004	0.0451	3.3000e-004	0.0455	0.0122	3.1000e-004	0.0125	0.0000	55.4298	55.4298	1.5400e-003	0.0000	55.4685

3.5 Architectural Coating - 2022

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	0.9587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642
Total	0.9743	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642

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3.5 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113
Total	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113

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	0.9587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642
Total	0.9743	0.1078	0.1387	2.3000e-004		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	19.5324	19.5324	1.2700e-003	0.0000	19.5642

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3.5 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113
Total	7.7100e-003	5.1900e-003	0.0563	1.9000e-004	0.0212	1.3000e-004	0.0214	5.6500e-003	1.2000e-004	5.7700e-003	0.0000	17.3022	17.3022	3.7000e-004	0.0000	17.3113

3.5 Architectural Coating - 2023

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	0.3446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2700e-003	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0215	7.0215	4.2000e-004	0.0000	7.0320
Total	0.3499	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0215	7.0215	4.2000e-004	0.0000	7.0320

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3.5 Architectural Coating - 2023

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	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811
Total	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811

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	0.3446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2700e-003	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0214	7.0214	4.2000e-004	0.0000	7.0319
Total	0.3499	0.0358	0.0498	8.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	7.0214	7.0214	4.2000e-004	0.0000	7.0319

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3.5 Architectural Coating - 2023

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	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811
Total	2.5800e-003	1.6800e-003	0.0186	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	5.9781	5.9781	1.2000e-004	0.0000	5.9811

3.6 Paving - 2023

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	0.0115	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7284	23.7284	7.6700e-003	0.0000	23.9202
Paving	1.6600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0132	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7284	23.7284	7.6700e-003	0.0000	23.9202

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3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321
Total	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321

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	0.0115	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7283	23.7283	7.6700e-003	0.0000	23.9202
Paving	1.6600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0132	0.1032	0.1341	2.7000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	23.7283	23.7283	7.6700e-003	0.0000	23.9202

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321
Total	4.0000e-004	2.6000e-004	2.9000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9317	0.9317	2.0000e-005	0.0000	0.9321

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1977	0.9259	2.1987	9.7200e-003	1.0837	6.3600e-003	1.0901	0.2906	5.9100e-003	0.2965	0.0000	894.7925	894.7925	0.0271	0.0000	895.4688
Unmitigated	0.1984	0.9296	2.2154	9.8100e-003	1.0946	6.4100e-003	1.1011	0.2936	5.9600e-003	0.2995	0.0000	903.0779	903.0779	0.0272	0.0000	903.7589

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,332.24	1,162.98	1066.52	2,933,432	2,904,098
Parking Lot	0.00	0.00	0.00		
Total	1,332.24	1,162.98	1,066.52	2,933,432	2,904,098

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.606524	0.034895	0.184335	0.108602	0.012129	0.004836	0.010863	0.026200	0.001662	0.001538	0.005105	0.002652	0.000659
Parking Lot	0.606524	0.034895	0.184335	0.108602	0.012129	0.004836	0.010863	0.026200	0.001662	0.001538	0.005105	0.002652	0.000659

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	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	8.7970	8.7970	4.1000e-004	9.0000e-005	8.8336
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	109.1176	109.1176	5.1200e-003	1.1000e-003	109.5722
NaturalGas Mitigated	7.9700e-003	0.0681	0.0290	4.3000e-004		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	78.8524	78.8524	1.5100e-003	1.4500e-003	79.3209
NaturalGas Unmitigated	8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	84.7918	84.7918	1.6300e-003	1.5500e-003	85.2957

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.58894e+006	8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	84.7918	84.7918	1.6300e-003	1.5500e-003	85.2957
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
Total		8.5700e-003	0.0732	0.0312	4.7000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	84.7918	84.7918	1.6300e-003	1.5500e-003	85.2957

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					
Apartments Mid Rise	1.47764e+006	7.9700e-003	0.0681	0.0290	4.3000e-004		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	78.8524	78.8524	1.5100e-003	1.4500e-003	79.3209
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
Total		7.9700e-003	0.0681	0.0290	4.3000e-004		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	78.8524	78.8524	1.5100e-003	1.4500e-003	79.3209

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	768402	104.0919	4.8800e-003	1.0500e-003	104.5255
Parking Lot	37100	5.0258	2.4000e-004	5.0000e-005	5.0467
Total		109.1176	5.1200e-003	1.1000e-003	109.5722

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	64011.3	8.6713	4.1000e-004	9.0000e-005	8.7074
Parking Lot	927.5	0.1256	1.0000e-005	0.0000	0.1262
Total		8.7970	4.2000e-004	9.0000e-005	8.8336

6.0 Area Detail

6.1 Mitigation Measures Area

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Use only Natural Gas Hearths

	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	0.8885	0.0158	1.3503	7.0000e-005		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	2.4619	2.4619	2.1200e-003	0.0000	2.5162
Unmitigated	0.9029	0.0179	1.4803	5.0000e-004		0.0287	0.0287		0.0287	0.0287	2.8386	2.4619	5.3005	0.0154	0.0000	5.6866

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	0.1303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0143	2.3400e-003	0.1300	4.3000e-004		0.0212	0.0212		0.0212	0.0212	2.8386	0.2497	3.0883	0.0133	0.0000	3.4215
Landscaping	0.0405	0.0156	1.3502	7.0000e-005		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	2.2122	2.2122	2.1200e-003	0.0000	2.2651
Total	0.9029	0.0179	1.4803	5.0000e-004		0.0287	0.0287		0.0287	0.0287	2.8386	2.4619	5.3005	0.0154	0.0000	5.6866

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0000e-005	2.2000e-004	9.0000e-005	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2497	0.2497	0.0000	0.0000	0.2512
Landscaping	0.0405	0.0156	1.3502	7.0000e-005		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	2.2122	2.2122	2.1200e-003	0.0000	2.2651
Total	0.8886	0.0158	1.3503	7.0000e-005		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	2.4619	2.4619	2.1200e-003	0.0000	2.5162

7.0 Water Detail

7.1 Mitigation Measures Water

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.9601	0.3095	7.3900e-003	21.9004
Unmitigated	15.9984	0.3870	9.2500e-003	28.4281

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	11.858 / 7.47572	15.9984	0.3870	9.2500e-003	28.4281
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		15.9984	0.3870	9.2500e-003	28.4281

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	9.48643 / 4.21182	11.9601	0.3095	7.3900e-003	21.9004
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		11.9601	0.3095	7.3900e-003	21.9004

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.7458	0.7533	0.0000	31.5772
Unmitigated	16.9944	1.0043	0.0000	42.1029

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	83.72	16.9944	1.0043	0.0000	42.1029
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		16.9944	1.0043	0.0000	42.1029

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	62.79	12.7458	0.7533	0.0000	31.5772
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		12.7458	0.7533	0.0000	31.5772

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Others	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Appendix HYD

Supplemental Hydrology and Hydraulic Study

Supplemental Hydrology and Hydraulic Study

**Amare Apartment Homes
Martinez, CA**

September 20, 2017

Gossett Civil Engineering

**P.O. Box 5101
Walnut Creek, CA 94596
(925) 457-6003**

September 20, 2017

Mr. Izzat Nashashibi, PE

Humann Company, Inc.
1021 Brown Avenue
Lafayette, CA 94549

**RE: Amare Apartments Homes– Martinez, CA
Supplemental Hydrology & Hydraulics Study**

Dear Izzat:

Per your request, attached is the Supplemental Hydrology & Hydraulics Study for the Amare project in Martinez. The purpose of this study is to supplement the basic site hydrology and hydraulics prepared by your staff to accomplish two goals: 1) to size on-site detention facilities to mitigate stormwater runoff increases resulting from the project for 10-year storm events and; 2) verify that there is sufficient capacity within the on-site storm drain system to convey a 100-year storm event through the site without creating a tailwater condition that would inundate the adjoining Mountain View Sanitary District lift station.

As the title suggests, this Study is a supplement or “companion” to the hydrology and hydraulic analysis prepared by your staff under your direction. As such, I am not repeating or consolidating your firm’s calculations and exhibits into the context of this Study. The information contained herein and attached in the Appendices are germane to the focused scope of this Study noted above.

PROJECT SETTING

The project site is approximately 5 acres, lying along the southeast side of Arnold Drive. State Route 4 abuts the property to the southeast. A large office building lies to the northeast and single-family homes to the southwest. A large single-family home subdivision is located across the street.

A major (48-inch) storm drain traverses the site, collecting and conveying runoff from the aforementioned subdivision and other tributary areas and discharging it to the storm drain system in State Route 4.

The Mountain View Sanitary District operates and maintains a sanitary sewer lift station on a small parcel fronting Arnold Drive and surrounded by the project site on the other three sides.

HYDROLOGY MODELING

This hydrology study was based on the Contra Costa County Flood Control District’s standards. Based on the District’s standards, the design storm for areas less than one square mile is the 10% annual probability event (commonly referred to as a “10-year storm”).

The District’s hydrology method typically used for drainage areas less than 200 acres is the “rational method”. This method only computes peak discharge rates and does not provide time-

based runoff data necessary to design or analyze detention basins. A “modified rational method” model developed by the District to generate hydrographs in small watersheds was used and those hydrographs were imported into the US Army Corps of Engineers HEC-HMS model to route the runoff through the proposed detention basin.

10 % (10-YEAR) STORM MITIGATION

For a benchmark to be established for mitigation purposes, the existing pre-project hydrology must be determined. On site hydrology and hydraulics for the developed project were developed by your firm, but no “existing condition” hydrology was prepared.

The discharge outlet from project site has a tributary area of approximately 105 acres. Development of this project site itself, being only 5 acres, will have a measurable, but not significant impact on the overall runoff rate from the site.

In this case, with there already being a storm drain system traversing the site and an overwhelming drainage basin upstream, the time of concentration will not differ between the pre-project and developed conditions. The change in flow rate will merely be related to the difference in the runoff coefficients within the project area. The 10-year Rational Method hydrology calculations prepared by your staff were modified accordingly to reflect the pre-project runoff factors. These changes are included in Appendix A, the modifications highlighted.

The Rational Method hydrology parameters were used to generate a hydrograph using Flood Control’s software and imported into HEC-RAS as described above.

The proposed project will remove and replace the 48-inch storm drain traversing the site, much of it with a 60-inch pipe to satisfy the 100-year issue raised above and further described below. The “receiving waters”, i.e. the Caltrans down-drain at the downstream end of the project, will remain. It is hydraulically “steep”, flowing under a supercritical flow regime. As such, the upstream connection to this pipe will be under “inlet control”. This is, in effect, a 48-inch orifice controlling the outflow from the 60-inch pipe upstream. This pipe under the infiltration basin and being placed at a relatively flat gradient, was modeled as a detention basin within HEC-HMS. The results were that the downstream restriction and the residual capacity in the pipe provided adequate mitigation of the post project runoff as required.

MITIGATION SUMMARY

Pre-Project Flowrate	96.2 cfs
Project Flowrate	99.2 cfs
Project Flowrate w/ Detention	92.6 cfs

1 % (100-YEAR) CAPACITY ANALYSIS

The concern prompting this analysis is that the grading and related project drainage infrastructure may raise the tailwater conditions such that the surface drains on the MVSD site may not be able to protect the site from 100-year storm events.

The 100-year hydrology prepared by your staff was used for this analysis. For the sake of the hydraulic analysis, I used my Excel based spreadsheet to model the flows and provide some additional suggestions regarding "value engineering" that had no real impact on the system capacity or tailwater conditions relative to the MVSD pump station site.

In light of the detention analysis for the 10-year storm downstream, I generated a hydrograph for the 100-year event and routed it through the detention pipe as well to determine tailwater conditions for the upstream analysis.

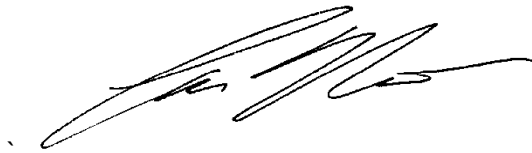
FINDINGS

The proposed storm drain system will reduce the peak post-project runoff rate by 4% from existing pre-project conditions.

The results reflected in the 100-year hydraulic analysis are that there is sufficient capacity in the proposed storm drain system such that the existing drop inlet on the MVSD site will still function as intended.

If you have additional questions, please feel free to contact me.

Sincerely,



Lawrence Gossett, P.E., CFM, QSD/P

Appendix A

- **10-Year Existing Hydrology**
- **10-Year Post Project Hydrograph**
- **HEC-HMS Basin Input Parameters**
- **HEC- HMS Routing Summaries**

HYDROLOGY COMPUTATIONS

LOCATION Arnold Drive, Martinez, CA
SUBDIVISION APN 161-400-009 & 010
LINE 12" THRU 60" Public SD

ZONE BY L.G.
 Cross Reference

Average Annual Rainfall 17"
Recurrence Interval 10-Year

DRAINAGE AREA	AREAS AND CLASSIFICATIONS										POINT	
	LAND USE ZONING											
<u>A1</u>	A	81.8										(E) MH Z1
	Cf	0.51										
	AC	41.72										
<u>A1+A2</u>	A	0.5										MH A5
	Cf	0.4										
	AC	0.20										
<u>A1+A2+A3</u>	A	0.8										MH A4
	Cf	0.4										
	AC	0.32										
<u>A1 THRU A4</u>	A	0.6										MH A3
	Cf	0.4										
	AC	0.24										
<u>A5</u>	A	7.1										(E) CB Z4
	Cf	0.56										
	AC	3.98										
<u>A5 + A6</u>	A	1.2										CB A1
	Cf	0.4										
	AC	0.48										
<u>A5 THRU A7</u>	A	0.6										MH B4
	Cf	0.4										
	AC	0.24										
<u>A5 THRU A8</u>	A	1.3										MH B3
	Cf	0.4										
	AC	0.52										

TIME OF CONCENTRATION

DRAINAGE	Overland Flow	Channel Flow	Roof to Gutter	Gutter Flow	Pipe Flow	tc

Contra Costa County Small Watershed Hydrograph Method

HYDRO6 Infiltration Method

Beta Version 1.1.4
April 4, 2012

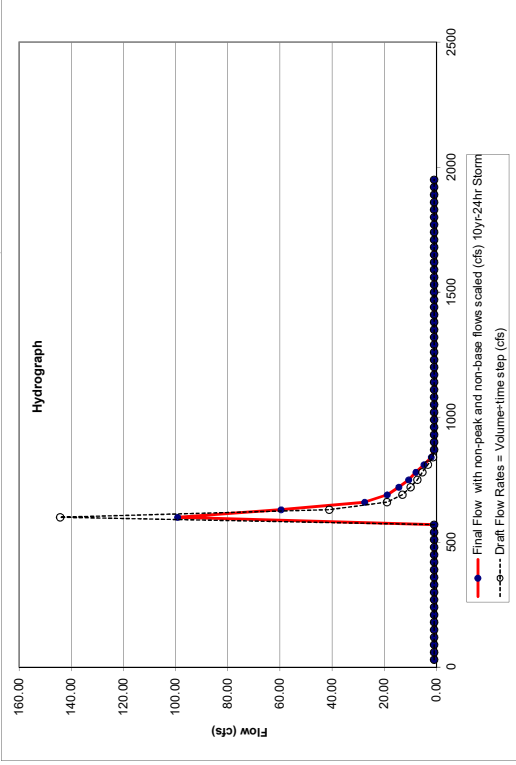
Project Name:	Amare Apartment Homes
Project Location:	Martinez, CA
Project Number:	15126
Flow Location:	Project Discharge (CB 21)
Date:	September 4, 2017
Comments:	Developed Project - 10 Year

By:	L. Gossett
Company:	Gossett Civil Engineering

Storm Return Period **10-Year** Pick List
 Storm Duration **24-Hour** Pick List
 MSP **17.00 in** (Mean Seasonal Precipitation)
 Watershed Area **117.90 acres** = 5,135,724 sf = 0.184 sqmi
 Composite Rational C Value **0.526** (From Title & Input Sheet)
 Rational Peak Flow **99.20 cfs** (From Title & Input Sheet)
 $C_1 = 1.00$ (Dependent on Storm Return Period)
 $C_2 = 0.53$ (Never > 1.0)
 Storm Depth **3.33 in** (From built-in D-F-D Curves)
 Time Step **30 min** (Standard time step for Storm Duration)
 Infiltration Rate from C x C₁ **0.114 in/hr** = 0.0572 inches per interval (from built-in curve)
 Initial Loss **0.25 in** (Standard initial loss)
 Base Flow (6cfs per sq. mi.) **0.92 cfs** = 1657.97 cftime interval

Rain Volume	32.72 ac-ft = 1425163 cf
Constant Infiltration Losses	20.49 ac-ft = 892602 cf
Initial Infiltration Losses	2.46 ac-ft = 106994 cf
Runoff Volume	9.78 ac-ft = 425837 cf
Base Flow Volume	0.03045 ac-ft = 1326 cf
Total Storm Runoff Volume	9.81 ac-ft = 427163 cf

Solve



Volume Adjustment Check	
Target Vol.	533605.1 cf
Final Vol.	-533605.1 cf
Target is zero.	0.00
% Off Target =	0.0%
Flow Ratio	1.4484

Interval Number	Time at End of Interval (min)	Rainfall Distribution %	Rainfall Depth (in)	Interval Infiltration (in)	Constant Infiltration (in)	Incremental Initial Loss (in)	Incremental Initial Loss Recovery (in)	Initial Loss Remaining (in)	Effective Runoff (in)	Interval Runoff Volume (cf)	Total Interval Vol. with Base Flow (cf)	Draft Flow Rates = Volume-time step (cfs)	Final Flow with non-peak and non-base flows scaled (cfs) 10yr-24hr Storm	Volume Converted from Flow (cf)
Total Below		100.00%	3.3300	2.086	0.250	0.0463	0.0463	0.0463	0.6030	425.837	533605.1 cf	99.20	533605.1 cf	178,560
1	30	0.87%	0.0290	0.0290	0.0290	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
2	60	0.87%	0.0290	0.0290	0.0290	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
3	90	0.88%	0.0293	0.0293	0.0293	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
4	120	0.88%	0.0293	0.0293	0.0293	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
5	150	0.92%	0.306	0.306	0.306	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
6	180	0.98%	0.0326	0.0326	0.0326	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
7	210	1.07%	0.0356	0.0356	0.0356	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
8	240	1.13%	0.0376	0.0376	0.0376	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
9	270	1.18%	0.0393	0.0393	0.0393	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
10	300	1.22%	0.0406	0.0406	0.0406	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
11	330	1.23%	0.0410	0.0410	0.0410	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
12	360	1.27%	0.0423	0.0423	0.0423	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
13	390	1.41%	0.0470	0.0470	0.0470	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
14	420	1.69%	0.0563	0.0563	0.0563	-	-	0.2500	-	-	1.658	0.92	1.658	1.658
15	450	1.86%	0.0619	0.0572	0.0572	0.0048	-	0.2452	-	-	1.658	0.92	1.658	1.658
16	480	1.94%	0.0646	0.0572	0.0572	0.0074	-	0.2378	-	-	1.658	0.92	1.658	1.658
17	510	2.50%	0.0833	0.0572	0.0572	0.0261	-	0.2117	-	-	1.658	0.92	1.658	1.658
18	540	3.50%	0.1166	0.0572	0.0572	0.0584	-	0.1523	-	-	1.658	0.92	1.658	1.658
19	570	4.90%	0.1632	0.0572	0.0572	0.1060	-	0.0463	-	-	1.658	0.92	1.658	1.658
20	600	21.20%	0.7060	0.0572	0.0572	0.0463	-	0.0463	0.6030	258.070	259.728	144.29	99.20	178,560
21	630	6.80%	0.2264	0.0572	0.0572	-	-	-	0.1690	72.328	73.986	41.10	59.53	107,159
22	660	4.00%	0.1332	0.0572	0.0572	-	-	-	0.0760	32.526	34.184	18.99	27.51	49,511
23	690	3.25%	0.1082	0.0572	0.0572	-	-	-	0.0510	21.827	23.485	13.05	18.90	34,015
24	720	2.85%	0.0949	0.0572	0.0572	-	-	-	0.0380	16.263	17.921	14.42	25.956	25,956
25	750	2.52%	0.0839	0.0572	0.0572	-	-	-	0.0270	13.213	14.866	13.05	25.956	25,956
26	780	2.26%	0.0759	0.0572	0.0572	-	-	-	0.0190	8.132	9.790	7.34	10.63	18,138
													Peak = Rational Method Op	

Interval Number	Time at End of Interval (min)	Rainfall Distribution %	Interval Rainfall Depth (in)	Constant Infiltration (in)	Incremental Initial Loss (in)	Incremental Initial Loss Recovery (in)	Initial Loss Balance Amt. Remaining (in)	Effective Runoff (in)	Interval Runoff Volume (cf)	Total Interval Vol. with Base Flow (cf)	Draft Flow Rates = Volume-time step (cfs)	Final Flow with non-peak and non-base flows scaled (cfs) 10yr-24hr Storm	Volume Converted from Flow (cf)
27	810	2.03%	0.0676	0.0572	-	-	-	0.0100	4.280	5.838	3.30	4.78	8,600
28	840	1.77%	0.0589	0.0572	-	-	-	0.0020	856	2,514	1.40	2.02	3,641
29	870	1.62%	0.0539	0.0539	-	(0.0032)	0.0032	-	-	1,658	0.92	1,658	1,658
30	900	1.58%	0.0526	0.0526	-	(0.0045)	0.0078	-	-	1,658	0.92	1,658	1,658
31	930	1.53%	0.0509	0.0509	-	(0.0062)	0.0140	-	-	1,658	0.92	1,658	1,658
32	960	1.47%	0.0490	0.0490	-	(0.0082)	0.0222	-	-	1,658	0.92	1,658	1,658
33	990	1.42%	0.0473	0.0473	-	(0.0099)	0.0321	-	-	1,658	0.92	1,658	1,658
34	1020	1.38%	0.0460	0.0460	-	(0.0112)	0.0433	-	-	1,658	0.92	1,658	1,658
35	1050	1.33%	0.0443	0.0443	-	(0.0129)	0.0561	-	-	1,658	0.92	1,658	1,658
36	1080	1.27%	0.0423	0.0423	-	(0.0149)	0.0710	-	-	1,658	0.92	1,658	1,658
37	1110	1.22%	0.0406	0.0406	-	(0.0165)	0.0875	-	-	1,658	0.92	1,658	1,658
38	1140	1.18%	0.0393	0.0393	-	(0.0179)	0.1064	-	-	1,658	0.92	1,658	1,658
39	1170	1.12%	0.0373	0.0373	-	(0.0199)	0.1253	-	-	1,658	0.92	1,658	1,658
40	1200	1.08%	0.0360	0.0360	-	(0.0212)	0.1465	-	-	1,658	0.92	1,658	1,658
41	1230	1.03%	0.0343	0.0343	-	(0.0229)	0.1693	-	-	1,658	0.92	1,658	1,658
42	1260	0.97%	0.0323	0.0323	-	(0.0249)	0.1942	-	-	1,658	0.92	1,658	1,658
43	1290	0.93%	0.0310	0.0310	-	(0.0262)	0.2204	-	-	1,658	0.92	1,658	1,658
44	1320	0.87%	0.0290	0.0290	-	(0.0282)	0.2486	-	-	1,658	0.92	1,658	1,658
45	1350	0.83%	0.0276	0.0276	-	(0.0295)	0.2500	-	-	1,658	0.92	1,658	1,658
46	1380	0.77%	0.0256	0.0256	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
47	1410	0.73%	0.0243	0.0243	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
48	1440	0.67%	0.0223	0.0223	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
49	1470	0.60%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
50	1500	0.50%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
51	1530	0.40%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
52	1560	0.30%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
53	1590	0.20%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
54	1620	0.10%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
55	1650	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
56	1680	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
57	1710	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
58	1740	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
59	1770	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
60	1800	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
61	1830	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
62	1860	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
63	1890	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
64	1920	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658
65	1950	0.00%	-	-	-	-	0.2500	-	-	1,658	0.92	1,658	1,658

This column	This Column
Max Flow	Ratio Applied
	Max Flow Rate
	Base Flow

Legend

HEC-HMS Input Parameters - "Detention" Pipe

Outlet Works

Primary Outlet 48- inch diameter orifice, FL @ 91.9
Secondary Outlet 10 foot weir @ 97.1 (top of catch basin)

Stage -Storage Data

Pipe Diameter (D) 5 Partially full pipe area = $C_a \times (D^2)$
Length (ft) 1

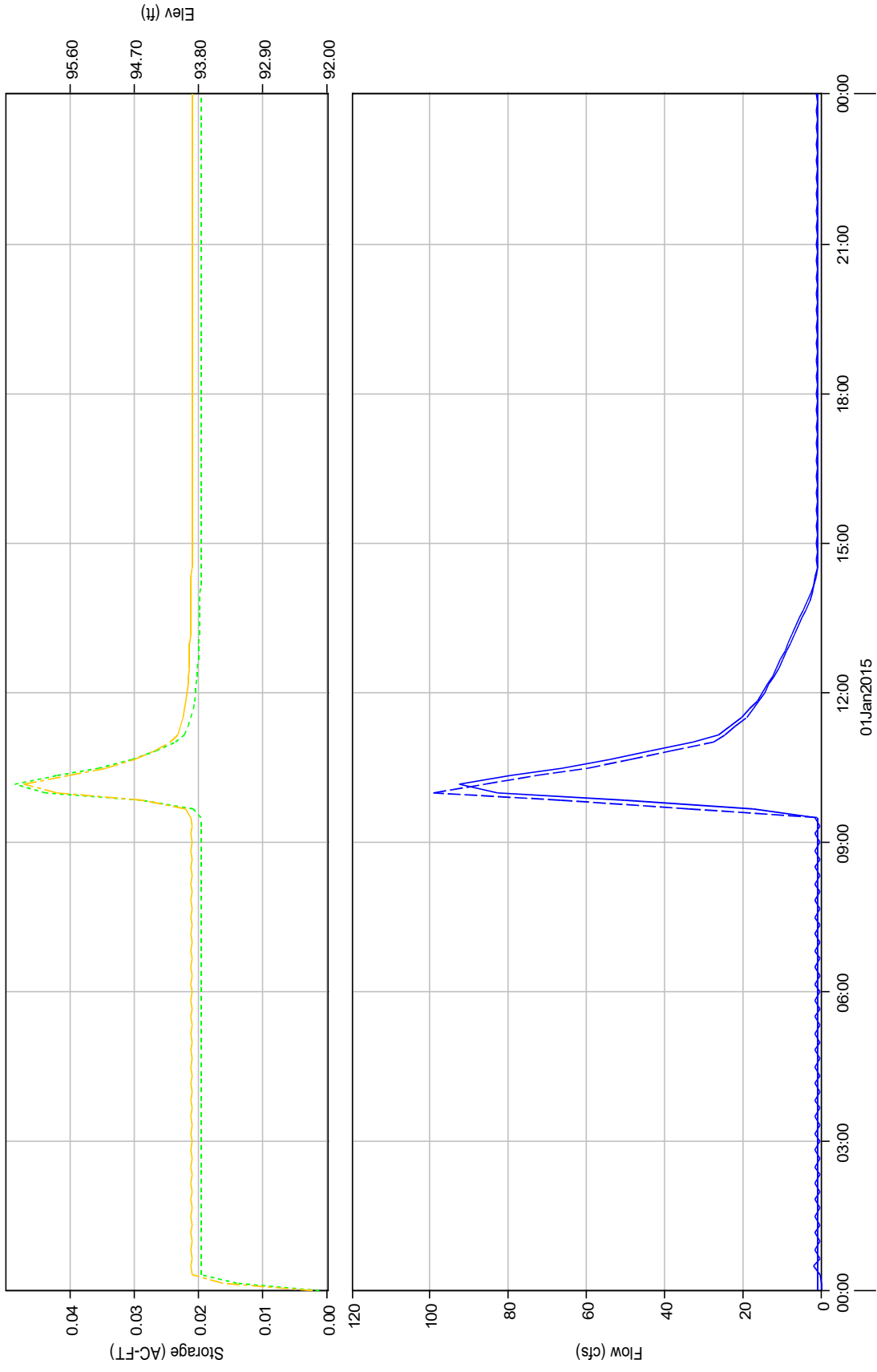
Elev	Partial Depth Area		Area @ Sta 0+00	Area @ Sta 1+17	Cumulative Volume (cu-ft)	Cumulative Volume (Ac-ft)
	Factor Ca					
91.90	0.0000		0.000	0.000	0.000	0.0000
92.20	0.0192		0.480	0.480	56.160	0.0013
92.50	0.0534		1.335	1.335	156.195	0.0036
92.80	0.0961		2.403	2.403	281.093	0.0065
93.10	0.1449		3.623	2.873	379.958	0.0087
93.40	0.1982		4.955	4.955	579.735	0.0133
93.70	0.2546		6.365	6.365	744.705	0.0171
94.00	0.3130		7.825	7.825	915.525	0.0210
94.30	0.3727		9.318	9.318	1090.148	0.0250
94.60	0.4333		10.833	10.833	1267.403	0.0291
94.90	0.4920		12.300	12.300	1439.100	0.0330
95.20	0.5500		13.750	13.750	1608.750	0.0369
95.50	0.6050		15.125	15.125	1769.625	0.0406
95.80	0.6570		16.425	16.425	1921.725	0.0441
96.10	0.7040		17.600	17.600	2059.200	0.0473
96.40	0.7450		18.625	18.625	2179.125	0.0500
96.70	0.7750		19.375	19.375	2266.875	0.0520
97.00	0.7840		19.600	19.600	2293.200	0.0526
98.00	0.7840		19.600	19.600	2293.200	0.0526

Project: B7009 Simulation Run: 10 yr

Start of Run: 01Jan2015, 00:00 Basin Model: Amare Apt Homes
End of Run: 02Jan2015, 00:00 Meteorologic Model: Met 1
Compute Time: 20Sep2017, 20:33:55 Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
Hydrograph	1	99.2	01Jan2015, 10:00	0.22
Detention	1	92.6	01Jan2015, 10:10	0.22
Outfall	1	92.6	01Jan2015, 10:10	0.22

Reservoir "Detention" Results for Run "10 yr"



Run:10 yr Element:Detention Result:Storage
Run:10 yr Element:Detention Result:Pool Elevation
Run:10 yr Element:Detention Result:Outflow
Run:10 yr Element:Detention Result:Combined Inflow

Project: B7009 Simulation Run: 10 yr
Reservoir: Detention

Start of Run: 01Jan2015, 00:00 Basin Model: Amare Apt Homes
End of Run: 02Jan2015, 00:00 Meteorologic Model: Met 1
Compute Time: 20Sep2017, 20:41:11 Control Specifications: Control 1

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2015	00:00	0.9	0.0	92.2	0.0
01Jan2015	00:10	0.9	0.0	93.5	0.0
01Jan2015	00:20	0.9	0.0	93.9	0.2
01Jan2015	00:30	0.9	0.0	93.9	1.6
01Jan2015	00:40	0.9	0.0	93.9	0.2
01Jan2015	00:50	0.9	0.0	93.9	1.6
01Jan2015	01:00	0.9	0.0	93.9	0.2
01Jan2015	01:10	0.9	0.0	93.9	1.6
01Jan2015	01:20	0.9	0.0	93.9	0.2
01Jan2015	01:30	0.9	0.0	93.9	1.6
01Jan2015	01:40	0.9	0.0	93.9	0.2
01Jan2015	01:50	0.9	0.0	93.9	1.6
01Jan2015	02:00	0.9	0.0	93.9	0.2
01Jan2015	02:10	0.9	0.0	93.9	1.6
01Jan2015	02:20	0.9	0.0	93.9	0.2
01Jan2015	02:30	0.9	0.0	93.9	1.6
01Jan2015	02:40	0.9	0.0	93.9	0.2
01Jan2015	02:50	0.9	0.0	93.9	1.6
01Jan2015	03:00	0.9	0.0	93.9	0.2
01Jan2015	03:10	0.9	0.0	93.9	1.6
01Jan2015	03:20	0.9	0.0	93.9	0.2
01Jan2015	03:30	0.9	0.0	93.9	1.6
01Jan2015	03:40	0.9	0.0	93.9	0.2
01Jan2015	03:50	0.9	0.0	93.9	1.6
01Jan2015	04:00	0.9	0.0	93.9	0.2
01Jan2015	04:10	0.9	0.0	93.9	1.6

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2015	04:20	0.9	0.0	93.9	0.2
01Jan2015	04:30	0.9	0.0	93.9	1.6
01Jan2015	04:40	0.9	0.0	93.9	0.2
01Jan2015	04:50	0.9	0.0	93.9	1.6
01Jan2015	05:00	0.9	0.0	93.9	0.2
01Jan2015	05:10	0.9	0.0	93.9	1.6
01Jan2015	05:20	0.9	0.0	93.9	0.2
01Jan2015	05:30	0.9	0.0	93.9	1.6
01Jan2015	05:40	0.9	0.0	93.9	0.2
01Jan2015	05:50	0.9	0.0	93.9	1.6
01Jan2015	06:00	0.9	0.0	93.9	0.2
01Jan2015	06:10	0.9	0.0	93.9	1.6
01Jan2015	06:20	0.9	0.0	93.9	0.2
01Jan2015	06:30	0.9	0.0	93.9	1.6
01Jan2015	06:40	0.9	0.0	93.9	0.2
01Jan2015	06:50	0.9	0.0	93.9	1.6
01Jan2015	07:00	0.9	0.0	93.9	0.2
01Jan2015	07:10	0.9	0.0	93.9	1.6
01Jan2015	07:20	0.9	0.0	93.9	0.2
01Jan2015	07:30	0.9	0.0	93.9	1.6
01Jan2015	07:40	0.9	0.0	93.9	0.2
01Jan2015	07:50	0.9	0.0	93.9	1.6
01Jan2015	08:00	0.9	0.0	93.9	0.2
01Jan2015	08:10	0.9	0.0	93.9	1.6
01Jan2015	08:20	0.9	0.0	93.9	0.2
01Jan2015	08:30	0.9	0.0	93.9	1.6
01Jan2015	08:40	0.9	0.0	93.9	0.2
01Jan2015	08:50	0.9	0.0	93.9	1.6
01Jan2015	09:00	0.9	0.0	93.9	0.2
01Jan2015	09:10	0.9	0.0	93.9	1.6
01Jan2015	09:20	0.9	0.0	93.9	0.2

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2015	09:30	0.9	0.0	93.9	1.6
01Jan2015	09:40	33.7	0.0	94.0	17.3
01Jan2015	09:50	66.4	0.0	94.6	50.1
01Jan2015	10:00	99.2	0.0	95.8	82.8
01Jan2015	10:10	86.0	0.0	96.2	92.6
01Jan2015	10:20	72.8	0.0	95.6	79.4
01Jan2015	10:30	59.5	0.0	95.1	66.1
01Jan2015	10:40	48.9	0.0	94.7	54.2
01Jan2015	10:50	38.2	0.0	94.4	43.5
01Jan2015	11:00	27.5	0.0	94.2	32.8
01Jan2015	11:10	24.6	0.0	94.1	26.1
01Jan2015	11:20	21.8	0.0	94.0	23.2
01Jan2015	11:30	18.9	0.0	94.0	20.3
01Jan2015	11:40	17.4	0.0	94.0	18.2
01Jan2015	11:50	15.9	0.0	94.0	16.3
01Jan2015	12:00	14.4	0.0	94.0	14.9
01Jan2015	12:10	13.2	0.0	93.9	13.5
01Jan2015	12:20	11.9	0.0	93.9	12.2
01Jan2015	12:30	10.6	0.0	93.9	11.4
01Jan2015	12:40	9.7	0.0	93.9	10.2
01Jan2015	12:50	8.8	0.0	93.9	9.2
01Jan2015	13:00	7.9	0.0	93.9	8.3
01Jan2015	13:10	6.8	0.0	93.9	7.4
01Jan2015	13:20	5.8	0.0	93.9	6.3
01Jan2015	13:30	4.8	0.0	93.9	5.3
01Jan2015	13:40	3.9	0.0	93.9	4.3
01Jan2015	13:50	2.9	0.0	93.9	3.4
01Jan2015	14:00	2.0	0.0	93.9	2.5
01Jan2015	14:10	1.7	0.0	93.9	1.8
01Jan2015	14:20	1.3	0.0	93.9	1.5
01Jan2015	14:30	0.9	0.0	93.9	0.7

Appendix B

- **100-Year Post Project Hydrograph**
- **100-Year HEC-HMS Basin Routing**
- **100-Year Hydraulic Analysis**

Contra Costa County Small Watershed Hydrograph Method

HYDRO6 Infiltration Method

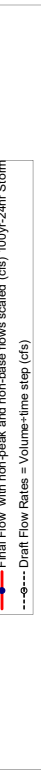
Beta Version 1.1.4
April 4, 2012

Project Name:	Amare Apartment Homes
Project Location:	Martinez, CA
Project Number:	15126
Flow Location:	Project Discharge (CB 21)
Date:	July 9, 2017
Comments:	Proposed Project - 100 Year Delayed

By:	L. Gossett
Company:	Gossett Civil Engineering

Storm Return Period
Storm Duration 100-Year 24-Hour
 MSP 17.00 in (Mean Seasonal Precipitation)
 Watershed Area 117.90 acres = 5,135,724 sf = 0.184 sqmi
 Composite Rational C Value 0.528 (From Title & Input Sheet)
 Rational Peak Flow 175.00 cfs (From Title & Input Sheet)
 $C_1 = 1.25$ (Dependent on Storm Return Period)
 $C_2 = 0.66$ (Never > 1.0)
 $C_3 = 4.97$ in (From built-in D-F-D Curves)
 Storm Depth 30 min (Standard time step for Storm Duration) (from built-in curve)
 Time Step 0.075 min (Standard time step for Interval) (from built-in curve)
 Infiltration Rate from C x C₁ 0.25 in (Standard initial loss)
 Initial Loss 0.92 cfs = 1657.97 cdf/line interval
 Base Flow (cfs per sq. mi.)

Volume Accounting	Rain Volume	48.83 ac-ft = 2127046 cf
	Constant Infiltration Losses	17.71 ac-ft = 771439 cf
	Initial Infiltration Losses	2.46 ac-ft = 106994 cf
	Runoff Volume	28.69 ac-ft = 1249693 cf
	Base Flow Volume	0.03045 ac-ft = 1326 cf
	Total Storm Runoff Volume	28.72 ac-ft = 1251019 cf



Volume Adjustment Check	Target Vol.	1357460.8 cf
	Final Vol.	-1357460.8 cf
	Target Is zero.	0.00
	% Off Target =	0.0%
	Flow Ratio	1.1402

Interval Number	Time at End of Interval (min)	Rainfall Distribution %	Interval Rainfall Depth (in)	Constant Infiltration (in)	Incremental Initial Loss (in)	Incremental Initial Loss Recovery (in)	Initial Loss Remaining (in)	Effective Runoff (in)	Interval Runoff Volume (cf)	Total Interval Vol. with Base Flow (cf)	Draft Flow Rates = Volume-time step (cfs)	Final Flow with non-peak and non-base flows scaled (cfs) 100yr-24hr Storm	Volume Converted from Flow (cf)
Total Below		100.00%	4.9700	1.803	0.250	0.0021	0.2444	2.920	1,249,693	1357460.8 cf	1357460.8 cf	1357460.8 cf	1357460.8 cf
1	30	0.87%	0.0432	0.0377	0.0056	-	0.2444	-	-	1.658	0.92	1.658	1.658
2	60	0.87%	0.0432	0.0377	0.0056	-	0.2389	-	-	1.658	0.92	1.658	1.658
3	90	0.88%	0.0437	0.0377	0.0061	-	0.2328	-	-	1.658	0.92	1.658	1.658
4	120	0.88%	0.0437	0.0377	0.0061	-	0.2267	-	-	1.658	0.92	1.658	1.658
5	150	0.92%	0.0457	0.0377	0.0081	-	0.2187	-	-	1.658	0.92	1.658	1.658
6	180	0.98%	0.0487	0.0377	0.0110	-	0.2077	-	-	1.658	0.92	1.658	1.658
7	210	1.07%	0.0532	0.0377	0.0155	-	0.1922	-	-	1.658	0.92	1.658	1.658
8	240	1.13%	0.0562	0.0377	0.0185	-	0.1737	-	-	1.658	0.92	1.658	1.658
9	270	1.18%	0.0586	0.0377	0.0210	-	0.1527	-	-	1.658	0.92	1.658	1.658
10	300	1.22%	0.0606	0.0377	0.0230	-	0.1297	-	-	1.658	0.92	1.658	1.658
11	330	1.23%	0.0611	0.0377	0.0235	-	0.1063	-	-	1.658	0.92	1.658	1.658
12	360	1.27%	0.0631	0.0377	0.0254	-	0.0868	-	-	1.658	0.92	1.658	1.658
13	390	1.41%	0.0701	0.0377	0.0324	-	0.0684	-	-	1.658	0.92	1.658	1.658
14	420	1.69%	0.0840	0.0377	0.0463	-	0.0021	-	-	1.658	0.92	1.658	1.658
15	450	1.86%	0.0924	0.0377	0.0021	-	-	0.0530	22.683	24.341	13.52	15.42	27.754
16	480	1.94%	0.0964	0.0377	-	-	-	0.0590	25.251	26.909	14.95	17.05	30.682
17	510	2.50%	0.1243	0.0377	-	-	-	0.0870	37.234	38.892	21.61	24.64	44.346
18	540	3.50%	0.1740	0.0377	-	-	-	0.1360	58.205	59.863	33.26	37.92	68.258
19	570	4.90%	0.2435	0.0377	-	-	-	0.2060	89.821	91.479	48.90	56.90	102.418
20	600	21.20%	1.0536	0.0377	-	-	-	1.0160	434.825	436.483	242.49	175.00	315.000
21	630	6.80%	0.3380	0.0377	-	-	-	0.3000	128.393	130.051	72.25	82.38	148.289
22	660	4.00%	0.1988	0.0377	-	-	-	0.1610	68.904	70.562	39.20	44.70	80.458
23	690	3.25%	0.1615	0.0377	-	-	-	0.1240	53.069	54.727	30.40	34.67	62.402
24	720	2.85%	0.1416	0.0377	-	-	-	0.1040	44.510	46.168	25.65	29.25	52.642
25	750	2.52%	0.1252	0.0377	-	-	-	0.0880	39.320	41.000	21.84	24.91	44.934
26	780	2.28%	0.1133	0.0377	-	-	-	0.0780	34.526	36.184	18.99	21.65	38.978

Peak = Rational Method Op

Interval Number	Time at End of Interval (min)	Rainfall Distribution %	Interval Rainfall Depth (in)	Constant Infiltration (in)	Incremental Initial Loss (in)	Incremental Initial Loss Recovery (in)	Initial Loss Balance Amt. Remaining (in)	Effective Runoff (in)	Interval Runoff Volume (cf)	Total Interval Vol. with Base Flow (cf)	Draft Flow Rates = Volume-time step (cfs)	Final Flow with non-peak and non-base flows scaled (cfs) 100yr. 24hr Storm	Volume Converted from Flow (cf)
27	810	2.03%	0.1009	0.0377	-	-	-	0.0630	26.963	28.621	15.90	18.13	32.634
28	840	1.77%	0.0880	0.0377	-	-	-	0.0500	21.399	23.057	12.81	14.61	26.290
29	870	1.62%	0.0805	0.0377	-	-	-	0.0430	18.403	20.061	11.14	12.71	22.874
30	900	1.58%	0.0785	0.0377	-	-	-	0.0410	17.547	19.205	10.67	12.17	21.898
31	930	1.53%	0.0760	0.0377	-	-	-	0.0380	16.263	16.921	9.96	11.35	20.434
32	960	1.47%	0.0731	0.0377	-	-	-	0.0350	14.979	16.637	9.24	10.54	18.970
33	990	1.42%	0.0706	0.0377	-	-	-	0.0330	14.123	15.781	8.77	10.00	17.994
34	1020	1.38%	0.0686	0.0377	-	-	-	0.0310	13.267	14.925	8.29	9.45	17.018
35	1050	1.33%	0.0661	0.0377	-	-	-	0.0280	13.641	13.641	7.58	8.64	15.554
36	1080	1.27%	0.0631	0.0377	-	-	-	0.0250	12.357	12.357	6.87	7.83	14.090
37	1110	1.22%	0.0606	0.0377	-	-	-	0.0230	11.501	11.501	6.39	7.29	13.114
38	1140	1.18%	0.0586	0.0377	-	-	-	0.0210	8.988	10.645	5.91	6.74	12.138
39	1170	1.12%	0.0557	0.0377	-	-	-	0.0180	7.704	9.362	5.20	5.93	10.674
40	1200	1.08%	0.0537	0.0377	-	-	-	0.0160	6.848	8.506	4.73	5.39	9.698
41	1230	1.03%	0.0512	0.0377	-	-	-	0.0140	5.992	7.650	4.25	4.85	8.722
42	1260	0.97%	0.0482	0.0377	-	-	-	0.0110	4.708	6.366	3.54	4.03	7.258
43	1290	0.93%	0.0462	0.0377	-	-	-	0.0090	3.852	5.510	3.06	3.49	6.282
44	1320	0.87%	0.0432	0.0377	-	-	-	0.0060	2.568	4.226	2.35	2.68	4.818
45	1350	0.83%	0.0413	0.0377	-	-	-	0.0040	1.712	3.370	1.87	2.13	3.842
46	1380	0.77%	0.0383	0.0377	-	-	-	0.0010	428	2.086	1.16	1.32	2.378
47	1410	0.67%	0.0363	0.0377	(0.0014)	(0.0014)	0.0014	-	-	1.658	0.92	0.92	1.658
48	1440	0.67%	0.0333	0.0333	(0.0044)	(0.0044)	0.0068	-	-	1.658	0.92	0.92	1.658
49	1470	0.00%	-	-	(0.0377)	(0.0377)	0.0434	-	-	1.658	0.92	0.92	1.658
50	1500	0.00%	-	-	(0.0377)	(0.0377)	0.0811	-	-	1.658	0.92	0.92	1.658
51	1530	0.00%	-	-	(0.0377)	(0.0377)	0.1188	-	-	1.658	0.92	0.92	1.658
52	1560	0.00%	-	-	(0.0377)	(0.0377)	0.1565	-	-	1.658	0.92	0.92	1.658
53	1590	0.00%	-	-	(0.0377)	(0.0377)	0.1941	-	-	1.658	0.92	0.92	1.658
54	1620	0.00%	-	-	(0.0377)	(0.0377)	0.2318	-	-	1.658	0.92	0.92	1.658
55	1650	0.00%	-	-	(0.0377)	(0.0377)	0.2500	-	-	1.658	0.92	0.92	1.658
56	1680	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
57	1710	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
58	1740	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
59	1770	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
60	1800	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
61	1830	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
62	1860	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
63	1890	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
64	1920	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658
65	1950	0.00%	-	-	-	-	0.2500	-	-	1.658	0.92	0.92	1.658

This column	This Column
Max Flow	Ratio Applied
	Max Flow Rate
	Base Flow

Legend

Project: B7009 Simulation Run: 100 yr
Reservoir: Detention

Start of Run: 01Jan2015, 00:00 Basin Model: Amare Apt Homes
End of Run: 02Jan2015, 00:00 Meteorologic Model: Met 1
Compute Time: 20Sep2017, 17:19:28 Control Specifications: Control 1

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2015	00:00	0.9	0.0	92.2	0.0
01Jan2015	00:10	0.9	0.0	93.5	0.0
01Jan2015	00:20	0.9	0.0	93.9	0.2
01Jan2015	00:30	0.9	0.0	93.9	1.6
01Jan2015	00:40	0.9	0.0	93.9	0.2
01Jan2015	00:50	0.9	0.0	93.9	1.6
01Jan2015	01:00	0.9	0.0	93.9	0.2
01Jan2015	01:10	0.9	0.0	93.9	1.6
01Jan2015	01:20	0.9	0.0	93.9	0.2
01Jan2015	01:30	0.9	0.0	93.9	1.6
01Jan2015	01:40	0.9	0.0	93.9	0.2
01Jan2015	01:50	0.9	0.0	93.9	1.6
01Jan2015	02:00	0.9	0.0	93.9	0.2
01Jan2015	02:10	0.9	0.0	93.9	1.6
01Jan2015	02:20	0.9	0.0	93.9	0.2
01Jan2015	02:30	0.9	0.0	93.9	1.6
01Jan2015	02:40	0.9	0.0	93.9	0.2
01Jan2015	02:50	0.9	0.0	93.9	1.6
01Jan2015	03:00	0.9	0.0	93.9	0.2
01Jan2015	03:10	0.9	0.0	93.9	1.6
01Jan2015	03:20	0.9	0.0	93.9	0.2
01Jan2015	03:30	0.9	0.0	93.9	1.6
01Jan2015	03:40	0.9	0.0	93.9	0.2
01Jan2015	03:50	0.9	0.0	93.9	1.6
01Jan2015	04:00	0.9	0.0	93.9	0.2
01Jan2015	04:10	0.9	0.0	93.9	1.6

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2015	04:20	0.9	0.0	93.9	0.2
01Jan2015	04:30	0.9	0.0	93.9	1.6
01Jan2015	04:40	0.9	0.0	93.9	0.2
01Jan2015	04:50	0.9	0.0	93.9	1.6
01Jan2015	05:00	0.9	0.0	93.9	0.2
01Jan2015	05:10	0.9	0.0	93.9	1.6
01Jan2015	05:20	0.9	0.0	93.9	0.2
01Jan2015	05:30	0.9	0.0	93.9	1.6
01Jan2015	05:40	0.9	0.0	93.9	0.2
01Jan2015	05:50	0.9	0.0	93.9	1.6
01Jan2015	06:00	0.9	0.0	93.9	0.2
01Jan2015	06:10	0.9	0.0	93.9	1.6
01Jan2015	06:20	0.9	0.0	93.9	0.2
01Jan2015	06:30	0.9	0.0	93.9	1.6
01Jan2015	06:40	0.9	0.0	93.9	0.2
01Jan2015	06:50	0.9	0.0	93.9	1.6
01Jan2015	07:00	0.9	0.0	93.9	0.2
01Jan2015	07:10	5.8	0.0	93.9	6.4
01Jan2015	07:20	10.6	0.0	93.9	8.2
01Jan2015	07:30	15.4	0.0	93.9	13.0
01Jan2015	07:40	16.0	0.0	94.0	15.8
01Jan2015	07:50	16.5	0.0	94.0	16.7
01Jan2015	08:00	17.1	0.0	94.0	16.9
01Jan2015	08:10	19.6	0.0	94.0	18.6
01Jan2015	08:20	22.1	0.0	94.0	20.6
01Jan2015	08:30	24.6	0.0	94.0	23.2
01Jan2015	08:40	29.1	0.0	94.1	26.9
01Jan2015	08:50	33.5	0.0	94.2	31.3
01Jan2015	09:00	37.9	0.0	94.2	35.6
01Jan2015	09:10	44.2	0.0	94.4	41.1
01Jan2015	09:20	50.6	0.0	94.5	47.4

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2015	09:30	56.9	0.0	94.7	53.7
01Jan2015	09:40	96.3	0.0	95.5	76.6
01Jan2015	09:50	135.6	0.2	97.1	109.1
01Jan2015	10:00	175.0	0.7	97.7	130.1
01Jan2015	10:10	144.1	1.0	98.0	146.3
01Jan2015	10:20	113.3	0.8	97.8	136.5
01Jan2015	10:30	82.4	0.4	97.4	117.3
01Jan2015	10:40	69.8	0.0	95.5	76.1
01Jan2015	10:50	57.3	0.0	95.0	63.5
01Jan2015	11:00	44.7	0.0	94.6	51.0
01Jan2015	11:10	41.4	0.0	94.4	43.0
01Jan2015	11:20	38.0	0.0	94.3	39.7
01Jan2015	11:30	34.7	0.0	94.3	36.4
01Jan2015	11:40	32.9	0.0	94.2	33.5
01Jan2015	11:50	31.1	0.0	94.2	30.5
01Jan2015	12:00	29.2	0.0	94.1	29.8
01Jan2015	12:10	27.8	0.0	94.1	27.3
01Jan2015	12:20	26.4	0.0	94.1	26.9
01Jan2015	12:30	24.9	0.0	94.1	24.5
01Jan2015	12:40	23.8	0.0	94.1	24.3
01Jan2015	12:50	22.7	0.0	94.0	22.3
01Jan2015	13:00	21.6	0.0	94.0	22.0
01Jan2015	13:10	20.5	0.0	94.0	20.1
01Jan2015	13:20	19.3	0.0	94.0	19.7
01Jan2015	13:30	18.1	0.0	94.0	17.8
01Jan2015	13:40	17.0	0.0	94.0	17.3
01Jan2015	13:50	15.8	0.0	94.0	16.8
01Jan2015	14:00	14.6	0.0	94.0	15.4
01Jan2015	14:10	14.0	0.0	94.0	14.0
01Jan2015	14:20	13.3	0.0	93.9	13.3
01Jan2015	14:30	12.7	0.0	93.9	12.7

HYDRAULIC COMPUTATIONS

Amare Apartment Homes - Arnold Drive, Martinez

U/S NODE/(DA)	Mean Annual Precipitation:				17 in.				Recurrence Interval: 100 year								
	Q cfs	SIZE In.	N	S(O)	S(E)	L ft.	H(E)	V fps	V ² /2G	K	H(K)	H(L)	FL	FL+D	HGL	TOP	FBD.
LINE A																	
CB Z1	174.85	48	0.013	0.0025	0.0042	117	0.49	8.9	1.23	0.17	0.20	0.69	91.90	95.90	98.00	97.10	-0.90
CBZ2	174.85	60	0.013	0.0055	0.0035	66	0.23	8.2	1.04	0.42	0.43	0.66	92.19	97.19	98.69	98.80	0.11
SDMH A2 / (Line B)	160.67	60	0.013	0.0057	0.0023	352	0.79	6.5	0.67	0.42	0.28	1.07	94.55	97.55	99.35	101.00	1.65
SDMH A3	128.52	60	0.013	0.0055	0.0073	310	2.27	10.2	1.61	1.25	2.00	4.27	96.25	100.25	104.69	113.30	7.38
SDMH A4	127.80	48	0.013	0.0056	0.0072	116	0.84	10.1	1.58	0.17	0.26	1.10	96.90	100.90	105.79	106.50	8.61
SDMH A5	126.84	48	0.013	0.0060	0.0071	67	0.47	10.0	1.55	0.17	0.26	0.71	97.30	101.30	106.50	106.50	0.71
SDMH Z1	125.64	48	0.013	0.0060	0.0071	67	0.47	10.0	1.55	0.17	0.26	0.71	97.30	101.30	106.50	106.50	0.00
LINE B																	
SDMH A2 / (Line A)	40.19	48	0.013	0.00607	0.0007	140	0.10	3.2	0.16	0.17	0.03	0.13	92.60	97.45	99.35	104.30	4.82
SDMH B1 / (Line C)	18.52	48	0.013	0.00586	0.0002	111	0.02	1.5	0.03	0.50	0.02	0.03	93.45	98.10	99.48	108.00	8.48
SDMH B2	18.52	30	0.013	0.00393	0.0019	140	0.26	3.8	0.22	0.17	0.04	0.30	94.65	97.15	99.52	106.70	6.88
SDMH B3 / (Line D)	15.98	30	0.013	0.00435	0.0014	62	0.09	3.3	0.16	0.50	0.08	0.17	94.92	97.42	99.99	107.60	7.61
SDMH B4 / (Line E)	14.64	27	0.013	0.00383	0.0021	60	0.12	3.7	0.21	0.17	0.04	0.16	95.15	97.40	100.15	104.83	4.68
CB A1	11.93	27	0.013	0.00448	0.0014	67	0.09	3.0	0.14	0.50	0.07	0.16	95.45	97.70	100.31	101.60	1.29
CB A2	11.93	24	0.013	0.00455	0.0026	88	0.23	3.8	0.22	0.42	0.09	0.32	95.85	97.85	100.63	103.28	2.65
CB Z3	11.93	24	0.013	0.01250	0.0026	60	0.15	3.8	0.22	1.25	0.28	0.43	96.60	98.60	101.06	103.78	2.72
CB Z4	11.93	24	0.013	0.01250	0.0026	60	0.15	3.8	0.22	1.25	0.28	0.43	96.60	98.60	101.06	103.78	2.72
LINE C																	
SDMH B1 / (Line B)	22.46	24	0.013	0.04504	0.0091	131	1.19	12.0	2.24	0.42	0.94	2.13	98.30	106.20	99.48	110.00	3.86
SDMH C1	22.46	24	0.013	0.02045	0.0091	88	0.80	7.1	0.79	1.25	0.99	1.79	104.20	108.00	106.14	112.00	4.07
CB Z5	22.46	24	0.013	0.02045	0.0091	88	0.80	7.1	0.79	1.25	0.99	1.79	106.00	108.00	107.93	112.00	*
LINE D																	
SDMH B3 / (Line B)	4.09	12	0.013	0.02375	0.0122	40	0.49	5.2	0.42	1.25	0.53	1.01	96.65	98.60	99.82	102.83	2.00
CB A3	4.09	12	0.013	0.02375	0.0122	40	0.49	5.2	0.42	1.25	0.53	1.01	97.60	98.60	100.83	102.83	2.00
LINE E																	
SDMH B4 / (Line B)	0.24	12	0.013	0.03556	0.0000	45	0.00	0.3	0.00	1.25	0.00	0.00	96.40	99.00	99.99	100.30	0.31
CB Z6	0.24	12	0.013	0.03556	0.0000	45	0.00	0.3	0.00	1.25	0.00	0.00	98.00	99.00	99.99	100.30	0.31

NOTE: "+" INDICATES INLET CONTROL.
 "H" INDICATES PIPE NOT FULL.

09/22/17

STORM SEWER CUSTOM REPORT

Amare – CB Z7 & CB Z8 (Lines 19 and 20)

Data File : AMARE-H1.STM

Return Period: 100 Yrs

Rainfall file: AMARE-H1.RND

LINE 19

Line description = CB Z7 - CB A2

Downstream line number = 0

FLOW INFO:

Input flow = 0.96 cfs

Total flow = 2.90 cfs

PIPE INFO:

Pipe length = 52.76 ft

Pipe diameter = 24.00 in

Pipe type = Circular

Pipe n-value = 0.015

Capacity at invert slope = 10.80 cfs

Invert elevation upstream = 96.30 ft

Invert elevation downstream = 96.14 ft

Invert slope = 0.303 %

Nat. ground elevation upstrm = 100.70 ft

Nat. ground elevation dwnstrm = 101.60 ft

Nat. ground slope = -1.706 %

Crown elevation upstream = 98.30 ft

Crown elevation downstream = 98.14 ft

HYDRAULIC INFO:

Hydraulic grade elev. upstrm = 100.32 ft

Hydraulic grade elev. dwnstrm = 100.31 ft

Hydraulic grade slope = 0.02 %

Energy grade elev. upstream = 100.33 ft

Energy grade elev. downstream = 100.32 ft

Energy grade slope = 0.022 %

Critical depth = 7.24 in

Depth upstream = 24.00 in

Depth downstream = 24.00 in

Velocity upstream = 0.92 ft/s

Velocity downstream = 0.92 ft/s

Kj (JLC) = 0.420

LINE 20

Line description = CB Z8 - CB Z7

Downstream line number = 1

FLOW INFO:

Input flow = 1.94 cfs

Total flow = 1.94 cfs

PIPE INFO:

Pipe length = 47.39 ft

Pipe diameter = 18.00 in

Pipe type = Circular

Pipe n-value = 0.015

Capacity at invert slope = 9.35 cfs

Invert elevation upstream = 97.70 ft

Invert elevation downstream = 97.20 ft

Invert slope = 1.055 %

Nat. ground elevation upstrm = 100.60 ft

Nat. ground elevation dwnstrm = 100.70 ft

Nat. ground slope = -0.211 %

Crown elevation upstream = 99.20 ft

Crown elevation downstream = 98.70 ft

HYDRAULIC INFO:

Hydraulic grade elev. upstrm = 100.37 ft

Hydraulic grade elev. dwnstrm = 100.33 ft

Hydraulic grade slope = 0.09 %

Energy grade elev. upstream = 100.39 ft

Energy grade elev. downstream = 100.35 ft

Energy grade slope = 0.095 %

Critical depth = 6.38 in

Depth upstream = 18.00 in

Depth downstream = 18.00 in

Velocity upstream = 1.10 ft/s

Velocity downstream = 1.10 ft/s

Kj (JLC) = 1.250

October 27, 2017

Mr. Izzat Nashashibi, PE
Humann Company, Inc.
1021 Brown Avenue
Lafayette, CA 94549

RE: **Amare Apartments – Martinez, CA**
ADDENDUM #2 - Supplemental Hydrology & Hydraulics Study

Dear Izzat:

Per your request, this is the addendum to the Supplemental Hydrology & Hydraulics Study for the Amare Apartment project in Martinez dated 9/20/17. This addendum is a response to comments from the City of Martinez relative to the Stage-Storage data for the detention system.

In the original study the catch basin riser in the Stormwater Treatment basin was modeled as the secondary release for the 60-inch pipe under the basin. The stormwater basin above has a top elevation of 98 feet and is partially uncontained. In the original routing calculations, I arbitrarily chose 1 acre-foot for the storage volume above the contained basin to keep the program from crashing, not anticipating it having any significant effect on the routing.

To remedy this, I went back and changed the secondary discharge control to the top of the Stormwater Quality Basin. Based on the proposed site grading, there is, in effect, a 40-foot long berm adjacent to State Route 4 that will be the secondary discharge control. The Stage-Storage data has been revised to incorporate the storage volume in the basin from the top of the catch basin to the top of the berm. This area was extended vertically above the actual berm to account for the additional depth of flow over the "weir".

Incorporating these changes, the basin routing was re-calculated, and the resultant depth was higher than previously modeled. However, when adjusting the tailwater accordingly and re-running the hydraulic calculations for the proposed upstream drainage system, the hydraulic grade line at the sanitary sewer lift station was still below the ground elevation, satisfying that design parameter.

The modified input data and calculations are attached.

If you have additional questions, please feel free to contact me.

Sincerely,



Lawrence Gossett, P.E., CFM, QSD/P

HEC-HMS Input Parameters - "Detention" Pipe

Outlet Works

Primary Outlet 48- inch diameter orifice, FL @ 91.9
 Secondary Outlet 40 foot weir @ 98.0 (top of basin)

Stage -Storage- Discharge Data

Pipe Diameter (D) 5 Partially full pipe area = $Ca \times (D \wedge 2)$

Elev	Partial Depth Area		Area @ Sta 0+00	Area @ Sta 1+17	Basin Volume (cu-ft)	Cumulative Volume (cu-ft)	Cumulative Volume (Ac-ft)	Dischagre (cfs)
	Factor Ca	Ca						
91.90	0.0000	0.0000	0.000	0.000	0.000	0.000	0.0000	0.0
92.20	0.0192	0.0192	0.480	0.000	0.000	28.080	0.0006	0.6
92.50	0.0534	0.0534	1.335	0.480	0.000	106.178	0.0024	2.7
92.80	0.0961	0.0961	2.403	1.335	0.000	218.644	0.0050	6.2
93.10	0.1449	0.1449	3.623	2.403	0.000	352.463	0.0081	11.0
93.40	0.1982	0.1982	4.955	3.623	0.000	501.784	0.0115	16.7
93.70	0.2546	0.2546	6.365	4.955	0.000	662.220	0.0152	23.3
94.00	0.3130	0.3130	7.825	6.365	0.000	830.115	0.0191	30.3
94.30	0.3727	0.3727	9.318	7.825	0.000	1002.836	0.0230	38.3
94.60	0.4333	0.4333	10.833	9.318	0.000	1178.775	0.0271	50.6
94.90	0.4920	0.4920	12.300	10.833	0.000	1353.251	0.0311	60.5
95.20	0.5500	0.5500	13.750	12.300	0.000	1523.925	0.0350	69.0
95.50	0.6050	0.6050	15.125	13.750	0.000	1689.188	0.0388	76.5
95.80	0.6570	0.6570	16.425	15.125	0.000	1845.675	0.0424	83.4
96.10	0.7040	0.7040	17.600	16.425	0.000	1990.463	0.0457	89.7
96.40	0.7450	0.7450	18.625	17.600	0.000	2119.163	0.0486	95.7
96.70	0.7750	0.7750	19.375	18.625	0.000	2223.000	0.0510	101.2
97.10	0.7840	0.7840	19.600	19.550	0.000	2290.275	0.0526	108.2
97.20	0.7840	0.7840	19.600	19.600	203.500	2496.700	0.0573	109.9
98.00	0.7840	0.7840	19.600	19.600	1831.500	4124.700	0.0947	122.5
98.50	0.7840	0.7840	19.600	19.600	2849.000	5142.200	0.1180	173.6
99.00	0.7840	0.7840	19.600	20.600	3866.500	6218.200	0.1428	260.6

Project: B7009 Simulation Run: 100 yr
Reservoir: Detention

Start of Run: 01Jan2015, 00:00 Basin Model: Amare Apt Homes
End of Run: 02Jan2015, 00:00 Meteorologic Model: Met 1
Compute Time: 27Oct2017, 15:28:33 Control Specifications: Control 1

01Jan2015	00:00	0.9	0.0	92.2	0.0
01Jan2015	00:10	0.9	0.0	93.5	0.0
01Jan2015	00:20	0.9	0.0	93.9	0.5
01Jan2015	00:30	0.9	0.0	93.9	1.3
01Jan2015	00:40	0.9	0.0	93.9	0.5
01Jan2015	00:50	0.9	0.0	93.9	1.3
01Jan2015	01:00	0.9	0.0	93.9	0.5
01Jan2015	01:10	0.9	0.0	93.9	1.3
01Jan2015	01:20	0.9	0.0	93.9	0.5
01Jan2015	01:30	0.9	0.0	93.9	1.3
01Jan2015	01:40	0.9	0.0	93.9	0.5
01Jan2015	01:50	0.9	0.0	93.9	1.3
01Jan2015	02:00	0.9	0.0	93.9	0.5
01Jan2015	02:10	0.9	0.0	93.9	1.3
01Jan2015	02:20	0.9	0.0	93.9	0.5
01Jan2015	02:30	0.9	0.0	93.9	1.3
01Jan2015	02:40	0.9	0.0	93.9	0.5
01Jan2015	02:50	0.9	0.0	93.9	1.3
01Jan2015	03:00	0.9	0.0	93.9	0.5
01Jan2015	03:10	0.9	0.0	93.9	1.3
01Jan2015	03:20	0.9	0.0	93.9	0.5
01Jan2015	03:30	0.9	0.0	93.9	1.3
01Jan2015	03:40	0.9	0.0	93.9	0.5
01Jan2015	03:50	0.9	0.0	93.9	1.3
01Jan2015	04:00	0.9	0.0	93.9	0.5
01Jan2015	04:10	0.9	0.0	93.9	1.3

01Jan2015	04:20	0.9	0.0	93.9	0.6
01Jan2015	04:30	0.9	0.0	93.9	1.3
01Jan2015	04:40	0.9	0.0	93.9	0.6
01Jan2015	04:50	0.9	0.0	93.9	1.3
01Jan2015	05:00	0.9	0.0	93.9	0.6
01Jan2015	05:10	0.9	0.0	93.9	1.3
01Jan2015	05:20	0.9	0.0	93.9	0.6
01Jan2015	05:30	0.9	0.0	93.9	1.3
01Jan2015	05:40	0.9	0.0	93.9	0.6
01Jan2015	05:50	0.9	0.0	93.9	1.3
01Jan2015	06:00	0.9	0.0	93.9	0.6
01Jan2015	06:10	0.9	0.0	93.9	1.3
01Jan2015	06:20	0.9	0.0	93.9	0.6
01Jan2015	06:30	0.9	0.0	93.9	1.3
01Jan2015	06:40	0.9	0.0	93.9	0.6
01Jan2015	06:50	0.9	0.0	93.9	1.3
01Jan2015	07:00	0.9	0.0	93.9	0.6
01Jan2015	07:10	5.8	0.0	93.9	6.1
01Jan2015	07:20	10.6	0.0	93.9	8.2
01Jan2015	07:30	15.4	0.0	93.9	13.0
01Jan2015	07:40	16.0	0.0	94.0	15.8
01Jan2015	07:50	16.5	0.0	94.0	16.7
01Jan2015	08:00	17.1	0.0	94.0	16.9
01Jan2015	08:10	19.6	0.0	94.0	18.6
01Jan2015	08:20	22.1	0.0	94.0	20.6
01Jan2015	08:30	24.6	0.0	94.0	23.1
01Jan2015	08:40	29.1	0.0	94.1	26.9
01Jan2015	08:50	33.5	0.0	94.2	31.3
01Jan2015	09:00	37.9	0.0	94.2	35.6
01Jan2015	09:10	44.2	0.0	94.4	41.1
01Jan2015	09:20	50.6	0.0	94.5	47.4

01Jan2015	09:30	56.9	0.0	94.7	53.7
01Jan2015	09:40	96.3	0.0	95.5	76.6
01Jan2015	09:50	135.6	0.1	97.6	115.9
01Jan2015	10:00	175.0	0.1	98.4	155.3
01Jan2015	10:10	144.1	0.1	98.4	163.4
01Jan2015	10:20	113.3	0.1	98.1	128.7
01Jan2015	10:30	82.4	0.0	96.5	97.8
01Jan2015	10:40	69.8	0.0	95.5	76.1
01Jan2015	10:50	57.3	0.0	95.0	63.5
01Jan2015	11:00	44.7	0.0	94.6	51.0
01Jan2015	11:10	41.4	0.0	94.4	43.0
01Jan2015	11:20	38.0	0.0	94.3	39.7
01Jan2015	11:30	34.7	0.0	94.3	36.4
01Jan2015	11:40	32.9	0.0	94.2	33.6
01Jan2015	11:50	31.1	0.0	94.2	31.1
01Jan2015	12:00	29.2	0.0	94.1	29.2
01Jan2015	12:10	27.8	0.0	94.1	27.9
01Jan2015	12:20	26.4	0.0	94.1	26.3
01Jan2015	12:30	24.9	0.0	94.1	25.0
01Jan2015	12:40	23.8	0.0	94.1	23.8
01Jan2015	12:50	22.7	0.0	94.0	22.8
01Jan2015	13:00	21.6	0.0	94.0	21.6
01Jan2015	13:10	20.5	0.0	94.0	20.5
01Jan2015	13:20	19.3	0.0	94.0	19.3
01Jan2015	13:30	18.1	0.0	94.0	18.2
01Jan2015	13:40	17.0	0.0	94.0	16.9
01Jan2015	13:50	15.8	0.0	94.0	15.8
01Jan2015	14:00	14.6	0.0	94.0	14.6
01Jan2015	14:10	14.0	0.0	94.0	14.0
01Jan2015	14:20	13.3	0.0	93.9	13.3
01Jan2015	14:30	12.7	0.0	93.9	12.7

HYDRAULIC COMPUTATIONS

Amare Apartment Homes - Arnold Drive, Martinez

U/S NODE/(DA)	Mean Annual Precipitation: 17 in.										Recurrence Interval: 100 year						
	Q cfs	SIZE In.	N	S(O)	S(E)	L ft.	H(E)	V fps	V ² /2G	K	H(K)	H(L)	FL	FL+D	HGL	TOP	FBD.
LINE A																	
CB Z1	174.85	48											91.90				
CBZ2	174.85	60	0.013	0.0025	0.0042	117	0.49	8.9	1.23	0.17	0.20	0.69	92.19	95.90	98.40	97.10	-1.30
SDMH A2 / (Line B)	160.67	60	0.013	0.0055	0.0035	66	0.23	8.2	1.04	0.42	0.43	0.66	92.55	97.19	99.09	98.80	-0.29
SDMH A3	128.52	60	0.013	0.0057	0.0023	352	0.79	6.5	0.67	0.42	0.28	1.07	94.55	97.55	99.75	101.00	1.25
SDMH A4	127.80	48	0.013	0.0055	0.0073	310	2.27	10.2	1.61	1.25	2.00	4.27	96.25	99.55	100.82	107.80	6.98
SDMH A5	126.84	48	0.013	0.0056	0.0072	116	0.84	10.1	1.58	0.17	0.26	1.10	96.90	100.25	105.09	113.30	8.21
SDMH Z1	125.64	48	0.013	0.0060	0.0071	67	0.47	10.0	1.55	0.17	0.26	0.73	97.30	100.90	106.19	106.50	0.31
													97.30	101.30	106.92	106.50	-0.42
LINE B																	
SDMH A2 / (Line A)	40.19	48	0.013	0.00607	0.0007	140	0.10	3.2	0.16	0.17	0.03	0.13	92.60	97.45	99.75	104.30	4.42
SDMH B1 / (Line C)	18.52	48	0.013	0.00586	0.0002	111	0.02	1.5	0.03	0.50	0.02	0.03	93.45	98.10	99.88	108.00	8.08
SDMH B2	18.52	30	0.013	0.00393	0.0019	140	0.26	3.8	0.22	0.17	0.04	0.30	94.65	97.15	100.22	106.70	6.48
SDMH B3 / (Line D)	15.98	30	0.013	0.00435	0.0014	62	0.09	3.3	0.16	0.50	0.08	0.17	94.92	97.42	100.39	107.60	7.21
SDMH B4 / (Line E)	14.64	27	0.013	0.00383	0.0021	60	0.12	3.7	0.21	0.17	0.04	0.16	95.15	97.40	100.55	104.83	4.28
CB A1	11.93	27	0.013	0.00448	0.0014	67	0.09	3.0	0.14	0.50	0.07	0.16	95.45	97.70	100.71	101.60	0.89
CB A2	11.93	24	0.013	0.00455	0.0026	88	0.23	3.8	0.22	0.42	0.09	0.32	95.85	97.85	101.03	103.28	2.25
CB Z3	11.93	24	0.013	0.01250	0.0026	60	0.15	3.8	0.22	1.25	0.28	0.43	96.60	98.60	101.46	103.78	2.32
CB Z4																	
LINE C																	
SDMH B1 / (Line B)	22.46	24	0.013	0.04504	0.0091	131	1.19	12.0	2.24	0.42	0.94	2.13	98.30	106.20	99.88	110.00	3.86
SDMH C1	22.46	24	0.013	0.02045	0.0091	88	0.80	7.1	0.79	1.25	0.99	1.79	104.20	108.00	106.14	112.00	4.07
CB Z5													106.00		107.93		
LINE D																	
SDMH B3 / (Line B)	4.09	12	0.013	0.02375	0.0122	40	0.49	5.2	0.42	1.25	0.53	1.01	96.65	98.60	100.22	102.83	1.60
CB A3													97.60		101.23		
LINE E																	
SDMH B4 / (Line B)	0.24	12	0.013	0.03556	0.0000	45	0.00	0.3	0.00	1.25	0.00	0.00	96.40	99.00	100.39	100.40	0.01
CB Z6													98.00		100.39		

NOTE: "+" INDICATES INLET CONTROL.
 "H" INDICATES PIPE NOT FULL.

October 27, 2017

Mr. Izzat Nashashibi, PE
Humann Company, Inc.
1021 Brown Avenue
Lafayette, CA 94549

RE: **Amare Apartments – Martinez, CA**
ADDENDUM #2 - Supplemental Hydrology & Hydraulics Study

Dear Izzat:

Per your request, this is the addendum to the Supplemental Hydrology & Hydraulics Study for the Amare Apartment project in Martinez dated 9/20/17. This addendum is a response to comments from the City of Martinez relative to the Stage-Storage data for the detention system.

In the original study the catch basin riser in the Stormwater Treatment basin was modeled as the secondary release for the 60-inch pipe under the basin. The stormwater basin above has a top elevation of 98 feet and is partially uncontained. In the original routing calculations, I arbitrarily chose 1 acre-foot for the storage volume above the contained basin to keep the program from crashing, not anticipating it having any significant effect on the routing.

To remedy this, I went back and changed the secondary discharge control to the top of the Stormwater Quality Basin. Based on the proposed site grading, there is, in effect, a 40- foot long berm adjacent to State Route 4 that will be the secondary discharge control. The Stage-Storage data has been revised to incorporate the storage volume in the basin from the top of the catch basin to the top of the berm. This area was extended vertically above the actual berm to account for the additional depth of flow over the "weir".

Incorporating these changes, the basin routing was re-calculated, and the resultant depth was higher than previously modeled. However, when adjusting the tailwater accordingly and re-running the hydraulic calculations for the proposed upstream drainage system, the hydraulic grade line at the sanitary sewer lift station was still below the ground elevation, satisfying that design parameter.

The modified input data and calculations are attached.

If you have additional questions, please feel free to contact me.

Sincerely,



Lawrence Gossett, P.E., CFM, QSD/P

HEC-HMS Input Parameters - "Detention" Pipe

Outlet Works

Primary Outlet 48- inch diameter orifice, FL @ 91.9
Secondary Outlet 40 foot weir @ 98.0 (top of basin)

Stage -Storage- Discharge Data

Pipe Diameter (D) 5 Partially full pipe area = $Ca \times (D \wedge 2)$

Elev	Partial Depth Area		Area @ Sta 0+00	Area @ Sta 1+17	Basin Volume (cu-ft)	Cumulative Volume (cu-ft)	Cumulative Volume (Ac-ft)	Dischagre (cfs)
	Factor	Ca						
91.90	0.0000	0.0000	0.000	0.000	0.000	0.000	0.0000	0.0
92.20	0.0192	0.0192	0.480	0.000	0.000	28.080	0.0006	0.6
92.50	0.0534	0.0534	1.335	0.480	0.000	106.178	0.0024	2.7
92.80	0.0961	0.0961	2.403	1.335	0.000	218.644	0.0050	6.2
93.10	0.1449	0.1449	3.623	2.403	0.000	352.463	0.0081	11.0
93.40	0.1982	0.1982	4.955	3.623	0.000	501.784	0.0115	16.7
93.70	0.2546	0.2546	6.365	4.955	0.000	662.220	0.0152	23.3
94.00	0.3130	0.3130	7.825	6.365	0.000	830.115	0.0191	30.3
94.30	0.3727	0.3727	9.318	7.825	0.000	1002.836	0.0230	38.3
94.60	0.4333	0.4333	10.833	9.318	0.000	1178.775	0.0271	50.6
94.90	0.4920	0.4920	12.300	10.833	0.000	1353.251	0.0311	60.5
95.20	0.5500	0.5500	13.750	12.300	0.000	1523.925	0.0350	69.0
95.50	0.6050	0.6050	15.125	13.750	0.000	1689.188	0.0388	76.5
95.80	0.6570	0.6570	16.425	15.125	0.000	1845.675	0.0424	83.4
96.10	0.7040	0.7040	17.600	16.425	0.000	1990.463	0.0457	89.7
96.40	0.7450	0.7450	18.625	17.600	0.000	2119.163	0.0486	95.7
96.70	0.7750	0.7750	19.375	18.625	0.000	2223.000	0.0510	101.2
97.10	0.7840	0.7840	19.600	19.550	0.000	2290.275	0.0526	108.2
97.20	0.7840	0.7840	19.600	19.600	203.500	2496.700	0.0573	109.9
98.00	0.7840	0.7840	19.600	19.600	1831.500	4124.700	0.0947	122.5
98.50	0.7840	0.7840	19.600	19.600	2849.000	5142.200	0.1180	173.6
99.00	0.7840	0.7840	19.600	20.600	3866.500	6218.200	0.1428	260.6

Project: B7009 Simulation Run: 100 yr
Reservoir: Detention

Start of Run: 01Jan2015, 00:00 Basin Model: Amare Apt Homes
End of Run: 02Jan2015, 00:00 Meteorologic Model: Met 1
Compute Time: 27Oct2017, 15:28:33 Control Specifications: Control 1

01Jan2015	00:00	0.9	0.0	92.2	0.0
01Jan2015	00:10	0.9	0.0	93.5	0.0
01Jan2015	00:20	0.9	0.0	93.9	0.5
01Jan2015	00:30	0.9	0.0	93.9	1.3
01Jan2015	00:40	0.9	0.0	93.9	0.5
01Jan2015	00:50	0.9	0.0	93.9	1.3
01Jan2015	01:00	0.9	0.0	93.9	0.5
01Jan2015	01:10	0.9	0.0	93.9	1.3
01Jan2015	01:20	0.9	0.0	93.9	0.5
01Jan2015	01:30	0.9	0.0	93.9	1.3
01Jan2015	01:40	0.9	0.0	93.9	0.5
01Jan2015	01:50	0.9	0.0	93.9	1.3
01Jan2015	02:00	0.9	0.0	93.9	0.5
01Jan2015	02:10	0.9	0.0	93.9	1.3
01Jan2015	02:20	0.9	0.0	93.9	0.5
01Jan2015	02:30	0.9	0.0	93.9	1.3
01Jan2015	02:40	0.9	0.0	93.9	0.5
01Jan2015	02:50	0.9	0.0	93.9	1.3
01Jan2015	03:00	0.9	0.0	93.9	0.5
01Jan2015	03:10	0.9	0.0	93.9	1.3
01Jan2015	03:20	0.9	0.0	93.9	0.5
01Jan2015	03:30	0.9	0.0	93.9	1.3
01Jan2015	03:40	0.9	0.0	93.9	0.5
01Jan2015	03:50	0.9	0.0	93.9	1.3
01Jan2015	04:00	0.9	0.0	93.9	0.5
01Jan2015	04:10	0.9	0.0	93.9	1.3

01Jan2015	04:20	0.9	0.0	93.9	0.6
01Jan2015	04:30	0.9	0.0	93.9	1.3
01Jan2015	04:40	0.9	0.0	93.9	0.6
01Jan2015	04:50	0.9	0.0	93.9	1.3
01Jan2015	05:00	0.9	0.0	93.9	0.6
01Jan2015	05:10	0.9	0.0	93.9	1.3
01Jan2015	05:20	0.9	0.0	93.9	0.6
01Jan2015	05:30	0.9	0.0	93.9	1.3
01Jan2015	05:40	0.9	0.0	93.9	0.6
01Jan2015	05:50	0.9	0.0	93.9	1.3
01Jan2015	06:00	0.9	0.0	93.9	0.6
01Jan2015	06:10	0.9	0.0	93.9	1.3
01Jan2015	06:20	0.9	0.0	93.9	0.6
01Jan2015	06:30	0.9	0.0	93.9	1.3
01Jan2015	06:40	0.9	0.0	93.9	0.6
01Jan2015	06:50	0.9	0.0	93.9	1.3
01Jan2015	07:00	0.9	0.0	93.9	0.6
01Jan2015	07:10	5.8	0.0	93.9	6.1
01Jan2015	07:20	10.6	0.0	93.9	8.2
01Jan2015	07:30	15.4	0.0	93.9	13.0
01Jan2015	07:40	16.0	0.0	94.0	15.8
01Jan2015	07:50	16.5	0.0	94.0	16.7
01Jan2015	08:00	17.1	0.0	94.0	16.9
01Jan2015	08:10	19.6	0.0	94.0	18.6
01Jan2015	08:20	22.1	0.0	94.0	20.6
01Jan2015	08:30	24.6	0.0	94.0	23.1
01Jan2015	08:40	29.1	0.0	94.1	26.9
01Jan2015	08:50	33.5	0.0	94.2	31.3
01Jan2015	09:00	37.9	0.0	94.2	35.6
01Jan2015	09:10	44.2	0.0	94.4	41.1
01Jan2015	09:20	50.6	0.0	94.5	47.4

01Jan2015	09:30	56.9	0.0	94.7	53.7
01Jan2015	09:40	96.3	0.0	95.5	76.6
01Jan2015	09:50	135.6	0.1	97.6	115.9
01Jan2015	10:00	175.0	0.1	98.4	155.3
01Jan2015	10:10	144.1	0.1	98.4	163.4
01Jan2015	10:20	113.3	0.1	98.1	128.7
01Jan2015	10:30	82.4	0.0	96.5	97.8
01Jan2015	10:40	69.8	0.0	95.5	76.1
01Jan2015	10:50	57.3	0.0	95.0	63.5
01Jan2015	11:00	44.7	0.0	94.6	51.0
01Jan2015	11:10	41.4	0.0	94.4	43.0
01Jan2015	11:20	38.0	0.0	94.3	39.7
01Jan2015	11:30	34.7	0.0	94.3	36.4
01Jan2015	11:40	32.9	0.0	94.2	33.6
01Jan2015	11:50	31.1	0.0	94.2	31.1
01Jan2015	12:00	29.2	0.0	94.1	29.2
01Jan2015	12:10	27.8	0.0	94.1	27.9
01Jan2015	12:20	26.4	0.0	94.1	26.3
01Jan2015	12:30	24.9	0.0	94.1	25.0
01Jan2015	12:40	23.8	0.0	94.1	23.8
01Jan2015	12:50	22.7	0.0	94.0	22.8
01Jan2015	13:00	21.6	0.0	94.0	21.6
01Jan2015	13:10	20.5	0.0	94.0	20.5
01Jan2015	13:20	19.3	0.0	94.0	19.3
01Jan2015	13:30	18.1	0.0	94.0	18.2
01Jan2015	13:40	17.0	0.0	94.0	16.9
01Jan2015	13:50	15.8	0.0	94.0	15.8
01Jan2015	14:00	14.6	0.0	94.0	14.6
01Jan2015	14:10	14.0	0.0	94.0	14.0
01Jan2015	14:20	13.3	0.0	93.9	13.3
01Jan2015	14:30	12.7	0.0	93.9	12.7

HYDRAULIC COMPUTATIONS

Amare Apartment Homes - Arnold Drive, Martinez

U/S NODE/(DA)	Q cfs	SIZE In.	N	S(O)	S(E)	L ft.	H(E)	V fps	V ² /2G	K	H(K)	H(L)	FL	FL+D	HGL	TOP	FBD.	Recurrence Interval: 100 year
Mean Annual Precipitation: 17 in.																		
LINE A																		
CB Z1	174.85	48											91.90					
CBZ2	174.85	60	0.013	0.0025	0.0042	117	0.49	8.9	1.23	0.17	0.20	0.69	92.19	95.90	98.40	97.10	-1.30	
SDMH A2 / (Line B)	160.67	60	0.013	0.0055	0.0035	66	0.23	8.2	1.04	0.42	0.43	0.66	92.55	97.19	99.09	98.80	-0.29	
SDMH A3	128.52	60	0.013	0.0057	0.0023	352	0.79	6.5	0.67	0.42	0.28	1.07	94.55	97.55	99.75	101.00	1.25	
SDMH A4	127.80	48	0.013	0.0055	0.0073	310	2.27	10.2	1.61	1.25	2.00	4.27	96.25	99.55	100.82	107.80	6.98	
SDMH A5	126.84	48	0.013	0.0056	0.0072	116	0.84	10.1	1.58	0.17	0.26	1.10	96.90	100.25	105.09	113.30	8.21	
SDMH Z1	125.64	48	0.013	0.0060	0.0071	67	0.47	10.0	1.55	0.17	0.26	0.73	97.30	100.90	106.19	106.50	0.31	
LINE B																		
SDMH A2 / (Line A)	40.19	48	0.013	0.00607	0.0007	140	0.10	3.2	0.16	0.17	0.03	0.13	92.60	97.45	99.75	104.30	4.42	
SDMH B1 / (Line C)	18.52	48	0.013	0.00586	0.0002	111	0.02	1.5	0.03	0.50	0.02	0.03	93.45	98.10	99.88	108.00	8.08	
SDMH B2	18.52	30	0.013	0.00393	0.0019	140	0.26	3.8	0.22	0.17	0.04	0.30	94.65	97.15	100.22	106.70	6.48	
SDMH B3 / (Line D)	15.98	30	0.013	0.00435	0.0014	62	0.09	3.3	0.16	0.50	0.08	0.17	94.92	97.42	100.39	107.60	7.21	
SDMH B4 / (Line E)	14.64	27	0.013	0.00383	0.0021	60	0.12	3.7	0.21	0.17	0.04	0.16	95.15	97.40	100.55	104.83	4.28	
CB A1	11.93	27	0.013	0.00448	0.0014	67	0.09	3.0	0.14	0.50	0.07	0.16	95.45	97.70	100.71	101.60	0.89	
CB A2	11.93	24	0.013	0.00455	0.0026	88	0.23	3.8	0.22	0.42	0.09	0.32	95.85	97.85	101.03	103.28	2.25	
CB Z3	11.93	24	0.013	0.01250	0.0026	60	0.15	3.8	0.22	1.25	0.28	0.43	96.60	98.60	101.46	103.78	2.32	
CB Z4																		
LINE C																		
SDMH B1 / (Line B)	22.46	24	0.013	0.04504	0.0091	131	1.19	12.0	2.24	0.42	0.94	2.13	98.30	106.20	99.88	110.00	3.86	*
SDMH C1	22.46	24	0.013	0.02045	0.0091	88	0.80	7.1	0.79	1.25	0.99	1.79	104.20	108.00	106.14	112.00	4.07	*
CB Z5													106.00					
LINE D																		
SDMH B3 / (Line B)	4.09	12	0.013	0.02375	0.0122	40	0.49	5.2	0.42	1.25	0.53	1.01	96.65	98.60	100.22	102.83	1.60	
CB A3													97.60					
LINE E																		
SDMH B4 / (Line B)	0.24	12	0.013	0.03556	0.0000	45	0.00	0.3	0.00	1.25	0.00	0.00	96.40	99.00	100.39	100.40	0.01	
CB Z6													98.00					

NOTE: "+" INDICATES INLET CONTROL.
 "H" INDICATES PIPE NOT FULL.