Exhibit A

CITY OF SAN LEANDRO

1388 BANCROFT AVENUE PROJECT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

CITY OF SAN LEANDRO
835 EAST 14TH STREET
SAN LEANDRO, CA 94577

Prepared by:

MICHAEL BAKER INTERNATIONAL
1 KAISER PLAZA, SUITE 1150
OAKLAND, CA 94612

NOVEMBER 2018

City of San Leandro
Notice of Intent to Adopt a Mitigated Negative Declaration

Notice is hereby given that the City of San Leandro has completed an Initial Study and Mitigated Negative Declaration in accordance with the California Environmental Quality Act for the project described below.

Project Title: 1388 Bancroft Avenue (PLN18-0046)

Project Description: The proposed project would involve the demolition of existing buildings on the project site and construction of a three-story, 34-foot-tall building of wood frame and stucco construction. The project would include 45 rental apartments. Of these, 43 units would be 980-square-foot, two-bedroom, two-bathroom apartments, and 2 units would be 1,380-square-foot, three-bedroom, three-bathroom apartments. In compliance with the City's Inclusionary Zoning Ordinance (Article 30 of the Zoning Code), the project would provide two units affordable to lower-income households and an estimated in-lieu fee of approximately $160,000. The project would include 55 off-street parking spaces, bicycle parking, open space for residents, and sustainability features.

The project is on a list compiled pursuant to Government Code section 65962.5. Please refer to the Draft IS-MND for additional information. The proposed project is not considered a project of statewide, regional or area wide significance. The proposed project would not affect highways or other facilities under the jurisdiction of the State Department of Transportation.

Project Location: The project site is located at 1388 Bancroft Avenue, in northeast San Leandro, on the eastern side of Bancroft Avenue, between Estudillo Avenue to the north and Joaquin Avenue to the south. The subject property currently consists of a 55,282-square-foot (1.27-acre) parcel that was developed in 1955 with two medical office buildings. The larger building on the northern portion of the site is approximately 18,000 square feet and the smaller building to the south is approximately 4,000 square feet. Across Estudillo Avenue to the north is the Bancroft Middle School campus, to the northwest is a gas station, to the west is a medical office building and a church, to the southwest is a convalescent hospital, and to the south are single and multi-family residences. Adjacent to the east of the site are primarily single-family residences. The project site's Assessor's Parcel Number (APN) is 77-524-12-4. The subject property is zoned Professional Office (P). The site is designated Downtown Mixed Use in the San Leandro General Plan.

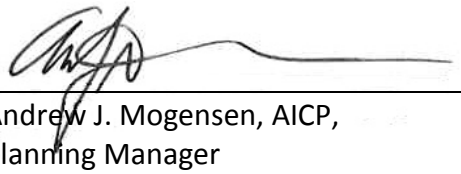
Finding: On the basis of the Initial Study, the Community Development Department of the City of San Leandro has determined that with the incorporation of the mitigation measures identified in the Initial Study, the proposed project would not have a significant adverse effect on the environment.

Public Hearing: A recommendation regarding the proposed project (PLN18-0046) and the IS-MND will be considered by the City of San Leandro Planning Commission on Thursday, December 20, 2018 at 7:00 p.m. in the City Council Chambers at San Leandro City Hall (835 East 14th Street, San Leandro). Any interested party or agent may appear and be heard. Comments regarding the proposed project or IS-MND may be forwarded to the City of San Leandro at or prior to the Public Hearing. Anyone instituting a legal challenge to the Public Hearing item noted above may be limited to addressing only those issues raised at the Public Hearing described in this Notice, or in written correspondence delivered to the City of San Leandro at or prior to the Public Hearing.

Public Comment Period: The Initial Study - Mitigated Negative Declaration (IS-MND) is available for public review and comment. The public review period for this project continues from the date of this Notice until the City Council public hearing tentatively scheduled to be held in the City Council Chambers at San Leandro City Hall (835 East 14th Street, San Leandro) at 7:00 p.m. on **Tuesday, January, 22, 2019**. Your comments on the IS-MND are welcome. If you wish to comment on the IS-MND, please send written comments with your name and/or the name of your agency contact person (if applicable) to the following address or email address no later than 4:00 p.m. on Tuesday, January 22, 2019:

Andrew J. Mogensen, AICP
Planning Manager
City of San Leandro
835 East 14th Street
San Leandro, CA 94577
Email: amogensen@sanleandro.org

Document Availability: A copy of the IS-MND can be reviewed at the City of San Leandro's Permit Center during regular business hours, located at 835 East 14th Street, San Leandro, CA 94577 and online at http://sanleandro.org/depts/cd/plan/polplanstudiesceqa/default.asp.



November 30, 2018

Andrew J. Mogensen, AICP,
Planning Manager

Date of Notice:

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1.0 Introduction

1.1 INTRODUCTION AND REGULATORY GUIDANCE

An initial study is conducted by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines Section 15063[a]). If there is substantial evidence that a project may have a significant effect on the environment, an environmental impact report (EIR) must be prepared, in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15064(a). However, if the lead agency determines the impacts are, or can be reduced to, less than significant, a negative declaration or mitigated negative declaration may be prepared instead of an EIR (CEQA Guidelines Section 15070(b)). Pursuant to CEQA Guidelines Section 15070, a Mitigated Negative Declaration is appropriate when the project's initial study identifies potentially significant effects, but:

a. Revisions to the project plan were made that would avoid or reduce the effects to a point where clearly no significant effects would occur; and

b. There is no substantial evidence that the project, as revised, may have a significant effect on the environment.

This Initial Study identifies potentially significant impacts on certain environmental resources. The Mitigated Negative Declaration proposes a range of mitigation measures to reduce all such effects to less than significant. Therefore, the City of San Leandro (City) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) for the project because all impacts resulting from the project are reduced to less than significant through the adoption and implementation of mitigation measures. This IS/MND conforms to the content requirements of a negative declaration under CEQA Guidelines Section 15071.

1.2 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 lists criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers." The project will require approvals from the City, including a rezoning and approval of a Planned Development Project Plan. Therefore, based on the criteria described above, the City of San Leandro is the lead agency for the proposed project.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The applicant is proposing to implement the 1388 Bancroft Avenue Project. The purpose of this IS/MND is to evaluate the project's potential environmental effects and to provide mitigation where necessary to avoid, minimize, or lessen those effects. This document is divided into the following sections:

1.0 INTRODUCTION

This section provides an introduction and describes the purpose and organization of this document.

2.0 PROJECT DESCRIPTION

This section includes the project background and a detailed description of the proposed project. It also describes the process used for notifying and involving the public during project planning and for coordination with relevant agencies and organizations.

3.0 INITIAL STUDY CHECKLIST

This section describes the environmental setting for each of the environmental subject areas; evaluates a range of impacts classified as "no impact," "less than significant impact," "less than significant impact with mitigation incorporated," or "potentially significant impact" in response to the environmental checklist, and includes mitigation measures, where appropriate, to mitigate potentially significant impacts to a less than significant level; and provides an environmental determination for the project.

4.0 SUMMARY OF MITIGATION MEASURES

This section lists the mitigation measures for the proposed project.

5.0 LIST OF PREPARERS

This section identifies staff and consultants responsible for preparation of this document.

6.0 LIST OF ABBREVIATIONS

This section lists the abbreviations used throughout the document.

7.0 REFERENCES

This section identifies resources used in the preparation of the IS/MND.

2.0 Project Description

2.1 PROJECT LOCATION

The project site is located in northeast San Leandro, on the eastern side of Bancroft Avenue, between Estudillo Avenue to the north and Joaquin Avenue to the south, as shown on **Figure 2.0-1, Regional Location,** and **Figure 2.0-2, Project Location**. Across Estudillo Avenue to the north is the Bancroft Middle School campus, to the northwest is a gas station, to the west is a medical office building and a church, to the southwest is a convalescent hospital, and to the south are single- and multi-family residences. Adjacent to the east of the site are primarily single-family residences. The project site's Assessor's Parcel Number (APN) is 77-524-12-4.

2.2 BACKGROUND AND EXISTING SETTING

The project site is a 55,282-square-foot (1.27-acre) parcel that was developed in 1955 with two medical office buildings. The larger building on the northern portion of the site is approximately 18,000 square feet and the smaller building to the south is approximately 4,000 square feet.

As shown on **Figure 2.0-3, General Plan Land Use**, the site is designated Downtown Mixed Use in the San Leandro General Plan. As shown on **Figure 2.0-4, Zoning Districts**, the site is zoned Professional Office District.

As noted above, the area surrounding the site is primarily residential, along with medical, school, and church uses.

2.3 PROPOSED PROJECT

The project would demolish the existing buildings on the site and construct a 45-unit residential building. **Figure 2.0-5, Proposed Site Plan,** shows the project site plan, and **Figures 2.0-6** and **2.0-7, Project Perspectives**, show illustrative renderings of the project from various vantage points. The project plans are included in **Appendix A**.

PROJECT ELEMENTS

The project would develop a three-story, 34-foot-tall building of wood frame and stucco construction. The project would include 45 rental apartments. Of these, 43 units would be 980-square-foot, two-bedroom, two-bathroom apartments, and 2 would be 1,380-square-foot, three-bedroom, three-bathroom units. In compliance with the City's Inclusionary Zoning Ordinance (Article 30 of the Zoning Code), the project would provide two units affordable to lower-income households and an estimated in-lieu fee of approximately $160,000. The project would include 55 off-street parking spaces, bicycle parking, open space for residents, and sustainability features, as described below.

PROJECT SITE CIRCULATION AND PARKING

Pedestrian access to the project would primarily be through the main entrance at the corner of Bancroft Avenue and Joaquin Avenue. A surface parking lot would be provided at the rear of the site extending from Joaquin Avenue to Estudillo Avenue, with driveway access from both avenues. The gated parking lot would include 47 parking spaces that would be unassigned from the apartments, including two handicap-accessible spaces. Outside of the gate, the project would also provide 8 guest parking spaces, including one disabled-accessible space, that would be accessed from the Joaquin Avenue driveway. In addition to the 55 off-street parking spaces, 5 on-street curbside spaces would be available on Joaquin Avenue.

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T:_GIS\Alameda_County\Mxds\San_Leandro\Bancroft_Ave\Figure 2.0-1 Regional Location.mxd (8/7/2018)

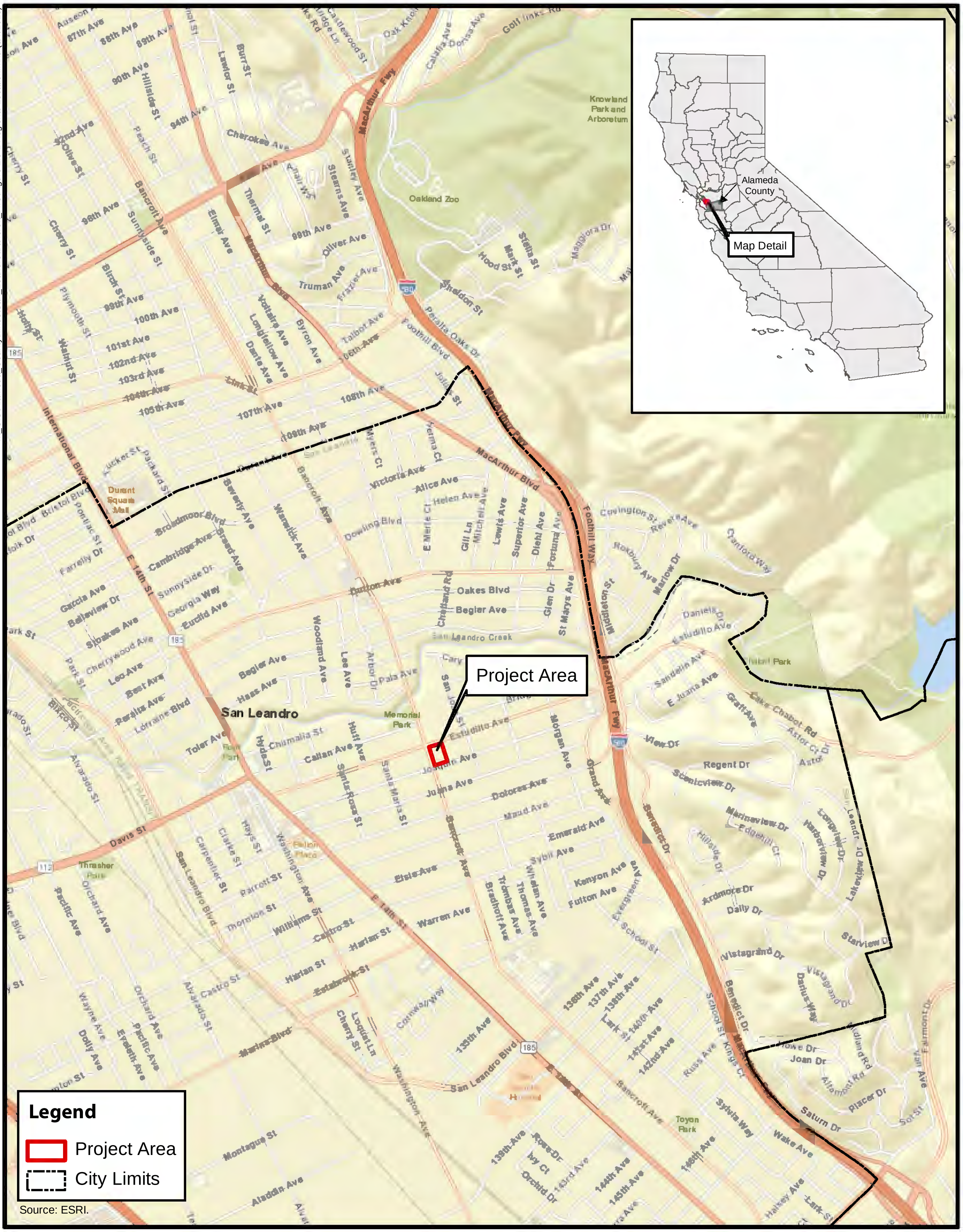

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FIGURE 2.0-1
Regional Location

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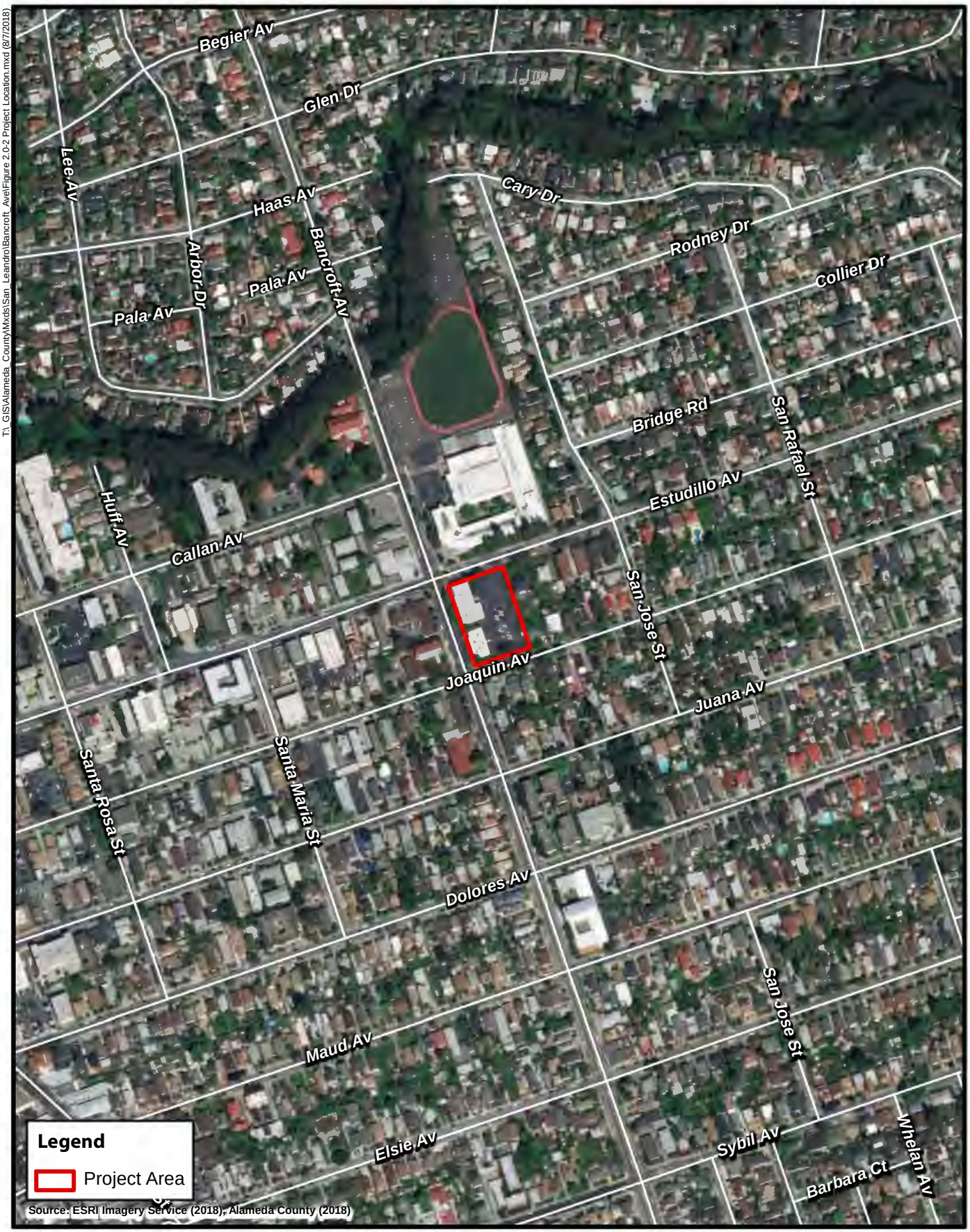

FIGURE 2.0-2
Project Location

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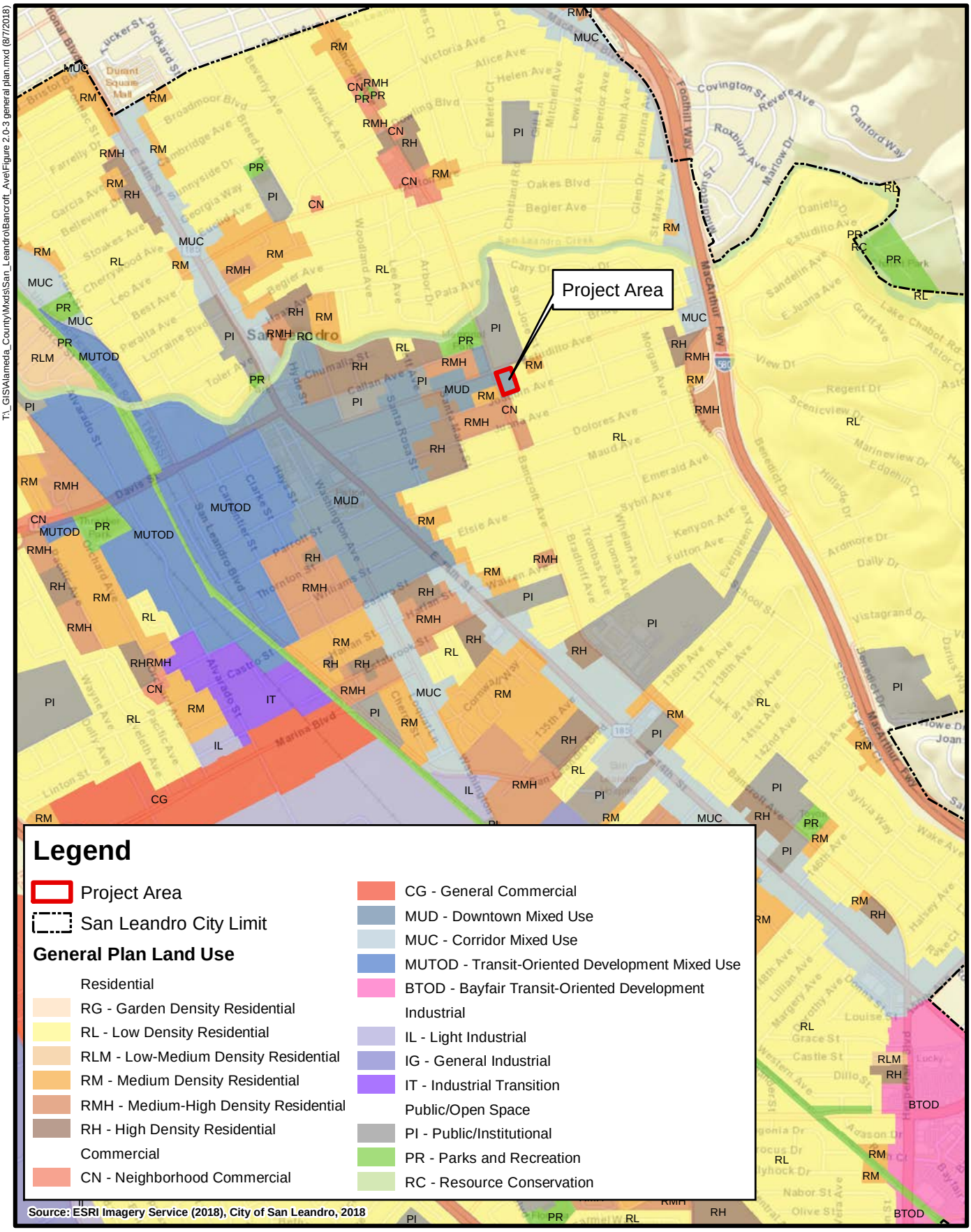

T:_GIS\Alameda_County\Mxds\San_Leandro\Bancroft_Ave\Figure 2.0-3 general plan.mxd (8/7/2018)

FIGURE 2.0-3
General Plan Land Use

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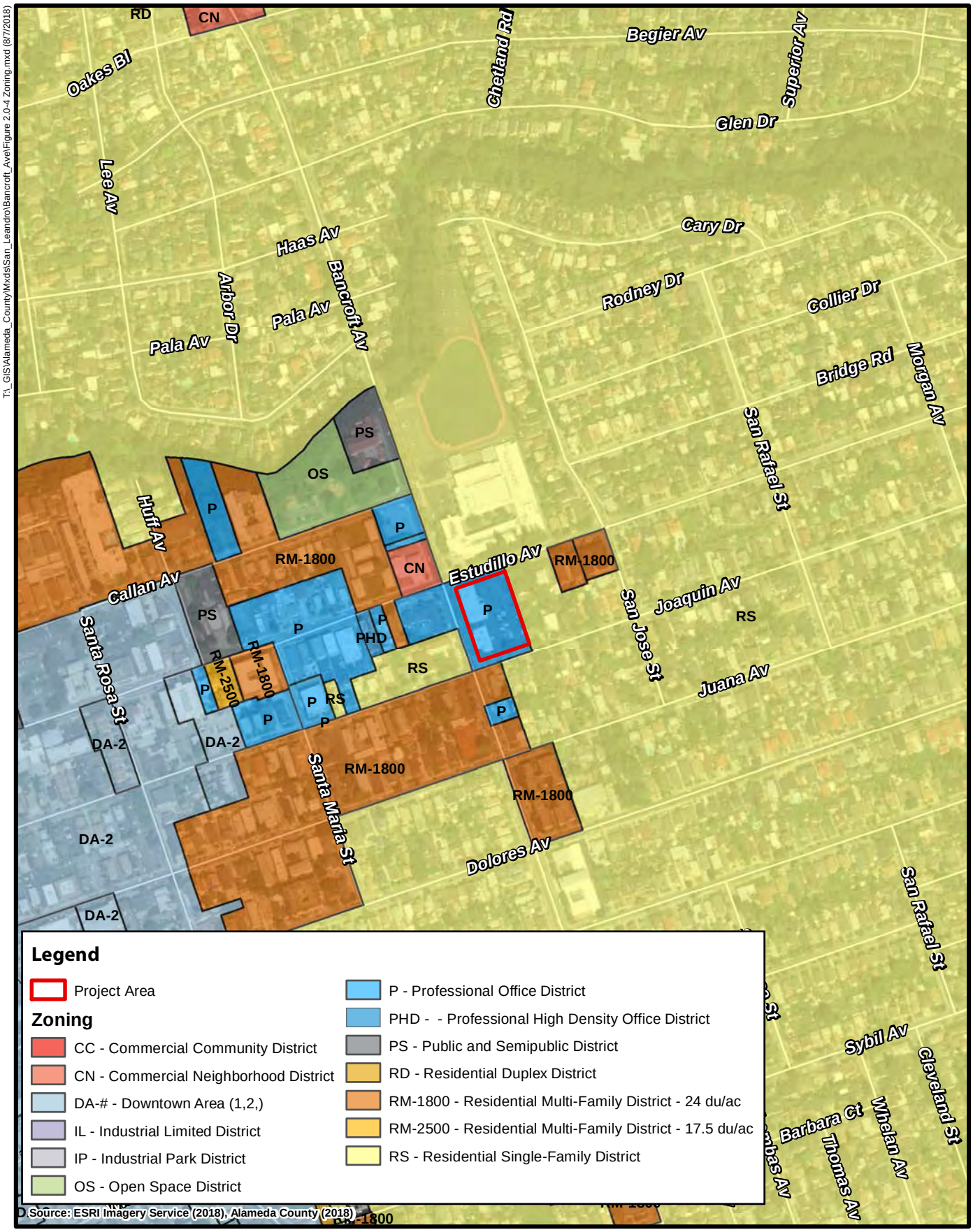

FIGURE 2.0-4
Zoning Districts

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The project would provide a secured area for 48 unbundled, assigned bicycle lockers. In addition, there would be 10 public bicycle racks on Bancroft Avenue next to the main building entrance and 6 bicycle racks inside the parking lot gate.

GREENTRIP CERTIFICATION

The project has been evaluated for consistency with the GreenTRIP program and awarded conditional GreenTRIP certification (Rizzo 2018). GreenTRIP is a certification program for new residential development that was established by TransForm, a nonprofit transportation advocacy organization. GreenTRIP certifies projects that allow new residents to drive less, while increasing multimodal mobility. The project meets the GreenTRIP criteria for certification due to the following:

- Vehicle Miles Traveled (VMT): Using a model created by the California Air Resources Board, the GreenTRIP analysis determined that project residents would drive 33 miles per day per household, which is 34 percent less than the Bay Area regional average.

- Parking: The project would include parking spaces at a ratio of 1.2 spaces per unit, which is less than the maximum of 1.5 parking spaces recommended by the program.

- Traffic Reduction Strategy: The project would provide all parking as unbundled, which separates the cost of parking from rent and saves residents who do not have vehicles the expense of a parking space that they would not use (Rizzo 2018).

OPEN SPACE AND LANDSCAPING

The project would include 12,297 square feet of open space, including 6,067 square feet of private open space and 6,230 square feet of common open space. Common open space would include a rooftop patio, a ground-floor community room, and a tot lot and sports lawn area outside adjacent to the parking lot.

The project would also include planted areas along its street frontages, between the building and the sidewalk. These landscaped areas would include low-maintenance shrubs, perennials, and grasses.

Currently, the project site does not have any trees but there are 9 existing street trees in the sidewalk right of way, including 5 on Bancroft Avenue, 2 on Joaquin Avenue, and 2 on Estudillo Avenue. The existing street trees would be removed and replaced with 11 new street trees, including 5 on Bancroft Avenue, 3 on Estudillo Avenue, and 3 on Joaquin Avenue. In addition, 5 new trees would be planted on the site in the area between the courtyard and the parking lot.

SUSTAINABLE FEATURES

The project would incorporate sustainability features. The parking lot overhead covering would include photovoltaic solar panels to provide power for electric vehicle charging stations for each parking space. There would also be solar panels to supply electricity for all common area uses, as well as a solar domestic hot water system.

STORMWATER TREATMENT

Currently, the site is developed with 49,506 square feet of impervious area, including 38,462 square feet of paved areas and 11,044 square feet of roof area. The project would result in a 6,214-square-

foot decrease in impervious area, as the project would have 43,292 square feet of impervious area, which would include 14,563 square feet of paved areas and 28,729 square feet of roof area.

The stormwater system would convey runoff from impervious surfaces to bioretention areas for treatment of the water. The bioretention locations are shown on **Figure 2.0-8, Stormwater Control Plan.**

LIGHTING

The project would include interior lighting for the residential uses, which would be typical of residential-type lighting. The project would retain and not alter the existing street lighting on Bancroft Avenue and on Joaquin Avenue. Parking lot lighting would comply with City of San Leandro regulations and would be designed to minimize lighting and glare effects.

UTILITIES

The Pacific Gas and Electric Company (PG&E) would provide electric and natural gas services. ACI would provide refuse collection services. The East Bay Municipal Utility District (EBMUD) would supply water to the site. The City of San Leandro would provide wastewater collection, treatment, and disposal services. The storm drain system connecting to the site would be maintained by the San Leandro Public Works Department. Police services would be provided by the San Leandro Police Department, and fire protection by the Alameda County Fire Department.

CONSTRUCTION

The developer plans to build the project in a single phase with a duration of approximately 15 months. Consistent with the City's Noise Ordinance, construction would generally take place between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 7:00 p.m. on Saturdays and Sundays.

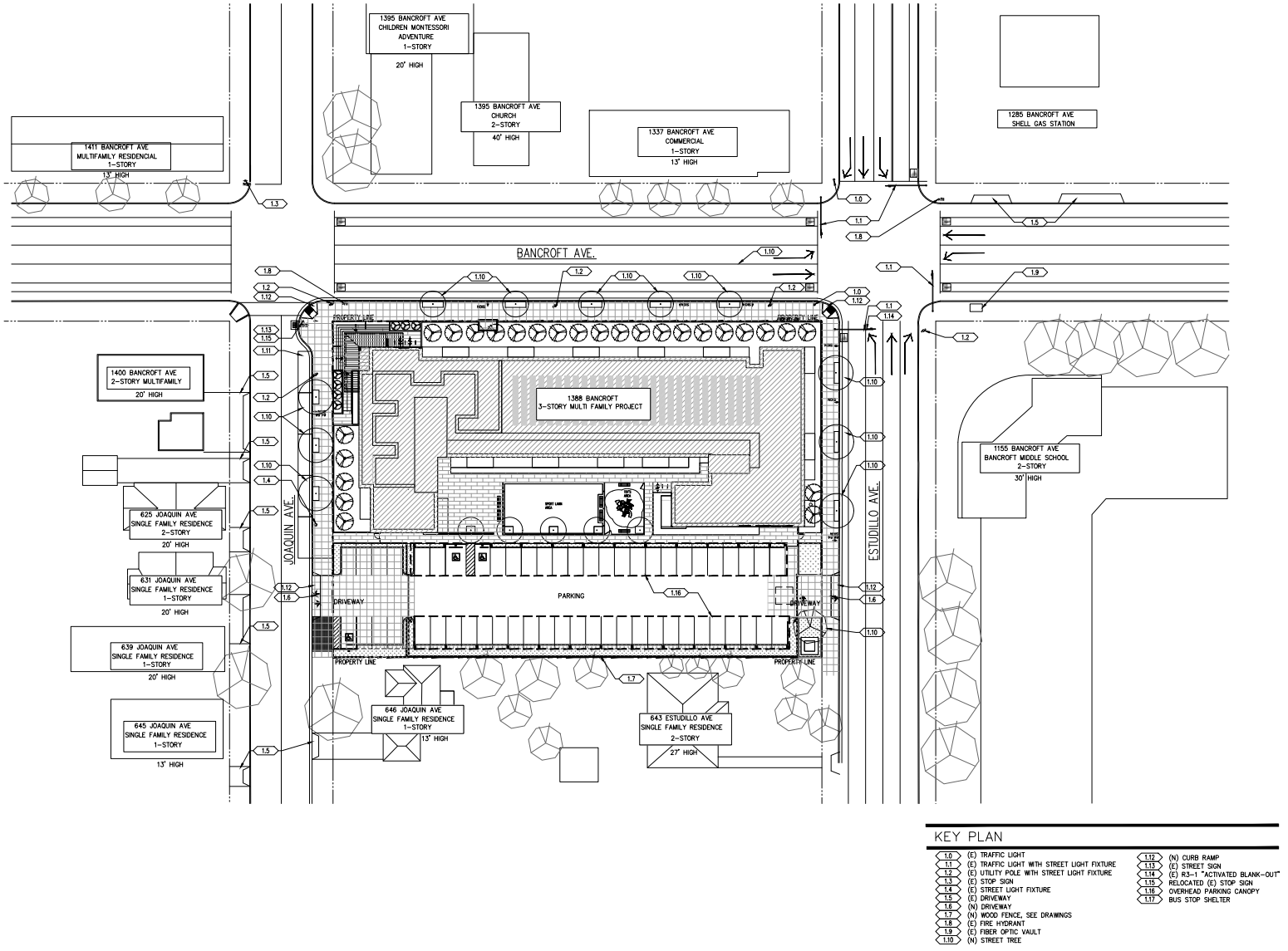
Construction activities would consist of demolishing the existing buildings, preparing the site (including grading), removing existing paved areas, and constructing the new building and parking lot. The top two feet of existing soil would be over-excavated and re-compacted. Materials from the demolished buildings and paved areas would be used to fill in the existing basement area of the current development. Construction would also involve the use of heavy equipment such as bulldozers, scrapers, backhoes, excavators, loaders, compactors, rollers, and a paving machine.

LAND USE

General Plan Designation

The project site is designated as Downtown Mixed Use in the San Leandro General Plan. The designation corresponds to part of the area that has historically been San Leandro's central business district. It allows a range of uses that together create a pedestrian-oriented street environment. These uses include retail shops, services, offices, cultural activities, public and civic buildings, and similar and compatible uses, including upper-story residential uses. A maximum floor area ratio (FAR) of 3.5 applies, and residential densities range from 24 to 100 units per net acre.

The project would comply with applicable General Plan regulations.



Source: Axis GFA, 2018

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FIGURE 2.0-5
Proposed Site Plan

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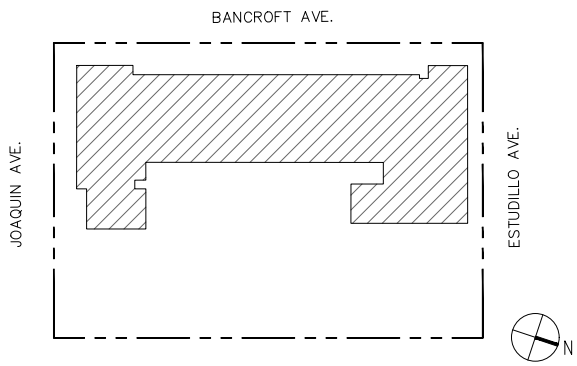

KEY MAP

Source: Axis GFA, 2018

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FIGURE 2.0-6
Project Perspective

Michael Baker INTERNATIONAL

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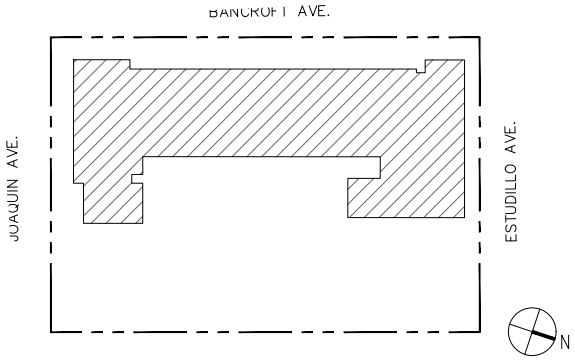

KEY MAP

Source: Axis GFA, 2018

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FIGURE 2.0-7
Project Perspective

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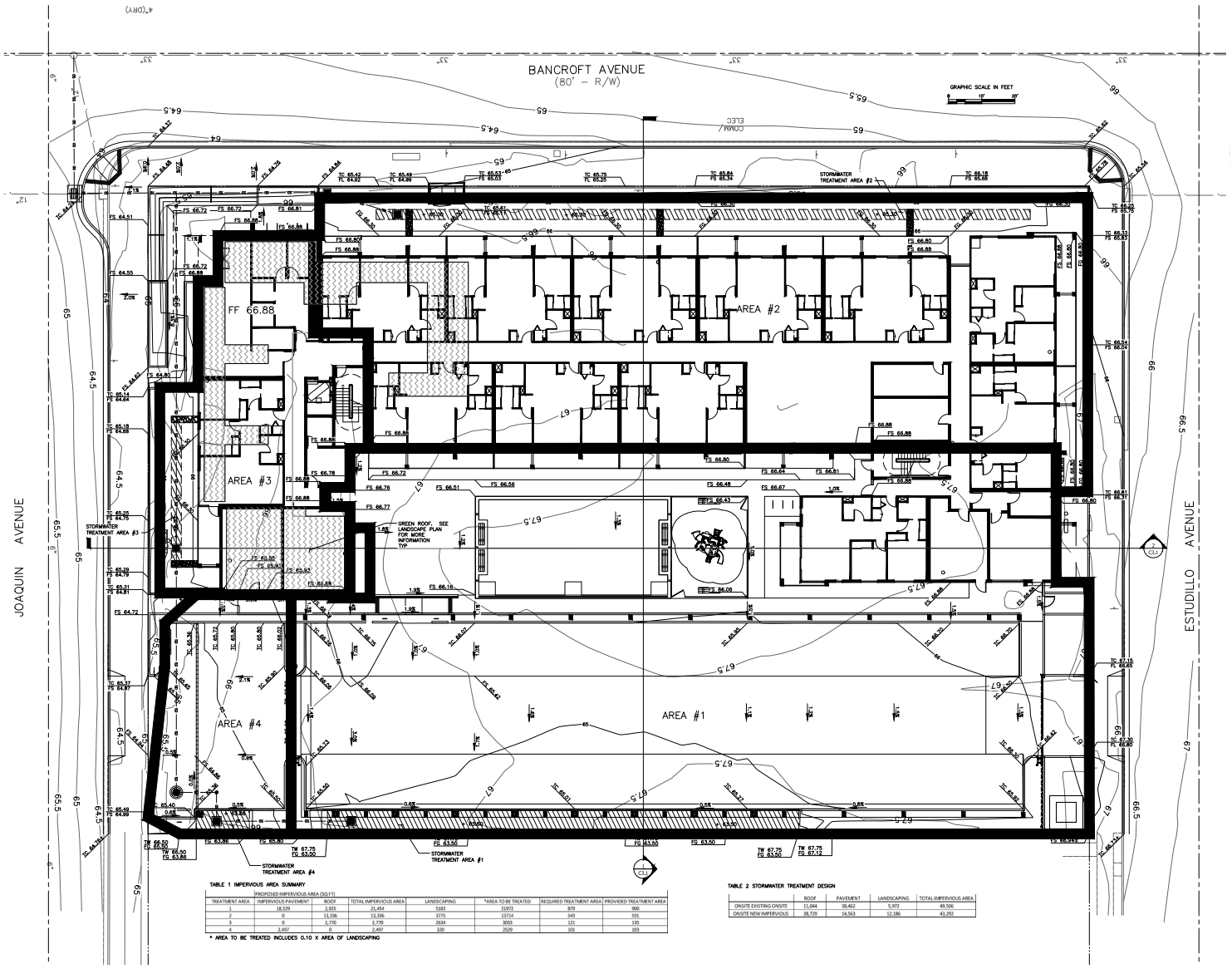

Source: Axis GFA, 2018

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FIGURE 2.0-8
Stormwater Control Plan

Michael Baker INTERNATIONAL

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Zoning

The site is zoned Professional Office District. This zoning allows multi-family residential uses at up to 24 dwelling units per acre and comparable regulations of RM-1800 multi-family residential district (Zoning Code Section 2-696A). Buildings of up to 50 feet in height are allowed when approved with a Conditional Use Permit[1] (Zoning Code Section 2-536).

In a Planned Development (PD) application, the proposed density may exceed the maximum density currently permitted and would require rezoning. The project applicant is also requesting a reduction in required parking and reduction in setback along the Estudillo Avenue frontage. To facilitate these requests, the applicant proposes a rezoning for a PD overlay. A PD project is a form of Conditional Use Permit that is combined with aspects of Site Plan Review. Use of the PD process would offer the developer greater flexibility than otherwise allowed under the Zoning Code in return for a coordinated development that, as noted in the Zoning Code, "provides superior urban design in comparison with the development under the base district zoning regulations." Planned Developments must be accompanied by a Planned Development Project Plan. The San Leandro Planning Commission may only recommend approval of a rezoning for a Planned Development that is consistent with the adopted General Plan Land Use Element and is compatible with surrounding development, per Zoning Code Section 3-1008.

2.4 PROJECT APPROVALS

As the lead agency, the City of San Leandro has the ultimate authority for project approval or denial. The project would require the following discretionary City approvals:

- Mitigated Negative Declaration (MND)
- Rezoning to Planned Development (PD) and Planned Development Project Plan
- Demolition Permit
- Grading Permit
- Building Permit
- Occupancy Permit

[1] A proposal to amend Article 6 of the San Leandro Zoning Code and reduce the building height limit in the Professional Office (P) Zoning District from 50 to 30 feet was not in effect at the time of this project's submittal.

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3.0 INITIAL STUDY

A. BACKGROUND

1. Project Title:

1388 Bancroft Avenue Project

2. Lead Agency Name and Address:

City of San Leandro
835 East 14th Street
San Leandro, CA 94577

3. Contact Person and Phone Number:

Andrew Mogensen, Planning Manager
(510) 577-3458

4. Project Location:

1388 Bancroft Avenue, San Leandro, California; Assessor's Parcel Number 77-524-12-4

5. Project Sponsor's Name and Address:

Eden Realty
P.O. Box 126
San Lorenzo, CA 94580

6. General Plan Designation and Zoning:

The General Plan designation for the site is Downtown Mixed Use. The site is zoned Professional Office District.

7. Description of Project:

The project would demolish the existing medical office buildings on the 1.27-acre site and develop a 34-foot-tall residential building containing 45 apartments. The project would also include 55 off-street parking spaces, open space for residents, and sustainability features.

8. Surrounding Land Uses and Setting:

The project site is located in northeast San Leandro, on the eastern side of Bancroft Avenue, between Estudillo Avenue to the north and Joaquin Avenue to the south. Across Estudillo Avenue to the north is the Bancroft Middle School campus, to the northwest is a gas station, to the west is a medical office building and a church, to the southwest is a convalescent hospital, and to the south are single- and multi-family residences. Adjacent to the east of the site are primarily single-family residences.

9. Other Public Agencies Whose Approval Is Required:

The City of San Leandro is the lead agency with responsibility for approving the project. No other public agency's approval is required.

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors that would be potentially affected by this project and are mitigated to a "Less Than Significant" impact are indicated below.

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

C. DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because of the incorporated mitigation measures and revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier 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	November 30, 2018 Date
Andrew J. Mogensen, AICP Printed Name	Planning Manager Title

D. EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect, and construction as well as operational impacts.

3) A "Less Than Significant Impact" applies when the proposed project would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.

4) "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

5) "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The initial study must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

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

ENVIRONMENTAL SETTING

San Leandro's visual character includes its natural setting and physical development pattern. The city is located on the East Bay Plain, bordered to the west by San Francisco Bay, to the east by the coastal foothills, to the north by the city of Oakland, and to the south by the city of Hayward. Much of San Leandro has developed in a linear pattern that is guided by major transportation routes. The city is characterized by established suburban neighborhoods with tree-lined streets and houses. Activity centers, including downtown, San Leandro Hospital, and Bayfair Center, are characterized by buildings up to five stories in height.

The San Leandro Zoning Code is the primary tool that shapes the form and character of physical development in the city. The Zoning Code contains all the City's ordinances and identifies zoning districts, site development regulations, and other regulatory provisions that ensure consistency between the General Plan and proposed development projects. In addition, the San Leandro Zoning Code contains a variety of development standards and required review processes that are applicable to development in the city and pertain to aesthetics. These standards are intended to preserve the overall character throughout the city, protect scenic resources, and prevent adverse impacts related to light and glare.

CHECKLIST DISCUSSION

a–d) ***Less Than Significant Impact.*** Public Resources Code Section 21099(d), effective January 1, 2014, states:

(1) Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.

(2) (A) This subdivision does not affect, change, or modify the authority of a lead agency to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers provided by other laws or policies.

(B) For the purposes of this subdivision, aesthetic impacts do not include impacts on historical or cultural resources.

The proposed project is a residential development on an infill site in San Leandro that is in a transit priority area (MTC 2017).[1] The site is within 0.5 miles of the intersection of Estudillo Avenue and East 14th Street, where there are two major bus routes—Alameda-Contra Costa Transit District (AC Transit) Routes 1 and 10—with frequencies of less than 15 minutes during commute hours, and qualifies as a major transit stop. In addition, AC Transit Route 40 runs adjacent to the project site along Bancroft Avenue and provides peak service every 15 minutes, and AC Transit Routes 34/35 run adjacent to the project site on Estudillo Avenue and provide peak service every 30 minutes. The site is also approximately 0.75 miles from the San Leandro Bay Area Rapid Transit (BART) station.

Therefore, because the project meets the criteria specified in Public Resources Code Section 21099(d), the project's aesthetic effects on the environment are not considered significant. Potential impacts on historical resources are discussed in subsection 5, Cultural Resources. Project elements that may change the aesthetic conditions of the project site and in the vicinity, such as building heights, setbacks, architecture, and lighting, would be considered as part of the City's planning review process, as described in the Environmental Setting discussion above.

The project's impacts on aesthetics would be less than significant.

[1] A "transit priority area" is an area within one-half mile of an existing or planned major transit stop. A "major transit stop" is defined in Public Resources Code Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

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

ENVIRONMENTAL SETTING

The project site is in Alameda County in the San Francisco Bay Area. The site is in an urbanized area and was developed in 1955 with medical offices; no portions of the project site are currently used for any agricultural purposes. In addition, the project site is classified by the Farmland Mapping and Monitoring Program as Urban and Built-Up Land (DOC 2017). It is currently designated as Downtown Mixed Use in the San Leandro General Plan and zoned Professional Office District. There are no nearby agricultural activities, and no adjacent parcels are zoned for agricultural uses. No nearby parcels are subject to a Williamson Act contract. The project site and the surrounding area are not zoned for or considered forestland.

CHECKLIST DISCUSSION

a, b) ***No Impact***. As described above, the project site is classified by the Farmland Mapping and Monitoring Program as Urban and Built-Up Land (DOC 2017). Therefore, project construction would not result in the conversion of any Important Farmland. Furthermore, the project site is surrounded by urban uses and is not subject to a Williamson Act contract. There would be no impact to agricultural resources.

c–e) ***No Impact***. As described above, the project site is not on land designated as forestland, is not zoned for forestry uses, and is not actively utilized as a forestry operation. Therefore, there would be no impact to forestland.

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

ENVIRONMENTAL SETTING

REGIONAL SETTING

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the San Francisco Bay Area Air Basin (SFBAAB), which encompasses the project site, pursuant to the regulatory authority of the Bay Area Air Quality Management District (BAAQMD).

San Francisco Bay Area Air Basin

The SFBAAB comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. There are 11 climatological subregions within the SFBAAB. The project site is in the Northern Alameda and Western Contra Costa Counties climatological subregion of the air basin. The subregion's western boundary is defined by San Francisco Bay and its eastern boundary by the Oakland-Berkeley Hills. The Oakland-Berkeley Hills have a ridgeline height of approximately 1,500 feet, a significant barrier to air flow. The most densely populated area of the subregion lies in a strip of land between the bay and the lower hills.

In this area, marine air traveling through the Golden Gate, as well as across San Francisco and through the San Bruno Gap, is a dominant weather factor. The Oakland-Berkeley Hills cause the westerly flow of air to split off to the north and south of Oakland, which results in diminished wind speeds. The prevailing winds for most of this subregion are from the west. At the northern end, near Richmond, prevailing winds are from the south-southwest. Temperatures in this subregion have a narrow range due to the proximity of the moderating marine air. Maximum temperatures during

the summer average in the mid-70s, with minimums in the mid-50s. Winter highs are in the mid to high 50s, with lows in the low to mid 40s.

The air pollution potential is lowest for the parts of the subregion that are closest to the bay, largely due to good ventilation and less influx of pollutants from upwind sources. The occurrence of light winds in the evenings and early mornings occasionally causes elevated pollutant levels. The air pollution potential at the northern (Richmond) and southern (Oakland, San Leandro) parts of this subregion is marginally higher than in communities directly east of the Golden Gate because of the lower frequency of strong winds.

This subregion contains a variety of industrial air pollution sources. Some industries are quite close to residential areas. The subregion is also traversed by frequently congested major highways, a significant source of air pollutants (BAAQMD 2017a).

Air Pollutants of Concern

Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), lead, and fugitive dust are primary air pollutants. Of these, CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

Common sources and health effects of criteria air pollutants are summarized in **Table 3.3-1**.

TABLE 3.3-1
CRITERIA AIR POLLUTANTS – SUMMARY OF COMMON SOURCES AND EFFECTS

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Particulate Matter (PM_{10} & $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility.

Source: CAPCOA 2011

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome-plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches.

To date, the California Air Resources Board (CARB) has designated over 240 compounds as toxic air contaminants. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds.

Most recently, CARB identified diesel particulate matter (diesel PM) as a toxic air contaminant. Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances produced when an engine burns diesel fuel. Diesel PM poses the greatest health risk among the TACs. It is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. Diesel PM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of diesel PM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (EPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation. Diesel exhaust can also cause coughs, headaches, light-headedness, and nausea. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely

small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

CARB does not classify $PM_{2.5}$ (fine particulate matter) as a toxic air contaminant. However, the BAAQMD has determined that both long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects. $PM_{2.5}$ is a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. $PM_{2.5}$ can be emitted directly and can also be formed in the atmosphere through reactions among different pollutants (BAAQMD 2017a).

Ambient Air Quality

The US Environmental Protection Agency (EPA) and the State of California have established health-based ambient air quality standards for the criteria pollutants described above, as well as for lead, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Air quality standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Areas with air quality that exceed adopted air quality standards are designated as nonattainment areas for the relevant air pollutants, while areas that comply with air quality standards are designated as attainment areas. The SFBAAB's current attainment status with regard to federal and state ambient air quality standards is summarized in **Table 3.3-2**. The region is nonattainment for federal ozone and $PM_{2.5}$ standards, as well as for state ozone, PM_{10}, and $PM_{2.5}$ standards (BAAQMD 2017a).

TABLE 3.3-2
FEDERAL AND STATE AMBIENT AIR QUALITY ATTAINMENT STATUS FOR THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O_3)	8 Hours	0.070 ppm (137μg/m^3)	N	0.070 ppm	N
	1 Hour	0.090 ppm (180 μg/m^3)	N	No standard	Not applicable
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m^3)	A	9 ppm (10 mg/m3)	A
	1 Hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m3)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 μg/m^3)	A	0.100 ppm	U
	Annual Arithmetic Mean	0.030 ppm (57 μg/m^3)		0.053 ppm (100 μg/m3)	A

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Sulfur Dioxide (SO_2)	24 Hours	0.04 ppm (105 $\mu g/m^3$)	A	0.14 ppm (365/μg/m3)	—
	1 Hour	0.25 ppm (665 $\mu g/m^3$)	A	0.075 ppm (196/μg/m3)	—
	Annual Arithmetic Mean			0.030 ppm (80/μg/m3)	—
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	N	No standard	Not applicable
	24 Hours	50 $\mu g/m^3$	N	150 μg/m3	U
Particulate Matter – Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	N	15 μg/m3	A
	24 Hours			35 μg/m3	N
Sulfates	24 Hours	25 $\mu g/m^3$	A	—	—
Lead	30-Day Average	1.5 $\mu g/m^3$		—	A
	Calendar Quarter	—	—	1.5 μg/m3	A
	Rolling 3-Month Average	—	—	0.15 μg/m3	—
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	U	—	—
Vinyl Chloride (chloroethene)	24 Hours	0.01 ppm (26 $\mu g/m^3$)	No information available	—	—
Visibility-Reducing Particles	8 Hours (10:00 to 18:00 PST)	—	U	—	—

Source: BAAQMD 2017a

Notes: A = attainment; N = nonattainment; U = unclassified; mg/m^3 = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter

Based on the nonattainment status, O_3, PM_{10}, and $PM_{2.5}$ are the pollutants most intensely affecting the SFBAAB. Concentrations near the project site can be inferred from ambient air quality measurements conducted by the BAAQMD at nearby air quality monitoring stations. The Oakland-9925 International Boulevard air quality monitoring station is the closest station to the project site, approximately 1.7 miles to the northeast. No monitoring stations in the project vicinity collect data for PM_{10}. **Table 3.3-3** summarizes the data published since 2015 from the closest monitoring stations for each year that monitoring data were provided.

TABLE 3.3-3
SUMMARY OF AMBIENT AIR QUALITY DATA

Pollutant Standards	2015	2016	2017
Ozone (Oakland-9925 International Boulevard Station)			
Maximum 1-hour concentration (ppm) state	0.094	0.082	0.136
Number of days above state 1-hour standard (0.090 ppm)	0	0	2
Maximum 8-hour concentration (ppm) state	0.074	0.058	0.101
Number of days above state 8-hour standard (0.070 ppm)	2	0	2
Maximum 8-hour concentration (ppm) federal	0.074	0.057	0.100
Number of days above federal 8-hour 2015 standard (0.070 ppm)	2	0	2
Fine Particulate Matter ($PM_{2.5}$) (Oakland-9925 International Boulevard Station)			
Maximum 24-hour concentration ($\mu g/m^3$) federal	44.7	15.5	70.2
Number of days above federal standard (35 $\mu g/m^3$)	1.0	0.0	7.0

Source: CARB 2018

Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others because of the types of populations or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

The closest existing residential sensitive receptors are two single-family residences adjacent to the project property boundary to the east and five single-family residences across Joaquin Avenue to the south. The closest school to the project site is Bancroft Middle School, approximately 70 feet across Estudillo Avenue to the north.

Odors

The land uses identified by the BAAQMD as sources of odors include wastewater treatment plants, wastewater pumping facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing and fiberglass manufacturing facilities, painting/coating operations, rendering plants, coffee roasters, food processing facilities, confined animal facilities, feedlots, dairies, green waste and recycling operations, and metal smelting plants. The project area vicinity is primarily residential and does not include any of these potential odor sources (BAAQMD 2017a).

REGULATORY FRAMEWORK

FEDERAL

US Environmental Protection Agency

The EPA is the federal agency responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) describing a strategy for the means to attain federal air quality standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs.

Clean Air Act

The federal Clean Air Act, as amended, establishes air quality standards for several pollutants. These standards are divided into primary and secondary standards. Primary standards are designed to protect public health, and secondary standards are designed to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings. The act requires that plans be prepared for nonattainment areas illustrating how the federal air quality standards could be met.

Regulation of TAC is achieved through federal and state controls on individual sources. The 1990 Clean Air Act Amendments offered a comprehensive plan for achieving significant reduction in both mobile and stationary source emissions of certain designated hazardous air pollutants, with a goal of achieving the EPA's one in one million cancer risk.

STATE

California Air Resources Board

CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs in California. In this capacity, CARB conducts research, sets state ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

REGIONAL

Bay Area Air Quality Management District

The BAAQMD attains and maintains air quality conditions in the San Francisco Bay Area Air Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The BAAQMD inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the federal

Clean Air Act, the Clean Air Act Amendments, and the California Clean Air Act. The BAAQMD is responsible for preparing plans to attain ambient air quality standards in the air basin.

The BAAQMD develops regulations to improve air quality and protect the health and welfare of Bay Area residents and their environment. BAAQMD rules and regulations applicable to the project area include, but are not limited to, the following:

- ***Regulation 6, Rule 3, Wood-Burning Devices***. 6-3-306 Requirements for New Building Construction: Effective November 1, 2016, no person or builder shall install a wood-burning device in a new building construction (BAAQMD 2015).

- ***Regulation 8, Rule 3, Architectural Coatings***. Except as provided in Sections 8-3-302, 303, 307, and 309, no person shall: (i) manufacture, blend, or repackage for sale within the District; (ii) supply, sell, or offer for sale within the District; or (iii) solicit for application or apply within the District, any architectural coating with a VOC content, as calculated pursuant to Section 8-3-607, in excess of the corresponding limit specified in the following tables [VOC limit tables not shown here] (BAAQMD 2009b).

- ***Regulation 11, Rule 2, Asbestos Demolition, Renovation and Manufacturing***. The purpose of this rule is to control emissions of asbestos to the atmosphere during demolition, renovation, milling, and manufacturing and establish appropriate waste disposal procedures (BAAQMD 1998).

Air Quality Attainment Plan

The BAAQMD adopted the Bay Area 2017 Clean Air Plan in April 2017, which addresses nonattainment of the national 1-hour ozone standard in the SFBAAB. The Clean Air Plan establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, updated emission inventory methodologies for various source categories, and the latest population growth projections and vehicle miles traveled (VMT) projections for the region. The Clean Air Plan defines a control strategy that the BAAQMD and its partners will implement to (1) reduce emissions and decrease ambient concentrations of harmful pollutants; (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily impacted by air pollution; and (3) reduce greenhouse gas emissions to protect the climate. In addition to updating the previously prepared ozone plan, the Clean Air Plan also serves as a multipollutant plan to protect public health and the climate. In its dual role as an update to the state ozone plan and a multipollutant plan, the Bay Area 2017 Clean Air Plan addresses four categories of pollutants (BAAQMD 2017b):

- Ground-level ozone and its key precursors, ROG and NO_x
- Particulate matter: primary $PM_{2.5}$, as well as precursors to secondary $PM_{2.5}$
- Air toxics
- Greenhouse gases

The Clean Air Plan provides local guidance for the SIP, which includes the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards.

LOCAL

City of San Leandro 2035 General Plan

The Environmental Hazards Element of the San Leandro (2016a) General Plan contains an overview of air quality in the city and Goal EH-3: Promote and participate in efforts to improve the region's air quality. To support the goal, the element contains the following air quality–related policies and actions potentially relevant to the project:

Policy EH-3.1 Clean Air Plan Implementation. Cooperate with the appropriate regional, state, and federal agencies to implement the regional Clean Air Plan and enforce air quality standards.

Policy EH-3.4 Design, Construction, and Operation. Require new development to be designed and constructed in a way that reduces the potential for future air quality problems, such as odors and the emission of any and all air pollutants. This should be done by:

(a) Requiring construction and grading practices that minimize airborne dust and particulate matter;

(b) Ensuring that best available control technology is used for operations that could generate air pollutants;

(c) Encouraging energy conservation and low-polluting energy sources;

(d) Promoting landscaping and tree planting to absorb carbon monoxide and other pollutants; and

(e) Implementing the complementary strategies to reduce greenhouse gases identified in the Climate Action Plan.

Action EH-3.4.B Health Risk Assessments. Implement Bay Area Air Quality Management District Guidelines and State Office of Environmental Health Hazard Assessment policies and procedures requiring health risk assessments for residential development and other sensitive land use projects within 1,000 feet of major sources of toxic air contaminants, including freeways and roadways with over 10,000 vehicles per day. As appropriate, identify mitigation measures (such as air filtration systems) to reduce the potential exposure to particulate matter, carbon monoxide, diesel fumes, and other potential health hazards. Measures identified in the HRA shall be included in the environmental document and/or incorporated into the site development plan as a component of the proposed project.

CHECKLIST DISCUSSION

a) ***Less Than Significant Impact.*** The applicable air quality plan is the BAAQMD Bay Area 2017 Clean Air Plan. Criteria for determining consistency with the Clean Air Plan are:

- The project supports the primary goals of the Clean Air Plan.

- The project conforms to applicable control measures from the plan and does not disrupt or hinder the implementation of any Clean Air Plan control measures.

The primary goals of the Clean Air Plan are compliance with the state (California) and national ambient air quality standards. As discussed in checklist item b) below, the project's emissions are below all of the thresholds of significance listed in Table 2-1 of the BAAQMD's (2017a) CEQA Guidelines for short-term construction emissions and the project meets all of the screening criteria listed in Table 3-1 of the BAAQMD's (2017a) CEQA Air Quality Guidelines for long-term operational emissions. The thresholds of significance and screening criteria provide a conservative indication of whether the proposed project could result in potentially significant air quality impacts. Therefore, the project would support the primary goals of the Clean Air Plan.

BAAQMD air quality planning control measures are developed, in part, based on the emissions inventories contained in the Clean Air Plan, which are derived from projected population growth and VMT for the region. These inventories are largely based on the predicted growth identified in regional and community general plans, including associated development projects. Projects that result in an increase in population or employment growth beyond that identified in regional or community plans could result in increases in VMT and subsequently increase mobile source emissions. As discussed in subsection 3.16, Transportation/Traffic, the project would generate fewer daily trips than the existing medical office buildings on the project site. In addition, the project has been evaluated for consistency with the GreenTRIP program and awarded conditional GreenTRIP certification. The GreenTRIP analysis concluded that project residents would drive 33 miles per day per household, which is 34 percent less than the Bay Area regional average (Rizzo 2018). Therefore, the project would not result in increased regional VMT and would not conflict with or obstruct implementation of the applicable air quality plan. This impact would be less than significant.

b) ***Less Than Significant Impact with Mitigation Incorporated.***

Short-Term Construction Period Emissions

The project would generate short-term criteria air pollutant and ozone precursor emissions from construction activities such as demolition, site grading, asphalt paving, building construction, and architectural coatings (e.g., painting). Common sources of construction emissions include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the predominant source of PM_{10} and $PM_{2.5}$ emissions, would be generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Demolition can also generate fugitive dust PM_{10} and $PM_{2.5}$ emissions. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to exhaust PM_{10} and exhaust $PM_{2.5}$ emissions. Worker commute trips, material hauling trips, and architectural coatings are dominant sources of ROG emissions. Predicted unmitigated maximum daily construction-generated emissions for the project are summarized in **Table 3.3-4**.

TABLE 3.3-4
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED

Construction Activities	Criteria Pollutant and Precursor Emissions (maximum pounds per day) [a]					
	ROG	NO_X	Exhaust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust PM_{10}	Fugitive Dust $PM_{2.5}$
2019 maximum daily emissions	1.5	15.8	0.8	0.8	3.5	1.7
2020 maximum daily emissions	9.1	8.5	0.5	0.4	0.4	0.1
Maximum Daily Emissions of All Years of Construction	*9.1*	*15.8*	*0.8*	*0.8*	*3.5*	*1.7*
BAAQMD Potentially Significant Impact Threshold	54	54	82	54	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2016.3.2. See **Appendix AQ** for emission model outputs.*
Notes: a. Project construction activities are assumed to occur over a 15-month period.

As shown in **Table 3.3-4**, during construction, unmitigated short-term daily construction emissions would not exceed the BAAQMD significance thresholds. Although unmitigated emissions would not exceed BAAQMD thresholds, the BAAQMD (2017a, Table 8-2) recommends implementation of Basic Construction Mitigation Measures as mitigation for dust and exhaust construction impacts for all projects, regardless of whether construction emissions thresholds would be exceeded. Mitigation measure **MM AQ-1** would require implementation of the Basic Construction Mitigation Measures, which would further reduce emissions. In addition, as described in checklist item d) below, mitigation measure **MM AQ-2** would require all off-road diesel-powered construction equipment to have EPA-certified Tier 4 engines or have CARB-verified diesel PM exhaust filters. The use of Tier 4 engines or exhaust diesel PM filters would reduce project construction emissions of exhaust PM_{10}, and exhaust $PM_{2.5}$. Predicted mitigated maximum daily construction-generated emissions for the project are summarized in **Table 3.3-5**.

TABLE 3.3-5
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – MITIGATED

Construction Activities	Criteria Pollutant and Precursor Emissions (maximum pounds per day) [a]					
	ROG	NO_X	Exhaust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust PM_{10}	Fugitive Dust $PM_{2.5}$
2019 maximum daily emissions	1.5	15.8	0.03	0.03	1.6	0.8
2020 maximum daily emissions	9.1	8.5	0.03	0.03	0.4	0.1
Maximum Daily Emissions of All Years of Construction	*9.1*	*15.8*	*0.03*	*0.03*	*1.6*	*0.8*
BAAQMD Potentially Significant Impact Threshold	54	54	82	54	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2016.3.2. See **Appendix AQ** for emission model outputs.*
Notes: a. Project construction activities are assumed to occur over a 15-month period.

As shown in **Table 3.3-5**, during construction, mitigated short-term daily emissions would not exceed the BAAQMD significance thresholds.

Long-Term (Operational Phase) Air Quality Impacts

The project would result in long-term operational emissions of criteria air pollutants and ozone precursors (i.e., ROG, NO_x, PM_{10}, and $PM_{2.5}$). Project-generated increases in emissions would be predominantly associated with motor vehicle use, energy required for commercial and residential building operations, energy used due to water consumption, energy used in solid waste collection and disposal, and area sources such hearths and use of landscaping equipment.

Per the BAAQMD (2017a), if the project meets the screening criteria in Table 3-1 of the district's CEQA Air Quality Guidelines, the project operations would not generate criteria air pollutants and/or precursors in amounts that would exceed the thresholds of significance. Project operation would therefore result in a less than significant impact on air quality from criteria air pollutant and precursor emissions (BAAQMD 2017a). Table 3-1 of the BAAQMD guidelines indicates a mid-rise apartments screening level size for operational emissions of 494 dwelling units. The proposed project would construct only 45 apartments. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The impact would be less than significant.

With implementation of mitigation measure **MM AQ-1**, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The impact would be less than significant with mitigation incorporated.

c) ***Less Than Significant Impact.*** Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. According to the BAAQMD, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing conditions. In developing thresholds of significance for air pollutants, the BAAQMD considered the emissions levels for which a project's individual emissions would be cumulatively considerable. According to the BAAQMD (2017a), if a project's emissions exceed the district's identified significance thresholds, the impact on air quality would be cumulatively considerable. As discussed in checklist item b) above, the project's construction and operational emissions would be below the BAAQMD thresholds. Therefore, the project would not result in a cumulatively considerable net increase of criteria pollutants and this impact would be less than cumulatively considerable.

d) ***Less Than Significant Impact with Mitigation Incorporated.***

Short-Term Construction Toxic Air Contaminants

The project site is adjacent to residential neighborhoods and a school. Project construction would generate diesel PM emissions from the use of off-road diesel equipment required for demolition, site grading, excavation, and other construction activities. Diesel PM is the primary TAC that would be emitted during construction. Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The amount to which the receptors could be exposed, which is a function of concentration and duration of exposure, is the primary factor used to determine health risk.

A health risk screening was completed for the project to analyze the potential impacts on the closest sensitive receptors to the project site from the project's estimated construction emissions using the CARB Hotspots Analysis and Reporting Program, Air Dispersion Modeling and Risk Tool (ADMRT) version 18159, following the Office of Environmental Health Hazard Assessment (2015) Air Toxics Hot Spots Program – Risk Assessment Guidelines. The ADMRT incorporates air dispersion modeling from specified pollutant sources using the EPA AERMOD Gaussian model, calculation of local concentrations, and evaluation of the resulting health risks for specified sensitive receptors. The ADMRT output files, model inputs, and assumptions are included in **Appendix AQ.** Inputs to the screening model included CARB meteorological data from the Oakland International Airport station, terrain data from the CARB San Leandro 30-meter digital elevation model file, and the project's estimated construction maximum daily and total emissions of on-site exhaust PM_{10} from the California Emissions Estimator Model (CalEEMod). Diesel PM comprises a complex mixture of particles, 90 percent of which are less than 1 micron in size. The health risk screening conservatively assumes that 100 percent of the construction exhaust PM_{10} generated on the project site is diesel PM. The heaviest emissions of exhaust PM_{10} would occur during demolition and earthmoving activities, approximately 2 months. To be conservative, health risks were evaluated for a 6-month exposure to the peak emissions of exhaust PM_{10} generated on the project site (peak emissions would occur during the demolition phase).

The BAAQMD CEQA Air Quality Guidelines recommend thresholds for assessing community health risks for individual projects of a maximum increased excess cancer risk of 10 in one million. For the closest sensitive receptors to the project site (a single-family home adjacent to the site to the east), the health risk screening estimated that the maximum increased excess cancer risk from unmitigated project-generated construction diesel PM, assuming six months of demolition, would be 95 in one million, above the BAAQMD threshold, and mitigation would be required.

EPA-certified Tier 4 off-road diesel engines have exhaust reduction systems that reduce diesel PM emissions by more than 85 percent compared to earlier engines, and most construction equipment sold in the United States since 2015 is Tier 4 certified. Older construction equipment retrofitted with CARB-verified level 3 diesel particulate filters also reduces diesel PM emissions by more than 85 percent. Mitigation measure **MM AQ-2** would require the use of EPA-certified Tier 4 engines or the use of CARB-verified level 3 diesel particulate filters on all diesel off-road construction equipment with more than 50 horsepower. With implementation of mitigation measure **MM AQ-2**, the health risk screening model estimated that the maximum increased excess cancer risk from mitigated project-generated construction diesel PM would be 2.1 in one million, which is below the BAAQMD threshold. Therefore, the impact on community health risks from project construction–generated diesel PM would be less than significant with mitigation incorporated.

The BAAQMD has also determined that localized concentrations of $PM_{2.5}$ could pose a health risk. CARB has not designated $PM_{2.5}$ as a TAC, and cancer or health risk exposure levels have not been established. The BAAQMD has recommended thresholds for a maximum increase in $PM_{2.5}$ concentration resulting from a project of 0.3 micrograms per cubic meter annual average. Using the unmitigated maximum daily and total on-site project construction $PM_{2.5}$ emissions (including both exhaust and fugitive dust sources), the health risk screening model estimated that the maximum increased annual average concentration of $PM_{2.5}$ at the closest sensitive receptors would be 0.1 micrograms per cubic meter. Therefore, the impact on community health risks from project construction–generated $PM_{2.5}$ would be less than significant.

Construction-Generated Airborne Asbestos

Construction would involve demolition of existing buildings, which may include asbestos-containing materials (ACMs). Demolition would be subject to BAAQMD (1998) Regulation 11, Rule 2, Asbestos Demolition, Renovation and Manufacturing, which regulates the safe handling and disposal of asbestos-containing materials. California Health and Safety Code Section 19827.5 requires that local agencies not issue demolition permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants. The City of San Leandro would not issue a demolition permit until all requirements have been met. In accordance with the state regulation, the BAAQMD must be notified prior to demolition or abatement activities. Compliance with state and BAAQMD regulations, as implemented, monitored, and enforced through the City's permitting process, would ensure the impacts due to ACMs would be less than significant.

Long-Term Operational Toxic Air Contaminants

The project would not include any new TAC sources, nor would the project exacerbate any existing conditions related to localized concentrations of pollutants. The impact would be less than significant.

The effect of existing sources of TACs on future residents of the project is considered an effect of environment on the project and as such, is not a CEQA consideration. However, it is a planning consideration for the City in evaluating project design and approval. The BAAQMD's Planning Healthy Places provides planning-level guidance regarding existing sources of TACs. The BAAQMD's (2018) Planning Healthy Places website has an interactive map showing areas with elevated air pollution and/or TACs resulting from permitted stationary sources and high-volume roadways. The interactive map identifies one stationary TAC source of concern—a retail gas station at the northwest corner of Bancroft Avenue and Estudillo Avenue. The area of concern for this gas station does not extend into the project site. The interactive map also indicates areas of potentially elevated TACs from traffic on Bancroft Avenue and Estudillo Avenue that extend into the project site. For these high traffic areas, the BAAQMD recommends implementing best practices to reduce exposure of project residents. A list of the potential best practices recommended by the BAAQMD can be found in the Planning Healthy Places guidebook (BAAQMD 2016).

Carbon Monoxide Hot Spots

Projects meeting all of the following screening criteria would be considered to have a less than significant impact on localized CO concentrations (BAAQMD 2017a):

1. The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plans, 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.

There are no intersections in San Leandro with the potential to have traffic volumes of more than 44,000 vehicles per hour, nor does the city have intersections where vertical and/or horizontal mixing is substantially limited and there is the potential to have traffic volumes of more than 24,000 vehicles per hour. As discussed below in subsection 3.16, Transportation/ Traffic, the project would generate fewer daily trips than the existing medical office buildings on the project site. Therefore, the project would not increase area congestion and the project would be consistent with the Alameda County Congestion Management Program. Therefore, the impact from project-generated localized concentrations of mobile-source CO would be less than significant.

Impact Conclusion

With implementation of mitigation measure **MM AQ-2**, the project would not expose sensitive receptors to substantial pollutant concentrations. The impact would be less than significant with mitigation incorporated.

e) ***Less Than Significant Impact.*** Heavy-duty construction equipment used for the construction of the project would emit odors. However, construction activity would be short term and finite in nature. Equipment exhaust odors would dissipate and would be minimized by the implementation of mitigation measures **MM AQ-1** and **MM AQ-2**, which would reduce diesel exhaust emissions and control fugitive dust. For these reasons, construction of the project would not create objectionable odors affecting a substantial number of people.

For operational odor impacts, the project would not include any land uses which are identified as an odor source in the BAAQMD (2017a) CEQA Air Quality Guidelines. Therefore, the project would not create objectionable odors affecting a substantial number of people, and the impact would be less than significant.

Mitigation Measures

MM AQ-1 During construction activities, the project applicant and/or its contractor shall ensure that the BAAQMD's Basic Construction Mitigation Measures are implemented. The City shall ensure grading plan notes include these requirements prior to issuance of a grading permit and shall monitor compliance during construction through site inspection(s).

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure, Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified visible emissions evaluator.

- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

  Timing/Implementation: Prior to issuance of building permits and during grading and construction

  Enforcement/Monitoring: City of San Leandro Community Development Department

MM AQ-2 During construction activities, the project applicant and/or its contractor shall ensure that all diesel-powered off-road construction equipment with more than 50 horsepower is EPA Tier 4 certified or retrofitted with a CARB-verified level 3 diesel particulate filter. Prior to issuance of a grading permit, the City shall ensure that grading plan notes include this requirement. The City shall monitor compliance by requiring the applicant's contractor to provide written verification during construction.

Timing/Implementation: Prior to issuance of building permits and during grading and construction

Enforcement/Monitoring: City of San Leandro Community Development Department

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES. 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 US Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any 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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is in a developed area in downtown San Leandro. Almost the entire project site is covered with impervious surfaces, including two medical office buildings and an asphalt parking lot. Ornamental landscaping and street trees are present along the frontages of Bancroft Avenue, Joaquin Avenue, and Estudillo Avenue. The site experiences human disturbance during operating hours. The site also is surrounded by developed residential, commercial, school, and medical uses.

CHECKLIST DISCUSSION

a) ***Less Than Significant Impact with Mitigation Incorporated.*** The project site does not support habitat for any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations and would not adversely affect any species,

either directly or through habitat modifications (San Leandro 2016a). Mature street trees are located along the Bancroft Avenue, Joaquin Avenue, and Estudillo Avenue frontages. Approximately 9 trees would be removed, which could contain bird nests and birds that are protected under the Migratory Bird Treaty Act (MBTA). Birds protected under the MBTA include common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, swallows, and others, including their body parts (feathers, plumes etc.), nests, and eggs. Construction activities, including the removal of trees, could disrupt protected bird nests if completed during the nesting season. Therefore, this impact would be potentially significant without mitigation. Implementation of mitigation measure **MM BIO-1** would ensure protection of nesting birds that may be present on the site during construction activities and would reduce this impact to less than significant.

b) ***No Impact.*** The project site is completely developed with buildings and pavement and does not support riparian habitat or sensitive natural communities as identified by the California Department of Fish and Wildlife or the US Fish and Wildlife Service (San Leandro 2016a). Therefore, there would be no impact.

c) ***No Impact.*** The project site does not contain federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA), and would not result in the direct removal, filling, or hydrological interruption of any wetlands (USFWS 2018). Therefore, there would be no impact.

d) ***No Impact.*** The project site is completely developed with buildings and pavement and is surrounded by urban development. The site does not contain hydrologically connected waters that would support native resident or migratory fish. In addition, the site is not located in a migratory wildlife corridor (San Leandro 2016a). Because the site does not include sensitive biological resources or movement corridors, project implementation would not interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites. There would be no impact.

e) ***Less Than Significant Impact.*** Article 19, 4-1906 of the City of San Leandro Zoning Code outlines the requirements for the preservation or replacement of trees on development sites. Plans submitted for approval are required to identify all existing trees with a trunk diameter equal or greater than 6 inches in diameter as measured 4.5 feet above the existing grade. Submitted plans must also include the species and dripline of all trees, and indicate which trees are proposed for removal. A tree may be found to be "significant" due to its size, age, or landscape or habitat value. Significant trees may require preservation or replacement.

Currently, the project site does not have any trees but there are 9 existing street trees in the sidewalk right of way, including 5 on Bancroft Avenue, 2 on Joaquin Avenue, and 2 on Estudillo Avenue. The existing street trees would be removed and replaced with 11 new street trees, including 5 on Bancroft Avenue, 3 on Estudillo Avenue, and 3 on Joaquin Avenue. In addition, 5 new trees would be planted on the site in the area between the courtyard and the parking lot. Therefore, the project would increase the number of trees compared to existing conditions. Because the project would comply with the applicable regulations, this impact would be less than significant.

f) ***No Impact.*** The project site is not located in an area covered by an adopted habitat conservation plan, natural community conservation plan, or other approved local,

regional, or state habitat conservation plan (San Leandro 2016b). Therefore, the project would not conflict with any such plan and there would be no impact.

Mitigation Measures

MM BIO-1 Construction of the project and any other site-disturbing activities that would involve vegetation or tree removal shall be prohibited during the general avian nesting season (February 1 to August 31), if feasible. If nesting season avoidance is not feasible, the project applicant shall retain a qualified biologist, as approved by the City of San Leandro, to conduct a preconstruction nesting bird survey to determine the presence/absence, location, and activity status of any active nests on or adjacent to the project site. The extent of the survey buffer area surrounding the site shall be established by the qualified biologist to ensure direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and California Fish and Game Code, nesting bird surveys shall be performed not more than 14 days prior to scheduled vegetation clearance and structure demolition. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines and a minimum buffer of 250 feet for raptors) shall be established around such active nests and no construction shall be allowed in the buffer areas until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest). No ground-disturbing activities shall occur in this buffer until the qualified biologist has confirmed that breeding/nesting is complete and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring between September 1 and January 31.

Timing/Implementation: *Prior to construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
5. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

The setting and impact analysis in this subsection is based on several resources, including a records search conducted at the Northwest Information Center (NWIC), map review, historical society consultation, field survey, and California Register of Historical Resources (California Register) cultural resources evaluations. Michael Baker International (2018) prepared a cultural resources evaluation memo for the project, which is provided in **Appendix CUL,** with the results summarized throughout this section.

ENVIRONMENTAL SETTING

CONCEPTS AND TERMINOLOGY FOR IDENTIFICATION OF CULTURAL RESOURCES

Cultural resources include historical resources and archaeological resources (as defined in Public Resources Code Section 15064.5). Cultural resources are any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource is considered by the lead agency to be historically significant if the resource meets the criteria for listing in the California Register (California Code of Regulations Title 14[3] Section 15064.5[a][3]).

CULTURAL RESOURCES IDENTIFICATION EFFORTS

Northwest Information Center Records Search

Michael Baker staff completed a records search of the project site and a quarter-mile search radius at the NWIC. The records search (File No. 18-0235) was conducted on August 2, 2018. The NWIC, as part of the California Historical Resources Information System, California State University, Sonoma, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and reports for Alameda County. No cultural resources or cultural resources reports were identified on the project site. One cultural resource and cultural resources study was identified in the search radius as discussed in **Appendix CUL.**

Historic Map Review

Review of the historic maps indicates that the project area was platted as part of San Leandro by 1878. The first known residence appears within the project area by 1907. A second and third residence and associated ancillary buildings were built between 1917 and 1928. From 1928 to 1950, four residences and associated ancillary structures are added within the project area. By 1957, the residence that appears on the 1907 map and residence appearing on the 1928 map and ancillary buildings had been replaced by the office building at 1388 Bancroft Avenue. Between 1958 and 1963, the office building at 1380 Bancroft Avenue was constructed, leaving four residences and five ancillary buildings remaining. By 1968, all but one residence had been demolished to construct the parking lot. By 1974, only the two office buildings at 1300 and 1380 Bancroft Avenue are depicted within the project area (Thompson & West 1878; USGS 1899, 1915, 1946, 1953, 1968, 1974; Sanborn Map Company 1907, 1911, 1928, 1950, 1957, 1963).

Historical Society Consultation

One August 1, 2018, Michael Baker International sent a letter to the San Leandro Historical Society requesting information or concerns regarding historical resources in the project area. No response has been received to date.

Field Survey

A field survey was conducted on August 2, 2018, to identify cultural resources in on the project site. Two built environment resources, 1300 Bancroft Avenue and 1380 Bancroft Avenue, were identified. Field observations were documented in notes. Photographs were taken and used in the California Register evaluations for the resources.

The project site is completely built over, obscuring ground visibility; therefore, an archaeological field survey was not completed.

California Register of Historical Resources Evaluations

The buildings at 1300 and 1380 Bancroft Avenue were evaluated and recommended ineligible for listing in the California Register under Criteria 1, 2, 3, and 4 because of their lack of association with a historic context. Additionally, the properties were evaluated in accordance with Section 15064.5(a)(2)–(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. The properties are not historical resources for the purposes of CEQA.

Please see Attachment 3 in **Appendix CUL** for full property descriptions, construction history, historic context, photographs, and evaluations for 1300 Bancroft Avenue and 1380 Bancroft Avenue.

CHECKLIST DISCUSSION

a) ***No Impact.*** Two properties were evaluated as part of the project (at 1300 and 1380 Bancroft Avenue). Neither property appears eligible for inclusion in the California Register. Therefore, no historical resources have been identified on the site, and the proposed project would result in no impact.

b) ***Less Than Significant Impact with Mitigation Incorporated.*** While archaeological deposits were not observed on the project site, potentially significant archaeological deposits

could be affected by project construction, if present. The potential for significant historic-period archaeological resources within the project area is high due to the numerous residences that once stood there. These residences are in an area of the City that is included in the original town plat (Higley 1855). The first residence appears on maps as early as 1907, with a total of seven buildings and six ancillary structures mapped within the project area by 1928. These residences are associated with the early settlement and agricultural periods of San Leandro's history which includes the timeframe when the city's population grew from 3,500 in 1911, to 5,000 in 1917, to 12,000 in 1928, and to 25,000 in 1950 (Sanborn Map Company 1911, 1917, 1928a, 1928b), and just before the City underwent a dramatic shift from being an agricultural community to becoming an industrial city. Historic-period archaeological deposits within the project area have the potential to contribute to local and regional research questions related to early settlement in the City and population growth during the shift away from agriculture and toward industry. Because of the site's elevated historic-period archaeological sensitivity, construction impacts on archaeological resources would be potentially significant and the City would require mitigation measures **MM CUL-1** and **MM CUL-2** to reduce potential impacts to a less than significant level.

c) ***Less Than Significant Impact with Mitigation Incorporated.*** No paleontological resources were observed on the project site. In the event that paleontological resources are observed during project construction-related activities, standard, late-discovery mitigation measures are required. Mitigation measure **MM CUL-2** would reduce potential impacts to a less than significant level.

d) ***Less Than Significant Impact with Mitigation Incorporated.*** While human remains were not identified on the project site, in the event of discovery, the project would comply with California Health and Safety Code Section 7050.5. In the event that human remains are observed during project construction-related activities, mitigation measure **MM CUL-3** is required to reduce potential impacts to a less than significant level.

Mitigation Measures

MM CUL-1 **Archaeologist on-call during construction ground-disturbing activities.** An archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology shall be contracted by the developer on an on-call basis to investigate if potential cultural resources are discovered during ground-disturbing activities.

Timing/Implementation: *During grading and excavation*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

MM CUL-2 **Treatment of previously unidentified archaeological deposits and paleontological resources.** If paleontological resources or prehistoric or historical archaeological deposits are discovered during construction, all work within 25 feet of the discovery shall be redirected and an archaeologist shall assess the situation, consult with a paleontologist and agencies as appropriate, and make recommendations regarding the treatment of the discovery. Impacts to archaeological deposits should be avoided by the project, but if such impacts cannot be avoided, the deposits should be evaluated for their eligibility for the California Register. If the deposit is not California Register

eligible, no further protection of the find is necessary. If the deposits are California Register eligible, impacts shall be avoided or mitigated. Mitigation may consist of but is not necessarily limited to systematic recovery and analysis of archaeological deposits, recording the resource, preparation of a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility.

Timing/Implementation: *During grading and excavation*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

MM CUL-3 **Treatment of previously unidentified human remains.** Any human remains encountered during project ground-disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of Alameda County has determined the manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel/construction workers shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will immediately identify a Native American most likely descendant to inspect the site and provide recommendations within 48 hours for the proper treatment of the remains and associated grave goods.

Timing/Implementation: *During grading and excavation*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
6. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would became unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☐	☒

This section evaluates geological and soils issues associated with the proposed project. Cornerstone Earth Group prepared a geotechnical investigation report for the project in May 2016. The study is included in **Appendix GEO,** and information from the report is summarized throughout this subsection.

ENVIRONMENTAL SETTING

GEOLOGY

San Leandro is located in the US Geological Survey's (USGS) San Leandro and Hayward Quadrangle 7.5-minute topographic map areas (San Leandro 2016b). The area is typified by low topographic relief, with gentle slopes to the southwest in the direction of San Francisco Bay. By contrast, the San Leandro Hills directly northeast of the city have more pronounced relief with elevations that approach 1,000 feet above mean sea level.

The shallow geology underlying some of San Leandro consists of Holocene alluvium with fluvial deposits associated with distributary streams such as San Leandro and San Lorenzo creeks (San Leandro 2016b). These sediments are frequently composed of medium dense to dense, gravelly sand or sandy gravel that often grade upward to sandy or silty clay.

SOILS

The soils in San Leandro are dominated by very deep, poorly drained, fine-grained soils such as clays and silty clay loams, with lesser areas of deep, well-drained silty loam in the northeast part of the city and very deep, very poorly drained clays in the tidelands that flank the west edge of San Leandro near San Francisco Bay. The soils beneath the project site are identified as Clear Lake clay (drained) with slopes ranging from 0 to 2 percent (San Leandro 2016b).

EARTHQUAKES

The San Francisco Bay Area is one of the most seismically active in the country and contains numerous active faults. The eastern portion of San Leandro is crossed by the Hayward fault, which has created serious and widespread damage in the city in the past. The major earthquake hazards in San Leandro are ground shaking, ground failure, and liquefaction. These hazards tend to be amplified on artificial fill and deep alluvial soils (San Leandro 2016b). A 2008 study of earthquake probabilities by the USGS estimated that there is a 63 percent chance that a magnitude 6.7 of greater earthquake will strike the Bay Area in the next 30 years. A major earthquake could occur on the Hayward fault, as well as on the San Andreas fault that runs 15 miles west of San Leandro. An earthquake of this magnitude could topple buildings, disrupt infrastructure, impact transportation systems, and trigger landslides throughout the San Leandro Hills (San Leandro 2016b).

LIQUEFACTION

Liquefaction is a phenomenon where loose, saturated, non-cohesive soils such as silts, sands, and gravels undergo a sudden loss of strength during earthquake shaking. Under certain circumstances, seismic ground shaking can temporarily transform an otherwise solid, granular material to a fluid state. Liquefaction is a serious hazard because buildings in areas that experience liquefaction may suddenly subside and suffer major structural damage. Liquefaction is most often triggered by seismic shaking, but it can also be caused by improper grading, landslides, or other factors. In dry soils, seismic shaking may cause soil to consolidate rather than flow, a process known as densification (San Leandro 2016b).

CHECKLIST DISCUSSION

a) i) ***No Impact.*** The project site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1972. According to the geotechnical investigation, no known surface expression of fault traces is thought to cross the site; therefore, fault rupture hazard is not a significant geologic hazard at the site (Cornerstone 2016). No impact would occur.

ii) ***Less Than Significant Impact with Mitigation Incorporated.*** The San Francisco Bay Area is one of the most seismically active in the country and contains numerous active faults. As noted above, the project site is not located within a Alquist-Priolo Earthquake Fault Zone for known active faults. State-considered active faults proximate to the project site include the following:

- Hayward fault (Southern Extension): 0.5 mile
- Hayward fault (Northern Extension): 1 mile
- Calaveras fault (North–South): 10.2 miles
- San Andreas fault (Peninsula): 18.1 miles

Moderate to severe earthquakes can cause strong ground shaking, which is the case for most sites in the Bay Area. A peak ground acceleration analysis was prepared, in accordance with the California Building Code, as detailed in **Appendix GEO**. Plans submitted in conjunction with building permit applications would be designed in accordance with the latest California Building Code requirements. The City would review and approve the plans as part of the standard building permit plan check process. In addition, mitigation measure **MM GEO-1** would require the project applicant to incorporate the recommendations of the geotechnical report. With these measures, the potential for the proposed project to expose people to risk as a result of ground shaking would be less than significant.

iii) ***Less Than Significant Impact with Mitigation Incorporated.*** The project site is within a State-designated Liquefaction Hazard Zone (Cornerstone 2016). The factors known to influence liquefaction potential include grain size, relative density, groundwater conditions, effective confining pressures, and intensity and duration of ground shaking. Loose, saturated, near-surface, cohesionless soils exhibit the highest liquefaction potential, while dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. The geotechnical investigation primarily encountered stiff cohesive and dense granular soils below the groundwater level of 30 feet. Therefore, the site is considered to have low potential for liquefaction (Cornerstone 2016). As described above, the project applicant would be required to implement **MM GEO-1**, which includes measures to reduce or avoid the potential for significant impacts related to liquefaction. Therefore, this impact would be less than significant with mitigation incorporated.

iv) ***Less Than Significant Impact.*** The project site is generally flat, there are no stream channels within 500 feet of the site, and the potential for liquefaction is considered low (Therefore, the potential for lateral spreading is also considered low (Cornerstone 2016). This impact would be less than significant.

b) ***Less Than Significant Impact***. The proposed project would replace existing structures and paved areas with new buildings, parking, landscaping, and open space. Excavation and grading could result in short-term erosion or loss of topsoil. However, project construction would not change the local topography and would not result in an increased potential for erosion. Because the project would disturb over 1 acre of land, the project applicant would be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ or 2009-0009-DWQ General Permit) to comply with CWA National Pollutant Discharge Elimination System (NPDES) requirements. Compliance with these requirements would include preparation of a stormwater pollution prevention plan (SWPPP), which would specify best management practices (BMP) to quickly contain and clean up any accidental spills or leaks. In accordance with San Leandro Municipal Code Section 7-12-230, the project applicant is required to prepare and implement an erosion and sedimentation control plan and a drainage plan. The plans would be required to include interim erosion and sedimentation control measures (such as containment structures or control devices) to be taken during the wet season until permanent erosion and sedimentation control measures can adequately minimize erosion, excessive stormwater

runoff, and sedimentation (containment structures, overhead coverage, control devices). With required implementation of these plans and BMPs, substantial erosion or the loss of topsoil would not occur at the project site. Impacts would be less than significant.

c) ***Less Than Significant Impact with Mitigation Incorporated.*** As discussed above, the project area is relatively flat, and landslides are not anticipated. Loose, unsaturated sandy soils can settle during strong seismic shaking. Because the soils encountered at the project site are predominantly stiff to very stiff clays and medium dense to dense sands, the potential for differential seismic settlement is considered low (Cornerstone 2016). As described above, the project applicant would be required to implement mitigation measure **MM GEO-1**, which includes measures to reduce or avoid the potential for significant impacts related to landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, this impact would be less than significant with mitigation incorporated.

d) ***Less Than Significant Impact.*** The geotechnical investigation encountered up to 2 feet of undocumented fill underlain by alluvial deposits, consisting of medium stiff to very stiff clay with varying percentages of sand and silt and above stiff silty and dense sand and gravels (Cornerstone 2016). The fill consisted of clayey sand with gravel and well-graded sand. Therefore, the project would not be located on expansive soil. The impact would be less than significant.

e) ***No Impact.*** The project would connect to the City's sewage system and does not propose the use or construction of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact.

Mitigation Measures

MM GEO-1 The project applicant shall implement all measures and recommendations set forth in the geotechnical study prepared by Cornerstone Earth Group in May 2016. These include but are not limited to:

- Approximately 2 feet of undocumented clayey to well-graded sand fill was encountered below the surface. This loose fill shall be overexcavated and re-compacted within the proposed building footprint. Any undocumented fills encountered during the demolition of the northern building basement level shall also be re-compacted prior to the placement of new fill.

- A portion of the proposed building would straddle deeper fill that would be required in order to fill the existing basement. Deeper fill transitions shall be overexcavated at an inclination of 3:1 or flatter and rebuilt with engineered fill to reduce the potential for differential movement beneath at-grade structures.

- The corrosion potential for buried metallic structures, such as metal pipes, is considered moderate. Metal pipes installed as part of the project shall have special protection incorporated.

Timing/Implementation: *During grading and construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department; and Engineering and Transportation Department*

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

ENVIRONMENTAL SETTING

Greenhouse gases (GHGs) are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities as well as many natural processes. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. **Table 3.7-1** describes the primary GHGs attributed to global climate change, including a description of their physical properties and primary sources.

TABLE 3.7-1
GREENHOUSE GASES

Greenhouse Gas	Description
Carbon dioxide (CO_2)	CO_2 is a colorless, odorless gas and is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere. [a]
Methane (CH_4)	CH_4 is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH_4 is emitted from both human-related and natural sources. Methane's atmospheric lifetime is about 12 years. [b]
Nitrous oxide (N_2O)	N_2O is a clear, colorless gas with a slightly sweet odor. N_2O is produced by natural and human-related sources. Primary human-related sources are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The atmospheric lifetime of N_2O is approximately 120 years. [c]

Sources: a. EPA 2016a, b. EPA 2016b, c. EPA 2016c

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents (CO_2e), which weighs each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. GHG emissions quantities in this analysis are presented in metric tons (MT) of CO_2e. From the standpoint of CEQA, GHG impacts on global climate change are inherently cumulative.

REGULATORY FRAMEWORK

STATE

The State of California has adopted various administrative initiatives and legislation relating to climate change, much of which set aggressive goals for GHG emissions reductions in the state. Although lead agencies must evaluate climate change and greenhouse gas emissions of projects, the State CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or specific thresholds of significance and do not specify GHG reduction mitigation measures. Instead, the guidelines allow lead agencies to choose methodologies and make significance determinations based on substantial evidence, as discussed in further detail below. In addition, no state agency has promulgated binding regulations for analyzing GHG emissions, determining their significance, or mitigating significant effects in CEQA documents. Thus, lead agencies exercise their discretion in determining how to analyze GHGs.

California Global Warming Solutions Act (Assembly Bill 32)

The primary laws that have driven GHG regulation and analysis in California include the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599), which instructs the California Air Resources Board to develop and enforce regulations for reporting and verifying statewide GHG emissions. The act directed CARB to set a greenhouse gas emissions limit based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020.

Climate Change Scoping Plan

CARB adopted the first Scoping Plan (AB 32 Scoping Plan) in December 2008 to identify how the state would achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business as usual"). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. Additional development of these measures and adoption of the appropriate regulations occurred through the end of year 2013.

Key elements of the first Scoping Plan (CARB 2008) included:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions.

- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.

- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, heavy-duty truck measures, and the Low Carbon Fuel Standard.

- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In May 2014, CARB released and subsequently adopted the First Update to the Climate Change Scoping Plan to identify the next steps in reaching the goals of AB 32 and evaluate the progress made between 2008 and 2012. According to this update, California is on track to meet the near-term 2020 GHG limit and is well-positioned to maintain and continue reductions beyond 2020. This update also reported the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture) (CARB 2014).

On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan (2017 Scoping Plan), which lays out the framework for achieving the mandate of Senate Bill (SB) 32 (2016), described below, to reduce statewide GHG emissions to at least 40 percent below 1990 levels by the end of 2030 (CARB 2017).

The 2017 Scoping Plan includes guidance to local governments in Chapter 5, including plan-level GHG emissions reduction goals and methods to reduce communitywide GHG emissions. In its guidance, CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. CARB (2017a) further states that "it is appropriate for local jurisdictions to derive evidence-based local per capita goals [or some other metric that the local jurisdiction deems appropriate, such as mass emissions or per service population] based on local emissions sectors and population projections that are consistent with the framework used to develop the statewide per capita targets."

Senate Bill 32

In August 2016, Governor Brown signed SB 32 (Amendments to California Global Warming Solutions Action of 2006), which extends California's GHG reduction programs beyond 2020. SB 32 amended the California Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emissions reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by Executive Order B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in Executive Orders S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Other Legislation

Table 3.7-2 provides a brief overview of the other California legislation relating to climate change that may directly and/or indirectly affect the emissions associated with the proposed project.

TABLE 3.7-2
CALIFORNIA STATE CLIMATE CHANGE LEGISLATION

Legislation	Description
Assembly Bill 1493 and Advanced Clean Cars Program	Assembly Bill 1493 (the Pavley Standard) (Health and Safety Code Sections 42823 and 43018.5) aims to reduce GHG emissions from noncommercial passenger vehicles and light-duty trucks of model years 2009–2016. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions. *Applicability to the project*: Would help reduce GHG emissions from project residents' vehicle trips.
Low Carbon Fuel Standard (LCFS)	Executive Order S-01-07 (2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California. The regulation took effect in 2010 and is codified at Title 17, California Code of Regulations, Sections 95480–95490. The LCFS will reduce greenhouse gas emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020. *Applicability to the project:* Would help reduce GHG emissions from project residents' vehicle trips.
Renewables Portfolio Standard (Senate Bill X1-2 & Senate Bill 350)	California's Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. The 33 percent standard is consistent with the RPS goal established in the Scoping Plan. The passage of Senate Bill 350 in 2015 updates the RPS to require the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. The bill will make other revisions to the RPS program and to certain other requirements on public utilities and publicly owned electric utilities. *Applicability to the project:* The Pacific Gas and Electric Company (PG&E) is the electricity provider in San Leandro. The RPS may indirectly help reduce GHG emissions associated with the project's energy demand.
Senate Bill 375 [a]	SB 375 (codified in the Government Code and the Public Resources Code) took effect in 2008 and established a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires metropolitan planning organizations (MPOs) to incorporate a Sustainable Communities Strategy in their Regional Transportation Plans that will achieve GHG emissions reduction targets by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities. *Applicability to the project:* Plan Bay Area 2040, the regional Sustainable Communities Strategy, implements the requirements of SB 375.

Legislation	Description
California Building Energy Efficiency Standards	In general, the California Building Energy Efficiency Standards require the design of building shells and building components to conserve energy. The California Energy Commission adopted changes to the 2016 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code). The 2016 update to the standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include improvements for attics, walls, water heating, and lighting. New efficiency requirements for elevators and direct digital controls are included in the nonresidential standards. The 2016 standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. The 2016 Building Energy Efficiency Standards are 28 percent more efficient than previous standards for residential construction and 5 percent better for nonresidential construction. Energy-efficient buildings require less electricity, and increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. *Applicability to the project*: The project is new construction that is required to comply with the most current energy standards at the time of construction.
California Green Building Standards	The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also includes voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017. *Applicability to the project*: The project is new construction that is required to comply with the most current CALGreen regulations at the time of construction.

Notes: a. Senate Bill 375 is codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01, as well as at Public Resources Code Sections 21061.3 and 21159.28 and Chapter 4.2.

California Executive Orders

In addition to the legislation identified in **Table 3.7-2**, two Executive Orders—California Executive Order S-03-05 (2005) and California Executive Order B-30-15 (2015)—highlight GHG emissions reduction targets. Specifically, Executive Order S-03-05 seeks to achieve a reduction of GHG emissions of 80 percent below 1990 levels by 2050, and Executive Order B-30-15 seeks to achieve a reduction of GHG emissions of 40 percent below 1990 levels by 2030. The Executive Orders are not laws but they provide the governor's direction to state agencies in their actions to reinforce existing laws. For instance, as a result of the AB 32 legislation, the State's 2020 reduction target is backed by the adopted first Scoping Plan, which provides a specific regulatory framework of requirements for achieving the 2020 reduction target; and, as a result of the SB 32 legislation, the State's 2030 reduction target is backed by the 2017 Scoping Plan, which provides a specific regulatory framework of requirements for achieving the 2030 reduction target. The State-led GHG reduction measures identified in **Table 3.7-2**, such as the Low Carbon Fuel Standard and the Renewables Portfolio Standard, are largely driven by the first Scoping Plan. Executive Order S-03-05 does not have any such framework and therefore has no specific emissions reduction mechanisms for the 2050 reduction target.

REGIONAL

Bay Area Air Quality Management District

The BAAQMD provides direction and recommendations for the analysis of a project's GHG impacts and an approach to mitigation measures in its CEQA Air Quality Guidelines. The guidance in the handbook was used to prepare this analysis. The BAAQMD (2017a) CEQA Air Quality Guidelines include three options for evaluating the impact of a project's operational GHG emissions:

- Meet all screening criteria for the land use type listed in Table 3-1 of the BAAQMD guidelines; or
- Be located in a community with an adopted qualified GHG Reduction Strategy, and the project identifies and implements all applicable feasible measures and policies from the strategy; or
- Have estimated GHG operational emissions that are quantified and fall below the bright-line threshold of significance of 1,100 metric tons of CO_2e per year or the efficiency threshold of significance of 4.6 metric tons of CO_2e per service population per year.

The BAAQMD greenhouse gas thresholds were developed based on overall projections of development in the region and how the region would come into compliance with the goals established by AB 32. BAAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions and compliance with these thresholds would reduce impacts to less than cumulatively considerable (BAAQMD 2009a, 2017a).

The BAAQMD greenhouse gas emissions thresholds and screening criteria were developed to meet the goals of AB 32 and the 2014 First Update to the Climate Change Scoping Plan. As of the date of this analysis, the BAAQMD has not published recommended thresholds to meet the State's 2030 GHG reduction goals as mandated by SB 32 and the 2017 Climate Change Scoping Plan, nor has any other California air district done so.

Plan Bay Area 2040

As required by the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the Association of Bay Area Governments and Metropolitan Transportation Commission (2017) developed a Sustainable Communities Strategy as a component of Plan Bay Area 2040. This plan seeks to reduce GHG and other mobile source emissions through coordinated transportation and land use planning to reduce VMT.

LOCAL

City of San Leandro 2035 General Plan

The Environmental Hazards Element of the San Leandro (2016a) General Plan includes an overview of climate change–related sea level rise. The element contains the following GHG emissions–related policy:

Policy EH-3.4 Design, Construction, and Operation. Require new development to be designed and constructed in a way that reduces the potential for future air quality problems, such as odors and the emission of any and all air pollutants. This should be done by:

(a) Requiring construction and grading practices that minimize airborne dust and particulate matter;

(b) Ensuring that best available control technology is used for operations that could generate air pollutants;

(c) Encouraging energy conservation and low-polluting energy sources;

(d) Promoting landscaping and tree planting to absorb carbon monoxide and other pollutants; and

(e) Implementing the complementary strategies to reduce greenhouse gases identified in the Climate Action Plan.

The General Plan Open Space, Parks, and Conservation Element contains an overview of climate change and GHG emissions. The element contains the following GHG emissions–related policy potentially applicable to the project:

Policy OSC-8.2 Planning and Building Practices. Encourage construction, landscaping, and site planning practices that minimize heating and cooling costs and ensure that energy is efficiently used. Local building codes and other City regulations and procedures should meet or exceed state and federal standards for energy conservation and efficiency and support the City's greenhouse gas reduction goals.

CITY OF SAN LEANDRO CLIMATE ACTION PLAN

The vision of the Climate Action Plan (CAP) is to guide the City toward a sustainable future that reduces GHG emissions from current levels while promoting economic prosperity for present and future generations. The Climate Action Plan seeks both to document the various programs San Leandro has implemented since 2005 and to consider new programs and actions that may be implemented to meet the City's GHG reduction target of 25 percent below 2005 emissions levels by 2020 (San Leandro 2009).

The CAP contains the following GHG emissions–related goals potentially relevant to the project:

Goal: Promote green building practices in both the new construction and remodel market. A summary of measures and actions to promote green building practices include the following:

- Establish mandatory green building ordinance for private new construction. Require new building projects to achieve a minimum point level on an appropriate green building checklist, such as GreenPoint Rated, LEED or California's Green Building Code. There may be a minimum threshold for eligibility, such as 10,000 square feet for new commercial/industrial buildings.

- Identify and promote funding sources and other incentives to subsidize green buildings. Some PG&E incentive programs, such as the California Statewide Savings by Design program, may provide incentives for new construction that meet energy efficiency thresholds.

- Educate community members and local contractors on green building practices. For example, increase the number of green building events at the library, including hosting

events at neighborhood library branches. Continue to participate in state-wide and national green building initiatives to promote green building practices.

Goal: Encourage development which promotes walkable communities. Policies to make San Leandro more attractive and inviting to pedestrian, bicyclists and public transit users are already articulated in the San Leandro General Plan, Transportation Element. The following measures and actions are highlighted for further consideration, as significant strategies to reduce greenhouse gas emissions in the community:

- Develop design standards for parking lots and encourage placement to the rear of businesses. This would ensure that parking contributes positively to the overall character of the street and neighborhood.

- Allow reduced parking requirements where specific conditions are met. These conditions should include transportation demand management measures, such as shuttle buses to BART and other designations, carpooling and vanpooling programs, shared cars, and bicycle storage facilities.

CHECKLIST DISCUSSION

a) ***Less Than Significant Impact.*** The project's GHG emissions would include short-term emissions from construction (primarily from equipment exhaust) and long-term regional emissions from project operation. Operational emissions would include those associated with new vehicular trips and indirect source emissions, such as electricity use, energy resulting from water use, and emissions resulting from solid waste collection and disposal.

The BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant GHG emissions impacts. Projects below the applicable screening criteria shown in Table 3-1 of the BAAQMD's (2017a) CEQA Air Quality Guidelines would not exceed the 1,100 MT of CO_2e per year GHG threshold of significance for projects other than permitted stationary sources. The pertinent GHG screening level for development of mid-rise apartments is 87 dwelling units. As described above, the BAAQMD screening criteria were developed to account for the State's goals of reducing GHG emissions to 1990 levels by 2020. The first full year of operation for the project is anticipated to be 2021. The State's next GHG reduction goal is to reduce emissions to 40 percent below 1990 levels by 2030. Therefore, to be conservative, the project was compared to a screening criterion reduced by 40 percent, or 52 mid-rise apartments. The project would develop 45 mid-rise apartments. Therefore, the project would not exceed the BAAQMD's project-level threshold for GHG emissions, adjusted for the State's 2030 emissions goals, and impacts would be less than significant.

b) ***Less Than Significant Impact.*** The project is consistent with the General Plan land use designation for the site. However, the project would exceed the maximum density allowed per the current zoning, and the applicant is requesting a rezoning for a Planned Development (PD) overlay. While the project could result in a small population increase above that allowed under the current zoning, the project would include features to increase energy efficiency and to reduce mobile emissions in support of GHG reduction strategies in the region and the city:

1. The project has been evaluated for consistency with the GreenTRIP program and awarded conditional GreenTRIP certification (Rizzo 2018). GreenTRIP is a certification

program for new residential development that was established by TransForm, a nonprofit transportation advocacy organization. GreenTRIP certifies projects that allow new residents to drive less while increasing multimodal mobility. The project meets the GreenTRIP criteria for certification due to the following:

- Vehicle Miles Traveled (VMT): Using a model created by CARB, the GreenTRIP analysis determined that project residents would drive 33 miles per day per household, which is 34 percent less than the Bay Area regional average.

- Parking: The project would include parking spaces at a ratio of 1.2 spaces per unit, which is less than the maximum of 1.5 parking spaces recommended by the program.

- Traffic Reduction Strategy: The project would provide all parking as unbundled, which separates the cost of parking from rent and saves residents who do not have vehicles the expense of a parking space that they would not use.

2. The project would incorporate sustainable features: the parking lot overhead covering would include photovoltaic solar panels to provide power for electric vehicle charging stations for each parking space; there would be solar panels to supply electricity for all common area use; and a solar domestic hot water system.

Therefore, the project would not conflict with or otherwise interfere with the applicable statewide, regional, and local greenhouse gas reduction plan, policy or regulations, including CARB's Climate Change Scoping Plan, Plan Bay Area 2040 (the regional RTP/SCS), the City's General Plan, and the City's Climate Action Plan. The impact would be less than significant.

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

ENVIRONMENTAL SETTING

The analysis in this section is based in part on information contained in the Phase I Environmental Site Assessment (ESA) prepared for the site (AEI Consultants 2015), which is included as **Appendix HAZ**.

Based on a review of historical sources, the site was determined to be developed with dwellings from 1926 to 1955. In 1955, most of the site was redeveloped with two medical office buildings and

the remaining portion of the site contained a residence. Circa 1980, the remaining residence was removed, and its area converted into a parking lot.

The Phase I ESA did not identify any Recognized Environmental Conditions (REC) or Historical RECs. Other environmental considerations identified in the report include the potential presence of lead-based paint and asbestos-containing material (ACM), due to the age of the existing buildings. Mold growth was also observed in the existing buildings on the project site. Finally, the gas station to the northwest of the project site, at 1285 Bancroft Avenue, is listed in the Alameda County LOP and LUST [local oversight program and leaking underground storage tank] database for identified pollution related to automotive gasoline pollution, affecting both soil and groundwater. Based on the case closure status of this listing and the hydrologic gradient flowing away from the project site, the Phase I ESA concluded that the 1285 Bancroft property does not represent a significant environmental concern for the proposed project (AEI Consultants 2015).

CHECKLIST DISCUSSION

a) ***Less Than Significant Impact.*** Project construction would involve the routine transportation, storage, use, and disposal of small quantities of hazardous materials such as construction equipment fuels and lubricants, hydraulic fluid, and solvents. The storage and handling of these materials would be managed in accordance with applicable state and federal laws for safe handling of hazardous substances, which include developing project-specific hazardous materials management and spill control plans, storing incompatible hazardous materials separately, using secondary containment for hazardous materials storage, requiring the contractor to use trained personnel for hazardous materials handling, and keeping spill cleanup kits available on-site. Routine transport, storage, use, or disposal of hazardous materials during construction would not create substantial hazards to the public or the environment.

The project would consist of residential uses. During operation, no use or storage of hazardous materials would be expected beyond cleaning and landscaping chemicals. Therefore, impacts would be less than significant.

b) ***Less Than Significant Impact with Mitigation Incorporated.*** Demolition of the existing buildings on the project site could result in the airborne release of hazardous building materials, such as asbestos fibers or lead dust. However, compliance with federal and state laws requires inspection and removal of hazardous building materials, including asbestos-containing materials and lead-containing substances. If asbestos and lead are found in building materials removed, abatement practices such as containment and removal would be required prior to demolition, as identified in mitigation measure **MM HAZ-1**. In addition, the project applicant would be required to obtain clearance for asbestos removal from the BAAQMD prior to issuance of a demolition permit. Therefore, due to existing regulations and through implementation of mitigation measure **MM HAZ-1**, the potential for public health hazards associated with the release of airborne asbestos fibers or lead at the project site would be considered less than significant**.**

No other project-related processes or operations would create reasonably foreseeable upset and accident conditions involving the release of large amounts of hazardous materials into the environment. Fluorescent lights and materials containing polychlorinated biphenyls (PCBs) would be handled and disposed in accordance with applicable state and federal regulations. Hazardous materials used during construction, such as fuel for construction equipment and vehicles, would be managed in accordance with applicable laws and regulations as described in checklist item a) above. Project

operations would not expose persons or the environment to a hazardous substance. Through implementation of mitigation measure **MM HAZ-1**, any potential asbestos- or lead-related impacts would be reduced to a level that is less than significant.

c) ***Less Than Significant Impact with Mitigation Incorporated.*** The project site is adjacent to Bancroft Middle School, located at 1150 Bancroft Avenue, across Estudillo Avenue from the project site. Project construction and operation would not result in hazardous emissions or handling of hazardous waste as described above under checklist items a) and b). Project construction would comply with all state and federal laws governing hazardous materials during demolition and construction. Through implementation of mitigation measure **MM HAZ-1**, any potential asbestos- or lead-related impacts would be reduced to a level that is less than significant. Therefore, this impact would be less than significant.

d) ***No Impact.*** As described in the Environmental Setting subsection above, the project site is not on any list of hazardous materials sites. While the gas station at 1285 Bancroft Avenue, to the northwest of the project site, is listed in the Alameda County LOP and LUST database, the site was granted case closure status with a No Further Action designation in August 2010. Based on the case closure status of this listing and the hydrologic gradient flowing away from the project site, the Phase I ESA concluded that the 1285 Bancroft property does not represent a significant environmental concern for the proposed project (AEI Consultants 2015). Therefore, no impact would occur.

e, f) ***No Impact.*** The project site is not located in an airport land use plan or within 2 miles of a public or public use airport or private airstrip. The closest airport to the project site, Oakland International Airport, is approximately 2.9 miles away. Given the distance from any airport, project construction and operation would not result in a safety hazard for people residing or working at the project site. Therefore, the proposed project would have no impact on airport land use plans or people residing or working at the project site.

g) ***Less Than Significant Impact.*** As discussed in the City's General Plan EIR, the San Leandro Emergency Operations Center is responsible for coordinating agency response to disaster or other large-scale emergencies in the city of San Leandro with assistance from the Alameda County Office of Emergency Services and the ACFD. The City's Hazard Plan establishes policy direction for emergency planning, mitigation, response, and recovery activities within San Leandro. The Hazard Plan addresses interagency coordination, procedures to maintain communication with county and State emergency response teams, and methods to assess the extent of damage and management of volunteers. Compliance with applicable federal, State, and local regulations and existing plans and policies regarding emergency operations, as described in the General Plan EIR, would ensure that future development would not interfere with an adopted emergency response plan or emergency evacuation plan (San Leandro 2016b).

The project would not result in any interference with the City's Hazard Plan, as it would comply with all fire and building code requirements and standards. As part of the site plan approval process, the project was reviewed by the City of San Leandro Engineering and Transportation Department and by the Alameda County Fire Department's Fire Prevention Bureau to ensure adequate emergency access. Based on these reviews, the City and County determined that the site would have adequate fire access. The project would comply with applicable federal, State, and local regulations and existing plans and policies regarding emergency operations. Therefore, this impact would be less than significant.

h) ***No Impact.*** No wildlands are located on the project site, and the site is not within or adjacent to a designated fire hazard severity zone (Cal Fire 2007). The project would also comply with all relevant fire safety regulations. Therefore, there would be no impact.

Mitigation Measures

MM HAZ-1 Prior to demolition of existing structures on the project site, asbestos-containing materials and lead-based paint surveys shall be conducted to determine the presence of hazardous building materials and results of those surveys shall be provided prior to the issuance of demolition or building permits. Should asbestos-containing materials, lead-based paint, or other hazardous substance–containing building materials be identified, these materials shall be removed using proper techniques in compliance with all applicable state and federal regulations, including the BAAQMD rule related to asbestos.

Timing/Implementation: *Prior to issuance of building permits*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

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

ENVIRONMENTAL SETTING

The project site is in the San Francisco Bay Hydrologic Region, which covers approximately 4,500 square miles and encompasses 10 counties, including Alameda County. It corresponds with the

boundaries of the San Francisco Bay Regional Water Quality Control Board and the San Francisco Bay Area Integrated Regional Water Management Plan. The hydrologic region is a complex network of watersheds, marshes, rivers, creeks, reservoirs, and bays, mostly draining into the San Francisco Bay and the Pacific Ocean (San Leandro 2016b).

The project site is in the San Leandro Creek Watershed. San Leandro Creek is 22 miles long and is the main creek/water body in the city, extending from the eastern slopes of the Oakland Hills to San Leandro Bay. San Leandro Creek is a natural channel with steep banks between Lake Chabot and the BART tracks. From the BART tracks to the Nimitz Freeway (also known as Interstate 80), the creek is culverted with slanted concrete walls and a concrete bottom. Below the freeway, the creek enters an engineered flood control channel with vertical sides and a concrete bottom (San Leandro 2016b).

The City of San Leandro Department of Public Works owns and maintains 175 miles of storm drain conduits throughout the city. The City's storm drain system feeds into a larger system owned and operated by the Alameda County Flood Control and Water Conservation District (ACFCD). This system includes the lower reaches of San Leandro and San Lorenzo creeks, as well as a number of channels extending into San Leandro neighborhoods west of Interstate 880. The district's drainage facilities include levees, pump stations, erosion control devices, and culverts (San Leandro 2016b).

Stormwater runoff pollutants vary with land use, topography, and the amount of impervious surface, as well as the amount and frequency of rainfall and irrigation practices. Runoff in developed areas typically contains oil, grease, litter, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from landscaped areas. The highest pollutant concentrations usually occur at the beginning of the wet season during the "first flush" (San Leandro 2016b).

All stormwater runoff from the project would ultimately discharge into San Francisco Bay. The San Francisco Bay Regional Water Quality Control Board monitors surface water quality through implementation of the Water Quality Control Plan (Basin Plan) and designates beneficial uses for surface water bodies and groundwater. The beneficial uses for San Francisco Bay include industrial service supply, commercial and sport fishing, shellfish harvesting, estuarine habitat, fish migration, preservation of rare and endangered species, fish spawning, wildlife habitat, water contact recreation, water non-contact recreation, and navigation (San Leandro 2016b).

CHECKLIST DISCUSSION

a, f) ***Less Than Significant Impact.***

Construction Impacts

During project construction, the existing buildings, asphalt materials, and undocumented fill would be removed from the site. Grading of the site would also occur. During these activities, there is the potential for soil erosion that could transport sediments into local stormwater drainages. Also, accidental spills of fluids or fuels from construction vehicles and equipment, or miscellaneous construction materials and debris, could potentially degrade the water quality of receiving water bodies (i.e., San Francisco Bay), potentially resulting in a violation of water quality standards.

As part of Section 402 of the Clean Water Act, the EPA has established regulations under the National Pollutant Discharge Elimination System program to control both construction and operation (occupancy) stormwater discharges. In the Bay Area, the San Francisco Regional Water Quality Control Board (RWQCB) administers the NPDES permitting program and is responsible for developing permitting requirements. The project would be subject to the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP) – NPDES Permit Order No. R2-2015-0049, and the provisions set forth in Section C.3, New Development and Redevelopment. Under this program, the project would be required to eliminate or reduce non-stormwater discharges, develop and implement a construction SWPPP, and perform inspections of the stormwater pollution prevention measures and control practices to ensure conformance with the site's SWPPP. Because the project would disturb at least 1 acre of land, the project must provide stormwater treatment and would be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ or 2009-0009-DWQ General Permit).

Further, in accordance with San Leandro Municipal Code Section 7-12-230, the project would be required to prepare and implement an erosion and sedimentation control plan and a drainage plan which includes BMPs to minimize erosion and sediment runoff. The project would implement construction BMPs, including only performing earthmoving activities during dry weather, using sediment controls or filtration to remove sediment when dewatering, protecting storm drain inlets from sediment, diverting on-site runoff around the site, and using sediment barriers. With these measures, the project's construction impacts on water quality would be less than significant.

Operational Impacts

Currently, the site is developed with 49,506 square feet of impervious area, including 38,462 square feet of paved areas and 11,044 square feet of roof area. The project would result in a 6,214-square-foot decrease in impervious surfaces. As a result, the amount of runoff generated from the project site would decrease. To help ensure that drainage from new development meets discharge control standards, a Stormwater Control Plan was prepared for the project and reviewed by the City. The Stormwater Control Plan calculated the change in impervious surfaces and defined needed drainage improvements per City standards, the state Stormwater Management and Urban Runoff Control Program, and the Alameda County Clean Water Program. All site runoff would be directed from on-site drainage pipes to the City's existing municipal storm drainage system and ultimately to the countywide drainage system. The project's drainage improvements would be constructed in compliance with the City's standard conditions for new development. Therefore, with these measures, the project would not generate stormwater discharges that would violate water quality standards or waste discharge requirements. With these standard development requirements and measures in place, the impact would be less than significant.

b) ***Less Than Significant Impact.*** The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table. Domestic use of groundwater wells in San Leandro is currently not permitted due to contamination by volatile organic compounds, gasoline, and heavy metals (San Leandro 2016b). The project would decrease the overall level of impervious surfaces on the project site, increasing the amount of groundwater recharge. Furthermore, the project would incorporate stormwater BMPs, including detention basins to retain stormwater on-site,

which would assist with groundwater recharge. Therefore, the impact would be less than significant.

d, e) ***Less Than Significant Impact.*** The project site is currently developed. Construction of the project would not alter the course of any creek, stream or river (the closest surface water feature to the site, San Leandro Creek, is approximately 700 feet away). The project site is almost entirely covered in impervious surfaces. The project would reduce the amount of impervious surface on the site by approximately 6,214 square feet, reducing the amount of stormwater runoff. The project would also include detention basins to treat roof, sidewalk, and driveway water runoff. Therefore, additional stormwater percolation may occur on-site and stormwater runoff volumes would incrementally decrease. As a result, the project would not increase stormwater discharge or substantially alter drainage patterns on the site or the surrounding area. Further, the project would not contribute runoff that would exceed the capacity of the existing on- or off-site stormwater drainage systems. Therefore, impacts would be less than significant.

g, h) ***No Impact.*** The project site is entirely within Federal Emergency Management Agency (FEMA) Flood Zone X, Areas Determined to Be Outside the 0.2 percent (500-year) Annual Chance Floodplain (FEMA 2009). Because the site is outside of the 100-year FEMA-designated floodplain, the project would not place structures inside a 100-year flood hazard area. There would be no impact.

i) ***Less Than Significant Impact.*** Levees in San Leandro are located in the southwest corner of the city, along the waterfront, as shown in Figure 4.8-5 of the General Plan EIR (San Leandro 2016b). The project site is approximately 2.65 miles from the closest levee and would not be subject to inundation in the event of a levee failure.

The project site is in the inundation areas of two dams: Lake Chabot and Upper San Leandro Reservoir. Lake Chabot is classified as a high hazard dam because its failure could result in a significant loss of life and property damage. The California Division of Safety of Dams (DSOD) inspects each dam on an annual basis to ensure the dam is safe, performing as intended, and is not developing problems (San Leandro 2016a).

EBMUD owns and operates these two reservoirs, which store runoff from local watersheds for water supply. Lake Chabot was built in 1892 and impounds approximately three billion gallons of water that is used for non-potable water supply, emergency water supply, conservation/storage of local runoff, and recreation (San Leandro 2016a).

Four miles upstream is the Upper San Leandro Reservoir, which was constructed in 1977 and holds more than 13 billion gallons of water. This reservoir is closed to public access, except for the trail system, and is used for raw water storage. While extremely unlikely, most of San Leandro would be flooded in the event of a dam failure at either Lake Chabot or the Upper San Leandro Reservoir (San Leandro 2016a).

Requirements for earthquake and flood safety for the EBMUD dams are imposed by the DSOD. Chabot Dam is inspected monthly by EBMUD personnel and annually by DSOD personnel. The DSOD requires that embankments under its jurisdiction are safe enough to withstand a maximum credible earthquake without an uncontrolled release of reservoir water. EBMUD is currently implementing seismic strengthening upgrades to Lake Chabot dam. In 2017, the DSOD assessed the Lake Chabot dam and Upper San Leandro Reservoir dam as having the highest rating of "satisfactory" (EBMUD 2017). The risk of dam failure is considered extremely low (San Leandro 2016a).

Due to the very low probability of a dam failure that would result in the inundation of San Leandro, this impact would be less than significant.

j) ***Less Than Significant Impact.*** Tsunamis and seiches are ocean waves or similar waves usually created by undersea fault movement or by a coastal or submerged landslide. Tsunamis may be generated at great distance from shore or nearby. When the waveform from tsunamis or seiches reaches the coastline, it quickly raises the water level, with water velocities as high as 15 to 20 knots. The water mass and vessels, vehicles, or other objects in its path create tremendous forces as they impact coastal structures.

A tsunami or seiche originating in the Pacific Ocean would lose much of its energy passing through San Francisco Bay. Areas most likely to be inundated are marshlands, tidal flats, and former bay margin lands that are now artificially filled, but are still at or below level, and are generally within 1.5 miles of the shoreline. The project site is approximately 2 miles inland and is approximately 70 feet above mean sea level (Cornerstone 2016). Therefore, the potential for inundation due to tsunami or seiche is considered low. In addition, according to mapping provided by the ABAG Resilience Program, the project site is not in an area subject to mudlow (ABAG 2018). Impacts would be less than significant.

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

ENVIRONMENTAL SETTING

The project site is currently developed with two medical office buildings and surface parking. The site is designated as Downtown Mixed Use in the San Leandro General Plan. The downtown designation corresponds to part of the area that has historically been the central business district of San Leandro. The designation allows a range of uses which together create a pedestrian-oriented street environment. These uses include retail shops, services, offices, cultural activities, public and civic buildings, and similar and compatible uses, including upper-story residential uses. A maximum floor area ratio (FAR) of 3.5 applies, and residential densities range from 24 to 100 units per net acre.

The site is zoned Professional Office District. This zoning allows offices, mixed use, and multi-family residential uses at appropriate locations, subject to development standards and landscaping requirements that prevent significant adverse effects on adjacent uses. Retail activity is appropriate, subject to limitations to ensure development is consistent with the existing neighborhood quality. Multi-family residential uses are permitted at up to 24 dwelling units per acre and comparable regulations of RM-1800 multi-family residential district (Zoning Code Section 2-696A). Buildings of up to 50 feet in height are allowed when approved with a Conditional Use Permit (Zoning Code Section 2-536).

CHECKLIST DISCUSSION

a) ***No Impact.*** The project would not result in any changes that could physically divide an existing community. The project would demolish the existing buildings and redevelop the site with a 45-unit residential building. The site is in an existing well-established neighborhood and is bordered on three sides by city streets, which would retain their current function. Land uses adjoining the site include residential, commercial, medical, and school uses. Given the existing adjacent compatible uses, the proposed project would not physically divide an established community. There would be no impact.

b) ***Less Than Significant Impact.*** The project would be consistent with the General Plan designation for the site. The proposed Planned Development, having a density of 35 dwelling units per acre, may exceed the maximum density currently permitted. The project applicant is requesting a reduction in required parking and the setback requirement along the Estudllio

Avenue frontage. To facilitate these requests, the applicant proposes a rezoning to a Planned Development (PD) overlay. A PD project is a form of Conditional Use Permit that is combined with aspects of site plan review. Use of the PD process would offer the developer greater flexibility than otherwise allowed under the Zoning Code in return for a coordinated development that, as noted in the Zoning Code, "provides superior urban design in comparison with the development under the base district zoning regulations" (San Leandro 2018). Planned Developments must be accompanied by a Planned Development Project Plan. The Planning Commission may only recommend approval of a rezoning for a Planned Development that is consistent with the adopted General Plan Land Use Element and is compatible with surrounding development, per Zoning Code Section 3-1008. Therefore, the City review process would ensure that the project would not conflict with a policy adopted for the purpose of avoiding or mitigating an environmental effect.

While the proposed project requires a rezoning, this action would facilitate an appropriate residential development in a transit priority area, in accordance with numerous General Plan goals and policies. The impact would be considered less than significant.

c) ***No Impact.*** The project site is not in an area that is covered by a habitat conservation plan or natural community conservation plan. There would be no impact.

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

ENVIRONMENTAL SETTING

The only quarry in close proximity to San Leandro is located just beyond the eastern city limit on Lake Chabot Road and ceased operation in the 1980s. While the quarry site contains additional rock resources, future quarrying activity is considered unlikely (San Leandro 2016b).

CHECKLIST DISCUSSION

a, b) ***No Impact.*** The project site is in an urbanized area with developed structures, roadways, and other infrastructure. As noted above, the only quarry in close proximity to San Leandro is just beyond the eastern city limit. Since no mineral resources of value are located in the area, there would be no impact.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
12. NOISE. Would the project:				
a) The exposure of persons to, or the generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) The exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

NOISE AND VIBRATION OVERVIEW

Noise is unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). There is a strong correlation between A-weighted sound levels and the way the human ear perceives sound. All noise levels reported in this section are in terms of dBA but may be expressed as dB, unless otherwise noted.

Because of the way the human ear works, a sound must be about 10 dBA greater than the reference sound to be judged twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while changes of 1–2 dBA generally are not perceived.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources near the ground. Noise levels may also be reduced by the introduction of intervening structures.

Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise (e.g., the rattling of windows from passing trucks). This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by man-made activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) when evaluating impacts on humans or as peak particle velocity when evaluating impacts on structures.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources inside buildings such as the operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads.

NOISE SETTING

The project site is on Bancroft Avenue between Estudillo Avenue and Joaquin Avenue. The land uses in the project vicinity include single- and multi-family residential buildings, commercial businesses, and a middle school. The dominant source of noise in the project area is traffic on Estudillo Avenue and Bancroft Avenue. The existing (2015) and future (2035) noise levels in the city were estimated in the 2035 General Plan Draft Environmental Impact Report (DEIR) (San Leandro 2016b). The traffic noise contours in the DEIR for both 2015 and 2035 indicate that the 60 dBA Community Noise Equivalent Level (CNEL) contours for Estudillo Avenue and Bancroft Avenue extend into the project site. As part of the noise analysis for the DEIR, short-term (15-minute) and long-term (24-hour) noise measurements were taken in 2015. **Table 3.12-1** summarizes the noise measurements at the locations closest to the project site.

TABLE 3.12-1
2015 NOISE MEASUREMENTS

Location	Measurement Length	Measured Level (dBA)
LT-1 East 14th Street and 143rd Avenue; 1.15 miles south of the project site	24 hours	64.8 L_{dn}
LT-3 Alvarado Street; 819 feet northwest of Davis Street; 0.96 miles west of the project site [a]	24 hours	67.4 L_{dn}
ST-4 Bancroft Avenue and Dutton Avenue; 0.49 miles north of the project site	15 minutes	65.6 L_{eq}
ST-5 East 14th Street and Juana Avenue; 0.41 miles southwest of the project site	15 minutes	65.6 L_{eq}

Source: San Leandro 2016b

Note: a. The measurement at LT-3 included noise from the nearby BART tracks, which are not a significant source of noise at the project site.

Noise-Sensitive Receptors

Noise-sensitive land uses are those that may be subject to stress and/or interference from excessive noise. Noise-sensitive land uses include residences, schools, hospitals, and institutional

uses such as churches and museums. Industrial and commercial land uses are generally not considered sensitive to noise. The closest existing sensitive receptors to the project site are two single-family residences adjacent to the project site boundary to the east, and Bancroft Middle School 70 feet to the north, across Estudillo Avenue.

REGULATORY FRAMEWORK

STATE

California Building Standards Code

The 2016 California Building Standards Code (California Code of Regulations, Title 24), Part 2, Chapter 12, Section 1207, Sound Transmission, requires that the indoor noise level in residential units of multi-family dwellings not exceed a CNEL or day-night average noise level (L_{dn}) of 45 dBA attributable to exterior noise sources.

LOCAL

City of San Leandro Municipal Code and Zoning Code

The City's Municipal Code and Zoning Code include the following regulations regarding noise produced on a residential property and construction noise:

> 4-1-1110 General Prohibition
>
> It is unlawful for any person, as defined in Section 1-14-100(h) of this Code, to make, continue, or cause to be made or continued any disturbing, excessive or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity. The factors which should be considered in determining whether a violation of this section exists include the following:
>
> 1. The sound level of the objectionable noise.
> 2. The sound level of the ambient noise.
> 3. The proximity of the noise to residential property.
> 4. The zoning of the area.
> 5. The population density of the area.
> 6. The time of day or night.
> 7. The duration of the noise.
> 8. Whether the noise is recurrent, intermittent, or constant.
> 9. Whether the noise is produced by an industrial, commercial, or noncommercial activity.
> 10. Whether the nature of the noise is usual or unusual.

4-1-1115 Prohibited Acts

(b) Construction-related Noise Near Residential Uses. Construction work or related activity which is adjacent to or across a street or right of way from a residential use, except between the hours of 7 a.m. and 7 p.m. on weekdays, or between 8 a.m. and 7 p.m. on Sunday and Saturday. No such construction is permitted on Federal holidays. As used in this Article, "construction" shall mean any site preparation, assembly, erection, substantial repair, alteration, demolition or similar action, for or on any private property, public or private right-of-way, streets, structures, utilities, facilities, or other similar property. Construction activities carried on in violation of this Article may be enforced as provided in Section 4-11-1130, and may also be enforced by issuance of a stop work order and/or revocation of any or all permits issued for such construction activity.

4-1670 Performance Standards

B. Vibration. No use, activity, or process shall produce vibrations that are perceptible without instruments by a reasonable person at the property lines of a site.

City of San Leandro General Plan

The City's General Plan Environmental Hazards Element identifies sources of noise in the city and defines standards for acceptable noise levels and policies to reduce the impacts of noise to the community. Chart 7-2 from the General Plan lists noise compatibility guidelines for land uses based on the State of California guidelines; for multi-family residential land uses, a CNEL of up to 65 dBA would be normally acceptable. The following goal and policies from the Environmental Hazards Element are relevant to the proposed project (San Leandro 2016a):

Goal EH-7 Ensure that noise associated with the day-to-day activities of San Leandro residents and businesses does not impede the peace and quiet of the community.

Policy EH-7.1 Noise Compatibility Table. Ensure that potential noise impacts are considered when new development is proposed. Projects that could significantly increase noise levels should incorporate mitigation measures to reduce such impacts. Apply the standards shown in Chart 7-2 when evaluating applications for future development. Chart 7-2 specifies the maximum noise levels that are normally acceptable, conditionally acceptable, and normally unacceptable for new development.

Policy EH-7.2 Residential Interior Noise Standard. As required by the State of California, ensure that interior noise levels in new residential construction do not exceed 45 dB L_{dn}. For non-residential construction, the acceptable interior noise levels should be determined on a case by case basis, depending on the type of activity proposed.

Policy EH-7.3 Residential Exterior Noise Standard. Strive to maintain an exterior noise level of no more than 60 dB L_{dn} in residential areas. Recognizing that some San Leandro neighborhoods already exceed this noise level, encourage a variety of noise abatement measures that benefit these areas.

Policy EH-7.9 Vibration Impacts. Limit the potential for vibration impacts from construction and ongoing operations to disturb sensitive uses such as housing and schools.

CHECKLIST DISCUSSION

a, c) ***Less Than Significant Impact.***

Impacts on Future Project Residents

The effect of existing noise on future project residents is considered an effect of the environment on the project; as such, it is not a CEQA consideration. However, it is a planning consideration for the City in determining project design and permit approvals. As indicated by the noise measurements and traffic noise contour from the General Plan EIR, discussed above, exterior residential spaces on the project site (e.g., apartment balconies) that face Estudillo Avenue and Bancroft Avenue may be exposed to noise levels up to 65.6 dBA CNEL. This noise level would be at the upper end of the normally acceptable range for multi-family housing and would exceed the 60 dBA L_{dn} residential exterior noise standard defined in General Plan Policy EH-7.3.

Long-Term Operational Traffic Noise

As described in subsection 3.16, Transportation/Traffic, the project would generate fewer trips than the existing medical office buildings on the project site. Therefore, the project would not increase traffic noise above existing levels in the project site vicinity.

Long-Term Operational Stationary Noise

Once operational, the project would generate noise from various on-site stationary sources, including heating, ventilation, and air conditioning (HVAC) equipment, parking lot activities, and solid waste collection and recycling operations. The nearest off-site sensitive receptors in the project vicinity are the single-family homes adjacent to the project site to the east, and Bancroft Middle School across Estudillo Avenue to the north.

HVAC equipment is often mounted on rooftops, located on the ground, or placed within mechanical rooms. The noise sources could take the form of fans, pumps, air compressors, chillers, or cooling towers. The precise details of HVAC equipment, including future location, sizing, and any sound enclosures, are unknown at the time of this analysis. Therefore, for purposes of this analysis, a conservative maximum noise level (L_{max}) of 80 dB at 3 feet was assumed to represent HVAC-related noise with a location on the building roof. Noise produced near the ground propagates outward in a hemispherical pattern and diminishes (attenuates) at a rate of approximately 6 dB for every doubling of distance. The closest off-site residences, approximately 110 feet from a rooftop HVAC system location, would be exposed to a noise level of 49 dBA L_{max} generated by HVAC equipment. This noise level would not exceed the City's standard acceptable noise level of 60 dB L_{dn} for residential exterior spaces.

The primary parking for the project would be located on the east side of the project site, in the same approximate location as the parking area for the existing businesses on the project site. Because the project is expected to generate fewer daily trips than the existing uses on the project site, parking lot noise would not be expected to increase over existing conditions.

Impact Conclusion

The project would not result in exposure of persons to, or the generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. The impact would be less than significant.

b) ***Less Than Significant Impact with Mitigation Incorporated.***

Operational Groundborne Vibration

Long-term operation of project would include occupation of residential units and a parking lot. This would be consistent with planned use and existing surrounding uses and would not be a substantial source of groundborne vibrations or groundborne noise.

Construction Groundborne Vibrations

Construction activities would require the use of off-road equipment such as bulldozers, excavators, graders, pavers, and vibratory compactors. The use of major groundborne vibration–generating construction equipment, such as pile drivers, would not be needed for the project. Nonetheless, during construction, groundborne vibration may be generated as a result of heavy equipment operations. This impact would be temporary, and vibration would cease completely when construction ends.

High levels of groundborne vibration can cause architectural or structural damage to nearby buildings. The threshold at which there is a risk of architectural damage to normal dwelling structures (i.e., cracks in plastered walls and ceilings) is a peak particle velocity of 0.2 inches per seconds (Caltrans 2013). **Table 3.12-2** shows vibration levels for typical construction equipment, based on the application of the Caltrans-recommended standard.

TABLE 3.12-2
TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Equipment	Peak Particle Velocity at 25 Feet (inches per second)
Vibratory Roller	0.210
Large Bulldozer	0.089
Loaded Truck	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.004

Source: FTA 2006; Caltrans 2013

As shown in **Table 3.12-2**, operation of a large vibratory roller could produce vibrations as high as 0.210 peak particle velocity inches per seconds and potentially cause architectural damage to structures at 25 feet. The closest existing structure to the project site is approximately 10 feet away, and compaction of soil, gravel, or asphalt may be required near adjacent structures. Mitigation measure **MM NOI-1** would require vibratory rollers to

be used in static mode only (no vibrations) when within 25 feet of any existing off-site structure.

With implementation of mitigation measure **MM NOI-1**, the project would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. The impact would be less than significant with mitigation incorporated.

d) ***Less Than Significant Impact.*** Construction activities would consist of demolition of the existing buildings, site preparation (including grading), removal of existing parking lot surfaces, and construction of the new residential building. Construction equipment would include backhoes, bulldozers, front-end loaders, scrapers, graders, and compacting equipment. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by several minutes at lower power settings. Project construction activities would be a source of noise and vibration that could affect off-site noise-sensitive receptors. Noise levels of typical construction equipment are listed in **Table 3.12-3**.

TABLE 3.12-3
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Typical Noise Level (dBA) at 50 Feet from Source	
	L_{max}	$L_{eq(hour)}$
Air Compressor	80	76
Backhoe/Front-End Loader	80	76
Compactor (Ground)	80	73
Concrete Mixer Truck	85	81
Concrete Mixer (Vibratory)	80	73
Concrete Pump Truck	82	75
Concrete Saw	90	83
Crane	85	77
Dozer/Grader/Excavator/Scraper	85	81
Generator	82	79
Jackhammer	85	78
Impact Hammer/Hoe Ram (Mounted)	90	83
Pavement Scarifier/Roller	85	78
Paver	85	82
Pneumatic Tools	85	82

Source: FTA 2006

The San Leandro General Plan Update Draft EIR (San Leandro 2016b) contains mitigation measure NOI-4 , which requires the City to adopt the following construction noise measures as a standard condition of approval for projects in the city that include construction activities:

- Construction activities shall be restricted to the daytime hours of between 7:00 a.m. and 7:00 p.m. on weekdays, or between 8:00 a.m. and 7:00 p.m. on Sunday and Saturday. No construction is permitted on federal holidays.

- Prior to the start of construction activities, the construction contractor shall:

  - Maintain and tune all proposed equipment in accordance with the manufacturer's recommendations to minimize noise emission.
  - Inspect all proposed equipment and fit all equipment with properly operating mufflers, air intake silencers, and engine shrouds that are no less effective than as originally equipped by the manufacturer.
  - Post a sign, clearly visible at the site, with a contact name and telephone number of the City of San Leandro's authorized representative to respond in the event of a noise complaint.
  - Place stationary construction equipment and material delivery in loading and unloading areas as far as practicable from the residences.
  - Limit unnecessary engine idling to the extent feasible.
  - Use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters.
  - Use low-noise emission equipment.
  - Limit use of public address systems.
  - Minimize grade surface irregularities on construction sites.

With application of standard conditions of approval in accordance with General Plan Draft EIR mitigation measure NOI-4, impacts related to a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be less than significant.

e, f) ***No Impact.*** The project site is not located in an airport land use plan or within 2 miles of a public or public use airport or private airstrip. The closest airport to the project site, Oakland International Airport, is approximately 2.9 miles away. Therefore, the project would not expose people residing or working in the project area to excessive noise from airports or airstrips, and there would be no impact.

Mitigation Measures

MM NOI-1 To prevent damage to off-site structures, during construction activities, the project applicant and/or its contractor shall ensure compliance with, and the City shall note on grading and building permits: Vibratory rollers shall not be used in dynamic mode (i.e., rolling motion only with no vibration) within 25 feet of any existing off-site structure. Other vibratory compaction methods such as plate compactors would be acceptable.

Timing/Implementation: *During grading and excavation*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

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

ENVIRONMENTAL SETTING

According to the California Department of Finance 2017 estimates, San Leandro has an estimated 32,508 housing units, 30,717 households (occupied housing units), an average household size of 2.85, and a population of 88,274.

The project would include 45 residential units. Using the average household size of 2.85, the assumed residential population of the project would be 128 residents.

CHECKLIST DISCUSSION

a) ***Less Than Significant Impact.*** The project's proposed density of 35 units per acre exceeds the currently permitted density of 24 units per acre but is within the density permitted in other areas of the Downtown Mixed Use General Plan land use designation.

The project is estimated to house 128 residents, and the current estimated population of San Leandro is 88,274. Therefore, the project would increase the city's population by less than 1 percent. In addition, the San Leandro General Plan estimates that the city will have an estimated population of 101,250 in 2035 (San Leandro 2016a). The proposed project would represent less than 1 percent of this estimated future population. Therefore, the proposed project would not result in a significant increase in local or regional population. The project would also not be considered growth inducing since the increase in population would be within population projections for San Leandro and as anticipated in the General Plan. The project would be located adjacent to existing development and would not require new services, roads, or utilities. Therefore, impacts to population growth in the area would be less than significant.

b, c) ***Less Than Significant Impact.*** The project site currently contains two medical office buildings totaling approximately 22,000 square feet. The project proposes to demolish these buildings and replace them with a 45-unit residential development. Therefore, the project would result in a net increase in housing units in the city and would not displace any residents. The project would have a less than significant impact on the city's housing.

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

ENVIRONMENTAL SETTING

FIRE PROTECTION

The Alameda County Fire Department (ACFD), through a contract for services, provides fire protection service to the City of San Leandro, which includes fire suppression, hazardous materials mitigation, paramedic response, urban search and rescue (including in the waters of the San Francisco Bay), fire prevention, and public education services. The ACFD maintains 29 fire stations, including five facilities San Leandro. The closest fire station to the project site is ACFD Station 9 at 450 Estudillo Avenue. This station houses both an engine and a truck company, and services a predominantly residential area of approximately 3.25 square miles, which also contains portions of Interstate 580 (San Leandro 2016b).

POLICE PROTECTION

The San Leandro Police Department (SLPD) provides police services within the San Leandro city limits and the sphere of influence. The SLPD is located at 901 East 14th Street. The San Leandro City Council approved a capital expenditure to renovate the existing police building and City offices within the Civic Center (where City Hall and the police station are located) to expand police operations services. These renovations are primarily interior and do not involve construction of a new building. Construction is expected to begin in fall 2018.

SCHOOLS

The San Leandro Unified School District (SLUSD) operates eight elementary schools, two middle schools, and three high schools, as well as other facilities that include administrative offices, a community education center, and an athletic field complex. The Bancroft Middle School campus is adjacent to the project site, across Estudillo Avenue at 1150 Bancroft Avenue. Other nearby schools include Roosevelt Elementary school (approximately 2,000 feet north of the project site), McKinley Elementary School (approximately 2,350 feet south of the project site), and Washington Elementary School (approximately 3,000 feet northwest of the project site). The closest high school to the site, San Leandro High School, is approximately 3,100 feet to the south.

For the 2014/2015 school year, all SLUSD schools were under capacity, with the exception of Lincoln High School. Enrollment projections for SLUSD schools indicate a steady decline in

enrollment over the next six years. However, while enrollment in the middle and high school grades is expected to decrease, enrollment at SLUSD elementary schools is expected to increase steadily (San Leandro 2016b). The SLUSD's current student generation rate is 0.35 students per housing unit.

PARKS

The San Leandro Recreation and Human Services Department (SLRHS) operates parks and recreational facilities in San Leandro. In its current General Plan, the City has adopted a goal of maintaining a ratio of 5 acres of developed parkland per 1,000 residents. As of 2015, there are 382.9 acres of parkland in San Leandro, including one regional park, four community parks, ten neighborhood parks, six miniparks, and several special recreation areas. In addition to the facilities managed by the SLRHS, residents have access to parks and playgrounds at local schools through a joint use agreement between the school district and the City. The existing parkland ratio is 4.4 acres per 1,000 residents (San Leandro 2016b).

OTHER PUBLIC FACILITIES

The San Leandro Public Library currently operates five facilities in the city: San Leandro Main Library, Manor Branch, South Branch, Mulford-Marina Branch, and Casa Peralta/San Leandro History Museum and Art Gallery. The Main Branch, at 300 Estudillo Avenue, is approximately 1,760 feet west of the project site.

CHECKLIST DISCUSSION

a) ***Less Than Significant Impact.*** Development of the proposed project would result in the addition of approximately 128 residents to the project site (assuming 2.85 residents per unit). The existing medical office buildings on the project site are currently served by the ACFD for fire and emergency services. Overall, the proposed residential development would not significantly increase calls for fire protection service compared to the existing medical office uses on the site. Therefore, the need for new or expanded facilities is not expected. San Leandro adopted the 2016 California Fire Code as the City's Fire Code in 2017 (Municipal Code Section 7-5-800). To avoid or reduce potential impacts, the project would comply with all State-mandated minimum code standards as well as any local ordinances, consistent with ACFD recommendations. As part of the site plan approval process, the project has been reviewed by the City of San Leandro Engineering and Transportation Department and by the ACFD's Fire Prevention Bureau. Based on this review, it was determined that there would be adequate fire access to the site. As a result, this impact would be less than significant.

b) ***Less Than Significant Impact.*** As noted above, the project would result in the addition of approximately 128 residents to the project site. The existing medical office buildings on the project site are currently served by the SLPD for police protection services. The SLPD is in close proximity to the project site (approximately 3,000 feet to the west). Development of a new residential building in a dense urban area that is already covered by police services would not result in the need for new or expanded police facilities. As a result, the impact of the proposed project related to the provision of law enforcement services would be less than significant.

c) ***Less Than Significant Impact.*** Development of the proposed project would increase the number of students attending schools operated by the SLUSD. The proposed project would generate approximately 16 students, using the SLUSD's generation rate of 0.35 students per housing unit. The applicant for the proposed project would be required to pay school development fees, as dictated by state law, prior to the issuance of building permits. Currently, these fees are $3.79 per square foot of residential habitable space (SLUSD 2018).

According to Government Code Section 65996, 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 is considered less than significant.

d) ***Less Than Significant Impact.*** Development of the project site with residential uses under the proposed project would result in about 128 additional people living in San Leandro, thereby increasing demand for park services. SLRHS parks in the vicinity of the project site include Memorial Park (approximately 440 feet to the north), Root Park (approximately 2,800 feet to the west), and Chabot Park (approximately 4,800 feet to the east).

As described in Section 2.0, Project Description, the project would include 12,297 square feet of open space, including 6,067 square feet of private open space and 6,230 square feet of common open space. Common open space would include a rooftop patio, a ground-floor community room, and a tot lot and sports lawn area outside adjacent to the parking lot.

To address the additional park needs of the proposed project, avoid overuse of existing parks, and avoid a deficiency of parkland acreage in the city, the project applicant would be obligated to comply with City requirements for park land dedication and/or payment of a park land acquisition fee, and payment of a park improvement fee. The applicant would pay a park land acquisition fee of $14,126 per multi-family residential unit (the rate for Fiscal Year 2018/2019), for a total of $635,670, due at the time of building permit issuance. The applicant would also pay a park improvement fee of $2,279 per multi-family residential unit (the rate for Fiscal Year 2018/2019), for a total of $102,555, due at the time of building permit issuance. The City considers payment of park fees as adequate mitigation of development impacts to nearby recreation facilities. Therefore, this impact is considered less than significant.

e) ***Less Than Significant Impact.*** Development of the project site with residential uses under the proposed project would result in about 128 additional people living in San Leandro, thereby increasing demand for library services. The City's General Plan EIR noted that buildout of the General Plan would result in 14,790 new residents in the city by 2040 and that the San Leandro Public Library indicated that it would need to increase the hours of library operation in order to accommodate future demand (San Leandro 2016b). The number of residents introduced by the project would be less than 1 percent of growth anticipated in the General Plan EIR and would not be considered significant. In addition, the EIR noted that there are current plans to construct a new modern facility at the existing Mulford-Marina Branch location. In December 2017, the City issued a Request for Proposals for design of the replacement library, including demolition of the existing library building and construction of new improvements consisting of a new 2,500-square-foot library building, program room, parking lot, landscaping, and an outdoor patio or plaza. Construction of this project has not yet begun, and the completion date is unknown.

The library offers a wide range of materials available through its online databases. An increase in service population would not necessarily result in the need for a larger book or magazine collection, which typically requires additional library space. The San Leandro Public Library is primarily funded by county property taxes, which new development in San Leandro, including the project, would have to pay. Therefore, the impact related to the provision of library services under the proposed project would be less than significant.

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

ENVIRONMENTAL SETTING

As noted for checklist item d) in subsection 14, Public Services, San Leandro residents are served by SLRHS parks and recreational facilities. As of 2015, there are 382.9 acres of parkland in San Leandro, including one regional park, four community parks, ten neighborhood parks, six miniparks, and several special recreation areas. In addition to the facilities managed by the SLRHS, residents have access to parks and playgrounds at local schools through a joint use agreement between the school district and the City.

CHECKLIST DISCUSSION

a) ***Less Than Significant Impact.*** To address the additional park needs of the proposed project, avoid overuse of existing parks, and avoid a deficiency of parkland acreage in the city, the project applicant would be obligated to comply with City requirements for park land dedication and/or payment of a park land acquisition fee, and payment of a park improvement fee. The applicant would pay a park land acquisition fee of $14,126 per multi-family residential unit (the rate for Fiscal Year 2018/2019), for a total of $635,670, due at the time of building permit issuance. The applicant would also pay a park improvement fee of $2,279 per multi-family residential unit (the rate for Fiscal Year 2018/2019), for a total of $102,555, due at the time of building permit issuance. The City considers payment of park fees as adequate mitigation of development impacts to nearby recreation facilities. Therefore, this impact is considered less than significant.

b) ***Less Than Significant Impact.*** The proposed project would not include construction of any new public recreational facilities. While the project would include 12,297 square feet of open space for residents, maintenance of this open space would be the ongoing responsibility of the project. Since the private open space is a component of the project, the environmental consequences of its construction and operation are comprehensively assessed throughout this document. Where appropriate, measures to mitigate the project's effects have been included, which would mitigate any impact associated with construction of the project's open space. Therefore, this impact is considered less than significant.

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

ENVIRONMENTAL SETTING

The project site is centrally located with access to transit services and city streets. In the vicinity of the project site, Bancroft Avenue has an average daily traffic volume of between 9,200 and 13,100, and Estudillo Avenue has an average daily traffic volume of between 11,500 and 15,100 (San Leandro 2016a). The site is within 0.5 miles of the intersection of Estudillo Avenue and East 14th Street, where there are two major bus routes—AC Transit Routes 1 and 10—with frequencies of less than 15 minutes during commute hours, and qualifies as a major transit stop. In addition, AC Transit Route 40 runs adjacent to the project site along Bancroft Avenue and provides peak service every 15 minutes, and AC Transit Routes 34/35 run adjacent to the project site on Estudillo Avenue and provide peak service every 30 minutes. The site is also approximately 0.75 miles from the San Leandro BART station. Estudillo and Bancroft avenues both have Class II bike lanes, which provide a striped lane for one-way bicycle travel in both directions.

REGULATORY SETTING

San Leandro General Plan

The San Leandro General Plan Transportation Element addresses the movement of people and goods in the city, including by a variety of transportation modes. The plan's goals include the following:

Goal T-1	Coordinate land use and transportation planning.
Goal T-2	Design and operate streets to be safe, attractive, and accessible for all transportation users whether they are pedestrians, bicyclist, transit riders or motorists, regardless of age or ability.
Goal T-3	Promote and accommodate alternative, environmentally-friendly methods of transportation, such as walking and bicycling.
Goal T-4	Ensure that public transportation is safe, convenient, and affordable and provides a viable alternative to driving.
Goal T-5	Improve major transportation arteries for circulation in and around the city.
Goal T-6	Minimize the adverse effects of business, industrial, and through traffic on neighborhood streets.
Goal T-7	Improve traffic safety and reduce the potential for collisions on San Leandro streets.
Goal T-8	Coordinate local transportation planning with other agencies and jurisdictions.

CHECKLIST DISCUSSION

a, b, f) ***Less Than Significant Impact.*** The project site is currently developed with two buildings totaling approximately 24,400 square feet of medical office space. These uses are estimated to generate 84 trips during the peak PM period. The project would result in a 45-unit apartment building, which would generate approximately 25 trips during the peak PM period.[2] Thus, the project would result in a reduction in trips compared to existing conditions. Because the project would result in fewer peak-hour trips than under existing conditions, impacts on the level of service of the local and metropolitan road network would be less than significant.

In addition, the project has been evaluated for consistency with the GreenTRIP program and awarded conditional GreenTRIP certification (Rizzo 2018). GreenTRIP is a certification program for new residential development that was established by TransForm, a nonprofit transportation advocacy organization. GreenTRIP certifies projects that allow new

[2] The trip generation rates used in this calculation are 3.46 trips per 1,000 square feet of medical office use (ITE code 720) and 0.56 trips per dwelling unit of low-rise multi-family housing (ITE code 220) (ITE 2017).

residents to drive less, while increasing multimodal mobility. As described in **Section 2.0, Project Description**, the project meets the GreenTRIP certification criteria.

Furthermore, the project would provide a secured area for 48 unbundled, assigned bicycle lockers. In addition, there would be 10 public bicycle racks on Bancroft Avenue next to the main building entrance and 6 bicycle racks inside the parking lot gate. The project would not conflict with any plan, ordinance, or policy related to public transit, bicycles, and pedestrians. Therefore, this impact would be less than significant.

c) ***No Impact.*** The closest airport to the project site, Oakland International Airport, is approximately 2.9 miles away. The project site is not located within an airport influence area and would not affect the physical operations of an airport. The project does not have an aviation component and is not sufficiently large to noticeably affect the demand for air traffic. Therefore, there would be no impact.

d) ***Less Than Significant Impact.*** As part of the site plan approval process, the project has been reviewed by the City of San Leandro Engineering and Transportation Department. As a project-specific condition of approval, the project applicant would be required to place "Stop" signs and pavement markings for vehicles exiting the site from Estudillo Avenue and Joaquin Avenue driveways, place a 25-foot-long centerline along the Joaquin Avenue driveway, and place an "Exit Only" pavement legend at the Estudillo Avenue driveway exit. With these measures, the Engineering and Transportation Department considers the project to be in conformance with applicable regulations to ensure safe roadway design. The project would not increase hazards due to a design feature or incompatible uses; therefore, impacts would be less than significant.

e) ***Less Than Significant Impact.*** As part of the site plan approval process, the project has been reviewed by the City of San Leandro Engineering and Transportation Department and by the Alameda County Fire Department's Fire Prevention Bureau. Based on this review, it was determined that there would be adequate fire access to the site. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
17. TRIBAL CULTURAL RESOURCES. Consultation with a California Native American tribe that has requested such consultation may assist a lead agency in determining whether the project may adversely affect tribal cultural resources, and if so, how such effects may be avoided or mitigated. Whether or not consultation has been requested, would the project cause a substantial adverse change in a site, feature, place, cultural landscape, sacred place, or object, with cultural value to a California Native American tribe, which is any of the following:				
a) Included or determined to be eligible for inclusion in the California Register of Historical Resources?	☐	☒	☐	☐
b) Included in a local register of historical resources?	☐	☒	☐	☐
c) Determined by the lead agency, in its discretion and supported by substantial evidence, to be a tribal cultural resource, after applying the criteria in Public Resources Code Section 5024.1(c), and considering the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Assembly Bill 52 Native American Consultation

AB 52 requires the a lead agency (in this case, the City of San Leandro) to begin consultation with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation (Public Resources Code Section 21080.3.1[d]).

The City conducted Native American consultation pursuant to AB 52. The City sent a project notification and invitation to begin AB 52 consultation on August 27, 2018. On September 18, 2018, the Native American Heritage Commission informed the City that seven tribes were to be notified. On September 27, 2018, the City notified the seven tribes of the project and invited them to comment or consult with the City on the project. No comments or requests for consultation were received.

CHECKLIST DISCUSSION

a–c) ***Less Than Significant Impact with Mitigation Incorporated.*** Because no tribal cultural resources were identified in the project area, the City will require standard, late-discovery mitigation measures. In the event that objects that may be considered tribal cultural resources are observed during project construction, mitigation measure **MM TCR-1** will reduce impacts to less than significant.

Mitigation Measures

MM TCR-1 If potential cultural resources are discovered during project construction activities, all work within 25 feet of the discovery shall be halted. The City shall inform the tribes that were invited to consult on the project to determine if the resources are tribal cultural resources. The City shall consult with the appropriate tribal representatives to assess the resource, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Impacts to tribal cultural resources should be avoided by project activities, but if such impacts cannot be avoided, the resources shall be evaluated for their eligibility for the California Register of Historical Resources. If the tribal cultural resource is not California Register–eligible, no further protection of the find is necessary. If the tribal cultural resource is California Register–eligible, it shall be protected from project-related impacts or such impacts mitigated. Mitigation may consist of, but is not necessarily limited to, systematic recovery and analysis, recording the resource, preparing a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility.

Timing/Implementation: *During grading and construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

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

ENVIRONMENTAL SETTING

The project site is in an urbanized area that is served by existing water, sanitary sewer, storm drainage, and solid waste services.

WATER

Water service in San Leandro is provided by the East Bay Municipal Utility District (EBMUD), a publicly owned utility. Based on 2010 census data, approximately 1.34 million people are served by EBMUD's water system in a 332-square-mile area extending from Crockett on the north, southward to San Lorenzo (encompassing the major cities of Oakland and Berkeley), eastward from San Francisco Bay to Walnut Creek, and south through the San Ramon Valley.

Based on historical averages, about 90 percent of the EBMUD water supply originates from the Mokelumne River watershed, which is fed primarily from the melting snowpack of the Sierra

Nevada, with the remaining 10 percent coming from protected watershed lands and reservoirs in the East Bay Hills (San Leandro 2016b).

WASTEWATER

Wastewater collection and treatment for the project site is provided by the San Leandro Public Works Department, Wastewater Treatment Division. The City operates and maintains the San Leandro Water Pollution Control Plant (WPCP), which serves about 55,000 residents, as well as businesses, in the northern two-thirds of San Leandro. The WPCP is permitted by the San Francisco Bay RWQCB to provide secondary treatment of up to 7.6 million gallons per day (mgd) average daily dry water flow. In 2010, the actual average dry water flow to the plant was 4.9 mgd, leaving 2.7 mgd of unused permitted dry weather flow capacity in 2010 (San Leandro 2016b).

STORMWATER

The San Leandro Public Works Department owns and maintains 175 miles of storm drain conduits throughout the city. The City's storm drain system feeds into a larger system owned and operated by the Alameda County Flood Control and Water Conservation District (ACFCD). The ACFCD's drainage facilities include levees, pump stations, erosion control devices, and culverts. Stormwater on the project site is currently discharged into the City's municipal storm drain system in the adjacent streets and conveyed to the ACFCD stormwater collection system.

SOLID WASTE

Alameda County Industries (ACI) has a franchise agreement with the City to provide solid waste and recycling disposal services. In 2014, the California Department of Resources Recycling and Recovery (CalRecycle) reported that 93 percent of the city's solid waste disposal waste went to a total of four landfills: Altamont Landfill, Forward Sanitary Landfill, Potrero Hills Landfill, and Vasco Road Sanitary Landfill (San Leandro 2016b).

CHECKLIST DISCUSSION

a, e) ***Less Than Significant Impact.*** Wastewater generated by the proposed project would be conveyed through the City's sanitary sewer system to the Water Pollution Control Plant. The San Francisco Bay RWQCB regulates water quality and quantity of effluent discharged from the City's Water Pollution Control Plant. The treatment plant is permitted to provide secondary treatment of up to 7.6 mgd, and the actual average dry water flow to the plant in 2010 was 4.9 mgd. Thus, the WPCP had 2.7 mgd of unused permitted dry weather flow capacity in 2010 (San Leandro 2016b). The volume of wastewater generated by the proposed project is estimated to be approximately 6,459 gallons per day (gpd),[3] which would be accommodated by the excess treatment capacity at the WPCP. Since the plant has excess capacity and the wastewater generated by the proposed project would represent a minimal addition, the project's impact would be less than significant.

b, d) ***Less Than Significant Impact.*** As discussed above in the response to checklist item a), the proposed project would be served by the City's WPCP, which had 2.7 mgd of unused permitted dry weather flow capacity in 2010 (San Leandro 2016b). The proposed project is estimated to generate about 6,459 gpd of wastewater. As described above for checklist

[3] Consistent with the methodology of the General Plan EIR (San Leandro 2016b), the volume of wastewater is estimated to be 80 percent of the project's water demand, which is calculated in checklist item b, d).

item a), there is enough excess capacity at the plant to serve the proposed project, and no expansion of the facility would be required.

EBMUD provides water service in San Leandro. As described in the City's General Plan EIR, the projected net increase in water demand at buildout of the General Plan (approximately 2 mgd) is less than 1 percent of the total projected demand in EBMUD's service territory (approximately 229 mgd) (San Leandro 2016b). The project density would exceed what is allowed by the current zoning but would be within the density permitted for the Downtown Mixed Use General Plan land use designation. Assuming a water demand rate of 179.4 gpd per dwelling unit, the project's water demand would be 8,073 gpd, compared to the 2,269 gpd existing water usage of the medical office uses (assuming 0.093 gpd per square foot).[4] The project's incremental demand for water would be less than 1 percent of the projected net increase in water demand at buildout of the General Plan, which in turn is less than 1 percent of the total projected demand in EBMUD's service territory. Therefore, this impact would be less than significant.

c) ***Less Than Significant Impact.*** All site runoff would be directed from on-site drainage pipes to the City's existing municipal storm drainage system and ultimately to the countywide drainage system. All project-related drainage improvements would be constructed as part of the project per the City's standard conditions for new development. In addition, the proposed project is subject to NPDES requirements per the Municipal Regional Permit and the Alameda County Clean Water Program. The project would include bioretention areas and stormwater best management practices for pollution prevention, treatment, and detention on the project site. With these standard development requirements and measures in place, the impact would be less than significant.

f) ***Less Than Significant Impact.*** Solid waste services for the existing medical office buildings on the site are currently provided by ACI, which would continue to provide such services once the project is developed. The disposal rate per resident in San Leandro in 2014 was 4.6 pounds of solid waste per person per day, which was below the CalRecycle target of 8.7 pounds per day per resident (San Leandro 2016b). Based on this rate, the project would generate approximately 589 pounds of solid waste per person per day. The solid waste generated by the project would be less than 1 percent of the 179,630 pounds per day expected to be generated at buildout of the City's General Plan in 2035. The City's General Plan EIR noted that the total waste generated at buildout of the General Plan is less than 5 percent of the smallest daily capacity of the four main landfills accepting solid waste generated in San Leandro. Therefore, the addition of the project's solid waste would represent a negligible increase that would not overburden the landfills serving the city. This impact would be less than significant.

g) ***Less Than Significant Impact.*** The proposed project would be required to comply with all standards related to solid waste diversion, reduction, and recycling during construction and operation. The project has undergone solid waste and recycling site plan review by the San Leandro Public Works Department to ensure consistency with applicable requirements. Therefore, the proposed project is anticipated to result in less than significant impacts related to potential conflicts with federal, state, and local statutes and regulations related to solid waste.

[4] Rates are based on factors provided by EBMUD (San Leandro 2017).

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

DISCUSSION

The following are Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

a) ***Less Than Significant Impact with Mitigation Incorporated.*** The project is located in San Leandro in an infill and transit-oriented area. Based on the findings in this Initial Study, the proposed project would not substantially degrade the quality of the environment. See subsection 4, Biological Resources, and subsection 5, Cultural Resources, for further discussion of the proposed project's potential impacts on these environmental resources. As described in the Biological Resources subsection, the proposed project could affect nesting birds as a result of construction-related activities. However, implementation of mitigation measure **MM BIO-1** would reduce potential impacts to a less than significant level. Unidentified cultural resources may be impacted during construction activities. However, implementation of mitigation measures **MM CUL-1**, **MM CUL-2**, and **MM CUL-3** would reduce potential impacts to a less than significant level.

b) ***Less Than Significant Impact with Mitigation Incorporated.*** The impacts of the proposed project are individually limited and not considered cumulatively considerable. The project site is completely developed with medical offices and parking, and the project would replace these existing uses with a 45-unit residential building, parking, and landscaping. Compared to existing conditions, traffic would be reduced. The project is located in a transit priority area, would provide bike parking, and would include other sustainability features, including solar panels.

Although incremental changes in certain areas can be expected as a result of the proposed project, all environmental impacts that could occur would be less than significant or would be reduced to less than significant through mitigation measures for air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, and tribal cultural resources. For the topics of aesthetics, agriculture and forestry resources, greenhouse gas emissions, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation and traffic, and utilities and service systems, the project would have no impacts or less than significant impacts. Therefore, the proposed project would not significantly contribute to potential cumulative impacts for these environmental topics. Overall, this impact would be less than significant with mitigation incorporated.

c) ***Less Than Significant Impact with Mitigation Incorporated.*** The proposed project would be required to comply with numerous required measures related to human safety and the quality of the environment, as described throughout this document. Implementation of the proposed project would not result in environmental effects that would cause substantial direct or indirect adverse effects on human beings with incorporation of the mitigation measures listed above and identified in this Initial Study.

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4.0 Mitigation Measures

AIR QUALITY (SUBSECTION 3.3)

MM AQ-1 During construction activities, the project applicant and/or its contractor shall ensure that the BAAQMD's Basic Construction Mitigation Measures are implemented. The City shall ensure grading plan notes include these requirements prior to issuance of a grading permit and shall monitor compliance during construction through site inspection(s).

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

  Timing/Implementation: Prior to issuance of building permits and during grading and construction

  Enforcement/Monitoring: City of San Leandro Community Development Department

MM AQ-2 During construction activities, the project applicant and/or its contractor shall ensure that all diesel-powered off-road construction equipment with more than 50 horsepower is EPA Tier 4 certified or retrofitted with a CARB-verified level 3 diesel particulate filter. Prior to issuance of a grading permit, the City shall ensure that grading plan notes include this requirement. The City shall monitor

compliance by requiring the applicant's contractor to provide written verification during construction.

Timing/Implementation: Prior to issuance of building permits and during grading and construction

Enforcement/Monitoring: City of San Leandro Community Development Department

BIOLOGICAL RESOURCES (SUBSECTION 3.4)

MM BIO-1 Construction of the project and any other site-disturbing activities that would involve vegetation or tree removal shall be prohibited during the general avian nesting season (February 1 to August 31), if feasible. If nesting season avoidance is not feasible, the project applicant shall retain a qualified biologist, as approved by the City of San Leandro, to conduct a preconstruction nesting bird survey to determine the presence/absence, location, and activity status of any active nests on or adjacent to the project site. The extent of the survey buffer area surrounding the site shall be established by the qualified biologist to ensure direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and California Fish and Game Code, nesting bird surveys shall be performed not more than 14 days prior to scheduled vegetation clearance and structure demolition. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines and a minimum buffer of 250 feet for raptors) shall be established around such active nests and no construction shall be allowed in the buffer areas until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest). No ground-disturbing activities shall occur in this buffer until the qualified biologist has confirmed that breeding/nesting is complete and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring between September 1 and January 31.

Timing/Implementation: *Prior to construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

CULTURAL RESOURCES (SUBSECTION 3.5)

MM CUL-1 **Archaeologist on-call during construction ground-disturbing activities.** An archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology shall be contracted by the developer on an on-call basis to investigate if potential cultural resources are discovered during ground-disturbing activities.

Timing/Implementation: *During grading and construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

MM CUL-2 **Treatment of previously unidentified archaeological deposits and paleontological resources.** If paleontological resources or prehistoric or historical archaeological deposits are discovered during construction, all work within 25 feet of the discovery shall be redirected and an archaeologist shall assess the situation, consult with a paleontologist and agencies as appropriate, and make recommendations regarding the treatment of the discovery. Impacts to archaeological deposits should be avoided by the project, but if such impacts cannot be avoided, the deposits should be evaluated for their eligibility for the California Register. If the deposit is not California Register–eligible, no further protection of the finds is necessary. If the deposits are California Register–eligible, they should be protected from project-related impacts, or such impacts should be mitigated. Mitigation may consist of but is not necessarily limited to systematic recovery and analysis of archaeological deposits, recording the resource, preparation of a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility.

Timing/Implementation: *During grading and construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

MM CUL-3 **Treatment of previously unidentified human remains.** Any human remains encountered during project ground-disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of Alameda County has determined the manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel/construction workers shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will immediately identify a Native American most likely descendant to inspect the site and provide recommendations within 48 hours for the proper treatment of the remains and associated grave goods.

Timing/Implementation: *During grading and construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

GEOLOGY AND SOILS (SUBSECTION 3.6)

MM GEO-1 The project applicant shall implement all measures and recommendations set forth in the geotechnical study prepared by Cornerstone Earth Group in May 2016. These include but are not limited to:

- Approximately 2 feet of undocumented clayey to well-graded sand fill was encountered below the surface. This loose fill shall be overexcavated and re-compacted within the proposed building footprint. Any undocumented fills encountered during the demolition of the northern building basement level should also be re-compacted prior to the placement of new fill.

- A portion of the proposed building would straddle deeper fill that would be required in order to fill the existing basement. Deeper fill transitions shall be overexcavated at an inclination of 3:1 or flatter and rebuilt with engineered fill to reduce the potential for differential movement beneath at-grade structures.

- The corrosion potential for buried metallic structures, such as metal pipes, is considered moderate. Metal pipes installed as part of the project shall have special protection incorporated.

Timing/Implementation: *During grading and construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department; and Engineering and Transportation Department*

HAZARDS AND HAZARDOUS MATERIALS (SUBSECTION 3.8)

MM HAZ-1 Prior to demolition of existing structures on the project site, asbestos-containing materials and lead-based paint surveys shall be conducted to determine the presence of hazardous building materials and results of those surveys shall be provided prior to the issuance of demolition or building permits. Should asbestos-containing materials, lead-based paint, or other hazardous substance–containing building materials be identified, these materials shall be removed using proper techniques in compliance with all applicable state and federal regulations, including the BAAQMD rule related to asbestos.

Timing/Implementation: *Prior to issuance of building permits*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

NOISE (SUBSECTION 3.12)

MM NOI-1 To prevent damage to off-site structures, during construction activities, the project applicant and/or its contractor shall ensure compliance with, and the City shall note on grading and building permits: Vibratory rollers shall not be used in dynamic mode (i.e., rolling motion only with no vibration) within 25 feet of any existing off-site structure. Other vibratory compaction methods such as plate compactors would be acceptable.

Timing/Implementation: *During grading and excavation*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

TRIBAL CULTURAL RESOURCES (SUBSECTION 3.17)

MM TCR-1 If potential cultural resources are discovered during project construction activities, all work within 25 feet of the discovery shall be halted. The City shall inform the tribes that were invited to consult on the project to determine if the resources are tribal cultural resources. The City shall consult with the appropriate tribal representatives to assess the resource, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Impacts to tribal cultural resources should be avoided by project activities, but if such impacts cannot be avoided, the resources shall be evaluated for their eligibility for the California Register of Historical Resources. If the tribal cultural resource is not California Register–eligible, no further protection of the find is necessary. If the tribal cultural resource is California Register–eligible, it shall be protected from project-related impacts or such impacts mitigated. Mitigation may consist of, but is not necessarily limited to, systematic recovery and analysis, recording the resource, preparing a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility.

Timing/Implementation: *During grading and construction*

Enforcement/Monitoring: *City of San Leandro Community Development Department*

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5.0 List of Preparers

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6.0 List of Abbreviations

The following abbreviations have been or may have been used in the preparation of this IS/MND.

Abbreviation	Definition	Abbreviation	Definition
AB	Assembly Bill	**L_{dn}**	day-night average noise level
ACFCD	Alameda County Flood Control and Water Conservation District	**L_{max}**	maximum noise level
ACFD	Alameda County Fire Department	**MBTA**	Migratory Bird Treaty Act
ACI	Alameda County Industries	**mgd**	million gallons per day
ACM	asbestos-containing material	**MT**	metric ton
AC Transit	Alameda-Contra Costa Transit District	**NAHC**	Native American Heritage Commission
ADMRT	Air Dispersion Modeling and Risk Tool	**NO_2**	nitrogen dioxide
AMI	Area Median Income	**NOx**	nitrogen oxides
APN	Assessor's Parcel Number	**NPDES**	National Pollutant Discharge Elimination System
BAAQMD	Bay Area Air Quality Management District	**N_2O**	nitrous oxide
BART	Bay Area Rapid Transit	**NWIC**	Northwest Information Center
BMP	best management practice	**OHP**	California Office of Historic Preservation
CalEEMod	California Emissions Estimator Model	**O_3**	ozone
CalRecycle	California Department of Resources Recycling and Recovery	**PCB**	polychlorinated biphenyl
Caltrans	California Department of Transportation	**PD**	Planned Development
CAP	Climate Action Plan	**PG&E**	Pacific Gas and Electric Company
CARB	California Air Resources Board	**PM**	particulate matter
CEQA	California Environmental Quality Act	**PM_{10}**	particulate matter of 10 micrometers in diameter or less (coarse)
CH_4	methane	**$PM_{2.5}$**	particulate matter of 2.5 micrometers in diameter or less (fine)
CNEL	Community Noise Equivalent Level	**ppm**	parts per million
CO	carbon monoxide	**REC**	Recognized Environmental Condition
CO_2	carbon dioxide	**ROG**	reactive organic gas
CO_2e	carbon dioxide equivalent	**RWQCB**	Regional Water Quality Control Board
CWA	Clean Water Act	**SB**	Senate Bill
dB	decibel	**SFBAAB**	San Francisco Bay Area Air Basin
dBA	A-weighted decibel	**SIP**	State Implementation Plan
DSOD	California Division of Safety of Dams	**SLPD**	San Leandro Police Department

Abbreviation	Definition	Abbreviation	Definition
EBMUD	East Bay Municipal Utility District	**SLRHS**	San Leandro Recreation and Human Services Department
EIR	environmental impact report	**SLUSD**	San Leandro Unified School District
EPA	US Environmental Protection Agency 30	**SO_2**	sulfur dioxide
ESA	Environmental Site Assessment	**SWPPP**	stormwater pollution prevention plan
FAR	floor area ratio	**TAC**	toxic air contaminant
FEMA	Federal Emergency Management Agency	**USGS**	US Geological Survey
GHG	greenhouse gas	**VdB**	vibration decibels
gpd	gallons per day	**VMT**	vehicle miles traveled
HVAC	heating, ventilating, and air-conditioning	**WPCP**	Water Pollution Control Plant
IS/MND	Initial Study/Mitigated Negative Declaration		

7.0 REFERENCES

REFERENCES CITED

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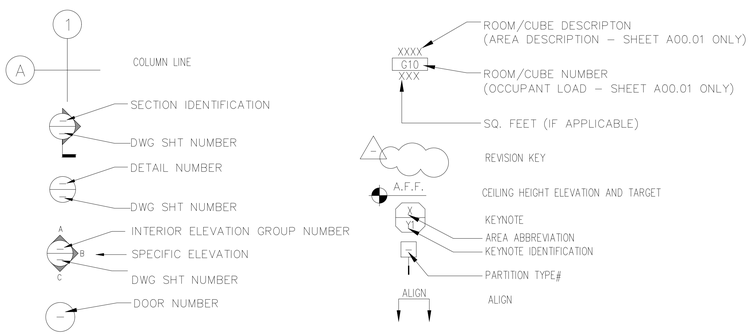
APPENDICES

Appendix A
Project Plans

ABBREVIATIONS
SCALE: N/A

&	AND
<	ANGLE
@	AT
C	CENTERLINE
ø	DIAMETER OR ROUND
#	POUND OR NUMBER
(E)	EXISTING
(N)	NEW
A.B.	ANCHOR BOLT
ACC.	ACCESSIBLE
ACOUS	ACOUSTICAL
A.D.	AREA DRAIN
ADJ.	ADJUSTABLE
A.F.F.	ABOVE FINISHED FLOOR
AGGR.	AGGREGATE
AL	ALUMINUM
ALUM	ALUMINUM
ANSI	AM. NATL. STANDARDS INST.
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASPH.	ASPHALT
ASTM.	AM. SOC. OF TEST. & MAT.
BD.	BOARD
BITUM.	BITUMINOUS
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
CAB.	CABINET
C.B.	CATCH BASIN
CEM.	CEMENT
CER.	CERAMIC
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
C.G.	CORNER GUARD
C.I.	CAST IRON
C.I.P.	CAST IN PLACE
C.J.	CONTROL JOINT
CLG.	CEILING
CLKG.	CAULKING
CLO.	CLOSET
CLR.	CLEAR
CNTR.	COUNTER
C.O.	CASED OPENING
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CORR.	CORRIDOR
C.S.B.	CONCRETE SPLASH BLOCK
CTR.	CENTER
CTSK.	COUNTERSUNK
CTRSK.	COUNTERSUNK
DBL.	DOUBLE
DEPT.	DEPARTMENT
DET.	DETAIL
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
DIM.	DIMENSION
DISP.	DISPENSER
DN.	DOWN
D.O.	DOOR OPENING
DR.	DOOR
DS.	DOWNSPOUT
D.S.P.	DRY STANDPIPE
DT	DATA/COMMUNICATIONS OUTLET
DWG.	DRAWING
DWR.	DRAWER
E.	EAST
EA.	EACH
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
ELECT.	ELECTRICAL
ELEV.	ELEVATOR
EMER.	EMERGENCY
ENCL.	ENCLOSURE
E.P.	ELECTRICAL PANELBOARD
EQ.	EQUAL
EQPT.	EQUIPMENT
E.S.	EMERGENCY SHOWER
E.W.	EYE WASH
E.W.C.	ELECTRIC WATER COOLER
EXPO.	EXPOSED
EXP.	EXPANSION
EXST.	EXISTING
EXT.	EXTERIOR
F.A.	FIRE ALARM
F.B.	FLAT BAR
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.H.C.	FIRE HOSE CABINET
FIN.	FINISH
FL.	FLOOR
FLASH.	FLASHING
FLUOR.	FLUORESCENT
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUDS
FPRF.	FIREPROOF
F.S.	FULL SIZE
FT.	FOOT OR FEET
FTG.	FOOTING
FURR.	FURRING
FUT.	FUTURE
GA.	GAUGE
GALV.	GALVANIZED
G.B.	GRAB BAR
G.C.	GENERAL CONTRACTOR
GL.	GLASS
GND.	GROUND
GR.	GRADE
GYP.	GYPSUM
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
HDWD.	HARDWOOD
HDWE.	HARDWARE
HGT.	HEIGHT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
HR.	HOUR
I.D.	INSIDE DIAMETER (DIM.)
INSUL.	INSULATION
INT.	INTERIOR
JAN.	JANITOR
JT.	JOINT
KIT.	KITCHEN
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LKR.	LOCKER
LT.	LIGHT
L.O.S.	LINE OF SIGHT
MATL.	MATERIAL
MAX.	MAXIMUM
M.C.	MEDICINE CHEST
M.D.	METAL DECK
MECH.	MECHANICAL
MEMB.	MEMBRANE
MET.	METAL
MFR.	MANUFACTURER
MH.	MANHOLE
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
MTD.	MOUNTED
MUL.	MULLION
N.	NORTH
N/A	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
NO. (#)	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.A.	OVERALL
OBS.	OBSCURE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER (DIM.)
O.D.C.	OUTSIDE DIM OF CURB
O.F.D.	OVERFLOW DRAIN
OFF.	OFFICE
OH	OPPOSITE HAND
O.H.S.M.S.	OVAL HEAD SHEET METAL SCREW
OPNG.	OPENING
OPP.	OPPOSITE
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PL.	PLATE
P.LAM.	PLASTIC LAMINATE
PLAS.	PLASTER
PLYWD.	PLYWOOD
PR.	PAIR
PC.	PRE-CAST
PT.	POINT
P.T.D.	PAPER TOWEL DISPENSER
P.T.D/R	COMB. PAPER TOWEL DISPENSER & RECEPTACLE
PTN.	PARTITION
P.T.R.	PAPER TOWEL RECEPTACLE
Q.T.R.	QUARRY TILE RISER
RAD.	RADIUS
R.C.P.	REFLECTED CEILING PLAN
R.D.	ROOF DRAIN
REF.	REFERENCE
REFR.	REFRIGERATOR
REINF.	REINFORCED
REQ.	REQUIRED
RESIL.	RESILIENT
RGTR.	REGISTER
RM.	ROOM
R.O.	ROUGH OPENING
RWD.	REDWOOD
R.W.L.	RAIN WATER LEADER
S.	SOUTH
S.C.	SOLID CORE
S.C.D.	SEAT COVER DISPENSER
SCU.	SCUPPER
SCHED.	SCHEDULE
S.D.	SOAP DISPENSER
SECT.	SECTION
SH.	SHOWER
SHT.	SHEET
SIM.	SIMILAR
SL.	SLOPE
S.N.D.	SAN. NAPKIN DISPENSER
S.N.R.	SANITARY NAPKIN DISPOSAL
SPEC.	SPECIFICATION
SPL.	RECESSED SPILL KIT
SQ.	SQUARE
S.SK.	SERVICE SINK
S.ST.	STAINLESS STEEL
STA.	STATION
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRUC.	STRUCTURAL
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
S.S.D.	SEE STRUCTURAL DRAWINGS
S.C.D.	SEE CIVIL DRAWINGS
S.E.D.	SEE ELECTRICAL DRAWINGS
S.P.D.	SEE PLUMBING DRAWINGS
S.L.D.	SEE LANDSCAPE DRAWINGS
S.M.D.	SEE MECHANICAL DRAWINGS
T.B.	TOWEL BAR
T.B.D.	TO BE DETERMINED
T.C.	TOP OF CURB
TEL.	TELEPHONE
TERR.	TERRAZZO
T. & G.	TONGUE AND GROOVE
TH.	THICK/THICKNESS
T.O.C.	TOP OF CONCRETE
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.P.	TOP OF PAVEMENT
T.O.W.	TOP OF WALL
T.P.D.	TOILET PAPER DISPENSER
TRD.	TREAD
T.V.	TELEVISION
T.W.	TOP OF WALL
TYP.	TYPICAL
UNF.	UNFINISHED
U.O.N.	UNLESS OTHERWISE NOTED
UR.	URINAL
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
W.	WEST
W/W.C.	WITH WATER CLOSET
WD.	WOOD
WDW.	WINDOW
W/O	WITHOUT
W.O.	WHERE OCCURS
WP.	WATERPROOF
WP.	WORK POINT
WSCT.	WAINSCOT
WT.	WEIGHT

SYMBOLS
SCALE: N.T.S.



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1000 BRANNAN ST. SUITE 404
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CONTACT: PETE PEDERSEN
EMAIL: ppedersen@pedersenassociates.com

PROJECT SCOPE

1. DEMOLISHING OF (E) 2 OFFICE BUILDINGS AND SURFACE PARKING.
2. NEW GROUND UP 3–STORY MULTI FAMILY
   45 UNITS – 43 (2)BEDROOMS & 2 (3)BEDROOMS
3. SEE PROJECT DATA SUMMARY FOR BUILDING AREA, PARKING COUNTS AND PROJECT OPEN SPACE

CODE REFERENCE

GOVERNING CODES *

- 2016 CALIFORNIA BUILDING CODE
- 2016 CALIFORNIA ELECTRIC CODE
- 2016 CALIFORNIA ENERGY CODE
- 2016 CALIFORNIA MECHANICAL CODE
- 2016 CALIFORNIA PLUMBING CODE

* ALL OTHER CURRENT MUNICIPAL AND LOCAL ORDINANCES AND REGULATIONS

PROJECT DATA SUMMARY

PROJECT NAME:	1388 BANCROFT
PROJECT ADDRESS:	1388 BANCROFT AVENUE
PARCEL NUMBER:	77-524-12-4
ZONING:	P– PROFESSIONAL DISTRICT WITH RM–1800 DISTRICT OVERLAY
TYPE OF CONSTRUCTION:	TYPE–VA
OCCUPANCY GROUP:	R1, A (ROOF DECK)
NUMBER OF STORIES:	3–STORIES
HEIGHT LIMIT:	MAXIMUM 50'–0"
LIFE SAFETY:	FULLY SPRINKLERED
PROJECT AREA:	SEE FOLLOWING CHART

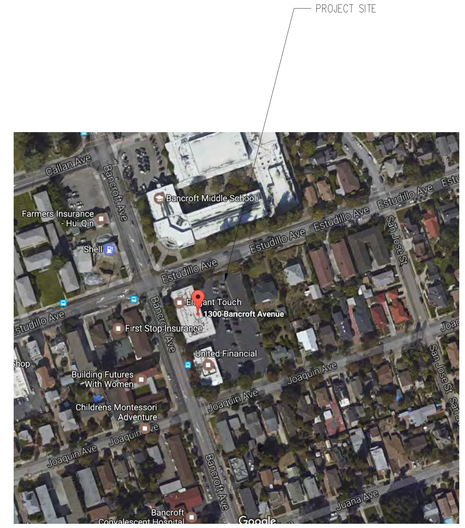
BUILDING AREA			
	TOTAL BUILDING AREA	UNIT AREA	UNIT COUNT
1ST FLOOR			
INTERIOR	19930	12740	13
2ND FLOOR			
INTERIOR	19930	16080	16
3RD FLOOR			
INTERIOR	19930	16080	16
TOTAL	59790	44900	45

PROJECT DATA	
LOT SIZE	55,282 SF (1.27 ACRE)
CAR PARKING SPACE COMPLIES WITH GREEN TRIP CERTIFICATION REQUIREMENTS	PARKING COUNT INSIDE GATE: 47 INCLUDING 2 ACCESSIBLE PARKING SPACES
	PARKING COUNT OUTSIDE GATE: 13 INCLUDING 1 ACCESSIBLE PARKING SPACES
	TOTAL: 60 PARKING SPACES
BIKE PARKING COMPLIES WITH GREEN TRIP CERTIFICATION REQUIREMENTS	INSIDE – 50 BIKE PARKING SPACES OUTSIDE – 18 BIKE PARKING SPACES
UNITS/ACRE	34.64 /ACRE

	OPEN SPACE	PRIVATE (1)		COMMON (2)	
		REQUIRED	PROVIDED	REQUIRED	PROVIDED
3RD FL	3200	960	1676	2240	—
2ND FL	3200	960	1676	2240	—
GR FL	2600	1560	2715	1040	6230
TOTAL	9000	3480	6067	5520	6230

1. PRIVATE OPEN SPACE: 120 S.F PER UNIT ON GROUND FLOOR
   60 S.F. PER UNIT ON 2&3RD FLOOR
2. COMMON OPEN SPACE: 200 S.F PER UNIT LESS PRIVATE OPEN SPACE S.F.

VICINITY MAP
SCALE: N.T.S.



TRUE NORTH REFERENCE NORTH

DRAWING INDEX

ARCHITECTURAL	
A00.00	COVER SHEET
A01.00	CONTEXT SITE PLAN
A01.10	SITE PHOTOS
A01.20	OCCUPANCY EGREES PLAN
A02.00	GROUND FLOOR PLAN
A02.01	SECOND & THIRD FLOOR PLAN
A02.02	ROOF PLAN
A03.01	ELEVATIONS AND SIGNAGE DETAIL
A03.02	ELEVATIONS
A04.01	SECTIONS
A05.01	PERSPECTIVES
A05.02	PERSPECTIVES
A05.03	PERSPECTIVES
A05.04	PERSPECTIVES
A06.01	UNIT PLANS
LANDSCAPE	
L1.1	LANDSCAPE MATERIALS PLAN – GROUND FLOOR
L1.2	LANDSCAPE MATERIALS PLAN – ROOF
L2.1	PLANTING PLAN – GROUND FLOOR
L2.2	PLANTING PLAN ROOF TOP
L3.1	SECTION ELEVATIONS
L4.1	MATERIALS AND IMAGES
CIVIL	
C0.0	COVER SHEET
C1.0	TOPOGRAPHIC SURVEY
C2.0	SITE PLAN
C3.0	GRADING PLAN
C3.1	SECTIONS
C4.0	STORM WATER QUALITY CONTROL
C5.0	UTILITY PLAN

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT – SHAWN ALEXANDER – NO. C-14230 – EXP. 8/30/19 – STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE

PROJECT NUMBER

COMPUTER FILE

PROJECT NAME -

DESCRIPTION

COVERSHEET & GENERAL INFORMATION

SHEET NUMBER

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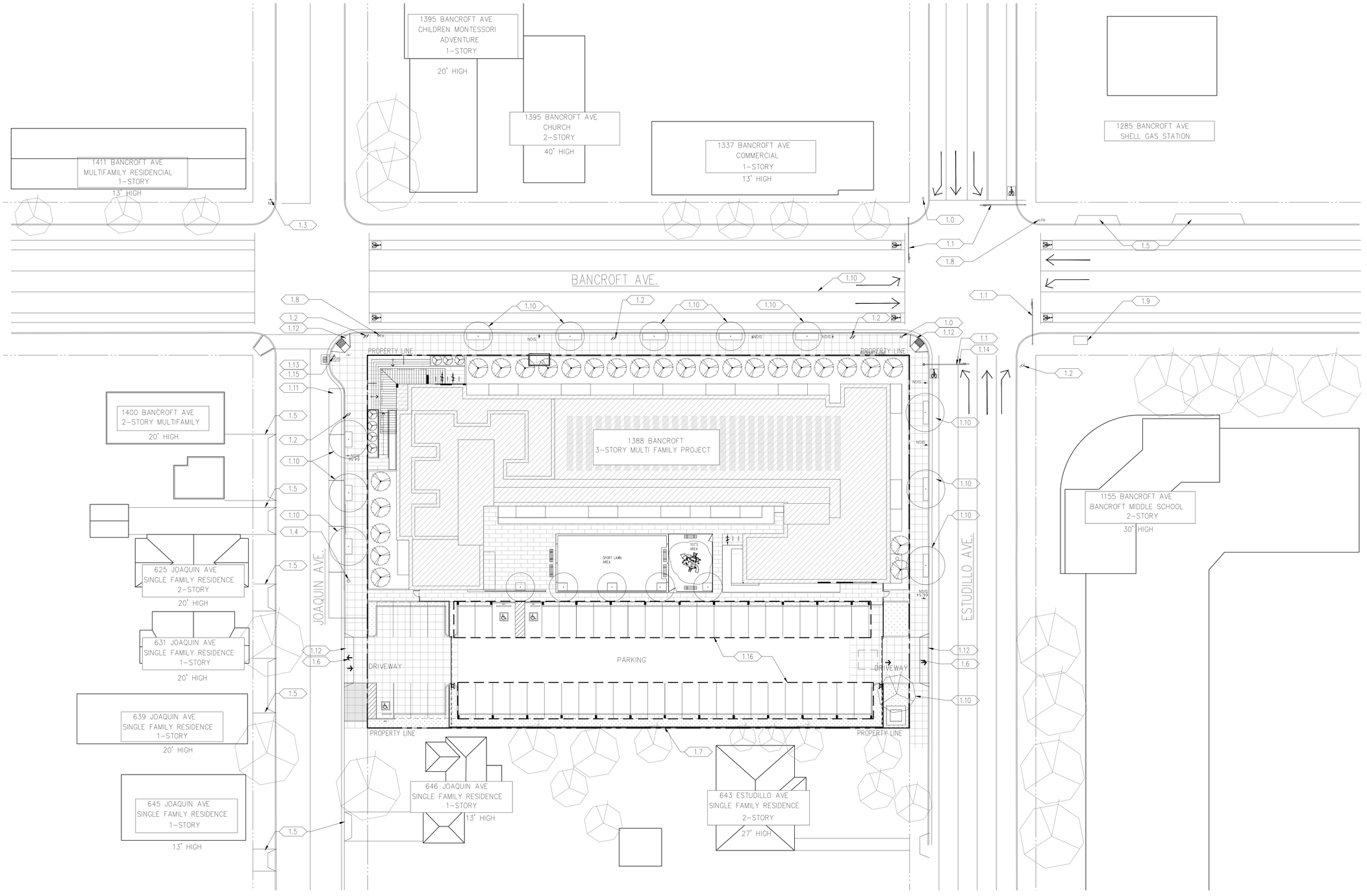

KEY PLAN

- 1.0 (E) TRAFFIC LIGHT
- 1.1 (E) TRAFFIC LIGHT WITH STREET LIGHT FIXTURE
- 1.2 (E) UTILITY POLE WITH STREET LIGHT FIXTURE
- 1.3 (E) STOP SIGN
- 1.4 (E) STREET LIGHT FIXTURE
- 1.5 (E) DRIVEWAY
- 1.6 (N) DRIVEWAY
- 1.7 (N) WOOD FENCE, SEE DRAWINGS
- 1.8 (E) FIRE HYDRANT
- 1.9 (E) FIBER OPTIC VAULT
- 1.10 (N) STREET TREE
- 1.12 (N) CURB RAMP
- 1.13 (E) STREET SIGN
- 1.14 (E) R3-1 "ACTIVATED BLANK-OUT"
- 1.15 RELOCATED (E) STOP SIGN
- 1.16 OVERHEAD PARKING CANOPY
- 1.17 BUS STOP SHELTER

CONTEXT SITE PLAN
SCALE: 1:250

1

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
SHAWN TSAN ALEXANDER
NO. C-14230
REN. 6/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE
SCALE AS SHOWN
PROJECT NUMBER
COMPUTER FILE
PROJECT NAME

DESCRIPTION
CONTEXT SITE PLAN

SHEET NUMBER
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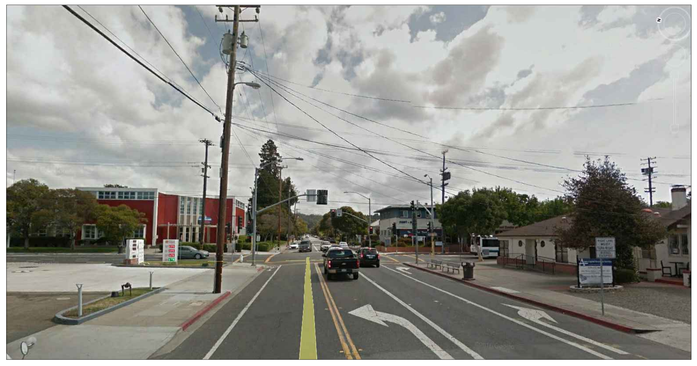
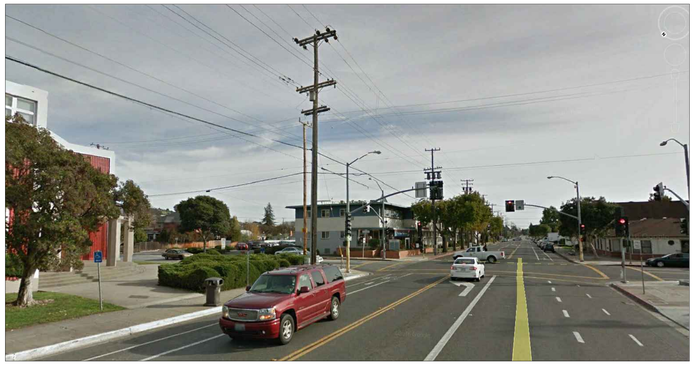
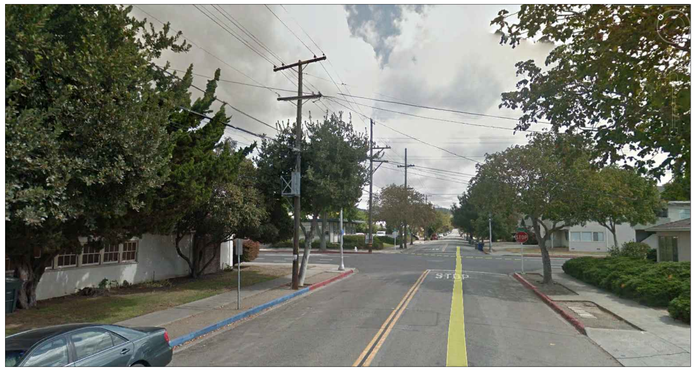


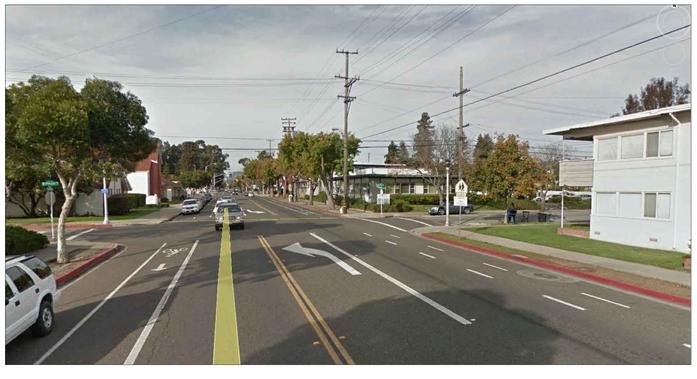
1 ESTUDILLO AVENUE LOOKING EAST



2 BANCROFT STREET LOOKING SOUTH



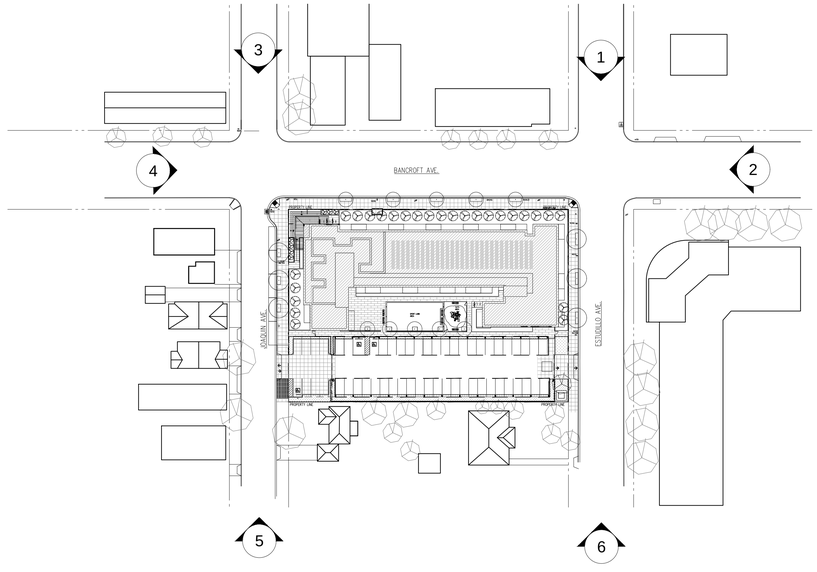
3 JOAQUIN AVENUE LOOKING EAST



4 BANCROFT STREET LOOKING NORTH

5

6



AERIAL VIEW
SCALE: N.T.S.

1

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PROJECT NAME

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SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
JIANG HAN ALEXANDER
NO. C-14230
EXP. 6/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE AS SHOWN

PROJECT NUMBER

COMPUTER FILE

PROJECT NAME

DESCRIPTION

SITE
PHOTOS

SHEET NUMBER

A01.10

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PROJECT NAME

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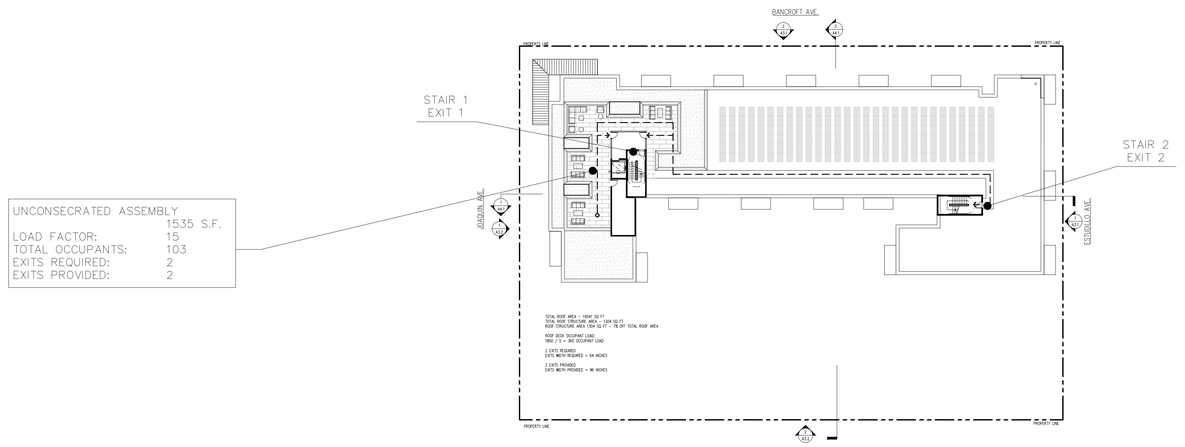


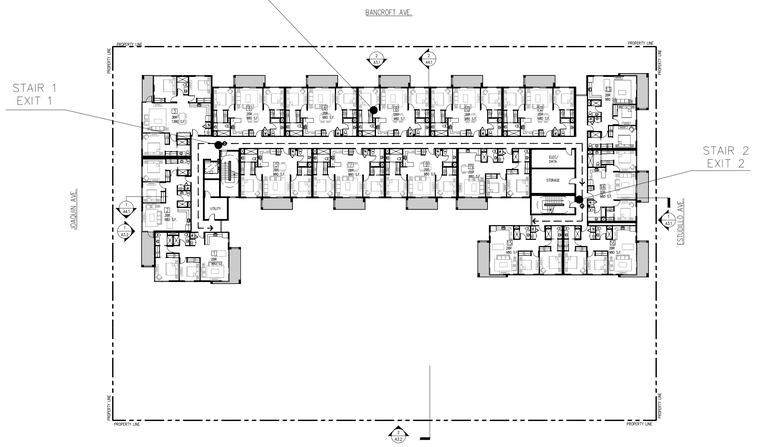
UNCONSECRATED ASSEMBLY	
	1535 S.F.
LOAD FACTOR:	15
TOTAL OCCUPANTS:	103
EXITS REQUIRED:	2
EXITS PROVIDED:	2

PATH OF EGRESS – ROOF PLAN

SCALE: 1/16" = 1'-0"

3

RESIDENTIAL	16080 S.F.
LOAD FACTOR:	200
TOTAL OCCUPANTS:	81
EXITS REQUIRED:	2
EXITS PROVIDED:	2



PATH OF EGRESS – SECOND/THIRD FLOOR

SCALE: 1/16" = 1'-0"

2

BUSINESS	568 S.F.
LOAD FACTOR:	100
TOTAL OCCUPANTS:	6
EXITS REQUIRED:	1
EXITS PROVIDED:	1

STAIR

TOTAL OCCUPANTS	334
EXITS REQUIRED:	2
EXITS PROVIDED:	2
STAIR WIDTH:	41" MIN.
PROVIDED:	2 X 48"

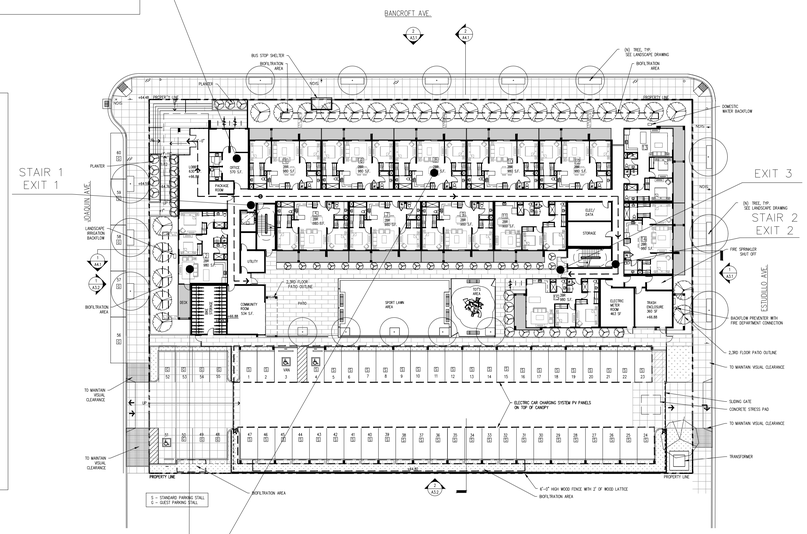
334 x 0.2 = 66.8/2 EXITS

* SPRINKLERED BUILDING
PER 1005.3.1 EXCEPTION 1 – 0.2
MEANS OF EGREES FACTOR

DOOR

TOTAL OCCUPANTS	328
EXITS REQUIRED:	2
EXITS PROVIDED:	2
DOOR WIDTH:	32" MIN.
PROVIDED;	2X 36"
334 x 0.15 =	50.1"/2 EXITS

* SPRINKLERED BUILDING
PER 1005.3.2 EXCEPTION 1 – 0.15
MEANS OF EGREES FACTOR



RESIDENTIAL	12740 S.F.
LOAD FACTOR:	200
TOTAL OCCUPANTS:	64
EXITS REQUIRED:	2
EXITS PROVIDED:	3

DOOR

TOTAL OCCUPANTS	47
EXITS REQUIRED:	2
EXITS PROVIDED:	3
DOOR WIDTH:	32" MIN.
PROVIDED:	3X 36"

* SPRINKLERED BUILDING
PER 1005.3.2 EXCEPTION 1 – 0.15
MEANS OF EGREES FACTOR

PATH OF EGRESS – GROUND FLOOR

SCALE: 1/16" = 1'-0"

1

LICENSED ARCHITECT
THOMAS EVAN KUDERER
NO. C-14230
REN. 6/30/19
STATE OF CALIFORNIA

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DATE

SCALE AS SHOWN

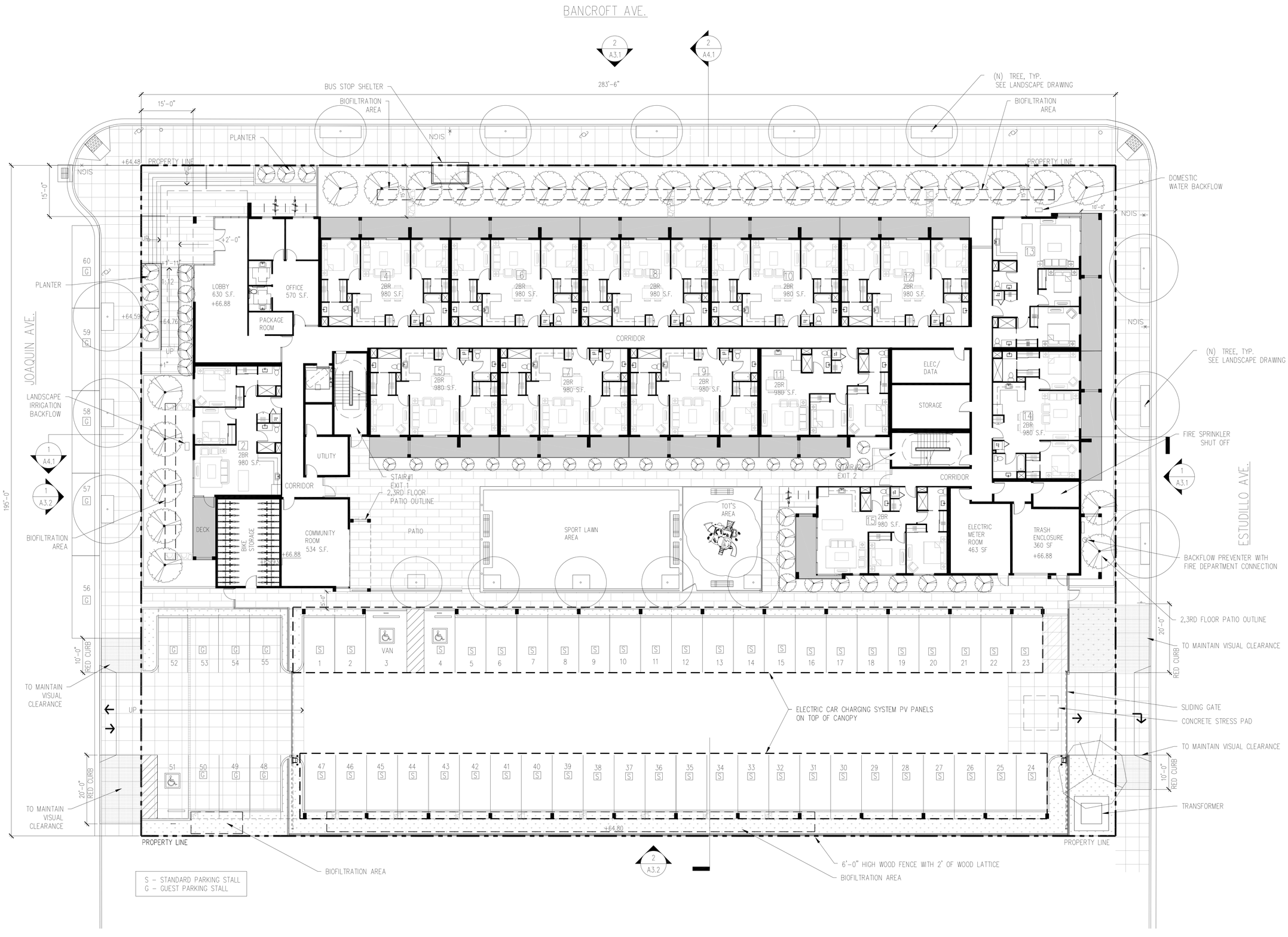
PROJECT NUMBER

COMPUTER FILE

PROJECT NAME

DESCRIPTION
OCCUPANCY EGREES PLAN

SHEET NUMBER
A01.20



GROUND FLOOR PLAN

SCALE: 3/32" = 1'-0"

1

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT JAIME EVAN ALEXANDER NO. C-14200 REN. 8/30/19 STATE OF CALIFORNIA

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DATE

SCALE AS SHOWN

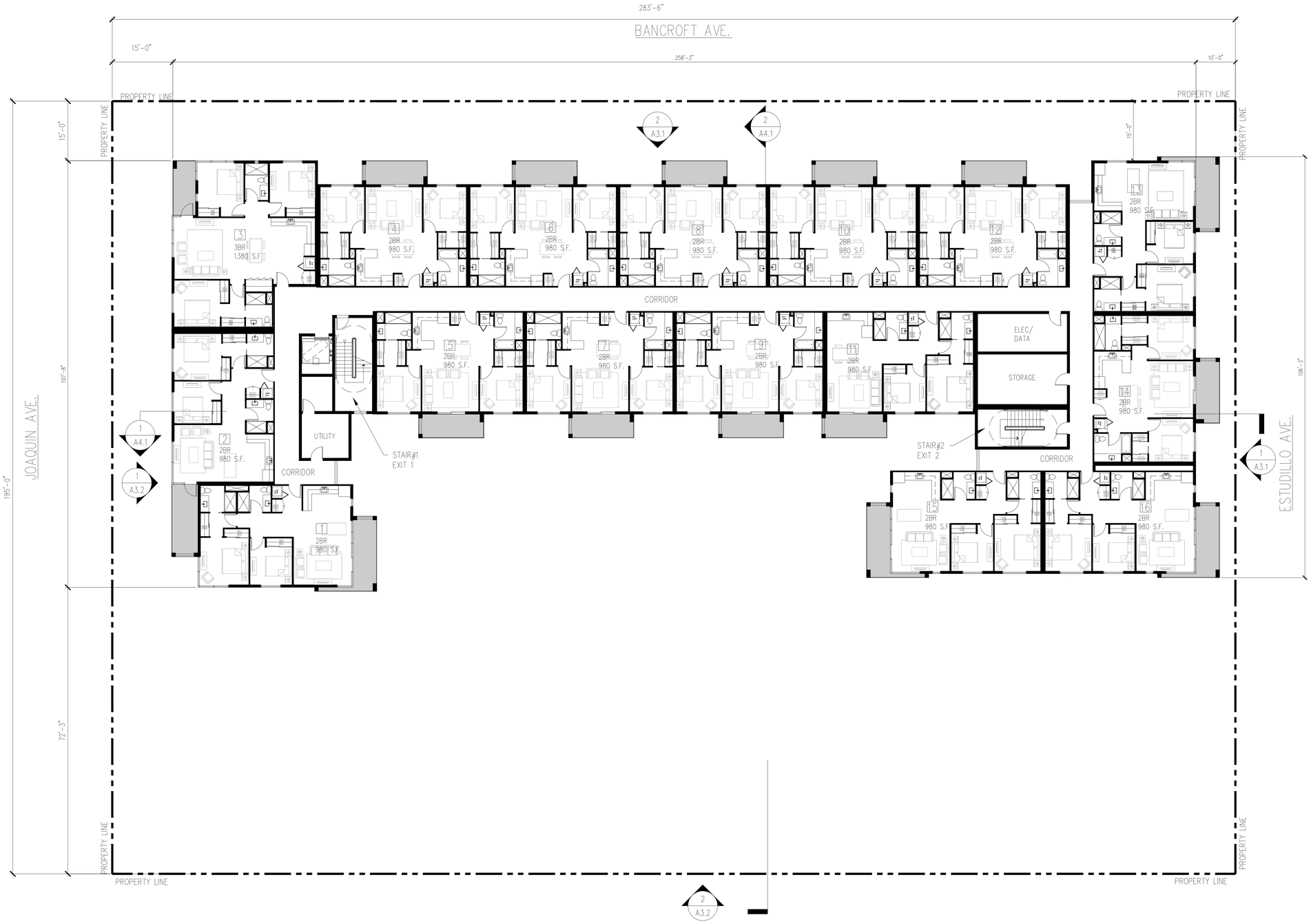
PROJECT NUMBER

COMPUTER FILE

PROJECT NAME -

DESCRIPTION
GROUND FLOOR PLAN

SHEET NUMBER
A02.00



THIRD FLOOR PLAN

SCALE: 3/32" = 1'-0"

1

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PROJECT NAME

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1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT SHAWN TSAN KUSANO NO. C-14230 6/30/19 STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE AS SHOWN

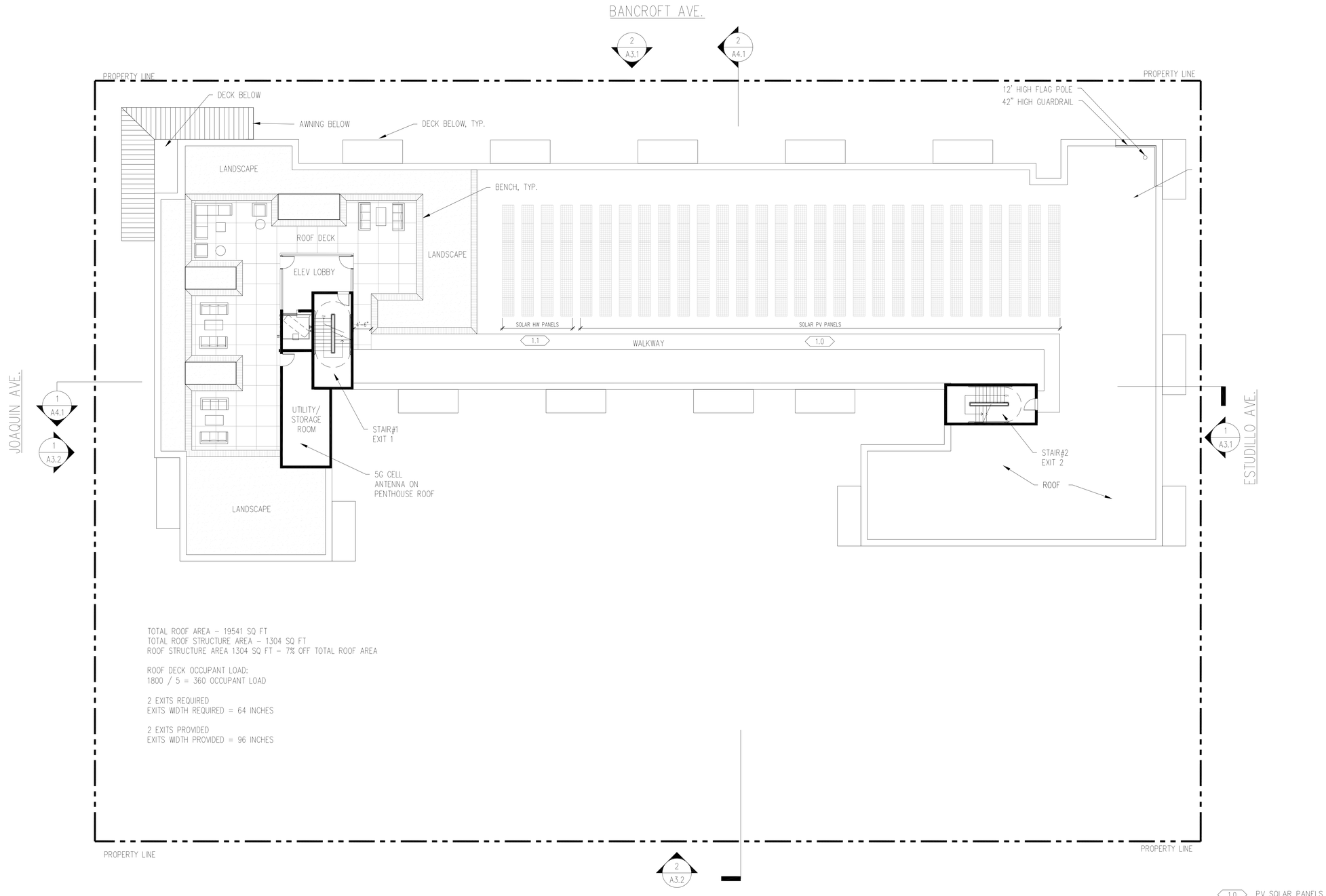
PROJECT NUMBER

COMPUTER FILE

PROJECT NAME

DESCRIPTION
2ND & 3RD FLOOR PLAN

SHEET NUMBER
A02.01



ROOF PLAN
SCALE: 3/32" = 1'-0"

1

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1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

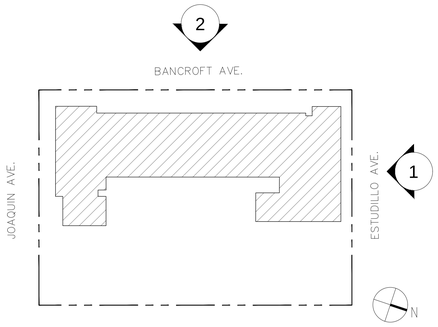
LICENSED ARCHITECT
JAMES RYAN ALDRICH
NO. C-14230
EXP. 8/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

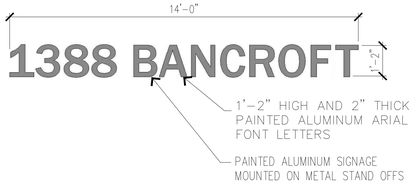
DATE
SCALE AS SHOWN
PROJECT NUMBER
COMPUTER FILE
PROJECT NAME -

DESCRIPTION
ROOF PLAN

SHEET NUMBER
A02.02



PT1	PAINT ON CEMENT PLASTER – COLOR: BM2112-70 AMERICAN WHITE
PT2	PAINT ON CEMENT PLASTER – COLOR: BM2104-20 BEAVER BROWN
PT3	PAINT ON CEMENT PLASTER – COLOR: BM 1596-NIGHTFALL
PT4	PAINT ON CEMENT PLASTER – COLOR: BM 2175-10 AZTEK BRICK
PT5	PAINT ON CEMENT PLASTER – COLOR: BM 2118-50 EXCALIBUR GRAY
LS	LAP SIDING, COLOR: IRON GRAY
WF	WINDOW FRAME, COLOR: BM 1596-NIGHTFALL
GL	LOW-E GLASS
GLO	OPAQUE GLASS
AW1	ALUMINUM AWNING -COLOR: BM 1596-NIGHTFALL
AW2	ALUMINUM AWNING -COLOR: BM 1596-NIGHTFALL
PR	PERFORATED METAL INFILL @ JULIET BALCONY
LV	ALUMINUM LOUVER SCREEN, COLOR: BM2104-20 BEAVER BROWN
SG	METAL SLIDING GATE – COLOR: BM 1596-NIGHTFALL
AS	ALUMINUM STOREFRONT
AR	ALUMINUM RAILING
MD	METAL DOOR, COLOR: BM2104-20 BEAVER BROWN
MC	METAL CONOPY, COLOR: BM 1596-NIGHTFALL
WS	WALL SCONCE



KEY MAP

KEYNOTES

SIGNAGE ABOVE ENTRY CANOPY AND SIDE FENCE

NORTH ELEVATION (VIEW FROM ESTUDILLO AVE.) 1

SCALE: 3/32" = 1'-0"

WEST ELEVATION (VIEW FROM BANCROFT AVE.) 2

SCALE: 3/32" = 1'-0"

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
JIANG YUAN ALEXANDER
NO. C-14230
REN. 6/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE

PROJECT NUMBER

COMPUTER FILE

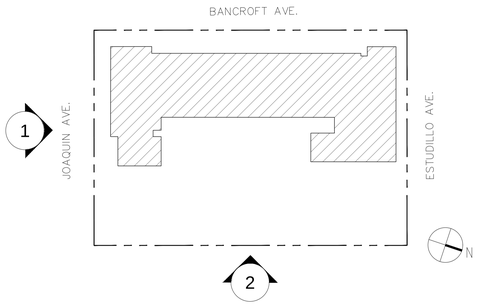
PROJECT NAME -

DESCRIPTION

ELEVATIONS

SHEET NUMBER

A03.01



PT1	PAINT ON CEMENT PLASTER – COLOR: BM2112–70 AMERICAN WHITE
PT2	PAINT ON CEMENT PLASTER – COLOR: BM2104–20 BEAVER BROWN
PT3	PAINT ON CEMENT PLASTER – COLOR: BM 1596–NIGHTFALL
PT4	PAINT ON CEMENT PLASTER – COLOR: BM 2175–10 AZTEK BRICK
PT5	PAINT ON CEMENT PLASTER – COLOR: BM 2118–50 EXCALIBUR GRAY
LS	LAP SIDING, COLOR: IRON GRAY
WF	WINDOW FRAME, COLOR: BM 1596–NIGHTFALL
GL	LOW–E GLASS
GLO	OPAQUE GLASS
AW1	ALUMINUM AWNING –COLOR: BM 1596–NIGHTFALL
AW2	ALUMINUM AWNING –COLOR: BM 1596–NIGHTFALL
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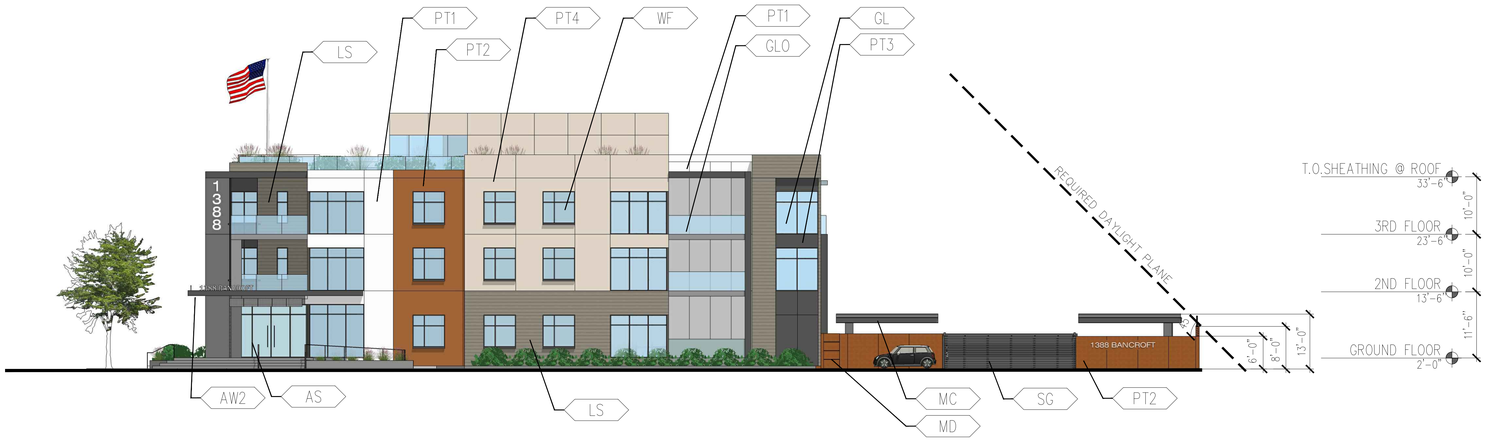
SG	METAL SLIDING GATE – COLOR: BM 1596–NIGHTFALL
AS	ALUMINUM STOREFRONT
AR	ALUMINUM RAILING
MD	METAL DOOR, COLOR: BM2104–20 BEAVER BROWN
MC	METAL CONOPY, COLOR: BM 1596–NIGHTFALL
WS	WALL SCONCE

KEY MAP

KEYNOTES



SOUTH ELEVATION (VIEW FROM JOAQUIN AVE.) 1
SCALE: 3/32" = 1'-0"

EAST ELEVATION (VIEW FROM PARKING LOT) 2
SCALE: 3/32" = 1'-0"

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
JOHN TSAN ALEXANDER
NO. C-14230
EXP. 6/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE

PROJECT NUMBER

COMPUTER FILE

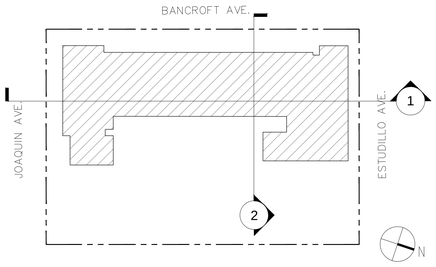
PROJECT NAME -

DESCRIPTION

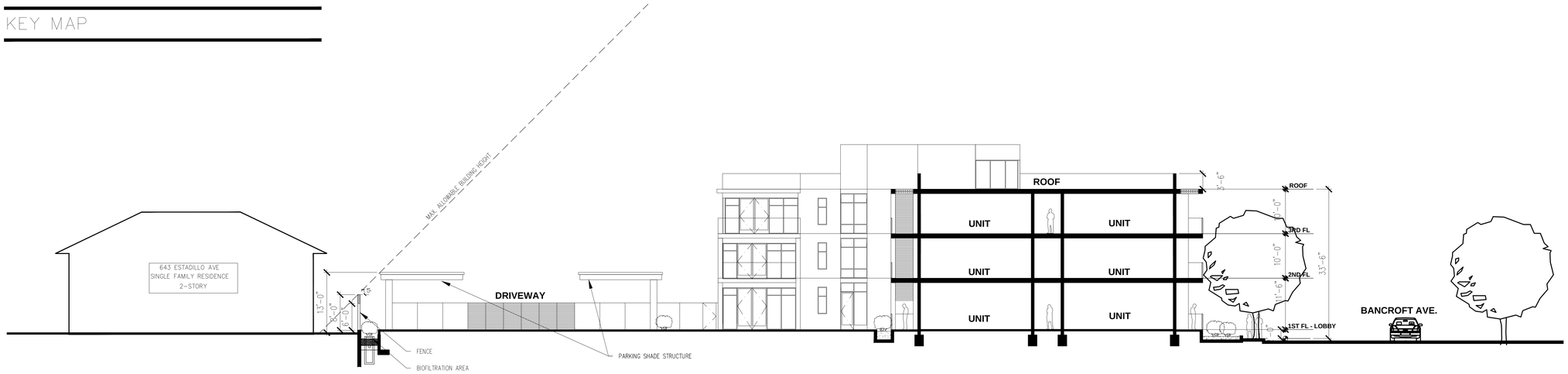
ELEVATIONS

SHEET NUMBER

A03.02

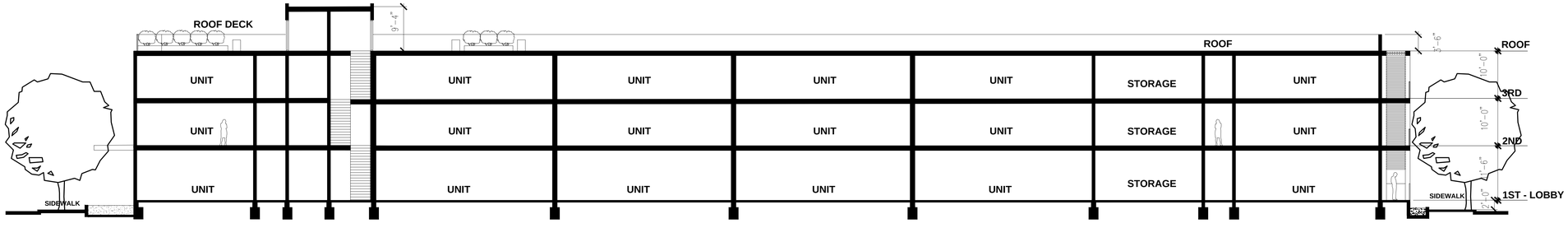


KEY MAP



SECTION SOUTH-NORTH
SCALE: 3/32" = 1'-0"

2



SECTION WEST-EAST
SCALE: 3/32" = 1'-0"

1

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
JIANG YUAN ALEXANDER
NO. C-14230
6/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE

PROJECT NUMBER

COMPUTER FILE

PROJECT NAME -

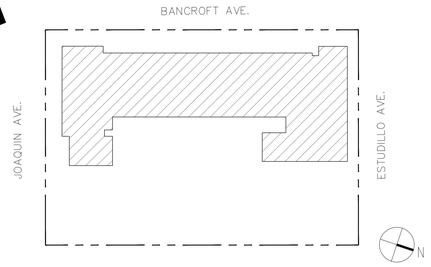
DESCRIPTION

SECTION

SHEET NUMBER

A04.01

1



KEY MAP

PERSPECTIVE VIEW FROM SOUTHWEST AT BANCROFT AVE.
SCALE: NONE

1

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
JAMES EVAN ALBRIGHT
NO. C-14230
EXP. 8/30/19
STATE OF CALIFORNIA

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1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE

PROJECT NUMBER

COMPUTER FILE

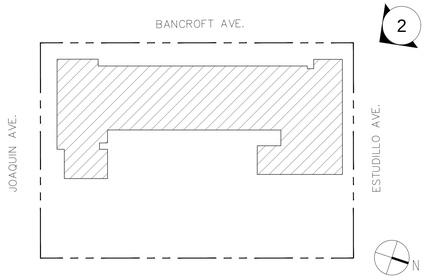
PROJECT NAME -

DESCRIPTION

PERSPECTIVES (COURTYARD)

SHEET NUMBER

A05.01



KEY MAP

PERSPECTIVE VIEW FROM NORTHWEST AT BANCROFT AVE. 1
SCALE: NONE

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
SHOW TIAN ALEXANDER
NO. C-14230
EXPIRES 6/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE

PROJECT NUMBER

COMPUTER FILE

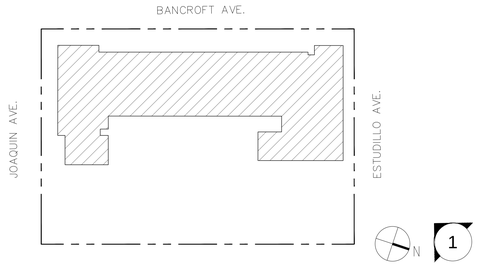
PROJECT NAME -

DESCRIPTION

PERSPECTIVES (COURTYARD)

SHEET NUMBER

A05.02



KEY MAP

PERSPECTIVE VIEW FROM ESTUDILLO AVE. 1
SCALE: NONE

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
LIANG-YAN ALEXANDER
NO. C-14230
REN. 6/30/19
STATE OF CALIFORNIA

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SCALE

PROJECT NUMBER

COMPUTER FILE

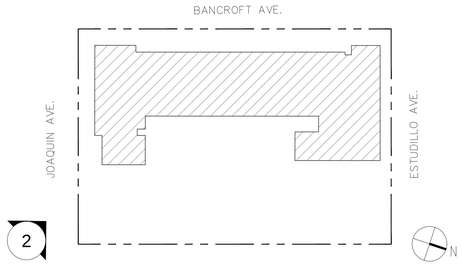
PROJECT NAME -

DESCRIPTION

PERSPECTIVES (COURTYARD)

SHEET NUMBER

A05.03



KEY MAP

PERSPECTIVE VIEW FROM JOAQUIN AVE. 1
SCALE: NONE

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PROJECT NAME

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SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
SOHEIL ESFAN ALEXANDER
NO. C-14230
EXP. 6/30/19
STATE OF CALIFORNIA

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DATE

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PROJECT NUMBER

COMPUTER FILE

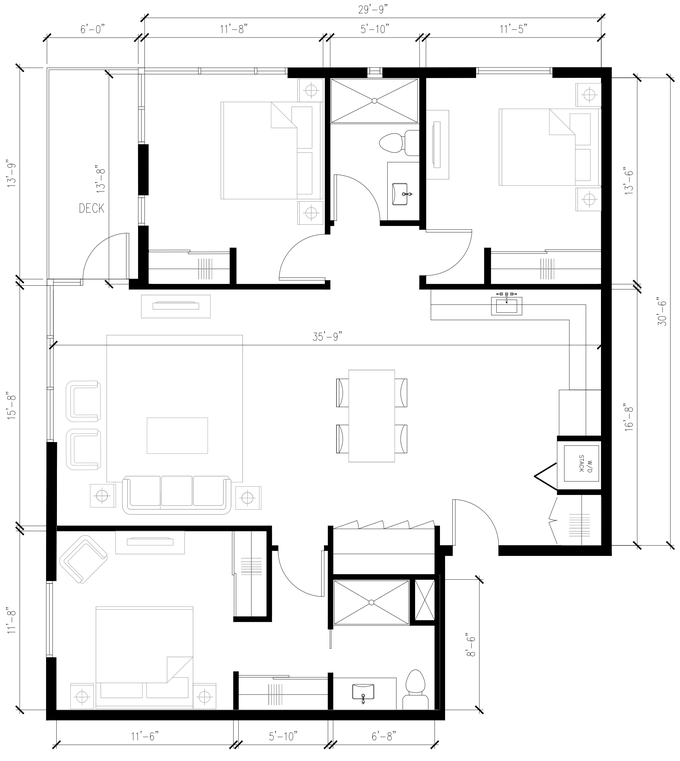
PROJECT NAME

DESCRIPTION

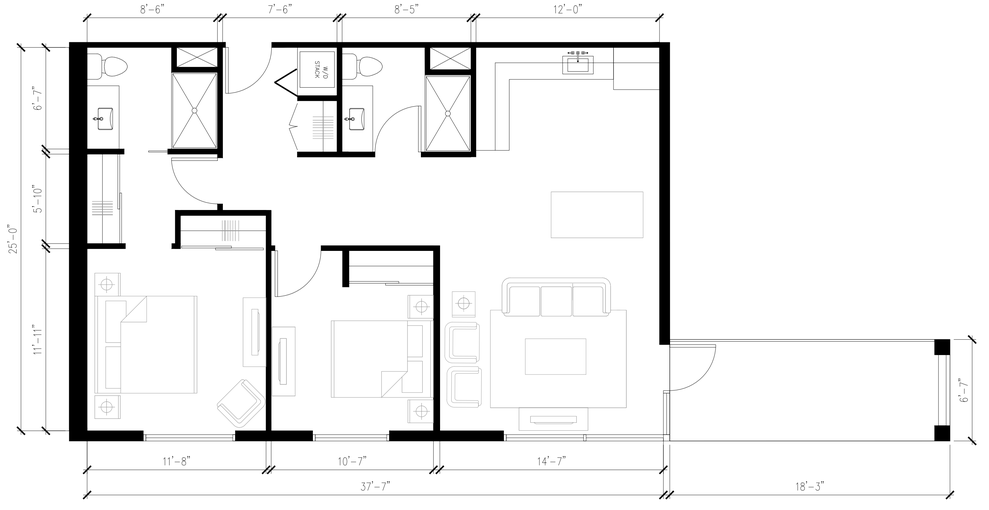
PERSPECTIVES (COURTYARD)

SHEET NUMBER

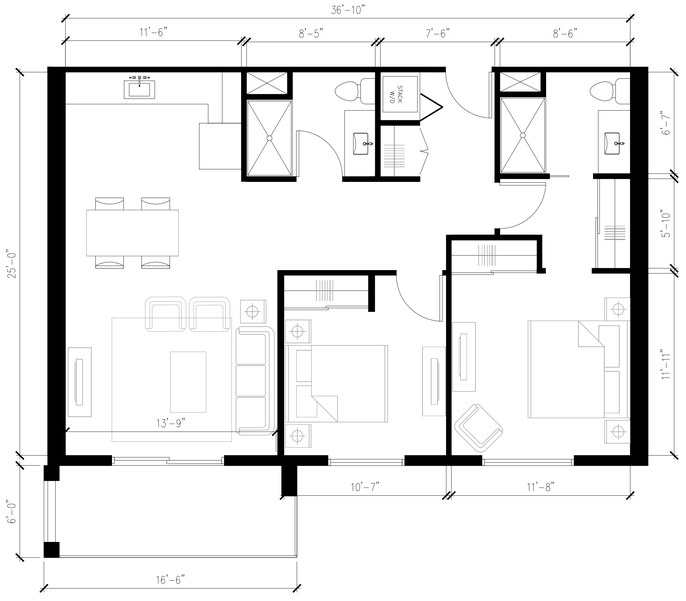
A05.04



UNIT A3 — 3 BEDROOM UNIT
SCALE: 1/4" = 1'-0" 5

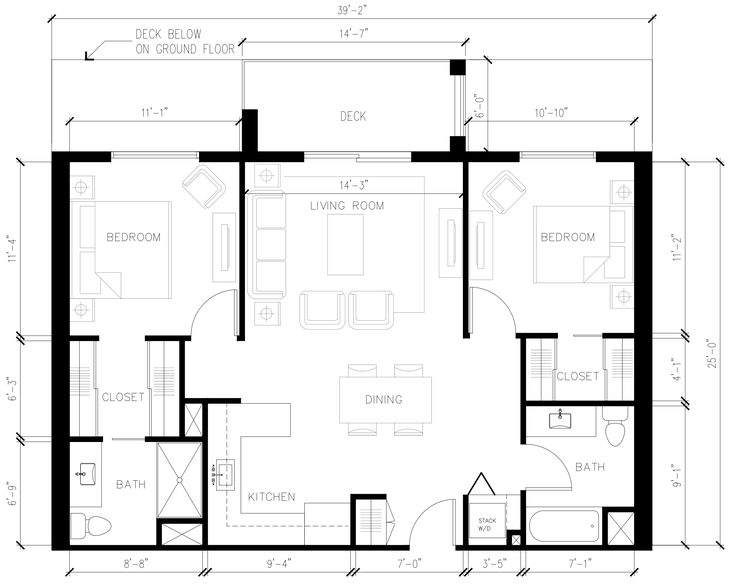


UNIT B — 2 BEDROOM UNIT
SCALE: 1/4" = 1'-0" 4



UNIT A3 — 2 BEDROOM UNIT
SCALE: 1/4" = 1'-0" 3

UNIT A2 — 2 BEDROOM UNIT
SCALE: 1/4" = 1'-0" 2



UNIT A1 — 2 BEDROOM UNIT
SCALE: 1/4" = 1'-0" 1

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PROJECT NAME

1388 BANCROFT

1388 BANCROFT AVENUE
SAN LEANDRO, CA 94577
APN: 77-524-12-4

LICENSED ARCHITECT
SOHRAB EHSAN ALEMAGHANI
NO. C-14230
EXP. 8/30/19
STATE OF CALIFORNIA

NO.	DATE	ISSUES AND REVISIONS	BY
1.	06/14/2018	ENTITLEMENT SET	

DATE

SCALE

PROJECT NUMBER

COMPUTER FILE

PROJECT NAME

DESCRIPTION

UNIT PLANS

SHEET NUMBER

A06.01

Appendix AQ
Air Quality

1388 Bancroft Avenue

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	14.56	1000sqft	0.33	14,563.00	0
Apartments Mid Rise	45.00	Dwelling Unit	0.94	59,790.00	129

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2021
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

Project Characteristics - Construction emissions only for this model.

Land Use - Square footage and lot size per project description.

Construction Phase - Project schedule extended per applicant.
Grading includes take up and recompacting the top 2 feet of soil per soils report.
Architectural coatings assumed to occur dispersed over the last 100 days of building construction.

Off-road Equipment - Electric compressors to be used where feasible.

Off-road Equipment - Building construction equipment adjusted for extended schedule.
Limited use of welders anticipated due to building construction type.
Grid power to be used as soon as feasible in place of gnerators.

Off-road Equipment - Demolition equipment hours adjusted for extended schedule.

Off-road Equipment - Grading equipment adjusted for extended schedule.

Off-road Equipment -

Off-road Equipment - Site prep equipment adjusted for extended schedule.

Demolition -

Grading - Material balanced on site per applicant.
Old asphalt and concrete to be used to fill existing basement.
Acres graded adjusted to account for take up and recompact top 2 feet of soil.

Vehicle Trips - Construction emissions only this model.

Woodstoves - Construction emissions only this model.

Consumer Products - Construction emissions only this model.

Area Coating - Construction emissions only this model.

Energy Use - Construction emissions only this model.

Water And Wastewater - Construction emissions only this model.

Solid Waste - Construction emissions only this model.

Construction Off-road Equipment Mitigation - Dust mitigation per BAAQMD Basic Construction Mitigation Measures.
Diesel offroad contruction equipment more than 50 HP to be Tier 4 or have retrofitted DPM filters.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	4.00	12.00

tblConstructionPhase	NumDays	200.00	272.00
tblConstructionPhase	NumDays	10.00	100.00
tblConstructionPhase	PhaseEndDate	5/28/2019	6/11/2019
tblConstructionPhase	PhaseEndDate	5/30/2019	6/17/2019
tblConstructionPhase	PhaseEndDate	6/5/2019	7/3/2019
tblConstructionPhase	PhaseEndDate	3/11/2020	7/17/2020
tblConstructionPhase	PhaseEndDate	4/8/2020	7/17/2020
tblConstructionPhase	PhaseEndDate	3/25/2020	7/31/2020
tblConstructionPhase	PhaseStartDate	5/29/2019	6/12/2019
tblConstructionPhase	PhaseStartDate	5/31/2019	6/18/2019
tblConstructionPhase	PhaseStartDate	6/6/2019	7/4/2019
tblConstructionPhase	PhaseStartDate	3/26/2020	3/2/2020
tblConstructionPhase	PhaseStartDate	3/12/2020	7/18/2020
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	T24E	426.45	0.00
tblEnergyUse	T24NG	6,115.43	0.00
tblFireplaces	NumberGas	6.75	0.00
tblFireplaces	NumberNoFireplace	1.80	0.00
tblFireplaces	NumberWood	7.65	0.00
tblGrading	AcresOfGrading	4.50	5.10
tblGrading	AcresOfGrading	0.50	1.00
tblLandUse	LandUseSquareFeet	14,560.00	14,563.00
tblLandUse	LandUseSquareFeet	45,000.00	59,790.00
tblLandUse	LotAcreage	1.18	0.94
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblSolidWaste	SolidWasteGenerationRate	20.70	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	13.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWater	IndoorWaterUseRate	2,931,931.15	0.00
tblWater	OutdoorWaterUseRate	1,848,391.38	0.00
tblWoodstoves	NumberCatalytic	0.90	0.00
tblWoodstoves	NumberNoncatalytic	0.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0699	0.6548	0.4577	1.0000e-003	0.0652	0.0321	0.0973	0.0224	0.0298	0.0522	0.0000	90.4811	90.4811	0.0168	0.0000	90.9001
2020	0.4711	0.3866	0.3679	8.3000e-004	0.0290	0.0184	0.0475	7.7900e-003	0.0173	0.0251	0.0000	74.4672	74.4672	0.0116	0.0000	74.7560
Maximum	**0.4711**	**0.6548**	**0.4577**	**1.0000e-003**	**0.0652**	**0.0321**	**0.0973**	**0.0224**	**0.0298**	**0.0522**	**0.0000**	**90.4811**	**90.4811**	**0.0168**	**0.0000**	**90.9001**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0204	0.1216	0.4638	1.0000e-003	0.0422	1.5500e-003	0.0438	0.0136	1.5200e-003	0.0151	0.0000	90.4811	90.4811	0.0168	0.0000	90.9001
2020	0.4446	0.1104	0.3837	8.3000e-004	0.0275	2.0300e-003	0.0296	7.4300e-003	2.0000e-003	9.4300e-003	0.0000	74.4671	74.4671	0.0116	0.0000	74.7559
Maximum	**0.4446**	**0.1216**	**0.4638**	**1.0000e-003**	**0.0422**	**2.0300e-003**	**0.0438**	**0.0136**	**2.0000e-003**	**0.0151**	**0.0000**	**90.4811**	**90.4811**	**0.0168**	**0.0000**	**90.9001**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**14.04**	**77.72**	**-2.65**	**0.00**	**25.91**	**92.92**	**49.32**	**30.35**	**92.53**	**68.27**	**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	5-1-2019	7-31-2019	0.4126	0.0537
2	8-1-2019	10-31-2019	0.1863	0.0528
3	11-1-2019	1-31-2020	0.1814	0.0525
4	2-1-2020	4-30-2020	0.3554	0.2383
5	5-1-2020	7-31-2020	0.4367	0.2930
		Highest	0.4367	0.2930

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	0.2446	3.8700e-003	0.3350	2.0000e-005		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	0.5461	0.5461	5.3000e-004	0.0000	0.5593
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4828	1.4828	7.0000e-005	1.0000e-005	1.4886
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2446**	**3.8700e-003**	**0.3350**	**2.0000e-005**	**0.0000**	**1.8500e-003**	**1.8500e-003**	**0.0000**	**1.8500e-003**	**1.8500e-003**	**0.0000**	**2.0289**	**2.0289**	**6.0000e-004**	**1.0000e-005**	**2.0479**

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	0.2446	3.8700e-003	0.3350	2.0000e-005		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	0.5461	0.5461	5.3000e-004	0.0000	0.5593
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4828	1.4828	7.0000e-005	1.0000e-005	1.4886
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2446**	**3.8700e-003**	**0.3350**	**2.0000e-005**	**0.0000**	**1.8500e-003**	**1.8500e-003**	**0.0000**	**1.8500e-003**	**1.8500e-003**	**0.0000**	**2.0289**	**2.0289**	**6.0000e-004**	**1.0000e-005**	**2.0479**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	6/11/2019	5	30	
2	Site Preparation	Site Preparation	6/12/2019	6/17/2019	5	4	
3	Grading	Grading	6/18/2019	7/3/2019	5	12	
4	Building Construction	Building Construction	7/4/2019	7/17/2020	5	272	
5	Architectural Coating	Architectural Coating	3/2/2020	7/17/2020	5	100	
6	Paving	Paving	7/18/2020	7/31/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 5.1

Acres of Paving: 0.33

Residential Indoor: 121,075; Residential Outdoor: 40,358; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 874 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	2.00	81	0.73
Demolition	Rubber Tired Dozers	1	6.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	2.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Cranes	1	2.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	1	1.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Air Compressors	1	1.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Demolition	4	13.00	0.00	111.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	39.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0120	0.0000	0.0120	1.8200e-003	0.0000	1.8200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0215	0.2194	0.1312	2.1000e-004		0.0122	0.0122		0.0113	0.0113	0.0000	19.0144	19.0144	5.5200e-003	0.0000	19.1524
Total	**0.0215**	**0.2194**	**0.1312**	**2.1000e-004**	**0.0120**	**0.0122**	**0.0242**	**1.8200e-003**	**0.0113**	**0.0131**	**0.0000**	**19.0144**	**19.0144**	**5.5200e-003**	**0.0000**	**19.1524**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1000e-004	0.0173	2.9500e-003	4.0000e-005	9.4000e-004	6.0000e-005	1.0000e-003	2.6000e-004	6.0000e-005	3.2000e-004	0.0000	4.2947	4.2947	2.2000e-004	0.0000	4.3003
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	7.4000e-004	5.6000e-004	5.6900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.4143	1.4143	4.0000e-005	0.0000	1.4153
Total	**1.2500e-003**	**0.0178**	**8.6400e-003**	**6.0000e-005**	**2.4800e-003**	**7.0000e-005**	**2.5500e-003**	**6.7000e-004**	**7.0000e-005**	**7.4000e-004**	**0.0000**	**5.7090**	**5.7090**	**2.6000e-004**	**0.0000**	**5.7156**

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					5.4000e-003	0.0000	5.4000e-003	8.2000e-004	0.0000	8.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5500e-003	0.0111	0.1279	2.1000e-004		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	19.0144	19.0144	5.5200e-003	0.0000	19.1524
Total	**2.5500e-003**	**0.0111**	**0.1279**	**2.1000e-004**	**5.4000e-003**	**3.4000e-004**	**5.7400e-003**	**8.2000e-004**	**3.4000e-004**	**1.1600e-003**	**0.0000**	**19.0144**	**19.0144**	**5.5200e-003**	**0.0000**	**19.1524**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1000e-004	0.0173	2.9500e-003	4.0000e-005	9.0000e-004	6.0000e-005	9.6000e-004	2.5000e-004	6.0000e-005	3.1000e-004	0.0000	4.2947	4.2947	2.2000e-004	0.0000	4.3003
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	7.4000e-004	5.6000e-004	5.6900e-003	2.0000e-005	1.4600e-003	1.0000e-005	1.4700e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.4143	1.4143	4.0000e-005	0.0000	1.4153
Total	**1.2500e-003**	**0.0178**	**8.6400e-003**	**6.0000e-005**	**2.3600e-003**	**7.0000e-005**	**2.4300e-003**	**6.4000e-004**	**7.0000e-005**	**7.1000e-004**	**0.0000**	**5.7090**	**5.7090**	**2.6000e-004**	**0.0000**	**5.7156**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.5500e-003	0.0000	6.5500e-003	3.3700e-003	0.0000	3.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6100e-003	0.0177	7.5100e-003	1.0000e-005		8.5000e-004	8.5000e-004		7.8000e-004	7.8000e-004	0.0000	1.3443	1.3443	4.3000e-004	0.0000	1.3549
Total	**1.6100e-003**	**0.0177**	**7.5100e-003**	**1.0000e-005**	**6.5500e-003**	**8.5000e-004**	**7.4000e-003**	**3.3700e-003**	**7.8000e-004**	**4.1500e-003**	**0.0000**	**1.3443**	**1.3443**	**4.3000e-004**	**0.0000**	**1.3549**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1161	0.1161	0.0000	0.0000	0.1161
Total	**6.0000e-005**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1161**	**0.1161**	**0.0000**	**0.0000**	**0.1161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9500e-003	0.0000	2.9500e-003	1.5200e-003	0.0000	1.5200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8000e-004	7.9000e-004	7.6600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.3443	1.3443	4.3000e-004	0.0000	1.3549
Total	**1.8000e-004**	**7.9000e-004**	**7.6600e-003**	**1.0000e-005**	**2.9500e-003**	**2.0000e-005**	**2.9700e-003**	**1.5200e-003**	**2.0000e-005**	**1.5400e-003**	**0.0000**	**1.3443**	**1.3443**	**4.3000e-004**	**0.0000**	**1.3549**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1161	0.1161	0.0000	0.0000	0.1161
Total	**6.0000e-005**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1161**	**0.1161**	**0.0000**	**0.0000**	**0.1161**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0208	0.0000	0.0208	0.0102	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2900e-003	0.0728	0.0280	6.0000e-005		3.1800e-003	3.1800e-003		2.9300e-003	2.9300e-003	0.0000	5.8225	5.8225	1.8400e-003	0.0000	5.8686
Total	**6.2900e-003**	**0.0728**	**0.0280**	**6.0000e-005**	**0.0208**	**3.1800e-003**	**0.0240**	**0.0102**	**2.9300e-003**	**0.0132**	**0.0000**	**5.8225**	**5.8225**	**1.8400e-003**	**0.0000**	**5.8686**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3481	0.3481	1.0000e-005	0.0000	0.3484
Total	**1.8000e-004**	**1.4000e-004**	**1.4000e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3481**	**0.3481**	**1.0000e-005**	**0.0000**	**0.3484**

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					9.3500e-003	0.0000	9.3500e-003	4.6000e-003	0.0000	4.6000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9000e-004	3.4400e-003	0.0319	6.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8225	5.8225	1.8400e-003	0.0000	5.8686
Total	**7.9000e-004**	**3.4400e-003**	**0.0319**	**6.0000e-005**	**9.3500e-003**	**1.1000e-004**	**9.4600e-003**	**4.6000e-003**	**1.1000e-004**	**4.7100e-003**	**0.0000**	**5.8225**	**5.8225**	**1.8400e-003**	**0.0000**	**5.8686**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3481	0.3481	1.0000e-005	0.0000	0.3484
Total	**1.8000e-004**	**1.4000e-004**	**1.4000e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3481**	**0.3481**	**1.0000e-005**	**0.0000**	**0.3484**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0275	0.2619	0.1943	3.2000e-004		0.0153	0.0153		0.0143	0.0143	0.0000	27.8552	27.8552	7.4300e-003	0.0000	28.0410
Total	**0.0275**	**0.2619**	**0.1943**	**3.2000e-004**		**0.0153**	**0.0153**		**0.0143**	**0.0143**	**0.0000**	**27.8552**	**27.8552**	**7.4300e-003**	**0.0000**	**28.0410**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0300e-003	0.0577	0.0128	1.3000e-004	2.9700e-003	3.7000e-004	3.3300e-003	8.6000e-004	3.5000e-004	1.2100e-003	0.0000	12.0268	12.0268	7.4000e-004	0.0000	12.0454
Worker	9.5200e-003	7.2600e-003	0.0734	2.0000e-004	0.0199	1.4000e-004	0.0200	5.2900e-003	1.3000e-004	5.4200e-003	0.0000	18.2447	18.2447	5.2000e-004	0.0000	18.2577
Total	**0.0116**	**0.0650**	**0.0861**	**3.3000e-004**	**0.0229**	**5.1000e-004**	**0.0234**	**6.1500e-003**	**4.8000e-004**	**6.6300e-003**	**0.0000**	**30.2716**	**30.2716**	**1.2600e-003**	**0.0000**	**30.3031**

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	3.8600e-003	0.0233	0.1997	3.2000e-004		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	27.8552	27.8552	7.4300e-003	0.0000	28.0410
Total	**3.8600e-003**	**0.0233**	**0.1997**	**3.2000e-004**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**27.8552**	**27.8552**	**7.4300e-003**	**0.0000**	**28.0410**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0300e-003	0.0577	0.0128	1.3000e-004	2.8400e-003	3.7000e-004	3.2100e-003	8.3000e-004	3.5000e-004	1.1800e-003	0.0000	12.0268	12.0268	7.4000e-004	0.0000	12.0454
Worker	9.5200e-003	7.2600e-003	0.0734	2.0000e-004	0.0189	1.4000e-004	0.0190	5.0400e-003	1.3000e-004	5.1700e-003	0.0000	18.2447	18.2447	5.2000e-004	0.0000	18.2577
Total	**0.0116**	**0.0650**	**0.0861**	**3.3000e-004**	**0.0217**	**5.1000e-004**	**0.0222**	**5.8700e-003**	**4.8000e-004**	**6.3500e-003**	**0.0000**	**30.2716**	**30.2716**	**1.2600e-003**	**0.0000**	**30.3031**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0274	0.2632	0.2104	3.5000e-004		0.0147	0.0147		0.0137	0.0137	0.0000	30.3505	30.3505	8.1700e-003	0.0000	30.5547
Total	**0.0274**	**0.2632**	**0.2104**	**3.5000e-004**		**0.0147**	**0.0147**		**0.0137**	**0.0137**	**0.0000**	**30.3505**	**30.3505**	**8.1700e-003**	**0.0000**	**30.5547**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8800e-003	0.0588	0.0127	1.4000e-004	3.2900e-003	2.7000e-004	3.5600e-003	9.5000e-004	2.6000e-004	1.2100e-003	0.0000	13.2387	13.2387	7.6000e-004	0.0000	13.2578
Worker	9.6400e-003	7.1200e-003	0.0730	2.2000e-004	0.0221	1.5000e-004	0.0222	5.8700e-003	1.4000e-004	6.0100e-003	0.0000	19.5991	19.5991	5.1000e-004	0.0000	19.6118
Total	**0.0115**	**0.0660**	**0.0856**	**3.6000e-004**	**0.0253**	**4.2000e-004**	**0.0258**	**6.8200e-003**	**4.0000e-004**	**7.2200e-003**	**0.0000**	**32.8379**	**32.8379**	**1.2700e-003**	**0.0000**	**32.8696**

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	4.2800e-003	0.0258	0.2214	3.5000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	30.3504	30.3504	8.1700e-003	0.0000	30.5547
Total	**4.2800e-003**	**0.0258**	**0.2214**	**3.5000e-004**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**30.3504**	**30.3504**	**8.1700e-003**	**0.0000**	**30.5547**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8800e-003	0.0588	0.0127	1.4000e-004	3.1500e-003	2.7000e-004	3.4200e-003	9.2000e-004	2.6000e-004	1.1800e-003	0.0000	13.2387	13.2387	7.6000e-004	0.0000	13.2578
Worker	9.6400e-003	7.1200e-003	0.0730	2.2000e-004	0.0209	1.5000e-004	0.0211	5.5800e-003	1.4000e-004	5.7300e-003	0.0000	19.5991	19.5991	5.1000e-004	0.0000	19.6118
Total	**0.0115**	**0.0660**	**0.0856**	**3.6000e-004**	**0.0241**	**4.2000e-004**	**0.0245**	**6.5000e-003**	**4.0000e-004**	**6.9100e-003**	**0.0000**	**32.8379**	**32.8379**	**1.2700e-003**	**0.0000**	**32.8696**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0200e-003	0.0140	0.0153	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	2.1277	2.1277	1.6000e-004	0.0000	2.1318
Total	**0.4259**	**0.0140**	**0.0153**	**2.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**2.1277**	**2.1277**	**1.6000e-004**	**0.0000**	**2.1318**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	1.0200e-003	0.0105	3.0000e-005	3.1600e-003	2.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.8114	2.8114	7.0000e-005	0.0000	2.8132
Total	**1.3800e-003**	**1.0200e-003**	**0.0105**	**3.0000e-005**	**3.1600e-003**	**2.0000e-005**	**3.1800e-003**	**8.4000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.8114**	**2.8114**	**7.0000e-005**	**0.0000**	**2.8132**

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	0.4239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0200e-003	0.0140	0.0153	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	2.1277	2.1277	1.6000e-004	0.0000	2.1318
Total	**0.4259**	**0.0140**	**0.0153**	**2.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**2.1277**	**2.1277**	**1.6000e-004**	**0.0000**	**2.1318**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	1.0200e-003	0.0105	3.0000e-005	3.0000e-003	2.0000e-005	3.0200e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.8114	2.8114	7.0000e-005	0.0000	2.8132
Total	**1.3800e-003**	**1.0200e-003**	**0.0105**	**3.0000e-005**	**3.0000e-003**	**2.0000e-005**	**3.0200e-003**	**8.0000e-004**	**2.0000e-005**	**8.2000e-004**	**0.0000**	**2.8114**	**2.8114**	**7.0000e-005**	**0.0000**	**2.8132**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2000e-003	0.0423	0.0444	7.0000e-005		2.3500e-003	2.3500e-003		2.1600e-003	2.1600e-003	0.0000	5.8829	5.8829	1.8600e-003	0.0000	5.9295
Paving	4.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.6300e-003**	**0.0423**	**0.0444**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.1600e-003**	**2.1600e-003**	**0.0000**	**5.8829**	**5.8829**	**1.8600e-003**	**0.0000**	**5.9295**

3.7 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.7000e-003	1.0000e-005	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4569	0.4569	1.0000e-005	0.0000	0.4572
Total	**2.2000e-004**	**1.7000e-004**	**1.7000e-003**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4569**	**0.4569**	**1.0000e-005**	**0.0000**	**0.4572**

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	8.0000e-004	3.4600e-003	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8828	5.8828	1.8600e-003	0.0000	5.9295
Paving	4.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2300e-003**	**3.4600e-003**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8828**	**5.8828**	**1.8600e-003**	**0.0000**	**5.9295**

3.7 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.7000e-003	1.0000e-005	4.9000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4569	0.4569	1.0000e-005	0.0000	0.4572
Total	**2.2000e-004**	**1.7000e-004**	**1.7000e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**4.9000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4569**	**0.4569**	**1.0000e-005**	**0.0000**	**0.4572**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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	0.559358	0.040058	0.190549	0.109335	0.016678	0.005213	0.023344	0.044042	0.002152	0.002669	0.005545	0.000316	0.000739
Parking Lot	0.559358	0.040058	0.190549	0.109335	0.016678	0.005213	0.023344	0.044042	0.002152	0.002669	0.005545	0.000316	0.000739

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.4828	1.4828	7.0000e-005	1.0000e-005	1.4886
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.4828	1.4828	7.0000e-005	1.0000e-005	1.4886
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5097.05	1.4828	7.0000e-005	1.0000e-005	1.4886
Total		**1.4828**	**7.0000e-005**	**1.0000e-005**	**1.4886**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5097.05	1.4828	7.0000e-005	1.0000e-005	1.4886
Total		**1.4828**	**7.0000e-005**	**1.0000e-005**	**1.4886**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2446	3.8700e-003	0.3350	2.0000e-005		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	0.5461	0.5461	5.3000e-004	0.0000	0.5593
Unmitigated	0.2446	3.8700e-003	0.3350	2.0000e-005		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	0.5461	0.5461	5.3000e-004	0.0000	0.5593

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2345					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0102	3.8700e-003	0.3350	2.0000e-005		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	0.5461	0.5461	5.3000e-004	0.0000	0.5593
Total	**0.2446**	**3.8700e-003**	**0.3350**	**2.0000e-005**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**	**0.0000**	**0.5461**	**0.5461**	**5.3000e-004**	**0.0000**	**0.5593**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2345					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0102	3.8700e-003	0.3350	2.0000e-005		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	0.5461	0.5461	5.3000e-004	0.0000	0.5593
Total	**0.2446**	**3.8700e-003**	**0.3350**	**2.0000e-005**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**	**0.0000**	**0.5461**	**0.5461**	**5.3000e-004**	**0.0000**	**0.5593**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

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

1388 Bancroft Avenue

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	14.56	1000sqft	0.33	14,563.00	0
Apartments Mid Rise	45.00	Dwelling Unit	0.94	59,790.00	129

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2021
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

Project Characteristics - Construction emissions only for this model.

Land Use - Square footage and lot size per project description.

Construction Phase - Project schedule extended per applicant.
Grading includes take up and recompacting the top 2 feet of soil per soils report.
Architectural coatings assumed to occur dispersed over the last 100 days of building construction.

Off-road Equipment - Electric compressors to be used where feasible.

Off-road Equipment - Building construction equipment adjusted for extended schedule.
Limited use of welders anticipated due to building construction type.
Grid power to be used as soon as feasible in place of gnerators.

Off-road Equipment - Demolition equipment hours adjusted for extended schedule.

Off-road Equipment - Grading equipment adjusted for extended schedule.

Off-road Equipment -

Off-road Equipment - Site prep equipment adjusted for extended schedule.

Demolition -

Grading - Material balanced on site per applicant.
Old asphalt and concrete to be used to fill existing basement.
Acres graded adjusted to account for take up and recompact top 2 feet of soil.

Vehicle Trips - Construction emissions only this model.

Woodstoves - Construction emissions only this model.

Consumer Products - Construction emissions only this model.

Area Coating - Construction emissions only this model.

Energy Use - Construction emissions only this model.

Water And Wastewater - Construction emissions only this model.

Solid Waste - Construction emissions only this model.

Construction Off-road Equipment Mitigation - Dust mitigation per BAAQMD Basic Construction Mitigation Measures.
Diesel offroad contruction equipment more than 50 HP to be Tier 4 or have retrofitted DPM filters.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	4.00	12.00

tblConstructionPhase	NumDays	200.00	272.00
tblConstructionPhase	NumDays	10.00	100.00
tblConstructionPhase	PhaseEndDate	5/28/2019	6/11/2019
tblConstructionPhase	PhaseEndDate	5/30/2019	6/17/2019
tblConstructionPhase	PhaseEndDate	6/5/2019	7/3/2019
tblConstructionPhase	PhaseEndDate	3/11/2020	7/17/2020
tblConstructionPhase	PhaseEndDate	4/8/2020	7/17/2020
tblConstructionPhase	PhaseEndDate	3/25/2020	7/31/2020
tblConstructionPhase	PhaseStartDate	5/29/2019	6/12/2019
tblConstructionPhase	PhaseStartDate	5/31/2019	6/18/2019
tblConstructionPhase	PhaseStartDate	6/6/2019	7/4/2019
tblConstructionPhase	PhaseStartDate	3/26/2020	3/2/2020
tblConstructionPhase	PhaseStartDate	3/12/2020	7/18/2020
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	T24E	426.45	0.00
tblEnergyUse	T24NG	6,115.43	0.00
tblFireplaces	NumberGas	6.75	0.00
tblFireplaces	NumberNoFireplace	1.80	0.00
tblFireplaces	NumberWood	7.65	0.00
tblGrading	AcresOfGrading	4.50	5.10
tblGrading	AcresOfGrading	0.50	1.00
tblLandUse	LandUseSquareFeet	14,560.00	14,563.00
tblLandUse	LandUseSquareFeet	45,000.00	59,790.00
tblLandUse	LotAcreage	1.18	0.94
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblSolidWaste	SolidWasteGenerationRate	20.70	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	13.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWater	IndoorWaterUseRate	2,931,931.15	0.00
tblWater	OutdoorWaterUseRate	1,848,391.38	0.00
tblWoodstoves	NumberCatalytic	0.90	0.00
tblWoodstoves	NumberNoncatalytic	0.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.5174	15.7876	9.3449	0.0183	3.5275	0.8159	4.0587	1.7212	0.7553	2.2099	0.0000	1,827.4097	1,827.4097	0.4247	0.0000	1,838.0273
2020	9.0993	8.4806	9.2467	0.0146	0.4335	0.4702	0.6642	0.1161	0.4335	0.4618	0.0000	1,405.5432	1,405.5432	0.4139	0.0000	1,415.8912
Maximum	**9.0993**	**15.7876**	**9.3449**	**0.0183**	**3.5275**	**0.8159**	**4.0587**	**1.7212**	**0.7553**	**2.2099**	**0.0000**	**1,827.4097**	**1,827.4097**	**0.4247**	**0.0000**	**1,838.0273**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.2554	1.8967	9.1249	0.0183	1.6201	0.0275	1.6382	0.7833	0.0273	0.8013	0.0000	1,827.4097	1,827.4097	0.4247	0.0000	1,838.0273
2020	8.7764	1.5610	10.2220	0.0146	0.4114	0.0325	0.4438	0.1106	0.0321	0.1427	0.0000	1,405.5432	1,405.5432	0.4139	0.0000	1,415.8912
Maximum	**8.7764**	**1.8967**	**10.2220**	**0.0183**	**1.6201**	**0.0325**	**1.6382**	**0.7833**	**0.0321**	**0.8013**	**0.0000**	**1,827.4097**	**1,827.4097**	**0.4247**	**0.0000**	**1,838.0273**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**14.93**	**85.75**	**-4.06**	**0.00**	**48.71**	**95.33**	**55.92**	**51.35**	**95.00**	**64.66**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

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	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	6/11/2019	5	30	
2	Site Preparation	Site Preparation	6/12/2019	6/17/2019	5	4	
3	Grading	Grading	6/18/2019	7/3/2019	5	12	
4	Building Construction	Building Construction	7/4/2019	7/17/2020	5	272	
5	Architectural Coating	Architectural Coating	3/2/2020	7/17/2020	5	100	
6	Paving	Paving	7/18/2020	7/31/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 5.1

Acres of Paving: 0.33

Residential Indoor: 121,075; Residential Outdoor: 40,358; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 874 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	2.00	81	0.73
Demolition	Rubber Tired Dozers	1	6.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	2.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Cranes	1	2.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	1	1.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Air Compressors	1	1.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Demolition	4	13.00	0.00	111.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	39.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8006	0.0000	0.8006	0.1212	0.0000	0.1212			0.0000			0.0000
Off-Road	1.4321	14.6277	8.7440	0.0142		0.8110	0.8110		0.7507	0.7507		1,397.3215	1,397.3215	0.4057		1,407.4627
Total	**1.4321**	**14.6277**	**8.7440**	**0.0142**	**0.8006**	**0.8110**	**1.6116**	**0.1212**	**0.7507**	**0.8719**		**1,397.3215**	**1,397.3215**	**0.4057**		**1,407.4627**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0333	1.1268	0.1888	3.0000e-003	0.0648	4.1300e-003	0.0689	0.0178	3.9500e-003	0.0217		318.0297	318.0297	0.0159		318.4270
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	0.0520	0.0331	0.4121	1.1300e-003	0.1068	7.3000e-004	0.1075	0.0283	6.8000e-004	0.0290		112.0586	112.0586	3.1600e-003		112.1376
Total	**0.0854**	**1.1599**	**0.6009**	**4.1300e-003**	**0.1716**	**4.8600e-003**	**0.1764**	**0.0461**	**4.6300e-003**	**0.0507**		**430.0882**	**430.0882**	**0.0191**		**430.5646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3603	0.0000	0.3603	0.0546	0.0000	0.0546			0.0000			0.0000
Off-Road	0.1700	0.7367	8.5240	0.0142		0.0227	0.0227		0.0227	0.0227	0.0000	1,397.3215	1,397.3215	0.4057		1,407.4627
Total	**0.1700**	**0.7367**	**8.5240**	**0.0142**	**0.3603**	**0.0227**	**0.3829**	**0.0546**	**0.0227**	**0.0772**	**0.0000**	**1,397.3215**	**1,397.3215**	**0.4057**		**1,407.4627**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0333	1.1268	0.1888	3.0000e-003	0.0618	4.1300e-003	0.0660	0.0170	3.9500e-003	0.0210		318.0297	318.0297	0.0159		318.4270
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	0.0520	0.0331	0.4121	1.1300e-003	0.1012	7.3000e-004	0.1020	0.0270	6.8000e-004	0.0276		112.0586	112.0586	3.1600e-003		112.1376
Total	**0.0854**	**1.1599**	**0.6009**	**4.1300e-003**	**0.1631**	**4.8600e-003**	**0.1679**	**0.0440**	**4.6300e-003**	**0.0486**		**430.0882**	**430.0882**	**0.0191**		**430.5646**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2762	0.0000	3.2762	1.6837	0.0000	1.6837			0.0000			0.0000
Off-Road	0.8054	8.8508	3.7529	7.4800e-003		0.4252	0.4252		0.3912	0.3912		740.8920	740.8920	0.2344		746.7522
Total	**0.8054**	**8.8508**	**3.7529**	**7.4800e-003**	**3.2762**	**0.4252**	**3.7014**	**1.6837**	**0.3912**	**2.0749**		**740.8920**	**740.8920**	**0.2344**		**746.7522**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0320	0.0204	0.2536	6.9000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		68.9591	68.9591	1.9500e-003		69.0078
Total	**0.0320**	**0.0204**	**0.2536**	**6.9000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**68.9591**	**68.9591**	**1.9500e-003**		**69.0078**

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					1.4743	0.0000	1.4743	0.7577	0.0000	0.7577			0.0000			0.0000
Off-Road	0.0916	0.3967	3.8316	7.4800e-003		0.0122	0.0122		0.0122	0.0122	0.0000	740.8920	740.8920	0.2344		746.7522
Total	**0.0916**	**0.3967**	**3.8316**	**7.4800e-003**	**1.4743**	**0.0122**	**1.4865**	**0.7577**	**0.0122**	**0.7699**	**0.0000**	**740.8920**	**740.8920**	**0.2344**		**746.7522**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0320	0.0204	0.2536	6.9000e-004	0.0623	4.5000e-004	0.0627	0.0166	4.2000e-004	0.0170		68.9591	68.9591	1.9500e-003		69.0078
Total	**0.0320**	**0.0204**	**0.2536**	**6.9000e-004**	**0.0623**	**4.5000e-004**	**0.0627**	**0.0166**	**4.2000e-004**	**0.0170**		**68.9591**	**68.9591**	**1.9500e-003**		**69.0078**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4618	0.0000	3.4618	1.7038	0.0000	1.7038			0.0000			0.0000
Off-Road	1.0487	12.1406	4.6719	0.0108		0.5308	0.5308		0.4883	0.4883		1,069.7055	1,069.7055	0.3384		1,078.1666
Total	**1.0487**	**12.1406**	**4.6719**	**0.0108**	**3.4618**	**0.5308**	**3.9925**	**1.7038**	**0.4883**	**2.1921**		**1,069.7055**	**1,069.7055**	**0.3384**		**1,078.1666**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0320	0.0204	0.2536	6.9000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		68.9591	68.9591	1.9500e-003		69.0078
Total	**0.0320**	**0.0204**	**0.2536**	**6.9000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**68.9591**	**68.9591**	**1.9500e-003**		**69.0078**

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					1.5578	0.0000	1.5578	0.7667	0.0000	0.7667			0.0000			0.0000
Off-Road	0.1321	0.5725	5.3190	0.0108		0.0176	0.0176		0.0176	0.0176	0.0000	1,069.7055	1,069.7055	0.3384		1,078.1666
Total	**0.1321**	**0.5725**	**5.3190**	**0.0108**	**1.5578**	**0.0176**	**1.5754**	**0.7667**	**0.0176**	**0.7843**	**0.0000**	**1,069.7055**	**1,069.7055**	**0.3384**		**1,078.1666**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0320	0.0204	0.2536	6.9000e-004	0.0623	4.5000e-004	0.0627	0.0166	4.2000e-004	0.0170		68.9591	68.9591	1.9500e-003		69.0078
Total	**0.0320**	**0.0204**	**0.2536**	**6.9000e-004**	**0.0623**	**4.5000e-004**	**0.0627**	**0.0166**	**4.2000e-004**	**0.0170**		**68.9591**	**68.9591**	**1.9500e-003**		**69.0078**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4260	4.0599	3.0130	4.9000e-003		0.2377	0.2377		0.2219	0.2219		476.0478	476.0478	0.1270		479.2238
Total	**0.4260**	**4.0599**	**3.0130**	**4.9000e-003**		**0.2377**	**0.2377**		**0.2219**	**0.2219**		**476.0478**	**476.0478**	**0.1270**		**479.2238**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0310	0.8839	0.1849	1.9700e-003	0.0474	5.6900e-003	0.0531	0.0137	5.4400e-003	0.0191		207.9107	207.9107	0.0121		208.2137
Worker	0.1561	0.0993	1.2363	3.3800e-003	0.3204	2.2000e-003	0.3226	0.0850	2.0300e-003	0.0870		336.1757	336.1757	9.4900e-003		336.4129
Total	**0.1870**	**0.9832**	**1.4211**	**5.3500e-003**	**0.3678**	**7.8900e-003**	**0.3757**	**0.0986**	**7.4700e-003**	**0.1061**		**544.0865**	**544.0865**	**0.0216**		**544.6266**

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	0.0598	0.3610	3.0958	4.9000e-003		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	476.0478	476.0478	0.1270		479.2238
Total	**0.0598**	**0.3610**	**3.0958**	**4.9000e-003**		**7.6100e-003**	**7.6100e-003**		**7.6100e-003**	**7.6100e-003**	**0.0000**	**476.0478**	**476.0478**	**0.1270**		**479.2238**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0310	0.8839	0.1849	1.9700e-003	0.0454	5.6900e-003	0.0511	0.0132	5.4400e-003	0.0186		207.9107	207.9107	0.0121		208.2137
Worker	0.1561	0.0993	1.2363	3.3800e-003	0.3037	2.2000e-003	0.3059	0.0809	2.0300e-003	0.0829		336.1757	336.1757	9.4900e-003		336.4129
Total	**0.1870**	**0.9832**	**1.4211**	**5.3500e-003**	**0.3491**	**7.8900e-003**	**0.3570**	**0.0940**	**7.4700e-003**	**0.1015**		**544.0865**	**544.0865**	**0.0216**		**544.6266**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3828	3.6805	2.9429	4.9000e-003		0.2059	0.2059		0.1922	0.1922		467.9111	467.9111	0.1260		471.0605
Total	**0.3828**	**3.6805**	**2.9429**	**4.9000e-003**		**0.2059**	**0.2059**		**0.1922**	**0.1922**		**467.9111**	**467.9111**	**0.1260**		**471.0605**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0258	0.8135	0.1652	1.9600e-003	0.0474	3.7900e-003	0.0512	0.0137	3.6300e-003	0.0173		206.4850	206.4850	0.0112		206.7659
Worker	0.1427	0.0878	1.1125	3.2700e-003	0.3204	2.1400e-003	0.3225	0.0850	1.9700e-003	0.0870		325.7911	325.7911	8.3500e-003		325.9998
Total	**0.1684**	**0.9013**	**1.2777**	**5.2300e-003**	**0.3678**	**5.9300e-003**	**0.3737**	**0.0986**	**5.6000e-003**	**0.1042**		**532.2761**	**532.2761**	**0.0196**		**532.7657**

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	0.0598	0.3610	3.0958	4.9000e-003		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	467.9111	467.9111	0.1260		471.0605
Total	**0.0598**	**0.3610**	**3.0958**	**4.9000e-003**		**7.6100e-003**	**7.6100e-003**		**7.6100e-003**	**7.6100e-003**	**0.0000**	**467.9111**	**467.9111**	**0.1260**		**471.0605**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0258	0.8135	0.1652	1.9600e-003	0.0454	3.7900e-003	0.0492	0.0132	3.6300e-003	0.0168		206.4850	206.4850	0.0112		206.7659
Worker	0.1427	0.0878	1.1125	3.2700e-003	0.3037	2.1400e-003	0.3058	0.0809	1.9700e-003	0.0829		325.7911	325.7911	8.3500e-003		325.9998
Total	**0.1684**	**0.9013**	**1.2777**	**5.2300e-003**	**0.3491**	**5.9300e-003**	**0.3550**	**0.0940**	**5.6000e-003**	**0.0996**		**532.2761**	**532.2761**	**0.0196**		**532.7657**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.4785					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0404	0.2806	0.3052	5.0000e-004		0.0185	0.0185		0.0185	0.0185		46.9080	46.9080	3.6300e-003		46.9988
Total	**8.5188**	**0.2806**	**0.3052**	**5.0000e-004**		**0.0185**	**0.0185**		**0.0185**	**0.0185**		**46.9080**	**46.9080**	**3.6300e-003**		**46.9988**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0293	0.0180	0.2282	6.7000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.0000e-004	0.0178		66.8289	66.8289	1.7100e-003		66.8718
Total	**0.0293**	**0.0180**	**0.2282**	**6.7000e-004**	**0.0657**	**4.4000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**66.8289**	**66.8289**	**1.7100e-003**		**66.8718**

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	8.4785					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0404	0.2806	0.3052	5.0000e-004		0.0185	0.0185		0.0185	0.0185	0.0000	46.9080	46.9080	3.6300e-003		46.9988
Total	**8.5188**	**0.2806**	**0.3052**	**5.0000e-004**		**0.0185**	**0.0185**		**0.0185**	**0.0185**	**0.0000**	**46.9080**	**46.9080**	**3.6300e-003**		**46.9988**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0293	0.0180	0.2282	6.7000e-004	0.0623	4.4000e-004	0.0627	0.0166	4.0000e-004	0.0170		66.8289	66.8289	1.7100e-003		66.8718
Total	**0.0293**	**0.0180**	**0.2282**	**6.7000e-004**	**0.0623**	**4.4000e-004**	**0.0627**	**0.0166**	**4.0000e-004**	**0.0170**		**66.8289**	**66.8289**	**1.7100e-003**		**66.8718**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328		1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9266**	**8.4514**	**8.8758**	**0.0135**		**0.4695**	**0.4695**		**0.4328**	**0.4328**		**1,296.9461**	**1,296.9461**	**0.4111**		**1,307.2246**

3.7 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0293	0.3708	1.0900e-003	0.1068	7.1000e-004	0.1075	0.0283	6.6000e-004	0.0290		108.5970	108.5970	2.7800e-003		108.6666
Total	**0.0476**	**0.0293**	**0.3708**	**1.0900e-003**	**0.1068**	**7.1000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**108.5970**	**108.5970**	**2.7800e-003**		**108.6666**

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	0.1598	0.6922	9.8512	0.0135		0.0213	0.0213		0.0213	0.0213	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2462**	**0.6922**	**9.8512**	**0.0135**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,296.9461**	**1,296.9461**	**0.4111**		**1,307.2246**

3.7 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0476	0.0293	0.3708	1.0900e-003	0.1012	7.1000e-004	0.1019	0.0270	6.6000e-004	0.0276		108.5970	108.5970	2.7800e-003		108.6666
Total	**0.0476**	**0.0293**	**0.3708**	**1.0900e-003**	**0.1012**	**7.1000e-004**	**0.1019**	**0.0270**	**6.6000e-004**	**0.0276**		**108.5970**	**108.5970**	**2.7800e-003**		**108.6666**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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	0.559358	0.040058	0.190549	0.109335	0.016678	0.005213	0.023344	0.044042	0.002152	0.002669	0.005545	0.000316	0.000739
Parking Lot	0.559358	0.040058	0.190549	0.109335	0.016678	0.005213	0.023344	0.044042	0.002152	0.002669	0.005545	0.000316	0.000739

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502
Unmitigated	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1129	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205		6.6880	6.6880	6.4900e-003		6.8502
Total	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**		**0.0205**	**0.0205**		**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1129	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205		6.6880	6.6880	6.4900e-003		6.8502
Total	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**		**0.0205**	**0.0205**		**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

1388 Bancroft Avenue

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	14.56	1000sqft	0.33	14,563.00	0
Apartments Mid Rise	45.00	Dwelling Unit	0.94	59,790.00	129

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2021
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

Project Characteristics - Construction emissions only for this model.

Land Use - Square footage and lot size per project description.

Construction Phase - Project schedule extended per applicant.
Grading includes take up and recompacting the top 2 feet of soil per soils report.
Architectural coatings assumed to occur dispersed over the last 100 days of building construction.

Off-road Equipment - Electric compressors to be used where feasible.

Off-road Equipment - Building construction equipment adjusted for extended schedule.
Limited use of welders anticipated due to building construction type.
Grid power to be used as soon as feasible in place of gnerators.

Off-road Equipment - Demolition equipment hours adjusted for extended schedule.

Off-road Equipment - Grading equipment adjusted for extended schedule.

Off-road Equipment -

Off-road Equipment - Site prep equipment adjusted for extended schedule.

Demolition -

Grading - Material balanced on site per applicant.
Old asphalt and concrete to be used to fill existing basement.
Acres graded adjusted to account for take up and recompact top 2 feet of soil.

Vehicle Trips - Construction emissions only this model.

Woodstoves - Construction emissions only this model.

Consumer Products - Construction emissions only this model.

Area Coating - Construction emissions only this model.

Energy Use - Construction emissions only this model.

Water And Wastewater - Construction emissions only this model.

Solid Waste - Construction emissions only this model.

Construction Off-road Equipment Mitigation - Dust mitigation per BAAQMD Basic Construction Mitigation Measures.
Diesel offroad contruction equipment more than 50 HP to be Tier 4 or have retrofitted DPM filters.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	4.00	12.00

tblConstructionPhase	NumDays	200.00	272.00
tblConstructionPhase	NumDays	10.00	100.00
tblConstructionPhase	PhaseEndDate	5/28/2019	6/11/2019
tblConstructionPhase	PhaseEndDate	5/30/2019	6/17/2019
tblConstructionPhase	PhaseEndDate	6/5/2019	7/3/2019
tblConstructionPhase	PhaseEndDate	3/11/2020	7/17/2020
tblConstructionPhase	PhaseEndDate	4/8/2020	7/17/2020
tblConstructionPhase	PhaseEndDate	3/25/2020	7/31/2020
tblConstructionPhase	PhaseStartDate	5/29/2019	6/12/2019
tblConstructionPhase	PhaseStartDate	5/31/2019	6/18/2019
tblConstructionPhase	PhaseStartDate	6/6/2019	7/4/2019
tblConstructionPhase	PhaseStartDate	3/26/2020	3/2/2020
tblConstructionPhase	PhaseStartDate	3/12/2020	7/18/2020
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	T24E	426.45	0.00
tblEnergyUse	T24NG	6,115.43	0.00
tblFireplaces	NumberGas	6.75	0.00
tblFireplaces	NumberNoFireplace	1.80	0.00
tblFireplaces	NumberWood	7.65	0.00
tblGrading	AcresOfGrading	4.50	5.10
tblGrading	AcresOfGrading	0.50	1.00
tblLandUse	LandUseSquareFeet	14,560.00	14,563.00
tblLandUse	LandUseSquareFeet	45,000.00	59,790.00
tblLandUse	LotAcreage	1.18	0.94
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblSolidWaste	SolidWasteGenerationRate	20.70	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	13.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWater	IndoorWaterUseRate	2,931,931.15	0.00
tblWater	OutdoorWaterUseRate	1,848,391.38	0.00
tblWoodstoves	NumberCatalytic	0.90	0.00
tblWoodstoves	NumberNoncatalytic	0.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.5207	15.8229	9.3417	0.0182	3.5275	0.8159	4.0587	1.7212	0.7554	2.2099	0.0000	1,812.7025	1,812.7025	0.4258	0.0000	1,823.3463
2020	9.1080	8.4878	9.2260	0.0145	0.4335	0.4702	0.6643	0.1161	0.4335	0.4618	0.0000	1,396.8782	1,396.8782	0.4138	0.0000	1,407.2219
Maximum	**9.1080**	**15.8229**	**9.3417**	**0.0182**	**3.5275**	**0.8159**	**4.0587**	**1.7212**	**0.7554**	**2.2099**	**0.0000**	**1,812.7025**	**1,812.7025**	**0.4258**	**0.0000**	**1,823.3463**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.2586	1.9320	9.1217	0.0182	1.6201	0.0276	1.6382	0.7833	0.0274	0.8013	0.0000	1,812.7025	1,812.7025	0.4258	0.0000	1,823.3463
2020	8.7851	1.5947	10.2013	0.0145	0.4114	0.0325	0.4439	0.1106	0.0322	0.1428	0.0000	1,396.8782	1,396.8782	0.4138	0.0000	1,407.2219
Maximum	**8.7851**	**1.9320**	**10.2013**	**0.0182**	**1.6201**	**0.0325**	**1.6382**	**0.7833**	**0.0322**	**0.8013**	**0.0000**	**1,812.7025**	**1,812.7025**	**0.4258**	**0.0000**	**1,823.3463**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**14.91**	**85.49**	**-4.07**	**0.00**	**48.71**	**95.32**	**55.92**	**51.35**	**94.99**	**64.66**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

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	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	6/11/2019	5	30	
2	Site Preparation	Site Preparation	6/12/2019	6/17/2019	5	4	
3	Grading	Grading	6/18/2019	7/3/2019	5	12	
4	Building Construction	Building Construction	7/4/2019	7/17/2020	5	272	
5	Architectural Coating	Architectural Coating	3/2/2020	7/17/2020	5	100	
6	Paving	Paving	7/18/2020	7/31/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 5.1

Acres of Paving: 0.33

Residential Indoor: 121,075; Residential Outdoor: 40,358; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 874 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	2.00	81	0.73
Demolition	Rubber Tired Dozers	1	6.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	2.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Cranes	1	2.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	1	1.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Air Compressors	1	1.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Demolition	4	13.00	0.00	111.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	39.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8006	0.0000	0.8006	0.1212	0.0000	0.1212			0.0000			0.0000
Off-Road	1.4321	14.6277	8.7440	0.0142		0.8110	0.8110		0.7507	0.7507		1,397.3215	1,397.3215	0.4057		1,407.4627
Total	**1.4321**	**14.6277**	**8.7440**	**0.0142**	**0.8006**	**0.8110**	**1.6116**	**0.1212**	**0.7507**	**0.8719**		**1,397.3215**	**1,397.3215**	**0.4057**		**1,407.4627**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0343	1.1540	0.2068	2.9400e-003	0.0648	4.2100e-003	0.0690	0.0178	4.0200e-003	0.0218		312.2584	312.2584	0.0171		312.6864
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0543	0.0412	0.3910	1.0400e-003	0.1068	7.3000e-004	0.1075	0.0283	6.8000e-004	0.0290		103.1226	103.1226	2.9800e-003		103.1972
Total	**0.0886**	**1.1952**	**0.5977**	**3.9800e-003**	**0.1716**	**4.9400e-003**	**0.1765**	**0.0461**	**4.7000e-003**	**0.0508**		**415.3810**	**415.3810**	**0.0201**		**415.8836**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3603	0.0000	0.3603	0.0546	0.0000	0.0546			0.0000			0.0000
Off-Road	0.1700	0.7367	8.5240	0.0142		0.0227	0.0227		0.0227	0.0227	0.0000	1,397.3215	1,397.3215	0.4057		1,407.4627
Total	**0.1700**	**0.7367**	**8.5240**	**0.0142**	**0.3603**	**0.0227**	**0.3829**	**0.0546**	**0.0227**	**0.0772**	**0.0000**	**1,397.3215**	**1,397.3215**	**0.4057**		**1,407.4627**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0343	1.1540	0.2068	2.9400e-003	0.0618	4.2100e-003	0.0660	0.0170	4.0200e-003	0.0211		312.2584	312.2584	0.0171		312.6864
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0543	0.0412	0.3910	1.0400e-003	0.1012	7.3000e-004	0.1020	0.0270	6.8000e-004	0.0276		103.1226	103.1226	2.9800e-003		103.1972
Total	**0.0886**	**1.1952**	**0.5977**	**3.9800e-003**	**0.1631**	**4.9400e-003**	**0.1680**	**0.0440**	**4.7000e-003**	**0.0487**		**415.3810**	**415.3810**	**0.0201**		**415.8836**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2762	0.0000	3.2762	1.6837	0.0000	1.6837			0.0000			0.0000
Off-Road	0.8054	8.8508	3.7529	7.4800e-003		0.4252	0.4252		0.3912	0.3912		740.8920	740.8920	0.2344		746.7522
Total	**0.8054**	**8.8508**	**3.7529**	**7.4800e-003**	**3.2762**	**0.4252**	**3.7014**	**1.6837**	**0.3912**	**2.0749**		**740.8920**	**740.8920**	**0.2344**		**746.7522**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0334	0.0253	0.2406	6.4000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.4601	63.4601	1.8300e-003		63.5060
Total	**0.0334**	**0.0253**	**0.2406**	**6.4000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**63.4601**	**63.4601**	**1.8300e-003**		**63.5060**

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					1.4743	0.0000	1.4743	0.7577	0.0000	0.7577			0.0000			0.0000
Off-Road	0.0916	0.3967	3.8316	7.4800e-003		0.0122	0.0122		0.0122	0.0122	0.0000	740.8920	740.8920	0.2344		746.7522
Total	**0.0916**	**0.3967**	**3.8316**	**7.4800e-003**	**1.4743**	**0.0122**	**1.4865**	**0.7577**	**0.0122**	**0.7699**	**0.0000**	**740.8920**	**740.8920**	**0.2344**		**746.7522**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0334	0.0253	0.2406	6.4000e-004	0.0623	4.5000e-004	0.0627	0.0166	4.2000e-004	0.0170		63.4601	63.4601	1.8300e-003		63.5060
Total	**0.0334**	**0.0253**	**0.2406**	**6.4000e-004**	**0.0623**	**4.5000e-004**	**0.0627**	**0.0166**	**4.2000e-004**	**0.0170**		**63.4601**	**63.4601**	**1.8300e-003**		**63.5060**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4618	0.0000	3.4618	1.7038	0.0000	1.7038			0.0000			0.0000
Off-Road	1.0487	12.1406	4.6719	0.0108		0.5308	0.5308		0.4883	0.4883		1,069.7055	1,069.7055	0.3384		1,078.1666
Total	**1.0487**	**12.1406**	**4.6719**	**0.0108**	**3.4618**	**0.5308**	**3.9925**	**1.7038**	**0.4883**	**2.1921**		**1,069.7055**	**1,069.7055**	**0.3384**		**1,078.1666**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0334	0.0253	0.2406	6.4000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.4601	63.4601	1.8300e-003		63.5060
Total	**0.0334**	**0.0253**	**0.2406**	**6.4000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**63.4601**	**63.4601**	**1.8300e-003**		**63.5060**

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					1.5578	0.0000	1.5578	0.7667	0.0000	0.7667			0.0000			0.0000
Off-Road	0.1321	0.5725	5.3190	0.0108		0.0176	0.0176		0.0176	0.0176	0.0000	1,069.7055	1,069.7055	0.3384		1,078.1666
Total	**0.1321**	**0.5725**	**5.3190**	**0.0108**	**1.5578**	**0.0176**	**1.5754**	**0.7667**	**0.0176**	**0.7843**	**0.0000**	**1,069.7055**	**1,069.7055**	**0.3384**		**1,078.1666**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0334	0.0253	0.2406	6.4000e-004	0.0623	4.5000e-004	0.0627	0.0166	4.2000e-004	0.0170		63.4601	63.4601	1.8300e-003		63.5060
Total	**0.0334**	**0.0253**	**0.2406**	**6.4000e-004**	**0.0623**	**4.5000e-004**	**0.0627**	**0.0166**	**4.2000e-004**	**0.0170**		**63.4601**	**63.4601**	**1.8300e-003**		**63.5060**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4260	4.0599	3.0130	4.9000e-003		0.2377	0.2377		0.2219	0.2219		476.0478	476.0478	0.1270		479.2238
Total	**0.4260**	**4.0599**	**3.0130**	**4.9000e-003**		**0.2377**	**0.2377**		**0.2219**	**0.2219**		**476.0478**	**476.0478**	**0.1270**		**479.2238**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0324	0.8944	0.2134	1.9200e-003	0.0474	5.7700e-003	0.0532	0.0137	5.5200e-003	0.0192		202.2677	202.2677	0.0134		202.6017
Worker	0.1630	0.1236	1.1729	3.1100e-003	0.3204	2.2000e-003	0.3226	0.0850	2.0300e-003	0.0870		309.3679	309.3679	8.9400e-003		309.5915
Total	**0.1954**	**1.0179**	**1.3862**	**5.0300e-003**	**0.3678**	**7.9700e-003**	**0.3758**	**0.0986**	**7.5500e-003**	**0.1062**		**511.6356**	**511.6356**	**0.0223**		**512.1932**

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	0.0598	0.3610	3.0958	4.9000e-003		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	476.0478	476.0478	0.1270		479.2238
Total	**0.0598**	**0.3610**	**3.0958**	**4.9000e-003**		**7.6100e-003**	**7.6100e-003**		**7.6100e-003**	**7.6100e-003**	**0.0000**	**476.0478**	**476.0478**	**0.1270**		**479.2238**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0324	0.8944	0.2134	1.9200e-003	0.0454	5.7700e-003	0.0512	0.0132	5.5200e-003	0.0187		202.2677	202.2677	0.0134		202.6017
Worker	0.1630	0.1236	1.1729	3.1100e-003	0.3037	2.2000e-003	0.3059	0.0809	2.0300e-003	0.0829		309.3679	309.3679	8.9400e-003		309.5915
Total	**0.1954**	**1.0179**	**1.3862**	**5.0300e-003**	**0.3491**	**7.9700e-003**	**0.3570**	**0.0940**	**7.5500e-003**	**0.1016**		**511.6356**	**511.6356**	**0.0223**		**512.1932**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3828	3.6805	2.9429	4.9000e-003		0.2059	0.2059		0.1922	0.1922		467.9111	467.9111	0.1260		471.0605
Total	**0.3828**	**3.6805**	**2.9429**	**4.9000e-003**		**0.2059**	**0.2059**		**0.1922**	**0.1922**		**467.9111**	**467.9111**	**0.1260**		**471.0605**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.8215	0.1913	1.9000e-003	0.0474	3.8500e-003	0.0513	0.0137	3.6800e-003	0.0173		200.8109	200.8109	0.0124		201.1204
Worker	0.1488	0.1092	1.0505	3.0100e-003	0.3204	2.1400e-003	0.3225	0.0850	1.9700e-003	0.0870		299.7963	299.7963	7.8300e-003		299.9919
Total	**0.1759**	**0.9306**	**1.2418**	**4.9100e-003**	**0.3678**	**5.9900e-003**	**0.3738**	**0.0986**	**5.6500e-003**	**0.1043**		**500.6072**	**500.6072**	**0.0202**		**501.1123**

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	0.0598	0.3610	3.0958	4.9000e-003		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	467.9111	467.9111	0.1260		471.0605
Total	**0.0598**	**0.3610**	**3.0958**	**4.9000e-003**		**7.6100e-003**	**7.6100e-003**		**7.6100e-003**	**7.6100e-003**	**0.0000**	**467.9111**	**467.9111**	**0.1260**		**471.0605**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.8215	0.1913	1.9000e-003	0.0454	3.8500e-003	0.0493	0.0132	3.6800e-003	0.0168		200.8109	200.8109	0.0124		201.1204
Worker	0.1488	0.1092	1.0505	3.0100e-003	0.3037	2.1400e-003	0.3058	0.0809	1.9700e-003	0.0829		299.7963	299.7963	7.8300e-003		299.9919
Total	**0.1759**	**0.9306**	**1.2418**	**4.9100e-003**	**0.3491**	**5.9900e-003**	**0.3551**	**0.0940**	**5.6500e-003**	**0.0997**		**500.6072**	**500.6072**	**0.0202**		**501.1123**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.4785					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0404	0.2806	0.3052	5.0000e-004		0.0185	0.0185		0.0185	0.0185		46.9080	46.9080	3.6300e-003		46.9988
Total	**8.5188**	**0.2806**	**0.3052**	**5.0000e-004**		**0.0185**	**0.0185**		**0.0185**	**0.0185**		**46.9080**	**46.9080**	**3.6300e-003**		**46.9988**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0305	0.0224	0.2155	6.2000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.0000e-004	0.0178		61.4967	61.4967	1.6100e-003		61.5368
Total	**0.0305**	**0.0224**	**0.2155**	**6.2000e-004**	**0.0657**	**4.4000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**61.4967**	**61.4967**	**1.6100e-003**		**61.5368**

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	8.4785					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0404	0.2806	0.3052	5.0000e-004		0.0185	0.0185		0.0185	0.0185	0.0000	46.9080	46.9080	3.6300e-003		46.9988
Total	**8.5188**	**0.2806**	**0.3052**	**5.0000e-004**		**0.0185**	**0.0185**		**0.0185**	**0.0185**	**0.0000**	**46.9080**	**46.9080**	**3.6300e-003**		**46.9988**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0305	0.0224	0.2155	6.2000e-004	0.0623	4.4000e-004	0.0627	0.0166	4.0000e-004	0.0170		61.4967	61.4967	1.6100e-003		61.5368
Total	**0.0305**	**0.0224**	**0.2155**	**6.2000e-004**	**0.0623**	**4.4000e-004**	**0.0627**	**0.0166**	**4.0000e-004**	**0.0170**		**61.4967**	**61.4967**	**1.6100e-003**		**61.5368**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328		1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9266**	**8.4514**	**8.8758**	**0.0135**		**0.4695**	**0.4695**		**0.4328**	**0.4328**		**1,296.9461**	**1,296.9461**	**0.4111**		**1,307.2246**

3.7 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0364	0.3502	1.0000e-003	0.1068	7.1000e-004	0.1075	0.0283	6.6000e-004	0.0290		99.9321	99.9321	2.6100e-003		99.9973
Total	**0.0496**	**0.0364**	**0.3502**	**1.0000e-003**	**0.1068**	**7.1000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**99.9321**	**99.9321**	**2.6100e-003**		**99.9973**

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	0.1598	0.6922	9.8512	0.0135		0.0213	0.0213		0.0213	0.0213	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2462**	**0.6922**	**9.8512**	**0.0135**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,296.9461**	**1,296.9461**	**0.4111**		**1,307.2246**

3.7 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0364	0.3502	1.0000e-003	0.1012	7.1000e-004	0.1019	0.0270	6.6000e-004	0.0276		99.9321	99.9321	2.6100e-003		99.9973
Total	**0.0496**	**0.0364**	**0.3502**	**1.0000e-003**	**0.1012**	**7.1000e-004**	**0.1019**	**0.0270**	**6.6000e-004**	**0.0276**		**99.9321**	**99.9321**	**2.6100e-003**		**99.9973**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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	0.559358	0.040058	0.190549	0.109335	0.016678	0.005213	0.023344	0.044042	0.002152	0.002669	0.005545	0.000316	0.000739
Parking Lot	0.559358	0.040058	0.190549	0.109335	0.016678	0.005213	0.023344	0.044042	0.002152	0.002669	0.005545	0.000316	0.000739

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502
Unmitigated	1.3975	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205	0.0000	6.6880	6.6880	6.4900e-003	0.0000	6.8502

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1129	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205		6.6880	6.6880	6.4900e-003		6.8502
Total	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**		**0.0205**	**0.0205**		**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1129	0.0430	3.7221	2.0000e-004		0.0205	0.0205		0.0205	0.0205		6.6880	6.6880	6.4900e-003		6.8502
Total	**1.3975**	**0.0430**	**3.7221**	**2.0000e-004**		**0.0205**	**0.0205**		**0.0205**	**0.0205**	**0.0000**	**6.6880**	**6.6880**	**6.4900e-003**	**0.0000**	**6.8502**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 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

APPENDIX CUL
CULTURAL RESOURCES IDENTIFICATION AND EVALUATION MEMORANDUM

Michael Baker
INTERNATIONAL

We Make a Difference

September 13, 2018

Greg Holisko, Project Manager
MICHAEL BAKER INTERNATIONAL
1 Kaiser Plaza, Suite 1150
Oakland, CA 94612

RE: CULTURAL RESOURCES IDENTIFICATION AND EVALUATION MEMO FOR THE 1388 BANCROFT AVENUE PROJECT, CITY OF SAN LEANDRO, CALIFORNIA

Dear Mr. Holisko:

In support of the 1388 Bancroft Avenue Project (project), Michael Baker International staff completed a Northwest Information Center (NWIC) records search, field survey, historic map review, historical society consultation, and two California Register of Historical Resources (California Register) evaluations to determine whether the project proposes impacts to historical resources as defined by CEQA Section 15064.5. A summary of the methods, results, and recommendations is provided below.

NORTHWEST INFORMATION CENTER RECORDS SEARCH

Michael Baker staff completed a records search of the project area and a quarter-mile search radius at the Northwest Information Center (NWIC). The records search (File No. 18-0235) was conducted on August 2, 2018. The NWIC, as part of the California Historical Resources Information System, California State University, Sonoma, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and reports for Alameda County. As part of the records search, the following federal and California inventories were reviewed:

- California Inventory of Historic Resources (OHP 1976).
- California Points of Historical Interest (OHP 1992 and updates).
- California Historical Landmarks (OHP 1996).
- Directory of Properties in the Historic Property Data File (OHP 2012). The directory includes the listings of the National Register of Historic Places, National Historic Landmarks, the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

RESULTS

No cultural resources or cultural resources reports were identified within the project area. One cultural resource and cultural resources study was identified in the search radius as identified below.

Archaeological Resources Technology. 2015. "Cultural Resources Investigation for AT&T Mobility CNV1022/CCL01022 'DT San Leandro' 433 Estudillo Avenue, San Leandro, Alameda County, California, 94577." Prepared for Diablo Green Consulting Inc.

This memo report summarizes the methods and results of a records search, field survey, and California Register evaluation of 433 Estudillo Avenue (P-01-011601). 433 Estudillo Avenue, a three-story office building, was recommended ineligible for listing in the California Register due to lack of association with a historic context.

HISTORIC MAP REVIEW

- Official and historical atlas map of Alameda County, California (Thompson & West 1878)
- Haywards, Calif. 1:62,500-scale topographic quadrangle (USGS 1899)
- Hayward, Calif. 1:62,500-scale topographic quadrangle (USGS 1915)
- San Leandro, California (Sanborn Map Company 1911, 1917, 1928, 1950, 1957, 1963)
- 1946 Single Frame Aerial Photograph (USGS 1946)
- 1958 Single Frame Aerial Photograph (USGS 1958)
- 1968 Single Frame Aerial Photograph (USGS 1968)
- 1974 Single Frame Aerial Photograph (USGS 1974)

Review of the historic maps indicates that the project area was platted as part of San Leandro by 1878. The first known residence appears within the project area by 1907. A second and third residence and associated ancillary buildings were built between 1917 and 1928. From 1928 to 1950, four residences and associated ancillary structures are added within the project area. By 1957, the residence that appears on the 1907 map and residence appearing on the 1928 map and ancillary buildings had been replaced by the office building at 1388 Bancroft Avenue. Between 1958 and 1963, the office building at 1380 Bancroft Avenue was constructed, leaving four residences and five ancillary buildings remaining. By 1968, all but one residence had been demolished to construct the parking lot. By 1974, only the two office buildings at 1300 and 1380 Bancroft Avenue are depicted within the project area (Thompson & West 1878; USGS 1899, 1915, 1946, 1953, 1968, 1974; Sanborn Map Company 1907, 1911, 1928, 1950, 1957, 1963).

HISTORICAL SOCIETY CONSULTATION

One August 1, 2018, Michael Baker International sent a letter to the San Leandro Historical Society requesting information or concerns regarding historical resources within the project area. No response has been received to date.

FIELD SURVEY

A field survey was conducted on August 2, 2018, to identify cultural resources in the project area. Two built environment resources, 1300 Bancroft Avenue and 1380 Bancroft Avenue, were identified. Field observations were documented in field notes. Photographs were taken and used in the California Register evaluations for the resources.

The project area is completely built over, obscuring ground visibility; therefore, an archaeological field survey was not completed.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATIONS

The buildings at 1300 and 1380 Bancroft Avenue were evaluated and recommended ineligible for listing in the California Register under Criteria 1, 2, 3, and 4, due to lack of association with a historic context. Additionally, the properties were evaluated in accordance with Section 15064.5(a)(2)–(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. The properties are not historical resources for the purposes of CEQA.

Please see Attachment 3 for full property descriptions, construction history, historic context, photographs, and evaluations for 1300 Bancroft Avenue and 1380 Bancroft Avenue.

FINDINGS AND RECOMMENDATIONS

The NWIC records search, field survey, historic map review, and two California Register evaluations identified no historical resources as defined by CEQA Section 15064.5 within the project area. However, the historic map review revealed the project area to have historic-period archaeological sensitivity. Potential for significant historic-period archaeological resources within the project area is high due to the numerous residences that once stood there. These residences are in an area of the City that is included in the original town plat (Higley 1855). The first residence appears on maps as early as 1907, with a total of seven buildings and six ancillary structures mapped within the project area by 1928. These residences are associated with the early settlement and agricultural periods of San Leandro's history which includes the timeframe when the city's population grew from 3,500 in 1911, to 5,000 in 1917, to 12,000 in 1928, and to 25,000 in 1950 (Sanborn Map Company 1911, 1917, 1928a, 1928b), and just before the City underwent a dramatic shift from being an agricultural community to becoming an industrial city. Historic-period archaeological deposits within the project area have the potential to contribute to local and regional research questions related to early settlement in the City and population growth during the shift away from agriculture and toward industry.

PREPARERS' QUALIFICATIONS

Margo Nayyar is an architectural historian with seven years of cultural resources management experience in California. Her experience includes built environment surveys, historic context development, archival research, evaluation of historic-era resources using guidelines outlined in the National, California, and various local registers, preparation of cultural resources technical studies pursuant to the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA), municipal preservation planning, and providing Certified Local Government (CLG) training to interested local governments. She also specializes in producing HABS/HAER/HALS (Historic American Buildings Survey, the Historic American Engineering Record, and Historic American Landscapes Survey) heritage documentation. Ms. Nayyar meets the Secretary of the Interior's Professional Qualification Standards for history and architectural history.

Sincerely,

Margo Nayyar

Margo Nayyar, M.A.
Cultural Resources Manager

Attachments:
Attachment 1 – Figures
Attachment 2 – Department of Parks and Recreation 523 Forms

2729 Prospect Park Drive, Suite 220, Rancho Cordova, CA 95670
P: (916) 361-8384 F: (916) 361-1574

REFERENCES

OHP (California Office of Historic Preservation). 1976. California Inventory of Historic Resources. Sacramento: California Department of Parks and Recreation.

———. 1992. California Points of Historical Interest. Sacramento: California Department of Parks and Recreation.

———. 1995. Instructions for Recording Historical Resources. Sacramento: Office of Historic Preservation.

———. 1996. California Historical Landmarks. Sacramento: California Department of Parks and Recreation.

———. 2012. Directory of Properties in the Historic Property Data File for Alameda County, last updated April 5, 2012. Sacramento: California Department of Parks and Recreation.

Sanborn Map Company. 1928. San Leandro, California. https://www.saclibrary.org/About-Us/News-Stories/Virtual/Digitized-Local-Historical-Maps-Now-Online.

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———. 1957. "San Leandro, California." In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

———. 1963. "San Leandro, California." In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

Thompson & West. 1878. Alameda County Map No. 3. Oakland, CA: Thompson & West. https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~21359~620061:Alameda-Co--3-?sort=pub_list_no_initialsort%2Cpub_date%2Cpub_list_no%2Cseries_no&qvq=w4s:/where%2FAlameda%2BCounty%2B%252528Calif.%252529;sort:pub_list_no_initialsort%2Cpub_date%2Cpub_list_no%2Cseries_no;lc:RUMSEY~8~1&mi=8&trs=98.

USGS (US Geological Survey). 1899. Haywards, Calif. 1:62,500-scale topographic quadrangle.

———. 1915. Haywards, Calif. 1:62,500-scale topographic quadrangle.

———. 1946. Aerial Single Frame Photograph. In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

———. 1958. Aerial Single Frame Photograph. In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

———. 1968. Aerial Single Frame Photograph. In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

———. 1974. Aerial Single Frame Photograph. In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

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Attachment 1

Figures

2729 Prospect Park Drive, Suite 220, Rancho Cordova, CA 95670
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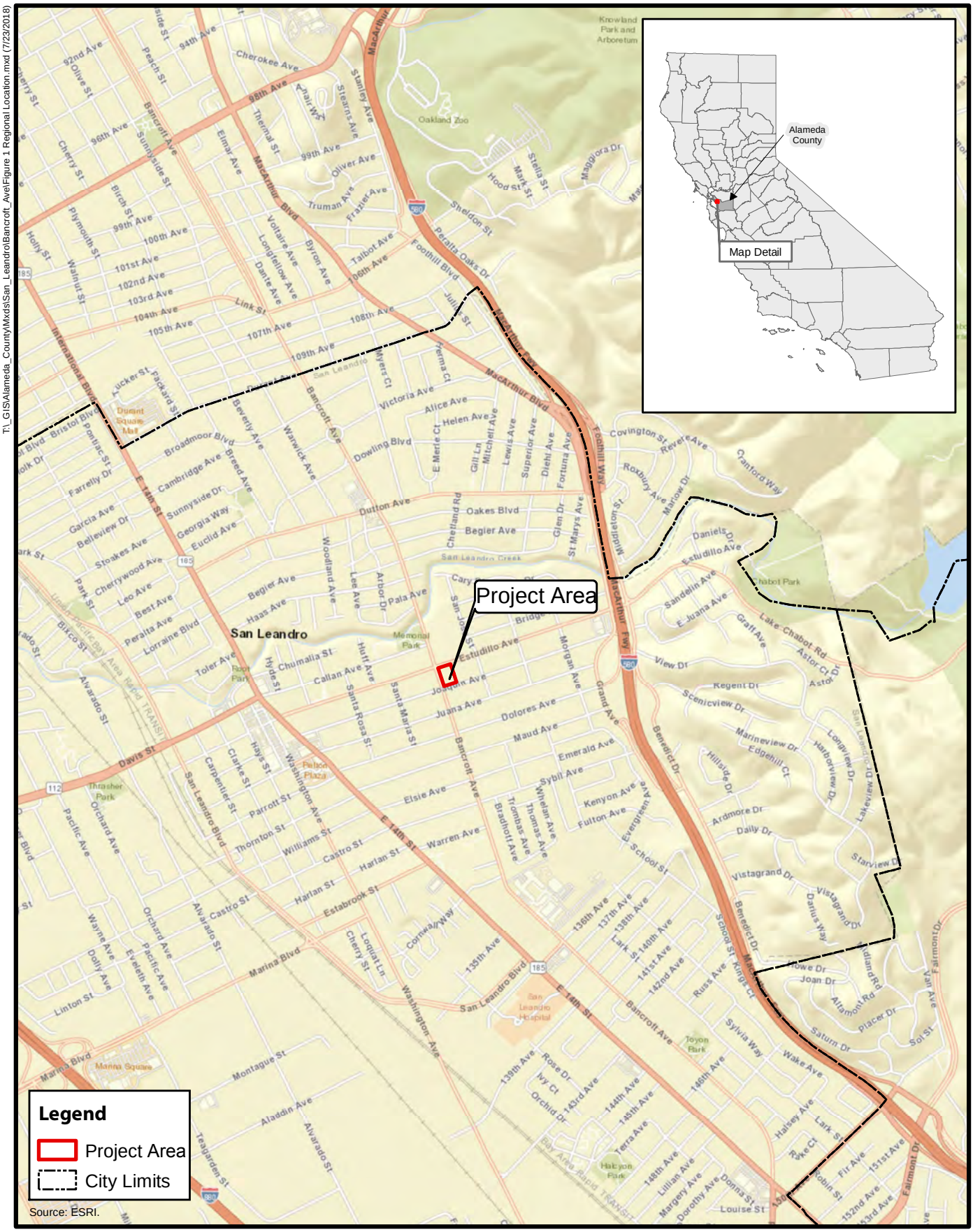


FIGURE 1
Regional Vicinity

Michael Baker INTERNATIONAL

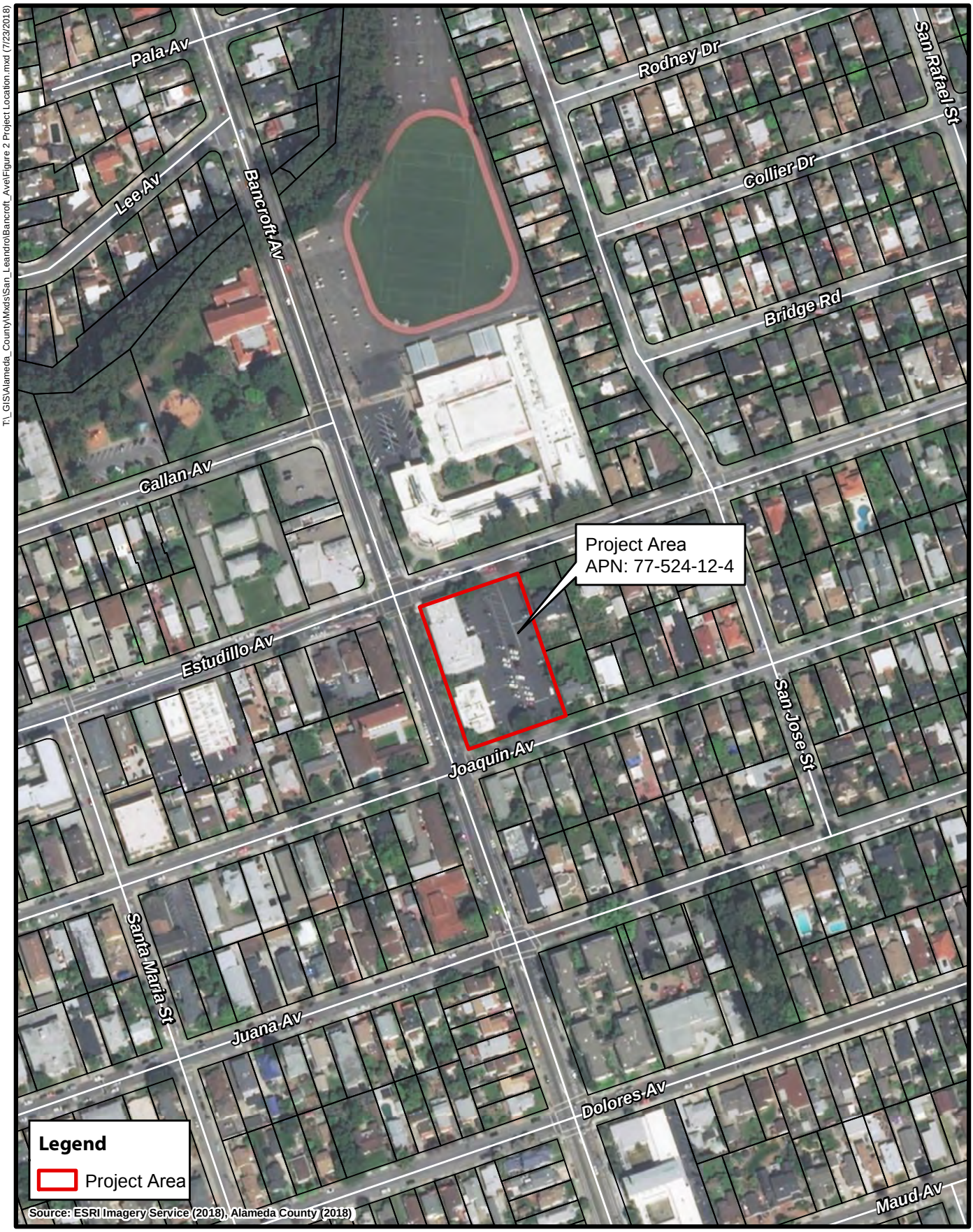


FIGURE 2
Project Location

Michael Baker INTERNATIONAL

Attachment 2

Historical Society Consultation

2729 Prospect Park Drive, Suite 220, Rancho Cordova, CA 95670
P: (916) 361-8384 F: (916) 361-1574

Michael Baker
INTERNATIONAL

We Make a Difference

August 1, 2018

SAN LEANDRO HISTORICAL SOCIETY
P. O. Box 1046
San Leandro, CA 94577

RE: 1388 BANCROFT AVENUE PROJECT, CITY OF SAN LEANDRO, CALIFORNIA

Dear Historical Society:

Michael Baker International is conducting a cultural resources investigation for the above referenced project. The project is located at the southeast corner of Bancroft and Estudillo Avenues (see Figures 1 and 2). The project proposes to demolish two existing buildings and construct a 45-unit residential building. The residential building would be three-stories, 34-feet-tall, and composed of wood frame and stucco construction.

Please notify us if your organization has any information or concerns regarding historical resources within the project area. This is not a request for research; it is solely a request for public input related to any concerns that the Historical Society may have. If you have any questions, please contact me at your earliest convenience at margo.nayyar@mbakerintl.com or (916) 231-2236.

Sincerely,

Margo Nayyar
Cultural Resources Manager

Attachments: Figure 1 – Project Vicinity
Figure 2 – Project Location

2729 Prospect Park Drive, Suite 220, Rancho Cordova, CA 95670
P: (916) 361-8384 F: (916) 361-1574

T:_GIS\Alameda_County\Mxds\San_Leandro\Bancroft_Ave\Figure 1 Regional Location.mxd (7/23/2018)

FIGURE 1
Regional Vicinity

Michael Baker INTERNATIONAL

T:_GIS\Alameda_County\Mxds\San_Leandro\Bancroft_Ave\Figure 2 Project Location.mxd (7/23/2018)

0 125 250
Feet

FIGURE 2
Project Location

Michael Baker INTERNATIONAL

Attachment 3

Department of Parks and Recreation 523 Forms

2729 Prospect Park Drive, Suite 220, Rancho Cordova, CA 95670
P: (916) 361-8384 F: (916) 361-1574

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

 ***Resource Name or #:** 1300 Bancroft Avenue

P1. Other Identifier: N/A

***P2. Location:** ☒ **Unrestricted**

***a. County** Alameda **and**

***b. USGS 7.5' Quad** *San Leandro, Calif.* **Date** 1948 **T** 3S; **R** 3W; San Leandro Land Grant M.D.B.M

c. Address 1300 Bancroft Avenue City San Leandro Zip 94577

d. UTM: Zone 10 S, 575123 mE/ 4175870 mN

e. Other Locational Data: APN 077 -0524-012-04

***P3a. Description:**

The property at 1300 Bancroft Avenue consists of a two-story commercial building, with basement, built in 1955. The building displays a L-shaped ground plan, concrete foundation, stucco-clad walls, original metal and glazed doors, replacement vinyl windows, and original metal framed store front windows at the northeast corner of the building. The building has a flat roof. Decorative brick planters line the northeast corner of the building. The building is largely surrounded by a parking lot and surface streets.

***P3b. Resource Attributes:** HP6. 1-3 Story Commercial Building

***P4. Resources Present:** ☒ Building

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo:
Photograph 1: View northwest of 1300 Bancroft Avenue. Taken August 2, 2018.

P6. Date Constructed/Age and Source:
☒ Historic
1955 (ParcelQuest 2018)

***P7. Owner and Address:**
Thomas R. & Margie L. Silva Trust
P.O. Box 126
San Lorenzo, CA 94580

***P8. Recorded by:**
Margo A. Nayyar
Michael Baker International
2729 Prospect Park Drive, #220
Rancho Cordova, CA 95670

***P9. Date Recorded:**
August 2, 2018

***P10. Survey Type:** Intensive

***P11. Report Citation**: Nayyar, Margo. 2018. "Cultural Resources Identification and Evaluation Memo for the 1388 Bancroft Avenue Project." Michael Baker International.

***Attachments:** ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z
***Resource Name or #** 1300 Bancroft Avenue

B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use: Medical office building
B4. Present Use: Medical office building
***B5. Architectural Style:** Contemporary
***B6. Construction History:**
The building was constructed in 1955 and displays vinyl window replacements dating to circa 2000.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** N/A **Original Location:** N/A

***B8. Related Features:** N/A

B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme** Commercial development **Area:** San Leandro
Period of Significance 1955 **Property Type** Commercial **Applicable Criteria** N/A

Unless otherwise noted, the following context was adapted from The City of San Leandro: Proud of its Past (Barr 2005).

The Mexican government granted José Joaquin Estudillo nearly 7,000 acres of land on October 16, 1842. The land grant included land between San Leandro Creek and San Lorenzo Creek, from the hills to the bay. Estudillo named his land Rancho San Leandro.

Failed gold miners began establishing farms surrounding Rancho San Leandro. Agricultural products included wheat, barley, corn, peas, tomatoes, rhubarb, apricots, and most importantly—the product that put San Leandro on the agricultural map—cherries. San Leandro became dubbed "The Cherry City." With a growing prosperity and the establishment of Alameda County in 1853, San Leandro was made the county seat on December 30, 1854.

Juana Estudillo donated 200 acres to subdivide into a town. John B. Ward laid out the town of San Leandro. The original town plat map was developed in 1855 (Higley 1855).

B11. Additional Resource Attributes: N/A

***B12. References:** See continuation sheet.

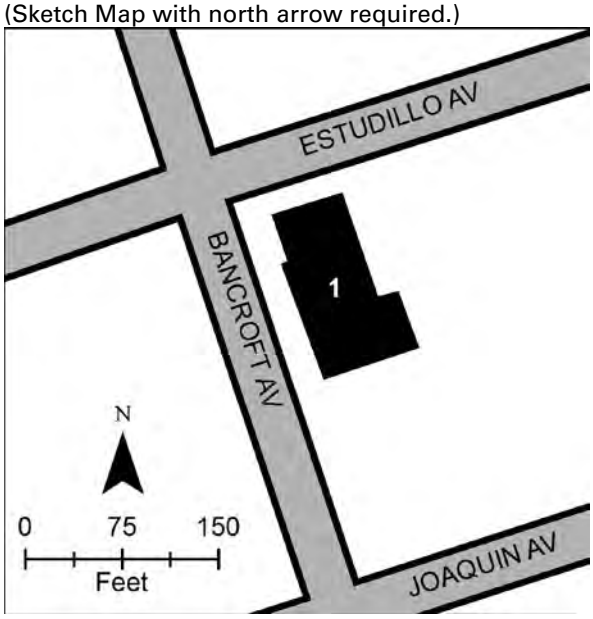
B13. Remarks: N/A

***B14. Evaluator:**
Margo A. Nayyar, Architectural Historian
Michael Baker International
2729 Prospect Park Drive, #220
Rancho Cordova, CA 95670

***Date of Evaluation:** August 14, 2018

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



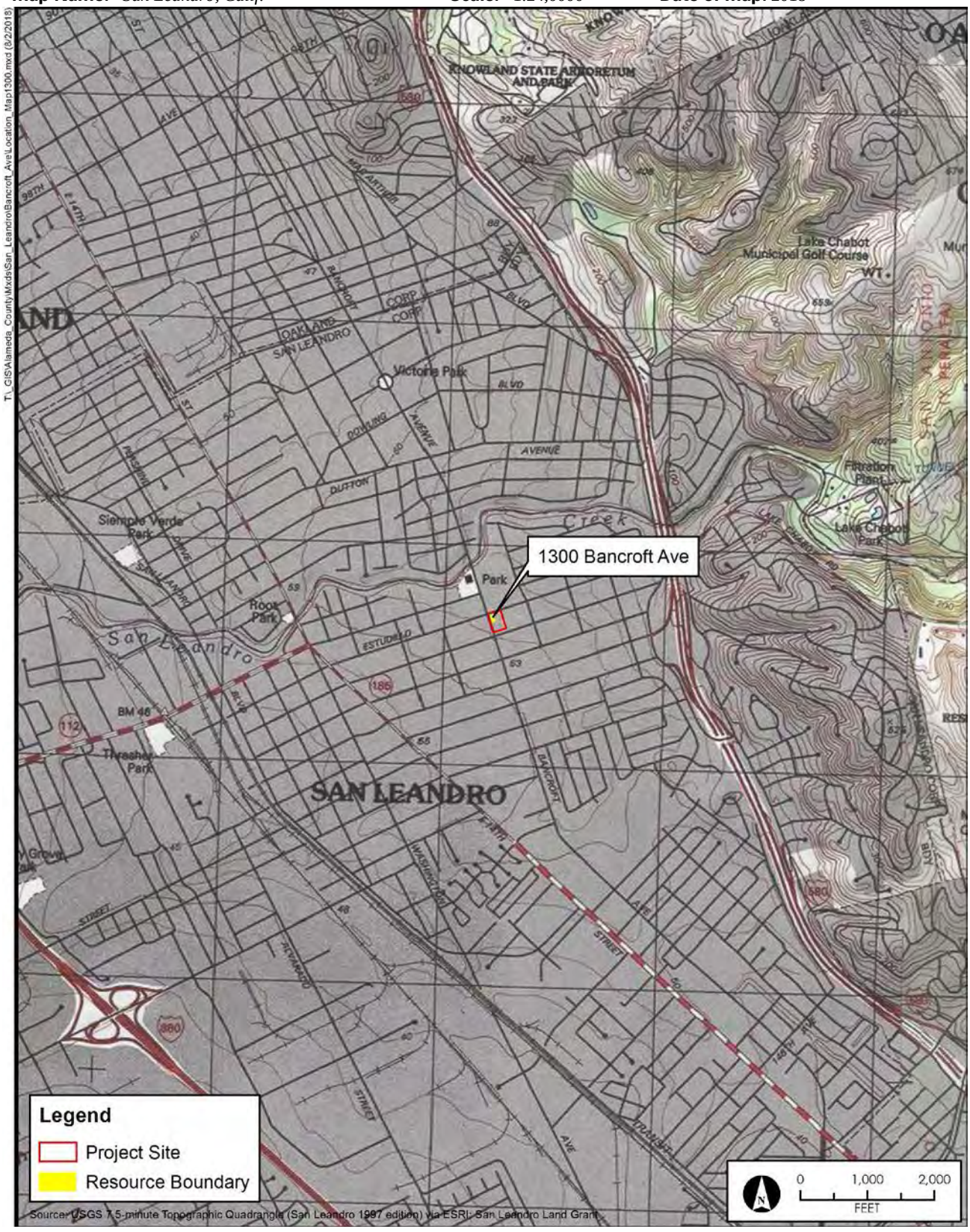
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** 1300 Bancroft Avenue

***Map Name:** *San Leandro, Calif.* ***Scale:** 1:24,0000 ***Date of map:** 2018



***B10. Significance (continued):**
In 1869, San Leandro became a stop along the transcontinental railroad and enjoyed an infusion of new commerce. Many companies located their factories and warehouses by the rail lines. Railroad access also allowed San Leandro's farmers and orchardists to ship produce farther, faster, and in greater quantities than before. Later, canneries and produce packing companies were also established.

On March 21, 1872, San Leandro incorporated as a town. However, in 1873, San Leandro lost its designation as the county seat to Oakland.

Daniel Best began inventing various revolutionary pieces of farm machinery in Oregon and eventually established a business branch in Oakland. In 1886, he bought a plow company located at 800 Davis Street in San Leandro and renamed it Daniel Best Agricultural Works. Simultaneously, another agribusiness inventor, Benjamin Holt, began a tractor company nicknamed Caterpillar. In 1925, the Best and Holt companies merged and formed the Caterpillar Tractor Company. The plant was on the same site as the Daniel Best Agricultural Works and, in 1926, new office buildings of the Caterpillar Tractor Company opened across the street. The Best Tractor Company/Caterpillar Tractor Company plant (P-01-003626) was listed in the National Register of Historic Places but has since been demolished. It was located at the corner of Alvarado and Davis streets.

San Leandro city improvements during the nineteenth and twentieth centuries included the first trolley cars through San Leandro from Oakland to Hayward (1892); telephone service (1898); electric streetlights (1903); construction of "Great Boulevard," now known as MacArthur Boulevard (1906); and, in 1917, paving of the streets downtown. Recreational sports clubs and parks opened. Elementary school districts were established.

In 1934, Alameda County funded the construction of the city's veterans memorial building. The city's population grew from 3,500 in 1911, to 5,000 in 1917, to 12,000 in 1928, and to 25,000 in 1950 (Sanborn Map Company 1911, 1917, 1928a, 1928b). San Leandro incorporated as a city in 1933. Beginning in 1935, Works Progress Administration (WPA) programs installed curbs and gutters throughout the city. City Hall was constructed in 1939.

From 1940 to 1950, San Leandro underwent a dramatic shift from an agricultural community to an industrial city, with 87 industrial parcels annexed to the city. With increased employment came the demand for more housing. New neighborhoods grew where cherry orchards once flourished.

Originally, the 1300 Bancroft Avenue location contained a single-family residence built between 1917 and 1928. It was demolished in 1955 for the construction of the current commercial building (Sanborn Map Company 1917, 1928a, 1928b, 1957; ParcelQuest.com 2018).

In 1956, the building was known as the Medical Dental Building and included the Jenkle Davidson Optical Co. and Ortzow's Prescription Pharmacy, as well as a medical lab. It also included businesses for the following physicians: George Stephens, Aaron E. Davis, Timothy F. Lally, Jason Farber, Joseph Ross, Burton E. Adams, Robert M. Adams, Samuel C. Iwig, Robert W. DeVoe, Elwyn A. Thayer, James O. O'Hare, James C. Reavis, Robert E. Slaughter, Charles S. Lincoln Jr., Ray C. Nordstrom, Amiel L. Palermo, Edwin Wortham, David Bruser, and George S. Hannah.

Tenant turnover in the building was low throughout its first 15 years. By 1971, the remaining original tenants included Ortzow's Prescription Pharmacy, Jenkle Davidson Optical Co., Burton E. Adams, Robert M. Adams, David Bruser, George S. Hannah, Samuel C. Iwig, Charles S. Lincoln Jr., Ray C. Nordstrom, and Edwin Wortham. Research focused on these businesses and individuals.

Google and ancestry.com searches for these business and individuals revealed:

- No information regarding Jenkle Davidson Optical Co. or Ortzow's Prescription Pharmacy.
- Burton E. Adams graduated from Stanford University with a degree in basic medical sciences in 1941. He served in the US Army Medical Corps during World War II. He practiced general surgery in the East Bay for 41 years and was on the founding committees of two hospitals—San Leandro Memorial and Eden. He was chief of staff and a member of the board of directors at Oakland Children's Hospital, where he also organized the surgery resident program. He died November 30, 2013, at 98 years old (Stanford Magazine 2013).
- Robert M. Adams was a physician in San Leandro from the 1950s until at least the 1980s. He was awarded the San Francisco Dermatological Society's Practitioner of the Year award in 1985.

***B10. Significance (continued):**

- David Bruser, MD (1914–2001) was a prominent East Bay pediatrician. He was born in rural Canada. He completed medical school at the University of Alberta in 1938, an internship at Michael Reese Hospital in Chicago, and a residency in pediatrics at Children's Hospital in Oakland. He briefly worked at the Kaiser Hospital in Richmond but left in 1945 to establish his own practice in San Leandro. Dr. Bruser was the first medical specialist in San Leandro, and for some time the only pediatrician in the area. His patients came from San Leandro, San Lorenzo, Castro Valley, Hayward, and East Oakland. He served turns as chief of pediatrics at Eden and San Leandro Memorial Hospitals, and staffed various hospitals in the area, including Children's Hospital, where he admitted most of his patients who needed hospital care. He served on the San Leandro school board from 1958 through 1964 and led a major effort to improve school libraries. Dr. Bruser retired in 1987 (SFGate 2001).

  The location of Dr. Bruser's first pediatric business beginning in 1945 is unknown. His business at 1300 Bancroft opened in 1955 when the building was constructed. Any significance associated with Dr. Bruser as the area's first pediatrician would be associated with the location of his first business.

- George S. Hannah was also a pediatrician and a business partner of David Bruser. The name of their business in 1955 is unknown, but they formed the Bancroft Pediatric Medical Group in 1990.

- Samuel C. Iwig (1919–2003) was born and raised in Topeka, Kansas. He attended the University of Kansas to earn his undergraduate and medical degrees. Dr. Iwig practiced obstetrics and gynecology in San Leandro for 35 years before retiring in 1984 (Legacy 2018a).

- Charles S. Lincoln Jr. was a dermatologist who owned a business with Ray C. Nordstrom.

- Ray C. Nordstrom was a dermatologist who owned a business with Charles S. Lincoln Jr.

- Edwin Wortham (1917–2016) graduated from Columbia College of Physicians and Surgeons in New York in March 1943. After serving an internship at the Medical College of Virginia, he served in the US Navy as a medical doctor. He then attended the US Navy Flight Surgeon's School in Pensacola, Florida, and later had a two-year residency at Medical College of Virginia, where he specialized in ophthalmology. He began a medical practice in San Francisco but moved his practice to San Leandro, where he worked for 40 years until his retirement in 1990. He authored several ophthalmology articles in the American Journal of Ophthalmology. He was one of the founders of Laurel Grove Hospital in Castro Valley. He was on staff at Memorial Hospital and Doctor's Hospital in San Leandro and Eden Hospital in Castro Valley (Legacy 2018b).

  Any significant associations with Dr. Wortham as a founding member of Laurel Grove Hospital would be realized in the hospital, not in his tenancy at 1300 Bancroft.

Architecturally, the building is a minor example of contemporary architecture. It displays a focus on horizontal alignments but overall lacks distinctive features of specific contemporary styles. The building's architect or builder is unknown.

***B10. Significance (continued):**

California Register Evaluation

Criterion 1 – The resource is not associated with an event that has made a significant contribution to the broad patterns of California history at the local, state, or national level. It is a modern-era building constructed in 1955 to house medical office space and is not associated with the development of San Leandro. While it is representative of the area's expansion and general increase in development following World War II, research failed to reveal any associations with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States. As such, the property does not appear eligible for the California Register under Criterion 1.

Criterion 2 – Research provided no evidence indicating that the property is associated with individuals who have made significant contributions to local, state, or national history. Brief research conducted on tenants who leased space in the building during its first 15 years (1956–1971) suggests that the doctors maintained long-term businesses in San Leandro but did not significantly contribute to their medical fields. Dr. Bruser, the area's first pediatrician, was in business for 10 years before moving to 1300 Bancroft, where he was in business with another pediatrician, Dr. Hannah. Any significance associated with Dr. Bruser as the area's first pediatrician would be associated with the location of his first business. Further, any significant associations with Dr. Wortham as a founding member of Laurel Grove Hospital in Castro Valley would be realized in the hospital, not in his tenancy at 1300 Bancroft. As such, the property does not appear to be associated with any historically important individuals and does not appear eligible under California Register Criterion 2.

Criterion 3 – The 1955-built office building is a minor example of contemporary architecture. It displays a focus on horizontal alignments but overall lacks distinctive features of a specific contemporary style. The builder/architect is unknown. As such, the building does not embody a distinctive type, period, or method of construction; does not represent the work of a master architect or designer; and is not a superior example of an architectural style. Therefore, the building does not appear eligible under California Register Criterion 3.

Criterion 4 – The property is not likely to yield valuable information that will contribute to an understanding of human history because the property is not and never was the principal source of important information pertaining to subjects such as mid-twentieth century office buildings. Therefore, the property does not appear eligible for listing under California Register Criterion 4.

Lastly, the resource mostly maintains integrity of design, workmanship, feeling, setting, and location. The resource's integrity of materials has been diminished due to window replacements. However, the resource lacks association with a historic context.

In conclusion, the property at 1300 Bancroft Avenue does not appear eligible at the local, state, or national level for listing in the California Register under Criterion 1, 2, 3, or 4 due to lack of association with a historic context. Additionally, the property was evaluated in accordance with CEQA Guidelines Section 15064.5(a)(2)–(3) using the criteria outlined in Public Resources Code Section 5024.1 and does not appear to be a historical resource for the purposes of CEQA.

***B12. References (continued):**

Barr, Mary Lee. 2005. The City of San Leandro: Proud of its Past. City of San Leandro. Electronic resource, https://www.sanleandro.org/about/hdv.asp, accessed multiple.

Higley, Horace A. 1855. Map of the Town of San Leandro. Electronic document, http://servlet1.lib.berkeley.edu:8080/mapviewer/searchcoll.execute.logic?coll=eartmaps&catno=b22254362, accessed multiple.

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———. 2018b. "Edwin Northam M.D. IV." Obituary. Electronic resource, https://www.legacy.com/obituaries/sfgate/obituary.aspx?n=edwin-wortham&pid=177177148, accessed August 14, 2018.

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Stanford Magazine. 2013. "Obituaries: Faculty-Staff." Electronic resource, https://alumni.stanford.edu/get/page/magazine/article/?article_id=61184, accessed August 14, 2018.

P5a. Photographs (continued):

Photograph 2. View north of east and south elevations

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

 ***Resource Name or #:** 1380 Bancroft Avenue

P1. Other Identifier: N/A

***P2. Location:** ☒ **Unrestricted**

***a. County** Alameda **and**

***b. USGS 7.5' Quad** *San Leandro, Calif.* **Date** 1948 **T** 3S; **R** 3W; San Leandro Land Grant M.D.B.M

c. Address 1380 Bancroft Avenue City San Leandro Zip 94577

d. UTM: Zone 10 S, 575137 mE/ 4175824 mN

e. Other Locational Data: APN 077 -0524-012-04

***P3a. Description:**

The property at 1380 Bancroft Avenue consists of a one-story office building built circa 1960. The building displays a rectangular-shaped ground plan, raised and vented concrete foundation, stucco and wood board-clad walls, original metal and glazed doors, and replacement vinyl windows. The building has a flat roof with wide overhanging eaves. A wheelchair-accessible concrete ramp with simple metal bar railing is located at the east elevation entrance. A concrete staircase with simple metal bar railing is located at the west façade entrance. The building is largely surrounded by a parking lot and surface streets.

***P3b. Resource Attributes:** HP6. 1-3 Story Commercial Building

***P4. Resources Present:** ☒ Building

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: Photograph 1: View northwest of east elevation. Taken August 2, 2018.

P6. Date Constructed/Age and Source:
☒ Historic
Circa 1960 (USGS 1958; Sanborn Map Company 1963)

***P7. Owner and Address:**
Thomas R. & Margie L. Silva Trust
P.O. Box 126
San Lorenzo, CA 94580

***P8. Recorded by:**
Margo A. Nayyar
Michael Baker International
2729 Prospect Park Drive, #220
Rancho Cordova, CA 95670

***P9. Date Recorded:**
August 2, 2018

***P10. Survey Type:** Intensive

***P11. Report Citation:** Nayyar, Margo. 2018. "Cultural Resources Identification and Evaluation Memo for the 1388 Bancroft Avenue Project." Michael Baker International.

***Attachments:** ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z
***Resource Name or #** 1380 Bancroft Avenue

B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use: Medical office building
B4. Present Use: Vacant
***B5. Architectural Style:** Contemporary
***B6. Construction History:**
The building was constructed circa 1960 and displays vinyl window replacements dating to circa 2000.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** N/A **Original Location:** N/A

***B8. Related Features:** N/A

B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme** Community development **Area:** San Leandro
Period of Significance 1960 **Property Type** Commercial **Applicable Criteria** N/A

Unless otherwise noted, the following context was adapted from The City of San Leandro: Proud of its Past (Barr 2005).

The Mexican government granted José Joaquin Estudillo nearly 7,000 acres of land on October 16, 1842. The land grant included land between San Leandro Creek and San Lorenzo Creek, from the hills to the bay. Estudillo named his land Rancho San Leandro.

Failed gold miners began establishing farms surrounding Rancho San Leandro. Agricultural products included wheat, barley, corn, peas, tomatoes, rhubarb, apricots, and most importantly—the product that put San Leandro on the agricultural map—cherries. San Leandro became dubbed "The Cherry City." With a growing prosperity and the establishment of Alameda County in 1853, San Leandro was made the county seat on December 30, 1854.

Juana Estudillo donated 200 acres to subdivide into a town. John B. Ward laid out the town of San Leandro. The original town plat map was developed in 1855 (Higley 1855).

B11. Additional Resource Attributes: N/A

***B12. References:** See continuation sheet.

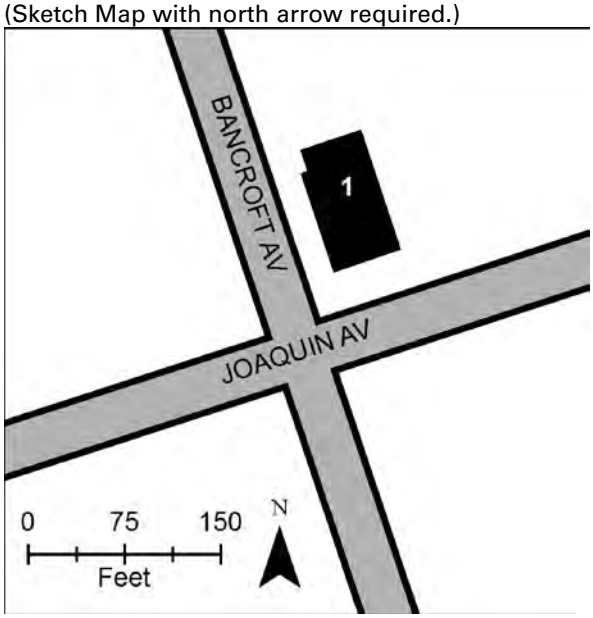
B13. Remarks: N/A

***B14. Evaluator:**
Margo A. Nayyar, Architectural Historian
Michael Baker International
2729 Prospect Park Drive, #220
Rancho Cordova, CA 95670

***Date of Evaluation:** August 15, 2018

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



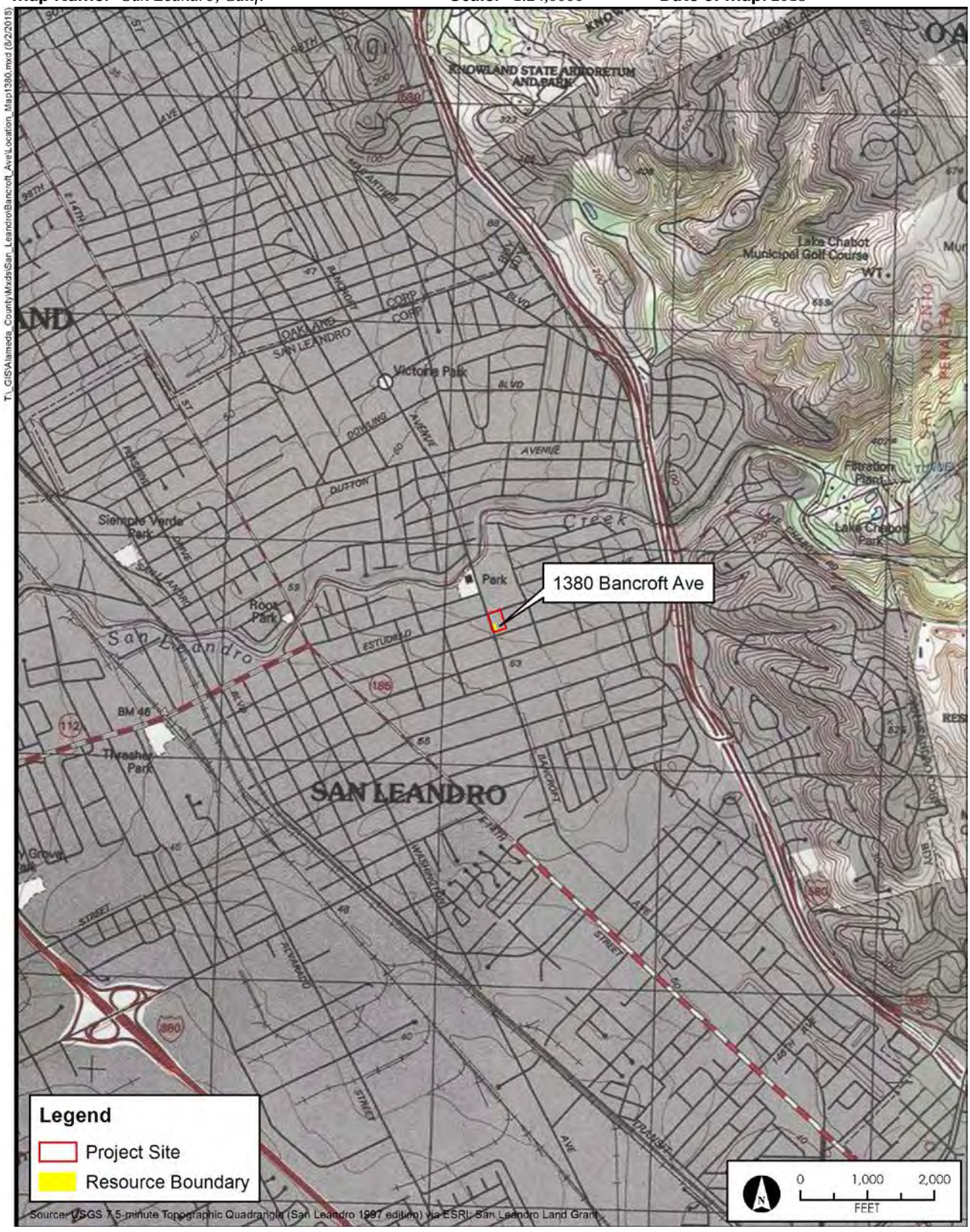
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** 1380 Bancroft Avenue

***Map Name:** *San Leandro, Calif.* ***Scale:** 1:24,0000 ***Date of map:** 2018



***B10. Significance (continued):**
In 1869, San Leandro became a stop along the transcontinental railroad and enjoyed an infusion of new commerce. Many companies located their factories and warehouses by the rail lines. Railroad access also allowed San Leandro's farmers and orchardists to ship produce farther, faster, and at greater quantities than before. Later, canneries and produce packing companies were also established.

On March 21, 1872, San Leandro incorporated as a town. However, in 1873, San Leandro lost its designation as the county seat to Oakland.

Daniel Best began inventing various revolutionary pieces of farm machinery in Oregon and eventually established a business branch in Oakland. In 1886, he bought a plow company located at 800 Davis Street in San Leandro and renamed it Daniel Best Agricultural Works. Simultaneously, another agribusiness inventor, Benjamin Holt, began a tractor company nicknamed Caterpillar. In 1925, the Best and Holt companies merged and formed the Caterpillar Tractor Company. The plant was on the same site as the Daniel Best Agricultural Works and, in 1926, new office buildings of the Caterpillar Tractor Company opened across the street. The Best Tractor Company/Caterpillar Tractor Company plant (P-01-003626) was listed in the National Register of Historic Places but has since been demolished. It was located at the corner of Alvarado and Davis streets.

San Leandro city improvements during the nineteenth and twentieth centuries included the first trolley cars through San Leandro from Oakland to Hayward (1892); telephone service (1898); electric streetlights (1903); construction of "Great Boulevard," now known as MacArthur Boulevard (1906); and, in 1917, paving of the streets downtown. Recreational sports clubs and parks opened. Elementary school districts were established.

In 1934, Alameda County funded the construction of the city's veterans memorial building. The city's population grew from 3,500 in 1911, to 5,000 in 1917, to 12,000 in 1928, and to 25,000 in 1950 (Sanborn Map Company 1911, 1917, 1928a, 1928b). San Leandro incorporated as a city in 1933. Beginning in 1935, Works Progress Administration (WPA) programs installed curbs and gutters throughout the city. City Hall was constructed in 1939.

From 1940 to 1950, San Leandro underwent a dramatic shift from an agricultural community to an industrial city, with 87 industrial parcels annexed to the city. With increased employment came the demand for more housing. New neighborhoods grew where cherry orchards once flourished.

Originally, the location of 1380 Bancroft Avenue contained a small single-family residence and ancillary building built by 1907. A second and third residence and associated ancillary buildings were built between 1917 and 1928. All the buildings were demolished between 1958 and 1963 for the construction of the current commercial building (Sanborn Map Company 1907, 1911, 1917, 1928a, 1957, 1963; USGS 1958).

Tenant information is unknown until 1971 when the building was occupied by Aaron E. Davis, Douglas Franklin, John R. Newkirk, Harvey E. Reitz, and James B. Robertson. Google and ancestry.com searches for these individuals revealed:

- Aaron E. Davis was a physician or surgeon (Ancestry 2018).
- Douglas Franklin was a physician or surgeon (Ancestry 2018).
- John R. Newkirk was a physician or surgeon (Ancestry 2018).
- Harvey E. Reitz (died 2005) was a physician who graduated from the University of Pennsylvania in 1948 with a degree in general medicine (University of Pennsylvania 2018).
- James B. Robertson was a physician or surgeon (Ancestry 2018).

Architecturally, the building is a minor example of contemporary architecture. It displays a focus on horizontal alignments but overall lacks distinctive features of specific contemporary styles. The building's architect or builder is unknown.

***B10. Significance (continued):**

California Register Evaluation

Criterion 1 – The resource is not associated with an event that has made a significant contribution to the broad patterns of California history at the local, state, or national level. It is a modern-era building constructed circa 1960 to house medical office space and is not associated with the development of San Leandro. While it is representative of the area's expansion and general increase in development following World War II, research failed to reveal any associations with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States. As such, the property does not appear eligible for the California Register under Criterion 1.

Criterion 2 – Research provided no evidence indicating that the property is associated with individuals who have made significant contributions to local, state, or national history. Brief research was conducted on tenants who leased space in the building in 1971. Research failed to indicate that the doctors made significant contributions to their medical fields. As such, the property does not appear to be associated with any historically important individuals and does not appear eligible under California Register Criterion 2.

Criterion 3 – The circa 1960-built office building is a minor example of contemporary architecture. It displays a focus on horizontal alignments but overall lacks distinctive features of a specific contemporary style. The builder/architect is unknown. As such, the building does not embody a distinctive type, period, or method of construction; does not represent the work of a master architect or designer; and is not a superior example of an architectural style. Therefore, the building does not appear eligible under California Register Criterion 3.

Criterion 4 – The property is not likely to yield valuable information that will contribute to an understanding of human history because the property is not and never was the principal source of important information pertaining to subjects such as mid-twentieth century office buildings. Therefore, the property does not appear eligible for listing under California Register Criterion 4.

Lastly, the resource mostly maintains integrity of design, workmanship, feeling, setting, and location. The resource's integrity of materials has been diminished due to window replacements. However, the resource lacks association with a historic context.

In conclusion, the property at 1380 Bancroft Avenue does not appear eligible at the local, state, or national level for listing in the California Register under Criterion 1, 2, 3, or 4 due to lack of association with a historic context. Additionally, the property was evaluated in accordance with CEQA Guidelines Section 15064.5(a)(2)–(3) using the criteria outlined in Public Resources Code Section 5024.1 and does not appear to be a historical resource for the purposes of CEQA.

***B12. References (continued):**

Ancestry.com. 2018. Database search. Electronic database, www.ancestry.com, accessed August 15, 2018.

Barr, Mary Lee. 2005. The City of San Leandro: Proud of its Past. City of San Leandro. Electronic resource, https://www.sanleandro.org/about/hdv.asp, accessed multiple.

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———. 1957. San Leandro, California. In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

———. 1963. San Leandro, California. In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

University of Pennsylvania. 2018. Alumni: Obituaries. Electronic resource, http://www.upenn.edu/gazette/0106/obits.html, accessed August 15, 2018.

USGS (US Geological Survey). 1958. Aerial Single Frame Photograph. In *Phase I Environmental Site Assessment: 1300–1380 Bancroft Avenue, San Leandro, Alameda County, California 94577*. Prepared by AIE Consultants for KeyPoint Credit Union. On file with the City of San Leandro.

Appendix GEO
Geotechnical Investigation

CORNERSTONE EARTH GROUP

TYPE OF SERVICES	Geotechnical Investigation
PROJECT NAME	Bancroft Avenue Mixed-Use Development
LOCATION	1300-1380 Bancroft Avenue San Leandro, California
CLIENT	Eden Rehab Corporation
PROJECT NUMBER	887-1-1
DATE	May 20, 2016

CORNERSTONE EARTH GROUP

Type of Services	**Geotechnical Investigation**
Project Name	**Bancroft Avenue Mixed-Use Development**
Location	**1300-1380 Bancroft Avenue** **San Leandro, California**
Client	**Eden Rehab Corporation**
Client Address	**P.O. Box 126** **San Lorenzo, California 94580**
Project Number	**887-1-1**
Date	**May 20, 2016**

Prepared by

John R. Dye P.E., G.E.
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Geotechnical Project Manager

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CORNERSTONE EARTH GROUP

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FIGURE 1: VICINITY MAP
FIGURE 2: SITE PLAN
FIGURE 3: REGIONAL FAULT MAP

APPENDIX A: FIELD INVESTIGATION
APPENDIX B: LABORATORY TEST PROGRAM
APPENDIX C: SITE CORROSIVITY EVALUATION

Type of Services	**Geotechnical Investigation**
Project Name	**Bancroft Avenue Mixed-Use Development**
Location	**1300-1380 Bancroft Avenue** **San Leandro, California**

SECTION 1: INTRODUCTION

This design level geotechnical investigation report was prepared for the sole use of Eden Rehab Corporation, and their design team for the proposed mixed-use residential development at 1300-1380 Bancroft Avenue in San Leandro, California. The location of the site is shown on the Vicinity Map, Figure 1. For our use, we were provided the following:

- "1380 Bancroft Conceptual Design," prepared by AXIS Civil Engineers., dated March 11, 2016.

1.1 PROJECT DESCRIPTION

The project site consists of an approximately 1.3-acre parcel (APN 77-524-12-4) presently occupied by two medical/office buildings facing Bancroft Avenue with a parking lot behind the buildings. The larger northerly building is two stories with a below-grade basement floor, and the smaller southern building is single story. We understand that the project will consist of demolishing the existing site improvements and construction of a mixed use residential building with a footprint of approximately 24,000 square foot and approximately 7,840 square feet of covered parking.

Based on the conceptual design and discussions with you, we understand the apartment building project will consist of three-stories, wood-frame construction over approximately 7,000 square feet of retail space at street level. The building will be supported on a shallow foundation, and a concrete podium will be built over parking behind the main building.

Appurtenant parking, utilities, landscaping, and other improvements necessary for site development are also planned. The conceptual grading plans indicate the site will remain at approximately the existing elevation, around elevation 70 feet (MSL datum).

1.2 SCOPE OF SERVICES

Our scope of services was presented in our proposal dated March 21, 2016, and consisted of reviewing published geologic maps and information from nearby properties, performing supplemental field and laboratory programs to evaluate physical and engineering properties of the subsurface soils, engineering analysis to further evaluate seismic hazards at the site, and preparing design-level recommendations for site work and grading, building foundations, pavements, and preparation of this design-level report. Brief descriptions of our field exploration and laboratory programs are presented below.

1.3 EXPLORATION PROGRAM

Field exploration for this report consisted of a site reconnaissance and three (3) exploratory borings performed to depths between 20 and 50 feet below the existing ground surface. Borings were drilled with conventional truck-mounted hollow stem auger drilling equipment on April 22nd 2016.

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, 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, dry densities, grain size analyses, washed sieve analyses, Plasticity Index tests, and triaxial compression tests. Details regarding our laboratory program are included in Appendix B.

1.5 CORROSION EVALUATION

Two (2) samples from our borings from depths between 2 and 7 feet were tested for saturated resistivity, pH, and soluble sulfates and chlorides. JDH Corrosion Consultants prepared a brief corrosion evaluation based on the laboratory data, which is attached to this report in Appendix C. In general, the on-site soils can be characterized as moderately corrosive to buried metal, and not corrosive to buried concrete.

1.6 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 REGIONAL SEISMICITY

The San Francisco Bay Area region 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 2015 revises earlier estimates from their 2008 (2008, UCERF2) publication. Compared to the previous assessment issued in 2008, the estimated rate of earthquakes around magnitude 6.7 (the size of the destructive 1994 Northridge earthquake) has gone down by about 30 percent. The expected frequency of such events statewide has dropped from an average of one per 4.8 years to about one per 6.3 years. However, in the new study, the estimate for the likelihood that California will experience a magnitude 8 or larger earthquake in the next 30 years has increased from about 4.7 percent for UCERF2 to about 7.0 percent for UCERF3.

UCERF3 estimates that each region of California will experience a magnitude 6.7 or larger earthquake in the next 30 years. Additionally, 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.

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)
Hayward (Southern Extension)	0.5	0.8
Hayward (Northern Extension)	1	1.6
Calaveras (North-South)	10.2	16.3
San Andreas (Peninsula)	18.1	29.0

A regional fault map is presented as Figure 3, illustrating the relative distances of the site to significant fault zones.

SECTION 3: SITE CONDITIONS

3.1 SURFACE DESCRIPTION

The approximately 1.3-acre site is located at 1300 to 1380 Bancroft Avenue. The site is bounded by Bancroft Avenue to the east, Estudillo Avenue to the north, Joaquin Avenue to the south and existing residential development to the west. Currently the site is occupied by two medical/office buildings facing Bancroft Avenue with an asphalt parking lot behind the buildings. The larger northerly building, located at 1300 Bancroft Avenue, is two stories with a below grade

basement level. The basement level is reported to be approximately 8-foot-deep with a deeper area housing a sanitary sewer pump. The smaller southern building is single-story with no basement level.

Approximately 4 to 5 inches of asphalt concrete was encountered in the parking lot/driveway area at the site as noted in the table below.

Table 2: Existing Asphalt Thickness

Boring	Total AC Thickness (inches)	Overlay Thickness (inches)	AB Thickness (inches)	Fabric Observed
EB-1	4	2	None	No
EB-2	5	2	4	Yes
EB-3	5	N/A	None	Yes

3.2 SUBSURFACE CONDITIONS

Below the surface pavements, our explorations encountered up to two (2) feet of existing undocumented fill underlain by Holocene-aged alluvial deposits consisting of medium stiff to very stiff clay with varying percentages of sand and silt and above stiff silty and dense sand and gravels. A more detailed description of subsurface conditions are presented in the following sections.

3.2.1 Existing Undocumented Fill

Our recent borings encountered approximately two (2) feet of undocumented fill across the site consisting of clayey sand with gravel and well graded sand. As discussed below, Plasticity Index (PI) tests performed on a near-surface sample indicates that the surficial on-site soils exhibit low expansion potential. As discussed, the northern building reportedly has a below-grade basement. The depth and lateral extent of the basement is not known at this time; however, it is possible there may be undocumented fills associated with the original basement wall construction.

3.2.2 Alluvial Soils

Below the undocumented fill, exploratory borings encountered medium stiff to very stiff clay with varying percentages of sand and silt to approximately 30 feet below the surface. This material can be considered moderately compressible under static loading. Below the upper clay material, Borings EB-2 encountered about 6 feet of stiff sandy silt above approximately 12 feet of poorly-graded sand and gravel. Approximately one foot of medium stiff sandy clay was encountered at the bottom of EB-2 between 49 and 50 feet, the maximum depth explored.

3.2.3 Plasticity/Expansion Potential

We performed 2 Plasticity Index (PI) tests on representative near surface samples. Test results were used to evaluate expansion potential of surficial soils. The results of the surficial PI tests indicated PIs ranging from 12 to 14, indicating low expansion potential to wetting and drying cycles.

3.2.4 In-Situ Moisture Contents

Laboratory testing indicated that the in-situ moisture contents within the upper 10 feet were 5 to 15 percent over the estimated laboratory optimum moisture contents.

3.3 GROUND WATER

Ground water was encountered and measured in Boring EB-2 at approximately 48 feet below the current ground surface. Based on our review of California Geologic Survey historic high ground water maps for the area (CGS, San Leandro 7.5-Minute Quadrangle, 2003) and review of nearby monitoring well data through Geotracker (http://www.envirostor.dtsc.ca.gov/public/), we estimate high groundwater to be about 30 feet below the surface.

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 shown on Figure 3 and in Table 1, several major active faults pass within 30 kilometers of the site. However, the site is not located within a State-designated Alquist-Priolo Earthquake Fault Zone. As shown in Figure 3, no known surface expression of 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. A peak ground acceleration (PGA) was estimated for analysis using a value equal to F_{PGA} x PGA, as allowed in the 2013 edition of the California Building Code. For our liquefaction analysis we used a PGA of 0.89g.

4.3 LIQUEFACTION POTENTIAL

The site is within a State-designated Liquefaction Hazard Zone (CGS, San Leandro 7.5-Minute Quadrangle, 2003). Our field and laboratory programs addressed this issue by testing and sampling potentially liquefiable layers to depths of 50 feet, performing visual classification on sampled materials, and performing various tests to further classify soil properties.

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.

As discussed in the "Subsurface" section above, we primarily encountered stiff cohesive and dense granular soils below the design ground water level of 30 feet. Based on the above, our screening of the site for liquefaction indicates a low potential for liquefaction.

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 there are no stream channels within 500 feet of the site and the potential for liquefaction is considered low, 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 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 TSUNAMI/SEICHE

The terms tsunami or seiche are described as ocean waves or similar waves usually created by undersea fault movement or by a coastal or submerged landslide. Tsunamis may be generated at great distance from shore (far field events) or nearby (near field events). Waves are formed, as the displaced water moves to regain equilibrium, and radiates across the open water, similar to ripples from a rock being thrown into a pond. When the waveform reaches the coastline, it quickly raises the water level, with water velocities as high as 15 to 20 knots. The water mass, as well as vessels, vehicles, or other objects in its path create tremendous forces as they impact coastal structures.

Tsunamis have affected the coastline along the Pacific Northwest during historic times. The Fort Point tide gauge in San Francisco recorded approximately 21 tsunamis between 1854 and 1964. The 1964 Alaska earthquake generated a recorded wave height of 7.4 feet and drowned eleven people in Crescent City, California. For the case of a far-field event, the Bay area would

have hours of warning; for a near field event, there may be only a few minutes of warning, if any.

A tsunami or seiche originating in the Pacific Ocean would lose much of its energy passing through San Francisco Bay. Based on the study of tsunami inundation potential for the San Francisco Bay Area (Ritter and Dupre, 1972), areas most likely to be inundated are marshlands, tidal flats, and former bay margin lands that are now artificially filled, but are still at or below sea level, and are generally within 1½ miles of the shoreline. The site is approximately 2 miles inland from the San Francisco Bay shoreline, and is approximately 70 feet above mean sea level. Therefore, the potential for inundation due to tsunami or seiche is considered low.

4.7 FLOODING

The Federal Emergency Management Agency *Flood Insurance Rate Map* (FEMA, 2009) indicates that the site is located within Zone "X" described as: "Areas determined to be outside the 0.2% annual chance floodplain". We recommend the project civil engineer be retained to confirm this information and verify the base flood elevation, if appropriate.

SECTION 5: CONCLUSIONS

5.1 SUMMARY

From a geotechnical viewpoint, the project is feasible provided the concerns listed below are addressed in the project design. Descriptions of each concern with brief outlines of our recommendations follow the listed concerns.

- Undocumented fill
- Basement backfill and differential movement at fill transitions
- Soil corrosion potential

5.1.1 Undocumented Fill

As discussed in Section 3.2, approximately 2 feet of undocumented clayey to well-graded sand fill was encountered below the surface. This loose fill should be over-excavated and re-compacted within the proposed building footprint. Any undocumented fills encountered during the demolition of the northern building basement level should also be re-compacted prior to new fill placement. Recommendations addressing this concern are presented in the "Earthwork" section of this report.

5.1.2 Basement Backfill and Differential Movement at Fill Transitions

As discussed in Section 3, we understand that the existing northern building at the site, located at 1300 Bancroft Avenue, has an approximately 8-foot-deep basement with a deeper area housing a sanitary sewer pump. Both the basement and sump areas will need to be filled in as part of site grading. Material transitions occur when two or more materials with differing

geotechnical characteristics interface in a small area, such as within a building footprint. The materials that comprise these transitions can include native surficial soils or engineered fill. Because the geotechnical characteristics of the materials are different, the long-term performance of the materials will also be different.

For instance, fills materials that will be required to backfill the existing basement at 1300 Bancroft Avenue, even if well compacted, can be more compressible than native materials and as a result will usually experience a greater amount of settlement under various loading conditions. The differences in the amount of settlement between fill materials and native soil 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.

Although the plans indicate the new building foundation will be constructed at-grade, a portion of the building will straddle deeper fill that will be required to fill the existing basement. Deeper fill transitions should be over-excavated at an inclination of 3:1 or flatter and rebuilt with engineered fill to reduce the potential for differential movement beneath at-grade structures. Since undocumented fill will need to be over-excavated, this fill transition will be partially mitigated during site grading. Recommendations addressing these concerns are presented in the "Earthwork" section of this report

5.1.3 Soil Corrosion Potential

A preliminary soil corrosion screening was performed by JDH Corrosion Consultants based on the results of analytical tests on two samples of the near-surface soil. In general, JDH concludes that the corrosion potential for buried concrete does not warrant the use of sulfate resistant concrete. The corrosion potential for buried metallic structures, such as metal pipes, is considered moderate. JDH recommends that special requirements for corrosion control be made to protect metal pipes. A more detailed discussion of the site corrosion evaluation is presented in Appendix C.

5.2 PLANS AND SPECIFICATIONS REVIEW

We recommend that we be retained 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.

5.3 CONSTRUCTION OBSERVATION AND TESTING

As site conditions may vary significantly between the small-diameter borings performed during this investigation, we also recommend that a Cornerstone representative be present to provide geotechnical observation and testing during earthwork and foundation construction. This will allow us to form an opinion and prepare a letter at the end of construction regarding contractor compliance with project plans and specifications, and with the recommendations in our report. We will also be allowed to evaluate any conditions differing from those encountered during our investigation, and provide supplemental recommendations as necessary. For these reasons,

the recommendations in this report are contingent of Cornerstone providing observation and testing during construction. Contractors should provide at least a 48-hour notice when scheduling our field personnel.

SECTION 6: EARTHWORK

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. Demolition of existing improvements is discussed in detail below. A detailed 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 up to 2 to 3 inches below existing grade in vegetated areas.

6.1.2 Tree and Shrub Removal

Trees and shrubs designated for removal should have the root balls and any roots greater than ½-inch diameter removed completely. Mature trees are estimated to have root balls extending to depths of 2 to 4 feet, depending on the tree size. Significant root zones are anticipated to extend to the diameter of the tree canopy. Grade depressions resulting from root ball removal should be cleaned of loose material and backfilled in accordance with the recommendations in the "Compaction" section of this report.

6.1.3 Demolition of Existing Slabs, Foundations and Pavements

All slabs, foundations, and pavements should be completely removed from within planned building areas. Slabs, foundations, and pavements that extend into planned flatwork, pavement, or landscape areas may be left in place provided there is at least 3 feet of engineered fill overlying the remaining materials, they are shown not to conflict with new utilities, and asphalt and concrete more than 10 feet square is broken up to provide subsurface drainage. A discussion of recycling existing improvements is provided later in this report.

We recommend existing basement walls at the site be demolished to at least 5 feet below the deepest footing grade to minimize interactions with future footings. Basement slabs should be removed or at least broken up to provide subsurface drainage.

6.1.4 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

All existing undocumented fills should be completely removed from within the proposed building footprint and to a lateral distance of at least 5 feet beyond the building footprint or to a lateral distance equal to fill depth below the perimeter footing, whichever is greater. 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 geotextile fabric, debris, wood, or trash, those materials should 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 12 to 18 inches of fill below pavement subgrade is re-worked and compacted as discussed in the “Compaction” section below.

To minimize fill transitions between fill placed in the deep basement and shallower fill on the site, we recommend the existing undocumented fill soils be used to backfill the existing basement.

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. On a preliminary basis, the upper 10 feet at the site may be classified as OSHA Site C materials.

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 slope at a 1:1 inclination unless the OSHA soil classification indicates that slope should not exceed 1.5:1.

6.4 SUBGRADE PREPARATION

After site clearing and demolition is complete, and prior to backfilling any excavations resulting from fill removal or demolition, the excavation subgrade and subgrade within areas to receive additional site fills, slabs-on-grade and/or pavements should be scarified to a depth of 12 inches, moisture conditioned, and compacted in accordance with the “Compaction” section below.

6.5 SUBGRADE STABILIZATION MEASURES

Soil subgrade and fill materials, especially soils with high fines contents such as clayey and silty soils, can become unstable due to high moisture content, whether from high in-situ moisture contents or from winter rains. As the moisture content increases over the laboratory optimum, it becomes more likely the materials will be subject to softening and yielding (pumping) from construction loading or become unworkable during placement and compaction.

As discussed in the “Subsurface” section in this report, the in-situ moisture contents are up to 5 percent over the estimated laboratory optimum in the upper 10 feet of the soil profile. If wetter material is encountered in the surface soils or stockpiled soil at the site, the contractor should anticipate drying the soils prior to reusing them as fill.

There are several methods to address potential unstable soil conditions and facilitate fill placement and trench backfill. Some of the methods are briefly discussed below. Implementation of the appropriate stabilization measures should be evaluated on a case-by-case basis according to the project construction goals and the particular site conditions.

6.5.1 Scarification and Drying

The subgrade may be scarified to a depth of 6 to 12 inches and allowed to dry to near optimum conditions, if sufficient dry weather is anticipated to allow sufficient drying. More than one round of scarification may be needed to break up the soil clods.

6.5.2 Removal and Replacement

As an alternative to scarification, the contractor may choose to over-excavate the unstable soils and replace them with dry on-site or import materials. A Cornerstone representative should be present to provide recommendations regarding the appropriate depth of over-excavation, whether a geosynthethic stabilization fabric or geogrid is recommended, and what materials are recommended for backfill.

6.5.3 Chemical Treatment

Where the unstable area exceeds about 5,000 to 10,000 square feet and/or site winterization is desired, chemical treatment with quicklime (CaO), kiln-dust, or cement may be more cost-effective than removal and replacement. Recommended chemical treatment depths will typically range from 12 to 18 inches depending on the magnitude of the instability.

6.6 MATERIAL FOR FILL

6.6.1 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.

6.6.2 Re-Use of On-Site Site Improvements

We anticipate that some asphalt concrete (AC) grindings will be generated during site demolition. However, it should be noted that AC found on the site was found as overlays and paving fabric was found at EB 2 and EB 3. The use of paving fabric may make pavement grinding difficult and result in oversized pieces. If the AC grindings are mixed with the underlying AB to meet Class 2 AB specifications, they may be reused within the new pavement and flatwork structural sections, including within parking garage slab-on-grade areas. AC/AB grindings should not be re-used within the habitable at-grade building areas. Laboratory testing will be required to confirm the grindings meet project specifications.

If the existing Portland Cement Concrete building slabs and foundations are to be pulverized, and provided the pulverized PCC meets the “Material for Fill” requirements of this report, it may be used as general fill for the existing basement and as select fill within the building areas, excluding the capillary break layer; as typically pulverized PCC comes close to or meets Class 2 AB specifications, the recycled PCC may likely be used within the pavement structural sections. PCC grindings also make good winter construction access roads, similar to a cement-treated base (CTB) section.

6.6.3 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 the 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.

6.7 COMPACTION REQUIREMENTS

All fills, and subgrade areas where fill, slabs-on-grade, and pavements are planned, should be placed in loose lifts 8 inches thick or less and compacted in accordance with ASTM D1557 (latest version) requirements as shown in the table below. In general, clayey soils should be compacted with sheepsfoot 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 subgrade should be firm and unyielding under construction equipment loading in addition to meeting the compaction requirements to be approved. The contractor (with input from a Cornerstone representative) should evaluate the in-situ moisture conditions, as the use of vibratory equipment on soils with high moistures can cause unstable conditions. General recommendations for soil stabilization are provided in the "Subgrade Stabilization Measures" section of this report.

Table 3: Compaction Requirements

Description	Material Description	Minimum Relative[1] Compaction (percent)	Moisture[2] Content (percent)
General Fill (within upper 5 feet)	On-Site Soils	90	>1
General Fill (below a depth of 5 feet)	On-Site Soils	95	>1
Trench Backfill	On-Site Soils	90	>1
Trench Backfill (upper 6 inches of subgrade)	On-Site Soils	95	>1
Crushed Rock Fill	¾-inch Clean Crushed Rock	Consolidate In-Place	NA
Non-Expansive Fill	Imported Non-Expansive Fill	90	Optimum
Flatwork Subgrade	On-Site Soils	90	>1
Flatwork Aggregate Base	Class 2 Aggregate Base[3]	90	Optimum
Pavement Subgrade	On-Site Soils	95	>1
Pavement Aggregate Base	Class 2 Aggregate Base[3]	95	Optimum
Asphalt Concrete	Asphalt Concrete	95	NA

1 – Relative compaction based on maximum density determined by ASTM D1557 (latest version)
2 – Moisture content based on optimum moisture content determined by ASTM D1557 (latest version)
3 – Class 2 aggregate base shall conform to Caltrans Standard Specifications, latest edition, except that the relative compaction should be determined by ASTM D1557 (latest version)

6.8 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 (⅜-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.

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.

6.9 SITE DRAINAGE

Ponding should not be allowed adjacent to building foundations, slabs-on-grade, or pavements. Hardscape surfaces should slope at least 2 percent towards suitable discharge facilities; landscape areas should slope at least 3 percent to at least 10 feet from the structure. Roof runoff should be directed away from building areas in closed conduits, to approved infiltration facilities, or on to hardscaped surfaces that drain to suitable facilities. Retention, detention or infiltration facilities should be spaced at least 10 feet from buildings, and preferably at least 5 feet from slabs-on-grade or pavements. However, if retention, detention or infiltration facilities are located within these zones, we recommend that these treatment facilities meet the requirements in the Storm Water Treatment Design Considerations section of this report.

6.10 LOW-IMPACT DEVELOPMENT (LID) IMPROVEMENTS

The Municipal Regional Permit (MRP) requires regulated projects to treat 100 percent of the amount of runoff identified in Provision C.3.d from a regulated project's drainage area with low impact development (LID) treatment measures onsite or at a joint stormwater treatment facility. LID treatment measures are defined as rainwater harvesting and use, infiltration, evapotranspiration, or biotreatment. A biotreatment system may only be used if it is infeasible to implement harvesting and use, infiltration, or evapotranspiration at a project site.

Technical infeasibility of infiltration may result from site conditions that restrict the operability of infiltration measures and devices. Various factors affecting the feasibility of infiltration treatment may create an environmental risk, structural stability risk, or physically restrict infiltration. The presence of any of these limiting factors may render infiltration technically infeasible for a proposed project. To aid in determining if infiltration may be feasible at the site, we provide the following site information regarding factors that may aid in determining the feasibility of infiltration facilities at the site.

- The near-surface soils at the site are clayey, and likely categorized as Hydrologic Soil Group D and are expected to have infiltration rates of less than 0.2 inches per hour. In our opinion, these clayey soils will significantly limit the infiltration of stormwater.

- In our opinion, infiltration locations within 10 feet of the buildings could create a geotechnical hazard.

6.10.1 Storm Water Treatment Design Considerations

If storm water treatment improvements, such as shallow bio-retention swales, basins or pervious pavements, are required as part of the site improvements to satisfy Storm Water Quality (C.3) requirements, we recommend the following items be considered for design and construction.

6.10.1.1 General Bioswale Design Guidelines

- If possible, avoid placing bioswales or basins within 10 feet of the building perimeter or within 5 feet of exterior flatwork or pavements. If bioswales must be constructed within these setbacks, the side(s) and bottom of the trench excavation should be lined with 10-mil visqueen to reduce water infiltration into the surrounding expansive clay.

- Bioswales constructed within 3 feet of proposed buildings may be within the foundation zone of influence for perimeter wall loads. Therefore, where bioswales will parallel foundations and will extend below the "foundation plane of influence," an imaginary 1:1 plane projected down from the bottom edge of the foundation, the foundation will need to be deepened so that the bottom edge of the bioswale filter material is above the foundation plane of influence.

- The bottom of bioswale or detention areas should include a perforated drain placed at a low point, such as a shallow trench or sloped bottom, to reduce water infiltration into the surrounding soils near structural improvements.

6.10.1.2 Bioswale Infiltration Material

- Gradation specifications for bioswale filter material, if required, should be specified on the grading and improvement plans.

- Compaction requirements for bioswale filter material in non-landscaped areas or in pervious pavement areas, if any, should be indicated on the plans and specifications to satisfy the anticipated use of the infiltration area.

- If required, infiltration (percolation) testing should be performed on representative samples of potential bioswale materials prior to construction to check for general conformance with the specified infiltration rates.

- It should be noted that multiple laboratory tests may be required to evaluate the properties of the bioswale materials, including percolation, landscape suitability and possibly environmental analytical testing depending on the source of the material. We recommend that the landscape architect provide input on the required landscape suitability tests if bioswales are to be planted.

- If bioswales are to be vegetated, the landscape architect should select planting materials that do not reduce or inhibit the water infiltration rate, such as covering the bioswale with grass sod containing a clayey soil base.

- If required by governing agencies, field infiltration testing should be specified on the grading and improvement plans. The appropriate infiltration test method, duration and frequency of testing should be specified in accordance with local requirements.

- Due to the relatively loose consistency and/or high organic content of many bioswale filter materials, long-term settlement of the bioswale medium should be anticipated. To reduce initial volume loss, bioswale filter material should be wetted in 12 inch lifts during placement to pre-consolidate the material. Mechanical compaction should not be allowed, unless specified on the grading and improvement plans, since this could significantly decrease the infiltration rate of the bioswale materials.

- It should be noted that the volume of bioswale filter material may decrease over time depending on the organic content of the material. Additional filter material may need to be added to bioswales after the initial exposure to winter rains and periodically over the life of the bioswale areas, as needed.

6.10.1.3 Bioswale Construction Adjacent to Pavements

If bio-infiltration swales or basins are considered adjacent to proposed parking lots or exterior flatwork, we recommend that mitigative measures be considered in the design and construction of these facilities to reduce potential impacts to flatwork or pavements. Exterior flatwork, concrete curbs, and pavements located directly adjacent to bio-swales may be susceptible to settlement or lateral movement, depending on the configuration of the bioswale and the setback between the improvements and edge of the swale. To reduce the potential for distress to these improvements due to vertical or lateral movement, the following options should be considered by the project civil engineer:

- Improvements should be setback from the vertical edge of a bioswale such that there is at least 1 foot of horizontal distance between the edge of improvements and the top edge of the bioswale excavation for every 1 foot of vertical bioswale depth, or

- Concrete curbs for pavements, or lateral restraint for exterior flatwork, located directly adjacent to a vertical bioswale cut should be designed to resist lateral earth pressures in accordance with the recommendations in the “Retaining Walls” section of this report, or concrete curbs or edge restraint should be adequately keyed into the native soil or engineered to reduce the potential for rotation or lateral movement of the curbs.

6.11 LANDSCAPE CONSIDERATIONS

We recommend greatly reducing the amount of surface water infiltrating these soils near foundations and exterior slabs-on-grade. This can typically be achieved by:

- Using drip irrigation
- Avoiding open planting within 3 feet of the building perimeter or near the top of existing slopes
- Regulating the amount of water distributed to lawns or planter areas by using irrigation timers
- Selecting landscaping that requires little or no watering, especially near foundations.

We recommend that the landscape architect consider these items when developing landscaping plans.

SECTION 7: FOUNDATIONS

7.1 SUMMARY OF RECOMMENDATIONS

In our opinion, the proposed structure may be supported on shallow foundations provided the recommendations in the "Earthwork" section and the sections below are followed.

7.2 SEISMIC DESIGN CRITERIA

We understand that the project structural design will be based on the 2013 California Building Code (CBC), which provides criteria for the seismic design of buildings in Chapter 16. The "Seismic Coefficients" used to design buildings are established based on a series of tables and figures addressing different site factors, including the soil profile in the upper 100 feet below grade and mapped spectral acceleration parameters based on distance to the controlling seismic source/fault system. Based on our borings and review of local geology, the site is underlain by deep alluvial soils with typical SPT "N" values between 15 and 50 blows per foot. Therefore, we have classified the site as Soil Classification D. The mapped spectral acceleration parameters S_S and S_1 were calculated using the USGS web-based program *U.S. Seismic Design Maps* (http://geohazards.usgs.gov/designmaps/us/application.php), Version 3.1.0, revision date July 11, 2013, based on the site coordinates presented below and the site classification. . The table below lists the various factors used to determine the seismic coefficients and other parameters.

Table 4: CBC Site Categorization and Site Coefficients

Classification/Coefficient	Design Value
Site Class	D
Site Latitude	37.72682°
Site Longitude	-121.1472°
0.2-second Period Mapped Spectral Acceleration[1], S_S	2.318g
1-second Period Mapped Spectral Acceleration[1], S_1	0.963g
Short-Period Site Coefficient – Fa	1.0
Long-Period Site Coefficient – Fv	1.5
0.2-second Period, Maximum Considered Earthquake Spectral Response Acceleration Adjusted for Site Effects - S_{MS}	2.318g
1-second Period, Maximum Considered Earthquake Spectral Response Acceleration Adjusted for Site Effects – S_{M1}	1.444g
0.2-second Period, Design Earthquake Spectral Response Acceleration – S_{DS}	1.546g
1-second Period, Design Earthquake Spectral Response Acceleration – S_{D1}	0.963g

[1]For Site Class B, 5 percent damped.

7.3 SHALLOW FOUNDATIONS

7.3.1 Conventional Footings

Continuous and/or spread footings should bear entirely on natural, undisturbed soil or engineered fill, be at least 24 inches wide, and extend at least 24 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.

Footings constructed to the above dimensions and in accordance with the “Earthwork” recommendations of this report are capable of supporting maximum allowable bearing pressures of 2,000 psf for dead loads, 3,000 psf for combined dead plus live loads, and 4,000 psf for all loads including wind and seismic. These pressures are based on factors of safety of 3.0, 2.0, and 1.5 applied to the ultimate bearing pressure for dead, dead plus live, and all loads, respectively. These pressures are net values; 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 included in continuous footings to help span irregularities and differential settlement.

7.3.2 Footing Settlement

Structural loads were not provided to us at the time this report was prepared; therefore, we assumed the typical loading in the following table.

Table 5: Assumed Structural Loading

Foundation Area	Range of Assumed Loads
Interior Isolated Column Footing	200 to 300 kips
Exterior Isolated Column Footing	100 to 150 kips
Shear Wall Footing	4 to 6 kips per lineal foot

Based on the above loading and the allowable bearing pressures presented above, we estimate that the total static footing settlement will be on the order of ½ to ¾ inch, with about ¼ to ½ inch of post-construction differential settlement between adjacent foundation elements, assumed to be on the order of 30 feet. We recommend that adjacent footings straddling the basement fill area be designed to tolerate ½ inch of post-construction differential settlement. As our footing loads were assumed, we recommend we be retained to review the final footing layout and loading, and verify the settlement estimates above.

7.3.3 Lateral Loading for Footings

Lateral loads may be resisted by friction between the bottom of footings and the supporting subgrade, and also by passive pressures generated against footing edges. An ultimate frictional resistance of 0.45 applied to the footing dead load, and an ultimate passive pressure based on an equivalent fluid pressure of 450 pcf may be used in design. The structural engineer should apply an appropriate factor of safety (such as 1.5) to the ultimate values above. The upper 12 inches of soil should be neglected when determining passive pressure capacity.

7.3.4 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.

Footing excavations should be filled as soon as possible or be kept moist until concrete placement by regular sprinkling to prevent desiccation. A Cornerstone representative should observe all footing excavations prior to placing reinforcing steel and concrete. If there is a significant schedule delay between our initial observation and concrete placement, we may need to re-observe the excavations.

SECTION 8: CONCRETE SLABS AND PEDESTRIAN PAVEMENTS

8.1 INTERIOR SLABS-ON-GRADE

As the Plasticity Index (PI) of the surficial soils is 15 or less, any proposed slabs-on-grade in retail or other at-grade areas within the building area may be supported directly on subgrade prepared in accordance with the recommendations in the "Earthwork" section of this report. If moisture-sensitive floor coverings are planned, the recommendations in the "Interior Slabs Moisture Protection Considerations" section below may be incorporated in the project design if desired. If significant time elapses between initial subgrade preparation and slab-on-grade construction, the subgrade should be proof-rolled to confirm subgrade stability, and if the soil has been allowed to dry out, the subgrade should be re-moisture conditioned to near optimum moisture content. Recommendations for slabs-on-grade in podium parking areas are presented below.

The structural engineer should determine the appropriate slab reinforcement for the loading requirements and considering the expansion potential of the underlying soils. 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 PODIUM 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. The garage slab should be supported on at least 4 inches of either Class 2 aggregate base or ¾-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.

8.3 EXTERIOR FLATWORK

Exterior concrete flatwork subject to pedestrian and/or occasional light pick up loading should be at least 4 inches thick and supported on at least 4 inches of Class 2 aggregate base overlying subgrade prepared in accordance with the "Earthwork" recommendations of this report. Flatwork that will be subject to heavier or frequent vehicular loading should be designed in accordance with the recommendations in the "Vehicular Pavements" section below. To help reduce the potential for uncontrolled shrinkage cracking, adequate expansion and control joints should be included. Sidewalks to be constructed within public right-of-way areas should be constructed in accordance with City of San Leandro standard details and specifications.

SECTION 9: VEHICULAR PAVEMENTS

9.1 ASPHALT CONCRETE

The following asphalt concrete pavement recommendations tabulated below are based on the Caltrans Highway Design Manual (latest edition), estimated traffic indices for various pavement-loading conditions, and on an assumed design R-value of 5. The design R-value was chosen based on experience with similar near surface clay soils and engineering judgment considering the variable surface conditions.

Table 6: 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	7.0	9.5
4.5	2.5	8.0	10.5
5.0	2.5	9.0	11.5
5.5	3.0	10.0	13.0
6.0	3.0	12.0	15.0
6.5	3.5	13.0	16.5

*Caltrans Class 2 aggregate base; minimum R-value of 78

Frequently, the full asphalt concrete section is not constructed prior to construction traffic loading. This can result in significant loss of asphalt concrete layer life, rutting, or other pavement failures. To improve the pavement life and reduce the potential for pavement distress through construction, we recommend the full design asphalt concrete section be constructed prior to construction traffic loading. Alternatively, a higher traffic index may be chosen for the areas where construction traffic will be use the pavements.

9.2 PORTLAND CEMENT CONCRETE

The exterior Portland Cement Concrete (PCC) pavement recommendations tabulated below are based on methods presented in the Portland Cement Association (PCA) design manual (PCA, 1984). We have provided a few pavement alternatives as an anticipated Average Daily Truck Traffic (ADTT) was not provided. An allowable ADTT should be chosen that is greater than what is expected for the development.

Table 7: PCC Pavement Recommendations

Allowable ADTT	Minimum PCC Thickness (inches)
13	5½
130	6

The PCC thicknesses above are based on a concrete compressive strength of at least 3,500 psi, supporting the PCC on at least 6 inches of Class 2 aggregate base compacted as recommended in the "Earthwork" section, and laterally restraining the PCC with curbs or concrete shoulders. PCC approach slabs for trash enclosures should be at least 8 inches thick and underlain by at least 6 inches of Class 2 aggregate base.

Adequate expansion and control joints should be included. 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.

9.3 VEHICULAR CONCRETE UNIT PAVERS

Where vehicular concrete unit pavers are desired in standard traffic areas, we recommend that the pavers be underlain by a 6-inch-thick concrete sub-slab designed as discussed above, including the aggregate base section. Pavers should be placed on a bituminous or mortar setting bed over the concrete sub-slab. Where the pavers will be used as an emergency vehicle access (EVA), the pavers should be placed over at least 12 inches of Class 2 aggregate base and prepared subgrade as recommended in the "Earthwork" section. A maximum 1 inch thick sand setting bed may be used to level the pavers on the aggregate base.

9.4 PAVEMENT CUTOFF

Surface water penetration into the pavement section can significantly reduce the pavement life. While quantifying the life reduction is difficult, a normal 20-year pavement design could be reduce to less than 10 years; therefore, increased long-term maintenance may be required.

It would be beneficial to include a pavement cut-off, such as deepened curbs, redwood-headers, or "Deep-Root Moisture Barriers" that are keyed at least 4 inches into the pavement subgrade. This will help limit the additional long-term maintenance.

SECTION 10: LIMITATIONS

This report, an instrument of professional service, has been prepared for the sole use of Eden Rehab Corporation specifically to support the design of the mixed-use development located at 1300 - 1380 Bancroft Avenue in San Leandro, 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.

Eden Rehab Corporation may have provided Cornerstone with plans, reports and other documents prepared by others. Eden Rehab Corporation 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 11: REFERENCES

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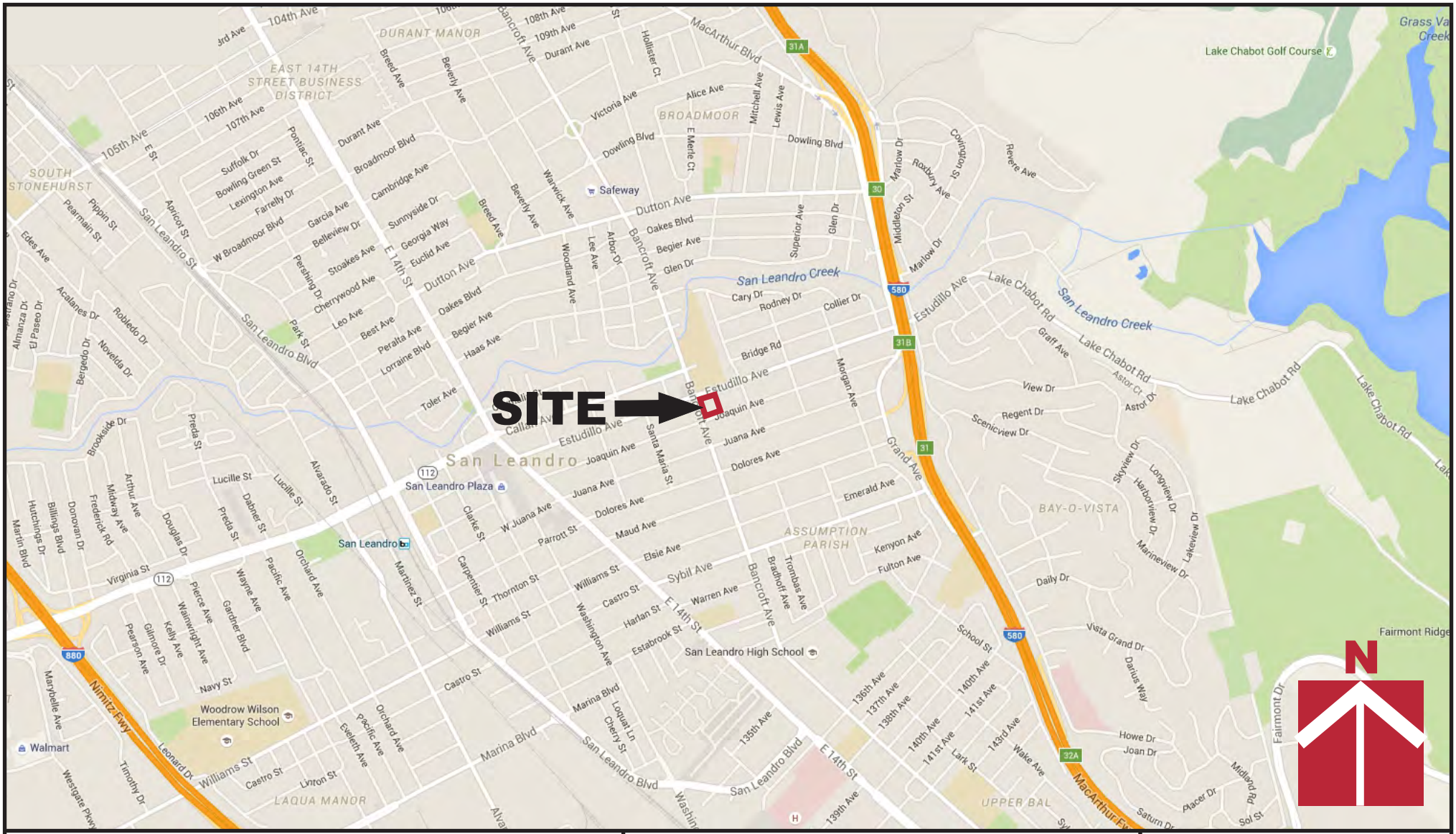

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Vicinity Map

Bancroft Avenue Residential Development
1380 Bancroft Ave
San Leandro, CA

Project Number	887-1-1
Figure Number	Figure 1
Date	May 2016
Drawn By	RRN

Legend

Approximate location of exploratory boring (EB)

0 30 60

APPROXIMATE SCALE (FEET)

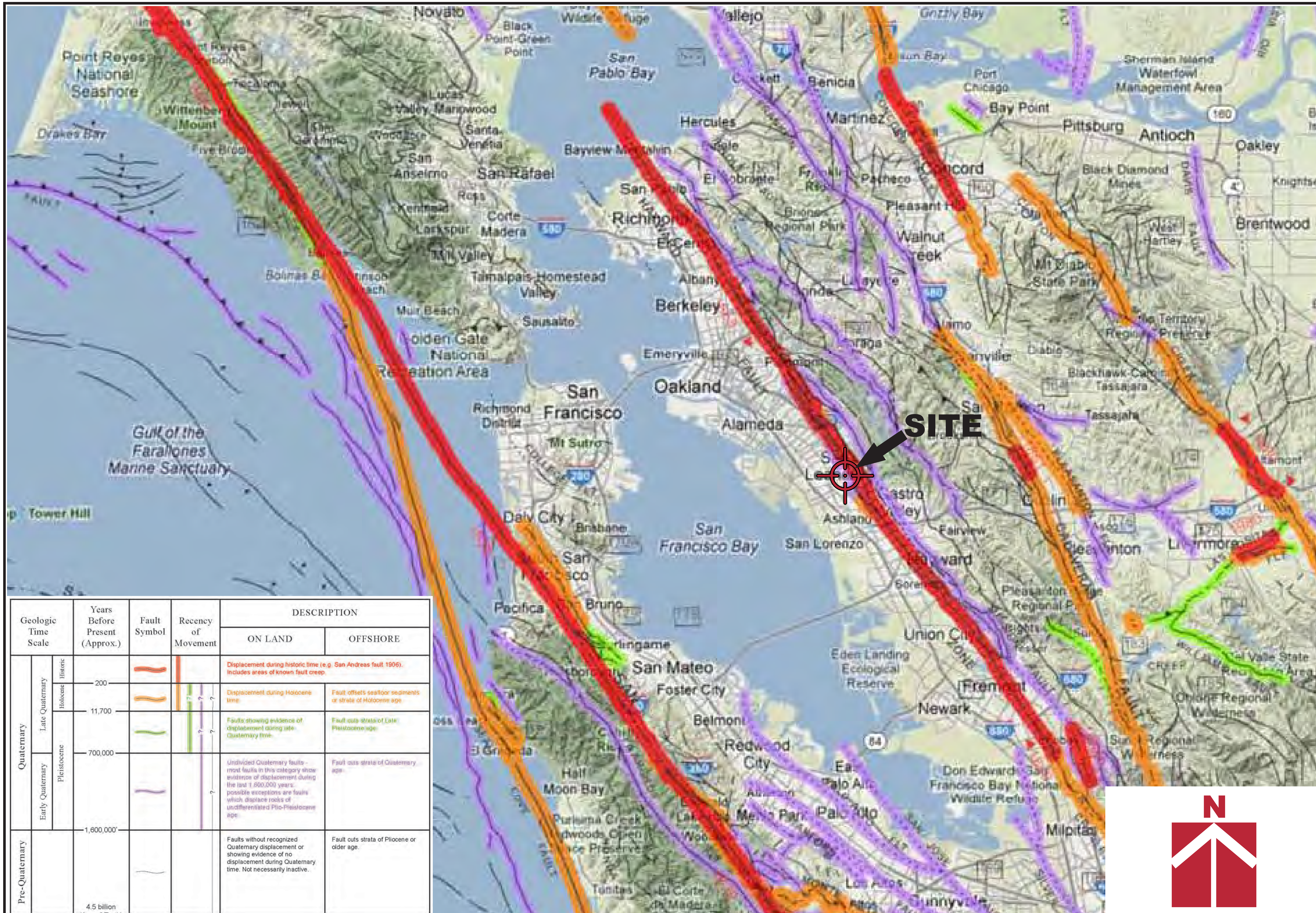
Base by Google Earth, dated 10/30/2015
Overlay by AXIS, Site Plan - A1, dated 3/11/2016

Project Number	887-1-1
Figure Number	Figure 2
Date	May 2016
Drawn By	RRN

Site Plan

Bancroft Avenue Residential Development
1380 Bancroft Ave
San Leandro, CA

CORNERSTONE EARTH GROUP



N
0 5 10
APPROXIMATE SCALE (MILES)

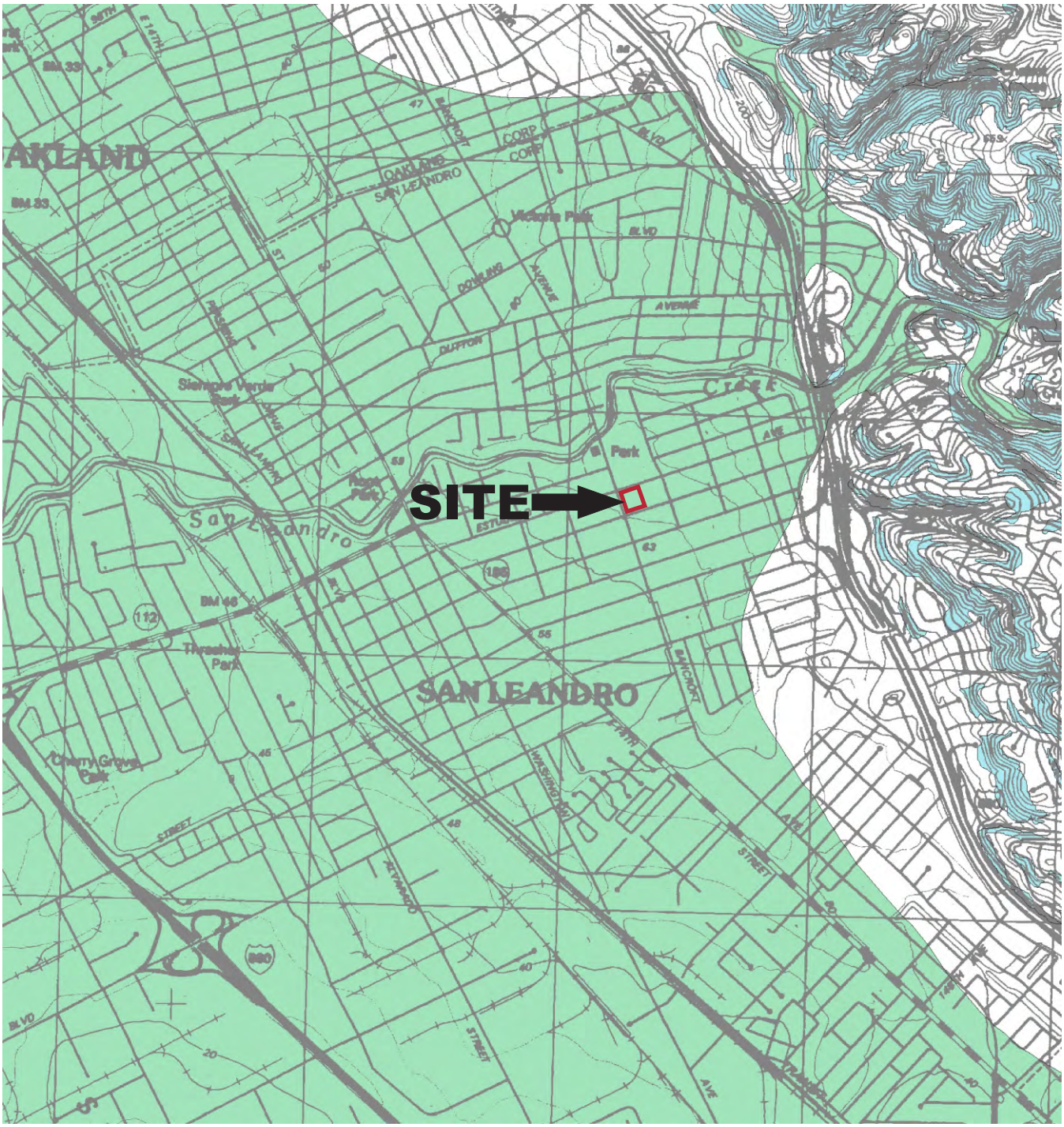
Base by California Geological Survey - 2010 Fault Activity Map of California (Jennings and Bryant, 2010)

Regional Fault Map

Bancroft Avenue Residential Development
1380 Bancroft Ave
San Leandro, CA

CORNERSTONE EARTH GROUP

Project Number	Figure Number	Date	Drawn By
887-1-1	Figure 3	May 2016	RRN



Explanation

Liquefaction

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides

Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

N

0 2000 4000

APPROXIMATE SCALE (FEET)

Base by State of California, Seismic Hazard Zones.

CORNERSTONE EARTH GROUP

Seismic Hazard Map

Bancroft Avenue Residential Development
1380 Bancroft Ave
San Leandro, CA

Project Number	887-1-1
Figure Number	Figure 4
Date	May 2016
Drawn By	RRN

APPENDIX A: FIELD INVESTIGATION

Our field investigation at the site consisted of performing a surface reconnaissance, and a subsurface exploration program using truck-mounted, hollow-stem auger drilling equipment. Three (3) 8-inch-diameter exploratory borings were drilled on April 22, 2016 to depths of 20 to 50 feet. The approximate locations of exploratory borings are shown on the Site Plan, Figure 2. Soils encountered in the borings 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, are included as part of this appendix.

Boring locations were approximated using existing site boundaries, a hand held GPS unit, and other site features as references. Boring elevations were not determined. The locations 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 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	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	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

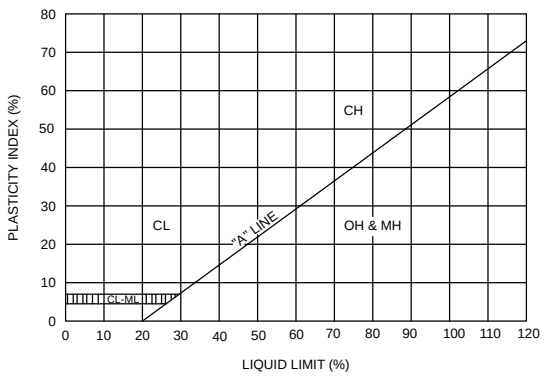
SAMPLER TYPES

- SPT
- Modified California (2.5" I.D.)
- Rock Core
- Shelby Tube
- No Recovery
- 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.

CORNERSTONE EARTH GROUP

LEGEND TO SOIL DESCRIPTIONS

Figure Number A-1

BORING NUMBER EB-1

CORNERSTONE EARTH GROUP

PROJECT NAME Bancroft Apartments
PROJECT NUMBER 887-1-1
PROJECT LOCATION 1380 Bancroft Avenue, San Leandro, CA

DATE STARTED 4/22/16 **DATE COMPLETED** 4/22/16
GROUND ELEVATION _____ **BORING DEPTH** 20 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc.
LATITUDE _____ **LONGITUDE** _____
DRILLING METHOD Mobile B-61, 8 inch Hollow-Stem Auger
GROUND WATER LEVELS:
LOGGED BY OL
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
	0		2 inches AC overlay over 2 inches AC						
			Clayey Sand with Gravel (SC) [Fill] loose, moist, brown, fine to medium sand, fine to coarse gravel	18	MC-1C	107	19		
			Sandy Lean Clay (CL) stiff to medium stiff, moist, dark brown to brown, fine sand, low plasticity	12	MC-2	94	24		
	5			16	3A MC 3B	93 93	27 26		
			Lean Clay with Sand (CL) medium stiff, moist, gray and brown mottled, fine sand, low plasticity	17	MC-4B	97	23		
	10								
			Lean Clay (CL) very stiff, moist, brown with gray mottles, some fine sand, moderate plasticity	39	MC-5B	106	20		
	15								
				35	MC-6B	110	19		
	20		Bottom of Boring at 20.0 feet.						
	25								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-2

CORNERSTONE EARTH GROUP

PROJECT NAME Bancroft Apartments
PROJECT NUMBER 887-1-1
PROJECT LOCATION 1380 Bancroft Avenue, San Leandro, CA

DATE STARTED 4/22/16 **DATE COMPLETED** 4/22/16
GROUND ELEVATION _____ **BORING DEPTH** 50 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc.
LATITUDE _____ **LONGITUDE** _____
DRILLING METHOD Mobile B-61, 8 inch Hollow-Stem Auger
GROUND WATER LEVELS:
LOGGED BY OL
▽ **AT TIME OF DRILLING** 48 ft.
NOTES _____
▼ **AT END OF DRILLING** 48 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
	0		2 inches AC over fabric over 3 inches AC over 4 inches aggregate base							
			Well Graded Sand with Gravel (SW) [Fill] loose, moist, gray brown, fine to coarse sand, fine to coarse gravel	11	MC-1B	99	20	12		
			Sandy Lean Clay (CL) medium stiff, moist, dark brown to brown, fine sand, low plasticity	11	MC-2		20			
			Liquid Limit = 29, Plastic Limit = 17							
	5		**Lean Clay with Sand (CL)** very stiff, moist, gray and brown mottled, fine sand, low plasticity	26	MC-3B	107	19			
			Clayey Sand (SC) medium dense, moist, brown, fine sand	32	MC-4B	100	11			
	10		**Lean Clay (CL)** hard, moist, brown with gray mottles, some fine sand, moderate plasticity	67	MC-5B	113	16			>4.5
	15									
				49	MC-6B	112	17			>4.5
	20									
				28	MC-7	111	17			
	25									

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

Continued Next Page

BORING NUMBER EB-2

CORNERSTONE EARTH GROUP

PROJECT NAME Bancroft Apartments

PROJECT NUMBER 887-1-1

PROJECT LOCATION 1380 Bancroft Avenue, San Leandro, 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
			Lean Clay with Sand (CL) very stiff, moist, gray and brown mottled, fine sand, low plasticity	37	MC-8B	104	19		
	30		**Sandy Silt (ML)** stiff, moist, brown, fine sand, low plasticity	24	9A MC 9B	89 96	18 19		59
	35		**Poorly Graded Sand (SP)** dense, moist, gray brown, fine to coarse sand, some fine subangular to subrounded gravel	66	MC-10B	104	5		5
	40		**Poorly Graded Sand with Silt (SP-SM)** dense, moist, gray brown, fine to coarse sand, fine to coarse subangular to subrounded gravel	34	SPT-11		9		9
	45								
	50		**Sandy Lean Clay (CL)** medium stiff, moist, brown, fine to medium sand, low plasticity Bottom of Boring at 50.0 feet.	34	MC				
	55								

UNDRAINED SHEAR STRENGTH, ksf
- ○ HAND PENETROMETER
- △ TORVANE
- ● UNCONFINED COMPRESSION
- ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL

1.0 2.0 3.0 4.0

BORING NUMBER EB-3

CORNERSTONE EARTH GROUP

PROJECT NAME Bancroft Apartments
PROJECT NUMBER 887-1-1
PROJECT LOCATION 1380 Bancroft Avenue, San Leandro, CA

DATE STARTED 4/22/16 **DATE COMPLETED** 4/22/16
GROUND ELEVATION _____ **BORING DEPTH** 20 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc.
LATITUDE _____ **LONGITUDE** _____
DRILLING METHOD Mobile B-61, 8 inch Hollow-Stem Auger
GROUND WATER LEVELS:
LOGGED BY OL
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
	0		5 inches AC over fabric						
			Clayey Sand with Gravel (SC) [Fill] loose, moist, dark brown and brown mottled, fine to medium sand, fine to coarse gravel	20	MC-1B	108	17		
			Sandy Lean Clay (CL) stiff to medium stiff, moist, dark brown to brown, fine sand, low plasticity Liquid Limit = 30, Plastic Limit = 16	12	MC-2B	97	23	14	
	5			16	MC-3A	102	20		
				19	MC-4B	104	20		
	10								
			Lean Clay with Sand (CL) very stiff, moist, gray and brown mottled, fine sand, low plasticity	34	MC-5B	107	20		
	15								
				35	MC-6B	108	20		
	20		Bottom of Boring at 20.0 feet.						
	25								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

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 25 samples of the materials recovered from the borings. These water contents are recorded on the boring logs at the appropriate sample depths.

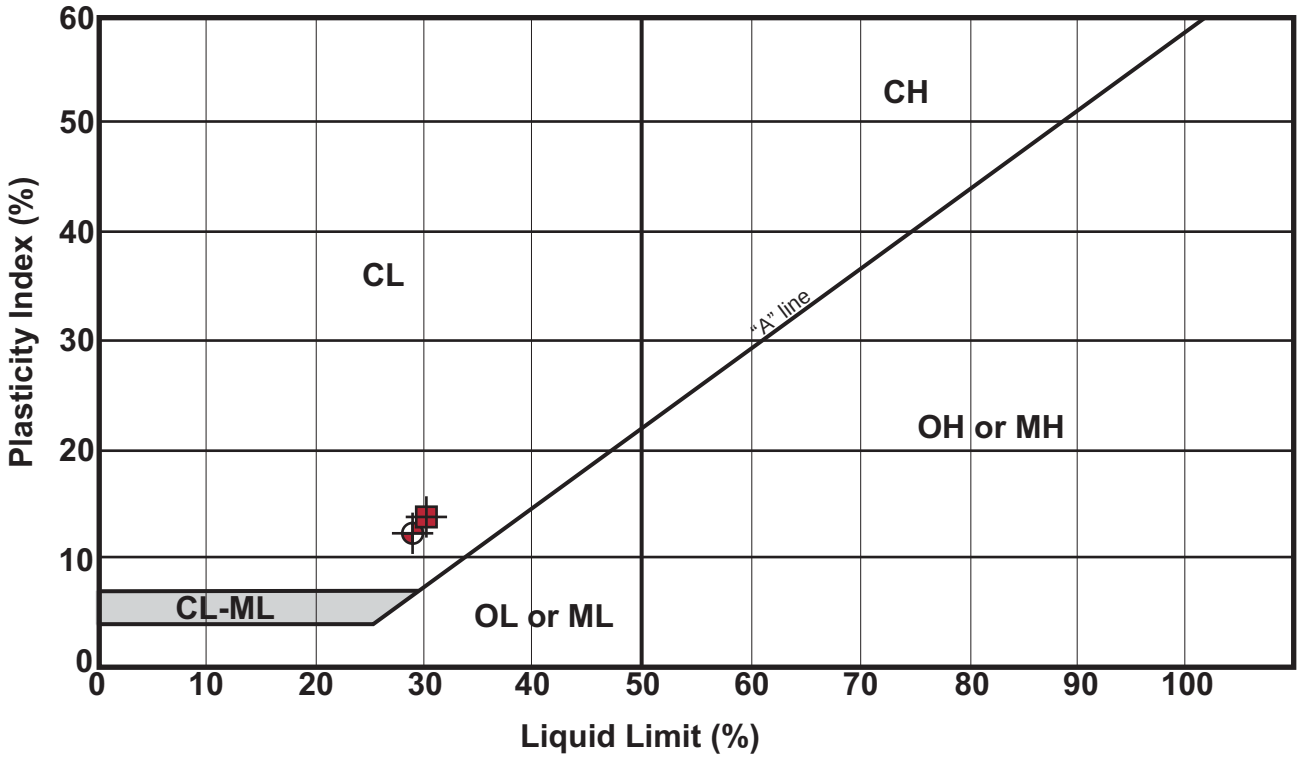
Dry Densities: In place dry density determinations (ASTM D2937) were performed on 23 samples to measure the unit weight of the subsurface soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Washed Sieve Analyses: The percent soil fraction passing the No. 200 sieve (ASTM D1140) was determined on 3 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 determination (ASTM D4318) was performed on 2 samples of the subsurface soil to measure the range of water contents over which this material exhibits plasticity. The Plasticity Indices were used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil expansion potential. Results of this test are shown on the boring log at the appropriate sample depth.

Undrained-Unconsolidated Triaxial Shear Strength: The undrained shear strength was determined on two relatively undisturbed samples by unconsolidated-undrained triaxial shear strength testing (ASTM D2850). The results of this test are included as part of this appendix.

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-2	2.0	20	29	17	12	---	Sandy Lean Clay (CL)
■	EB-3	4.0	23	30	16	14	—	Sandy Lean Clay (CL)

CORNERSTONE EARTH GROUP

Plasticity Index Testing Summary

Bancroft Apartments
1380 Bancroft Avenue
San Leandro, CA

Project Number: 887-1-1

Figure Number: Figure B1

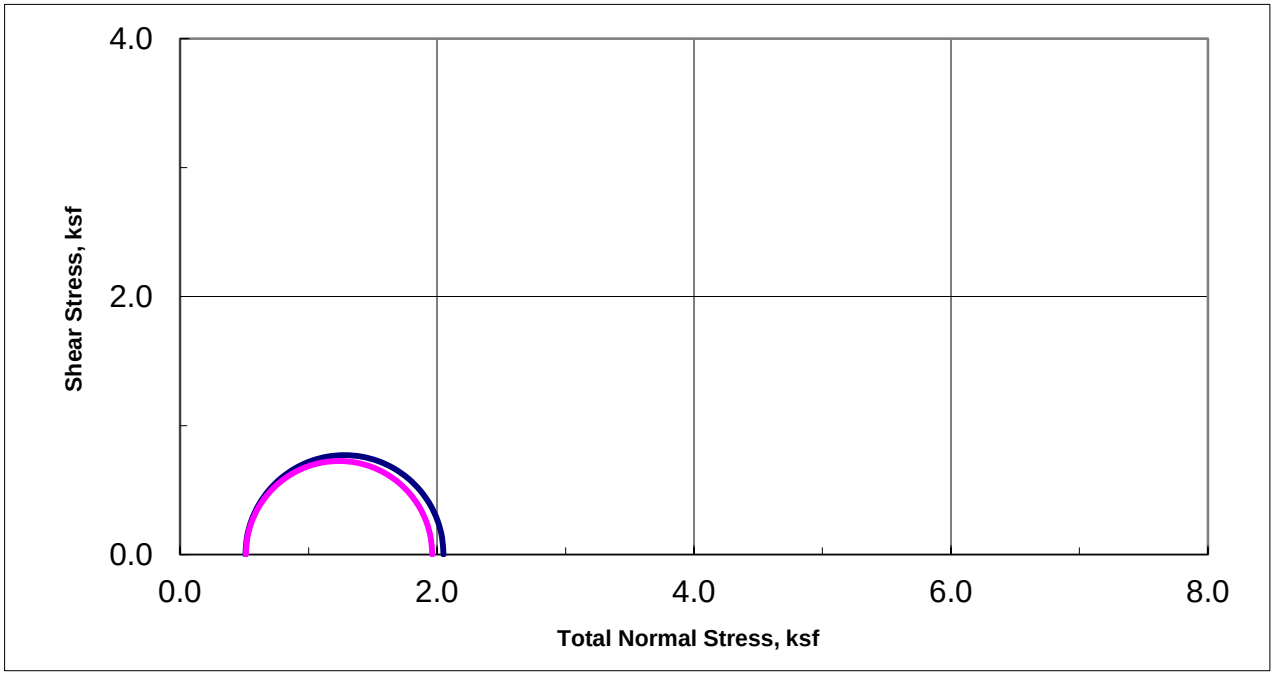
Date: May 2016

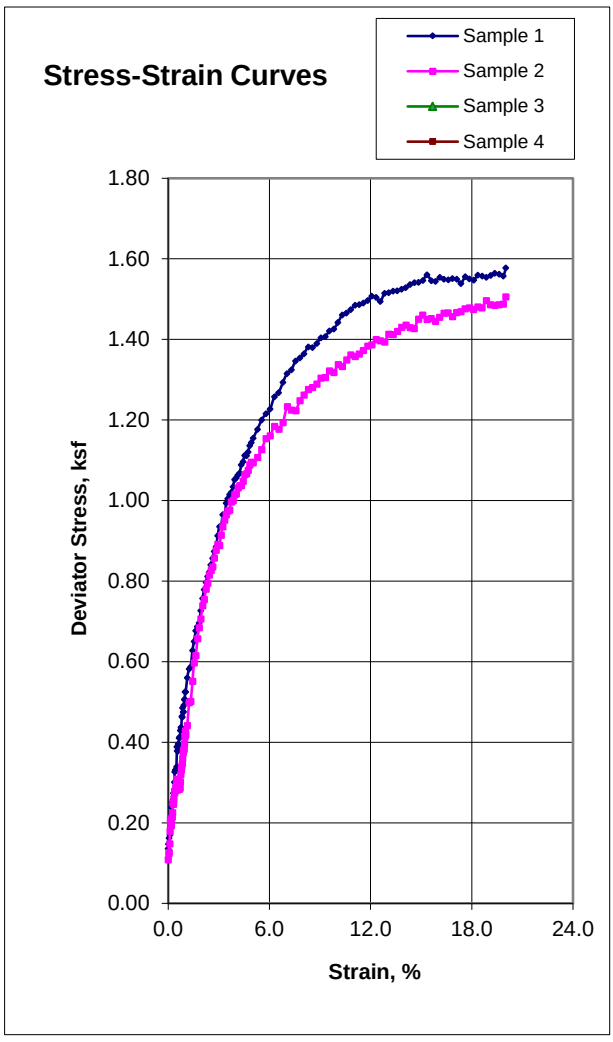
Drawn By: FLL

Cooper Testing Labs, Inc.
937 Commercial Street
Palo Alto, CA 94303

Unconsolidated-Undrained Triaxial Test

ASTM D2850





Sample Data				
	1	2	3	4
Moisture %	26.9	20.0		
Dry Den,pcf	92.9	101.7		
Void Ratio	0.814	0.658		
Saturation %	89.4	82.3		
Height in	5.18	5.22		
Diameter in	2.39	2.40		
Cell psi	3.5	3.6		
Strain %	15.00	15.00		
Deviator, ksf	1.542	1.451		
Rate %/min	1.00	1.00		
in/min	0.052	0.052		
Job No.:	640-976			
Client:	Cornerstone Earth Group			
Project:	1380 Bancroft - 887-1-1			
Boring:	EB-1	EB-3		
Sample:	3A	3A		
Depth ft:	5.5	5.5		

Visual Soil Description	
Sample #	
1	Dark Olive Brown Sandy CLAY
2	Dark Olive Brown Sandy CLAY
3	
4	

Remarks:

Note: Strengths are picked at the peak deviator stress or 15% strain which ever occurs first per ASTM D2850.

Corrosivity Tests Summary

CTL # 640-976 **Date:** 4/27/2016 **Tested By:** PJ **Checked:** PJ

Client: Cornerstone Earth Group **Project:** 1300-1380 Bancroft, San Leandro, CA **Proj. No:** 887-1-1

Remarks:

Sample Location or ID			Resistivity @ 15.5 °C (Ohm-cm)			Chloride	Sulfate		pH	ORP (Redox)		Sulfide	Moisture	Soil Visual Description
			As Rec.	Min	Sat.	mg/kg	mg/kg	%				Qualitative	At Test	
						Dry Wt.	Dry Wt.	Dry Wt.		E_H (mv)	At Test	by Lead	%	
Boring	Sample, No.	Depth, ft.	ASTM G57	Cal 643	ASTM G57	ASTM D4327	ASTM D4327	ASTM D4327	ASTM G51	ASTM G200	Temp °C	Acetate Paper	ASTM D2216	
EB-2	2	3.0	-	-	3,416	4	75	0.0075	6.6	-	-	-	20.4	Olive Brown Sandy CLAY
EB-3	3B	6.0	-	-	4,059	2	59	0.0059	6.8	-	-	-	18.9	Olive Brown Sandy CLAY

APPENDIX C: SITE CORROSIVITY EVALUATION

JDH CORROSION CONSULTANTS REPORT DATED 5/10/2016

May 10, 2016

Cornerstone Earth Group, Inc.
1270 Springbrook Road, Suite 101
Walnut Creek, California 94597

Attention: **John Dye, P.E., G.E.**
Principal Engineer

Subject: **Site Corrosivity Evaluation**
1300 – 1380 Bancroft
San Leandro, CA
Project: 887-1-1

Dear John,

In accordance with your request, we have reviewed the laboratory soils data for the above referenced project site. Our evaluation of these results and our corresponding recommendations for corrosion control for the above referenced project foundations and buried site utilities are presented herein for your consideration.

Soil Testing & Analysis

Soil Chemical Analysis

Two (2) soil samples from the project site were chemically analyzed for corrosivity by ***Cooper Testing Laboratories***. Each sample was analyzed for chloride and sulfate concentration, pH, resistivity at 100% saturation and moisture percentage. The test results are presented in Cooper Testing Laboratories *Corrosivity Test Summary* dated 4/27/2016. The results of the chemical analysis were as follows:

Soil Laboratory Analysis

Chemical Analysis	Range of Results	Corrosion Classification*
Chlorides	2 - 4 mg/kg	Non-corrosive*
Sulfates	59 – 75 mg/kg	Non-corrosive**
pH	6.6 – 6.8	Non-corrosive *
Moisture (%)	18.9 – 20.4 %	Not-applicable
Resistivity at 100% Saturation	3,416 – 4,059 ohm-cm	**Moderately Corrosive***

* With respect to bare steel or ductile iron.
** With respect to mortar coated steel

Discussion

Reinforced Concrete Foundations

Due to the low levels of water-soluble sulfates found in these soils, there is no special requirement for sulfate resistant concrete to be used at this site. The type of cement used should be in accordance with California Building Code (CBC) for soils which have less than 0.10 percent by weight of water soluble sulfate (SO_4) in soil and the minimum depth of cover for the reinforcing steel should be as specified in CBC as well.

Underground Metallic Pipelines

The soils at the project site are generally considered to be "moderately corrosive" to ductile/cast iron, steel and dielectric coated steel based on the saturated resistivity measurements. Therefore, special requirements for corrosion control are required for buried metallic utilities at this site depending upon the critical nature of the piping. Pressure piping systems such as domestic and fire water should be provided with appropriate coating systems and cathodic protection, where warranted. In addition, all underground pipelines should be electrically isolated from above grade structures, reinforced concrete structures and copper lines in order to avoid potential galvanic corrosion problems.

LIMITATIONS

The conclusions and recommendations contained in this report are based on the information and assumptions referenced herein. All services provided herein were performed by persons who are experienced and skilled in providing these types of services and in accordance with the standards of workmanship in this profession. No other warrantees or guarantees, expressed or implied, is provided.

We thank you for the opportunity to be of service to ***Cornerstone Earth Group*** on this project and trust that you find the enclosed information satisfactory. If you have any questions, or if we can be of any additional assistance, please feel free to contact us at (925) 927-6630.

Respectfully submitted,

Brendon Hurley

Brendon Hurley
JDH Corrosion Consultants, Inc.
Field Technician

Mohammed Ali

Mohammed Ali, P.E.
JDH Corrosion Consultants, Inc.
Principal

CC: File16105

APPENDIX HAZ
PHASE I ENVIRONMENTAL SITE ASSESSMENT

AEI Consultants
Environmental & Engineering Services

November 25, 2015

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Property Identification:

1300-1380 Bancroft Avenue
San Leandro, Alameda County, California 94577

AEI Project No. 350972

Prepared For:
KeyPoint Credit Union
2805 Bowers Avenue
Santa Clara, California 95051

Prepared By:
AEI Consultants
2500 Camino Diablo Suite 100
Walnut Creek, California 94597
(408)887-2065
AEI Main Contact: Christine Velasquez

Environmental & Engineering Due Diligence

Site Investigation & Remediation

Energy Performance & Benchmarking

Industrial Hygiene

Construction Consulting

Construction, Site Stabilization & Stormwater Services

Zoning Analysis Reports & ALTA Surveys

PROJECT SUMMARY

1300-1380 Bancroft Avenue, San Leandro, Alameda County, California 94577

	Report Section	No Further Action	REC	CREC	HREC	Other Environmental Considerations	Recommended Action
2.1	Site Location and Description	✔					
2.2	Site and Vicinity Characteristics	✔					
3.1	Historical Summary	✔					
4.0	Regulatory Agency Records Review	✔					
5.0	Regulatory Database Records Review	✔				✔	
5.2	Vapor Migration	✔					
6.3	Previous Reports and Other Provided Documentation	✔					
7.1	Subject Property Reconnaissance Findings	✔					
7.2	Adjacent Property Reconnaissance Findings	✔					
8.1	Asbestos-Containing Building Materials					✔	O&M Plan
8.2	Lead-Based Paint					✔	O&M Plan
8.3	Radon	✔					
8.4	Drinking Water Sources and Lead in Drinking Water	✔					
8.5	Mold/Indoor Air Quality Issues	✔				✔	MMP

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LIST OF COMMONLY USED ACRONYMS

AST	Aboveground Storage Tank
AUL	Activity and Use Limitation
APCD	Air Pollution Control District
AHERA	Asbestos Hazard Emergency Response Act
AQMD	Air Quality Management District
ACM	Asbestos-Containing Material
APN	Assessor's Parcel Number
ASTM	American Society for Testing and Materials
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
COC	Contaminant of Concern
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CREC	Controlled Recognized Environmental Condition
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
HAZNET	Facility and Manifest Data
GPR	Ground-Penetrating Radar
HWS	Hazardous Waste Site
HVAC	Heating, Ventilation and Air Conditioning
HREC	Historical Recognized Environmental Condition
LLP	Landowner Liability Protection
LQG	Large Quantity Generator
LBP	Lead-Based Paint
LCP	Lead Containing Paint
LUST	Leaking Underground Storage Tank
MSDS	Material Safety Data Sheet
MCL	Maximum Contaminant Level
MTBE	Methyl Tertiary Butyl Ether
µg/L	Micrograms per Liter
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
NESHAP	National Emission Standards for Hazardous Air Pollutants
NPL	National Priorities List
NFA	No Further Action
ND	None Detected
NOV	Notice of Violation
NTC	Notice to Comply
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
ppb	Parts per Billion
ppm	Parts per Million
PCE	Perchloroethylene, Tetrachloroethylene, Tetrachloroethene, PERC
PTO	Permit to Operate
pCi/L	PicoCuries per Liter
PCB	Polychlorinated Biphenyl
REC	Recognized Environmental Condition
RCRA	Resource Conservation and Recovery Act
RP	Responsible Party
SVOC	Semi-Volatile Organic Compound
SQG	Small Quantity Generator
SLIC	Spills, Leaks, Investigation, and Cleanup
TPH	Total Petroleum Hydrocarbons
TPHd	Total Petroleum Hydrocarbons (diesel range)
TPHg	Total Petroleum Hydrocarbons (gasoline range)
TPHo	Total Petroleum Hydrocarbons (oil range)
TRPH	Total Recoverable Petroleum Hydrocarbons
TCE	Trichloroethylene, Trichloroethene
UST	Underground Storage Tank
USDA	United States Department of Agriculture
USGS	United States Geological Survey
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by KeyPoint Credit Union to conduct a Phase I ESA in conformance with the proposal and the scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at 1300-1380 Bancroft Avenue, San Leandro, Alameda County, California. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

PROPERTY DESCRIPTION

PROPERTY INFORMATION	
Street Addresses	1300-1380 Bancroft Avenue
City	San Leandro
State	California
Location	Southeast of the intersection of Estudillo Avenue and Bancroft Avenue
Vicinity Characteristics	Commercial and residential
Approximate Site Acreage/Source	55,400/Alameda County Assessor's Office
Property Type	Commercial
Subject Property Uses	Medical and dental offices, dental implant mold construction
Assessor Parcel Number	77-524-12-4
SITE AND BUILDING INFORMATION	
Number of Buildings	Two
Year of Construction	1955
Number of Floors/Stories	One floor in building 1380 Bancroft Ave, Two floors in building 1300 Bancroft Ave
Basement or Subgrade Area(s)	One basement in building 1300 Bancroft Ave
Number of Units	Eighteen
Building Area (SF)/Source	25,000/client provided
Building Descriptions	One single-story commercial building and one two-story commercial building with basement, both on presumed slab foundation
Building Occupants	Refer to table below for detailed description of tenants
Additional Improvements	Parking lot, associated landscaping
Current On-site Operations	Office activities, medical practices, and dental implant molds.
Current Use of Hazardous Substances	Yes; refer to Section 7.1 for further discussion
UTILITY PROVIDER INFORMATION	
Natural Gas Provider	Pacific Gas & Electric (PG&E)
Electricity Provider	PG&E
Heating System Fuel Source	Natural Gas
Cooling System Power Source	Electricity
Potable Water Provider or Source	East Bay Municipal Utilities District
Sewage Disposal Provider or Treatment System	City of San Leandro
REGULATORY INFORMATION	
Regulatory Database Listings	RCRA Gen; refer to Section 5.1 for further discussion
Institutional Controls	None identified

Engineering Controls	None identified
Environmental Liens	None identified

Based on a review of historical sources, the subject property was identified to consist of dwellings from 1926 to 1955. From 1955 to 1968, the subject property consisted of the current commercial structure at 1300 Bancroft Avenue and residences. In 1968, the current commercial structures were present on the subject property, in addition to one residence in the northeastern portion of the subject property. Circa 1980, the previous residence on the subject property was leveled and developed into the current parking lot.

The following historical addresses were associated with the subject property: 602-634 Joaquin Avenue and 601-633 Estudillo Avenue. These historical addresses were not researched as part of this assessment.

The immediately surrounding properties consist of the following:

Direction from Site	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Estudillo Avenue, followed by Bancroft Middle School (1150 Bancroft Ave)	HHSS
Northwest	Intersection of Estudillo Avenue and Bancroft Avenue, followed by Shell gasoline service station (1285 Bancroft Ave)	LUST, Alameda LOP, RCRA Gen
East	Residences (643 Estudillo Ave, 643 Joaquin Ave)	None identified
South	Joaquin Avenue, followed by apartments (1400 Bancroft Ave) and residences (625-639 Joaquin Ave)	None identified
Southwest	Intersection of Bancroft Avenue and Joaquin Avenue, followed by apartments (1411 Bancroft Ave)	None identified
West	Bancroft Avenue, followed by San Leandro Community Church (1395 Bancroft Ave), Limited Endontics (1337 Bancroft Ave) and a salon (595 Estudillo Ave)	None identified

If the surrounding properties are listed in the regulatory database, please refer to Section 5.1 for discussion.

Based upon groundwater monitoring data for the northwest adjacent site at 1285 Bancroft Avenue obtained from GeoTracker, the direction of groundwater flow beneath the subject property is inferred to be to the southwest-west, and groundwater is presumed to be present at an estimated depth of 32.21 to 45.23 feet bgs.

FINDINGS

Recognized Environmental Condition (REC) is defined by the ASTM Standard Practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to 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.

- AEI did not identify evidence of RECs during the course of this assessment.

Controlled Recognized Environmental Condition (CREC) is defined by the ASTM Standard Practice E1527-13 as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- AEI did not identify evidence of CRECs during the course of this assessment.

Historical Recognized Environmental Condition (HREC) is defined by the ASTM Standard Practice E1527-13 as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- AEI did not identify evidence of HRECs during the course of this assessment.

Other Environmental Considerations warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-13. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property.

- Due to the age of the subject property buildings, there is a potential that LBP is present. AEI understands that renovation and/or demolition activities of the subject property buildings are planned. AEI recommends that the property owner consult with a certified Lead Risk Assessor to determine options for control of possible LBP hazards. Stringent local and State regulations may apply to LBP in association with building demolition/renovations and worker/occupant protection. It should be noted that construction activities that disturb materials or paints containing any amount of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.
- According to the site escort, Mr. David Campbell, renovations to the interior of the buildings are planned for the near future. Regardless of building construction date, the EPA's NESHAP requires that an asbestos survey adhering to AHERA sampling protocol be performed prior to demolition or renovation activities that may disturb ACMs. This requirement may be enforced by the local agency enforcing the federal EPA regulations. The NESHAP regulation specifies that all suspect ACMs be sampled to determine the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants. Similarly, OSHA regulations require that specific work practices be implemented when handling construction materials and debris that contain lead-containing materials. Based on the potential presence of ACMs, AEI recommends the property owner develop and implement an O&M Plan for the subject property which stipulates the identification, assessment, repair and maintenance of building materials to protect the health and safety of the building occupants, visitors to the site, and the environment.

- AEI observed interior areas of the subject property buildings in order to identify the presence/absence of visible mold (fungal) growth. During the on-site reconnaissance, obvious visible signs of mold growth or conditions conducive for mold growth (water damage) were observed in the basement ceiling of 1300 Bancroft Avenue. Based upon the amount of fungal growth observed, AEI recommends that remediation clean-up of visible mold be conducted by appropriate personnel (typically maintenance personnel for de minimis quantities <10 square feet) within the affected areas, which should include but not be limited to: (1) remediation/cleanup using a mild bleach solution or mold cleaning solution and utilizing appropriate personal protective equipment (PPE) and engineering controls, and (2) disposal of all mold affected building materials that may not be cleaned, as well as used disposable PPE, in sealed plastic bags. Repairs to correct the source of the water intrusion and damage in the impacted area should also be performed where applicable. In addition, in order to assist on-site staff with proper methods of mold growth evaluation and remediation, as well as proper training for on-site maintenance personnel, it would be prudent for the property owner to implement a Mold/Moisture Plan (MMP).
- The adjacent property to the northwest (1285 Bancroft Avenue) is listed in the Alameda LOP and LUST database for identified pollution related to automotive gasoline pollution, affecting both soil and groundwater. The pollution is a result of leaking underground storage tanks previously present on the property. On August 13, 2010 the site was granted case closure status with a No Further Action designation. The No Further Action/ Case Closure letter advised that the following conditions exist at the site: Total Petroleum Hydrocarbons as gasoline remain in the soil at concentrations up to 820 ppm; Total Petroleum Hydrocarbons as gasoline remain in groundwater at concentrations up to 16,000 ppb; in addition, the case was closed with Site Management Requirements that limit future land use to commercial land use only. Based on the case closure status of this listing, in addition to the hydrologic gradient flowing away from the subject property, this site is not expected to represent a significant environmental concern; however; due to the current level of contaminants present at this site, this listing represents an other environmental consideration.

CONCLUSIONS, OPINIONS, AND RECOMMENDATIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) of 1300-1380 Bancroft Avenue, San Leandro, Alameda County, California, the subject property. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

AEI did not identify evidence of RECs or CRECs in connection with the subject property during the course of this assessment. AEI recommends no further investigation for the subject property at this time.

1.0 INTRODUCTION

This report documents the methods and findings of the Phase I ESA performed in conformance with the proposal and scope and limitations of ASTM Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at 1300-1380 Bancroft Avenue, San Leandro, Alameda County, California (Appendix A: Figures and Appendix B: Property Photographs).

1.1 Scope of Work

The purpose of the Phase I ESA is to assist the client in identifying potential RECs, in accordance with ASTM E1527-13, associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal, and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

1.2 Additional Services

Other Environmental Considerations such as ACMs, LBP, lead in drinking water, radon, mold, and wetlands can result in business environmental risks for property owners which may disrupt current or planned operations or cash flow and are generally beyond the scope of a Phase I assessment as defined by ASTM E1527-13. Based upon the agreed-on scope of services this ESA did not include subsurface or other invasive assessments, business environmental risks, or other services not specifically identified and discussed herein.

1.3 Significant Assumptions

The following assumptions are made by AEI in this report. AEI relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow, unless otherwise specified by on-site well data or well data from the subject property or nearby sites, is inferred from contour information depicted on the USGS topographic maps. AEI assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.4 LIMITATIONS

Property conditions, as well as local, state, tribal, and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this assessment apply strictly to the environmental regulations and property conditions existing at the time the assessment was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the assessment.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: ACMs, radon, LBP, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under ASTM Standard Practice E1527-13.

If requested by the client, these non-scope issues are discussed herein. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under CERCLA. ASTM Standard Practice E1527-13 and the United States EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1. 42 U.S.C. § 9601(35)(B), referenced in the ASTM Standard Practice E1527-13.
2. Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).
3. 42 U.S.C. § 9601(40) and 42 U.S.C. § 9607(q).

The Phase I ESA is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, and observations and conditions that existed on the date and time of the property reconnaissance.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report. A change in any fact, circumstance, or industry-accepted procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

1.5 Limiting Conditions/Deviations

The performance of this Phase I ESA was limited by the following:

- AEI inspected a representative sample of interior units: United Financial Services, Bayview Med, Aging Care Inc, Natural Image Dental Lab, Elegant Touch Hair Salon, Michael Stein, John W Daniels Chiropractic, Ricky J Wong DDS, Foot Spa, Eleanor Haley DDS, and two vacant tenant spaces (approximately 67% total tenant units) , as well as the elevator equipment and storage room of the basement of 1300 Bancroft Ave.. In addition, AEI inspected common and exterior areas of the property, including maintenance rooms, as well as the elevator equipment and storage room of the basement of 1300 Bancroft Ave. Based on the nature of property occupancy, this method of inspection is presumed to be appropriate due to the size of the subject property.

- The User did not complete the ASTM User Questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this assessment.

- AEI requested an interview with the subject property owner; however, the subject property owner has not responded as of this report date. Based on the quality of information obtained from other sources, this limitation is not expected to alter the overall Findings of this assessment.
- Due to the large volume of stored products within the storage areas of the buildings, direct visual observation of many of the floor and wall areas of the building was not possible. Features may be present that were not observed during AEI's site inspection.
- On November 20, 2015, the City of San Leandro Fire Prevention Services was contacted for information on the subject property in order to identify historical tenants, property use and/or hazardous materials handling. Due to the time frame of this assessment, records at the City of San Leandro Fire Prevention Services were not available for review. However, based on the quality of information obtained from other sources including City Directories, Sanborn Maps, and Building Records, this limitation is not expected to significantly alter the Findings of this assessment. When the files are made available to AEI, if the records review reveals any items of concern for the subject property, an addendum to this report will be issued.

1.6 Data Gaps and Data Failure

According to ASTM E1527-13, data gaps occur when the Environmental Professional is unable to obtain information required by the Standard, despite good faith efforts to gather such information. Pursuant to ASTM E1527-13, only significant data gaps, defined as those that affect the ability of the Environmental Professional to identify RECs, need to be documented.

Data failure is one type of data gap. According to ASTM E1527-13, data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. Pursuant to ASTM E1527-13, historical

sources are required to document property use back to the property's first developed use or back to 1940, whichever is earlier, or periods of five years or greater.

1.6.1 Data Failure

The following data failure was identified during the course of this assessment:

Data Failure	The earliest historical resource obtained during this assessment was a Sanborn Fire Insurance Map from 1926. The lack of historical sources for the subject property dating back to first developed use represents historical data source failure. In the 1926 Sanborn Fire Insurance Map, the subject property was developed with a residence. Thus, it is assumed that prior to 1926, the subject property would have been used for residential purposes, if not undeveloped. Therefore, this data failure is not expected to significantly alter the Findings of this assessment.
Information/Sources Consulted	City Directories, Aerial Photographs, Sanborn Fire Insurance Maps

1.6.2 Data Gaps

AEI did not identify significant data gaps which affected our ability to identify RECs.

1.7 Reliance

All reports, both verbal and written, are for the benefit of KeyPoint Credit Union. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors, or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms and Conditions executed by KeyPoint Credit Union on November 5, 2015. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

PROPERTY INFORMATION	
Street Addresses	1300-1380 Bancroft Avenue
City	San Leandro
State	California
Location	Southeast of the intersection of Estudillo Avenue and Bancroft Avenue
Vicinity Characteristics	Commercial and residential
Approximate Site Acreage/Source	55,400/Alameda County Assessor's Office
Property Type	Commercial
Subject Property Uses	Medical and dental offices, dental implant mold construction
Assessor Parcel Number	77-524-12-4
SITE AND BUILDING INFORMATION	
Number of Buildings	Two
Year of Construction	1955
Number of Floors/Stories	One floor in building 1380 Bancroft Ave, Two floors in building 1300 Bancroft Ave
Basement or Subgrade Area(s)	One basement in building 1300 Bancroft Ave
Number of Units	Eighteen
Building Area (SF)/Source	25,000/client provided
Building Descriptions	One single-story commercial building and one two-story commercial building with basement, both on presumed slab foundation
Building Occupants	Refer to table below for detailed description of tenants
Additional Improvements	Parking lot, associated landscaping
Current On-site Operations	Office activities, medical practices, and dental implant molds.
Current Use of Hazardous Substances	Yes; refer to Section 7.1 for further discussion
UTILITY PROVIDER INFORMATION	
Natural Gas Provider	Pacific Gas & Electric (PG&E)
Electricity Provider	PG&E
Heating System Fuel Source	Natural Gas
Cooling System Power Source	Electricity
Potable Water Provider or Source	East Bay Municipal Utilities District
Sewage Disposal Provider or Treatment System	City of San Leandro
REGULATORY INFORMATION	
Regulatory Database Listings	RCRA Gen; refer to Section 5.1 for further discussion
Institutional Controls	None identified
Engineering Controls	None identified
Environmental Liens	None identified

Subject Property Address/Unit	Tenant/Use
G1 (1300 Bancroft Ave)	Vacant during site reconnaissance
G2 (1300 Bancroft Ave)	Unilab Patient Service

Subject Property Address/Unit	Tenant/Use
G3 (1300 Bancroft Ave)	Proteus Therapeutics Inc
G4 (1300 Bancroft Ave)	Bancroft OB-GYN
101 (1300 Bancroft Ave)	Rickey J Wong DDS
103 (1300 Bancroft Ave)	Michael Stein DPM Podiatry
104 (1300 Bancroft Ave)	John W Daniels, DC Chiropractic
105 (1300 Bancroft Ave)	The Elegant Touch Hair Salon
201 (1300 Bancroft Ave)	Foot Spa
202 (1300 Bancroft Ave)	Eleanor Z Haley, DDS
204 (1300 Bancroft Ave)	Ganogen Inc
205 (1300 Bancroft Ave)	Dr John Doux
Suite 1A (1380 Bancroft Ave)	Big Ed's Real Estate
Suite 1B (1380 Bancroft Ave)	Natural Image Dental Lab
Sutie 2 (1380 Bancroft Ave)	Bay View Med
Suite 3 (1380 Bancroft Ave)	Vacant at time of reconnaissance
Suite 4 (1380 Bancroft Ave)	United Financial LLC
Suite 5 (1380 Bancroft Ave)	Aging Care Inc

Refer to Appendix A: Figures and Appendix B: Property Photographs for site location and description.

2.2 Site and Vicinity Characteristics

The immediately surrounding properties consist of the following:

Direction from Site	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Estudillo Avenue, followed by Bancroft Middle School (1150 Bancroft Ave)	HHSS
Northwest	Intersection of Estudillo Avenue and Bancroft Avenue, followed by Shell gasoline service station (1285 Bancroft Ave)	LUST, Alameda LOP, RCRA Gen
East	Residences (643 Estudillo Ave, 643 Joaquin Ave)	None identified
South	Joaquin Avenue, followed by apartments (1400 Bancroft Ave) and residences (625-639 Joaquin Ave)	None identified
Southwest	Intersection of Bancroft Avenue and Joaquin Avenue, followed by apartments (1411 Bancroft Ave)	None identified
West	Bancroft Avenue, followed by San Leandro Community Church (1395 Bancroft Ave), Limited Endontics (1337 Bancroft Ave) and a salon (595 Estudillo Ave)	None identified

If the surrounding properties are listed in the regulatory database, please refer to Section 5.1 for discussion.

2.3 PHYSICAL SETTING

Geology: According to information obtained from the USGS, the area surrounding the subject property is underlain by sedimentary. deposits of the Tertiary era. Based on a review of the USDA Soil Survey for the area of the subject property, the soils in the vicinity of the subject property are classified as the Danville silty clay loam series. Soils from this series are characterized as silty clay loam throughout the soil profile. Common properties of this series include 0 to 2 percent slope, depth of more than 80 inches to restrictive features, well drained natural drainage class, low runoff class, moderately low to moderately high hydraulic conductivity, nonsaline to very slightly saline maximum salinity in soil profile, high available water storage in the soil profile.

USGS Topographic Map:	San Leandro, California Quadrangle
Nearest surface water to subject property:	San Leandro Creek / 0.13 miles northwest
Gradient Direction/Source:	Southwest to West / Groundwater Monitoring Report for adjacent site at 1285 Bancroft Avenue accessed via GeoTracker
Estimated Depth to Groundwater/Source:	23.21 to 45.23 feet bgs / Groundwater Monitoring Report for adjacent site at 1285 Bancroft Avenue accessed via GeoTracker

Note: Groundwater flow direction can be influenced locally and regionally by the presence of local wetland features, surface topography, recharge and discharge areas, horizontal and vertical inconsistencies in the types and location of subsurface soils, and proximity to water pumping wells. Depth and gradient of the water table can change seasonally in response to variation in precipitation and recharge, and over time, in response to urban development such as storm water controls, impervious surfaces, pumping wells, cleanup activities, dewatering, seawater intrusion barrier projects near the coast, and other factors.

3.0 HISTORICAL REVIEW OF SITE AND VICINITY

3.1 HISTORICAL SUMMARY

Reasonably ascertainable standard historical sources as outlined in ASTM Standard E1527-13 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historical city directories, Sanborn fire insurance maps, and agency records, is as follows:

Date Range	Subject Property Description/Use	Source(s)
1926-1955	Dwellings	Sanborn Fire Insurance Maps, Aerial Photographs
1955-1968	One current commercial structure (1300 Bancroft Avenue) with residences	Alameda County Assessor's Office, Sanborn Fire Insurance Maps, Aerial Photographs
1968-1980	Current commercial structures and a residence	Aerial Photographs
1980-Present	Current commercial structures and parking lot	Aerial Photographs, City Directories

Based on a review of historical sources, the subject property was identified to consist of dwellings from 1926 to 1955. From 1955 to 1968, the subject property consisted of the current commercial structure at 1300 Bancroft Avenue and residences. In 1968, the current commercial structures were present on the subject property, in addition to one residence in the northeastern portion of the subject property. Circa 1980, the previous residence on the subject property was leveled and developed into the current parking lot.

The following historical addresses were associated with the subject property: 602-634 Joaquin Avenue and 601-633 Estudillo Avenue. These historical addresses were not researched as part of this assessment.

AEI did not identify potential environmental concerns in association with the current or historical use of the subject property.

3.2 AERIAL PHOTOGRAPHS

AEI reviewed aerial photographs of the subject property and surrounding area. A search was made of the ERIS collection of aerial photographs. Aerial photographs were reviewed for the following years:

Year(s)	Subject Property Description	Adjacent Site Descriptions
1946	What appears to be multiple dwellings	**North:** Road (currently Estudillo Avenue) followed by what appears to be a school or church **East:** What appear to be multiple residences **South:** Road (currently Joaquin Avenue) followed by what appear to be residences **West:** Road (currently Bancroft Avenue) followed by what appears to be multiple commercial structures
1958	What appears to be one of the current commercial structures and multiple residences	**North:** Road (currently Estudillo Avenue) followed by what appears to be a school **East:** No significant changes **South:** No significant changes **West:** Road (currently Bancroft Avenue) followed by what appears to be the current commercial structures
1968, 1974	What appears to be the current commercial structures and a residence	**North:** No significant changes **East:** No significant changes **South:** No significant changes **West:** No significant changes
1980, 1993, 2005, 2014	What appears to be the current commercial structures and parking lot (where the historical residence used to be)	**North:** No significant changes **East:** No significant changes **South:** No significant changes **West:** No significant changes

AEI did not identify potential environmental concerns in association with the historical use of the subject property during the aerial photograph review.

If available, copies of historical aerial photographs are provided in the report appendices.

3.3 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made of the ERIS collection of Sanborn Fire Insurance maps.

The following maps were reviewed:

Year(s)	Subject Property Description (Listed Address)	Adjacent Site Descriptions
1928	Dwellings	**North:** Dwellings **East:** Joaquin Avenue followed by dwellings **South:** Bancroft Avenue followed by doctor offices and Bancroft Avenue Baptist Church **West:** No coverage available
1950	Dwellings and an apartment unit	**North:** Dwellings **East:** Joaquin Street followed by Dwellings **South:** Bancroft Avenue followed by doctor offices and Bancroft Avenue Baptist Church **West:** No coverage available
1957	Office building, store with basement, and dwellings	**North:** Dwellings **East:** Joaquin Avenue followed by apartments and dwellings **South:** Bancroft Avenue followed by doctor offices and Bancroft Avenue Baptist Church **West:** No coverage available
1963	Office buildings and store with basement, in addition to a dwelling in the northeastern corner of subject property	**North:** Dwellings **East:** Joaquin Avenue followed by apartments and dwellings **South:** Bancroft Avenue followed by doctor offices and Bancroft Avenue Baptist Church **West:** No coverage available
1968	Two-story apartments, and the remaining portion of the subject property is obscured	**North:** Temple Beth Sholdm **East:** Joaquin Avenue followed by First Methodist Church **South:** Bancroft Avenue followed by doctor offices and Bancroft Avenue Baptist Church **West:** No coverage available

AEI did not identify potential environmental concerns in association with the historical use of the subject property during the Sanborn map review.

If available, copies of historical Sanborn maps are provided in the report appendices.

3.4 CITY DIRECTORIES

A search of historical city directories was conducted for the subject property utilizing AEI's Private Collection of Haines Crisscross Directories. The following table summarizes the results of the city directory search.

Year(s)	Address - Occupant Listed
1971	1300 Bancroft Avenue - Adams Burton F MD, Adams Robert M MD, Bancroft Medical Lab, Berghout John MD, Bruser David MD, Casey Earle A MD, Ezekiel Geo MD, Hannah Geo S MD, Herman Irwin A MD, Iwig Samuel C MD, Jenkel Davidson, Jensen C David MD, Lincoln Chas JR MD, McGoldrick Jas J MD, Ortzows Prescription Pharmacy, Murray Jas E MD, Nordstrom Ray C MD, Paris Chris DR, Sarnow Martin P, Wortham Edwin MD 1380 Bancroft Avenue - David Aaron E MD, Franklin Douglas DR, Newkirk John R MD, Reitz Harvey E MD, Robertson Jas B MD
1976	1300 Bancroft Avenue - No Tenants Listed 1380 Bancroft Avenue - Davis Aaron E MD, Edwards Doris A MD, Franklin Douglas DR, Mocker Leland S DR, Newkirk John R MD, Reitz Harvey E MD
1981	1300 Bancroft Avenue - Adams Burton E MD, Asarnow Martin RPT, Bancroft Medical Group, Bancroft Medical Lab, Bancroft Pharmacy, Baroff Sheldon MD, Bolter Arthur MD, Bruser David MD, Davis Robert C MD, Ezekiel Geo MD, Feinstein B Pharmacy, Gingery Robert O MD, Hannah Geo S MD, Herman Irwin A MD, Iwig Samuel C MD, Jenkel Davidson CO, Jones William G MD, Kohn Louis MD, Lincoln Chas Jr MD, Miller James W MD, Murray Jas E MD, Norstrom Ray C MD, Palermo Amiel L MD, Paris C DR, Parker Nelson H MD, Wortham Edwin MD 1380 Bancroft Avenue - Edwards Doris A MD, Franklin Douglas DR, Mocker Leland S DR, Reitz Harvey E MD, Seamands Sylvia MD
1986	1300 Bancroft Avenue - Adams Burton E MD, Alameda Pharmicists, Asarnow Martin RPT, Bancroft Medical Lab, Bancroft Pharmacy, Barnoff Sheldon MD, Benson Optical, Bolter Arthur MD, Bruser David MD, Ezekiel Geo MD, Feinstein Bancroft, Hannah Geo S MD, Herman Irwin A MD, Iwig Samuel C MD< Kohn Louis MD, Lancaster Susan DDS, Lincoln Chas JR MD, Miller James W MD, Murray Jas E MD, Nordstrom Ray C MD, Palermo Amiel L MD, Paris Chris DDS, Vernon Brent MD, Wortham Edwin MD 1380 Bancroft Avenue - Franklin Douglas DR, Mocker Leland S, Opthlmc Diag Services, Seamands Sylvia MD
1991	1300 Bancroft Avenue - Bancroft Medical Lab, Bancroft Pediatric, Bancroft Pharmacy, Beamer Maria E MD, Benson Optical, Bruser David MD, Dominion Properties, Ezekiel Geo MD, Feinstein Bancroft, Hannah Geo S MD, Herman Irwin A MD, Ju Werner MD, Lapins Nikolajs MD, Miller James W MD, Miller Richard MD, Mocker Leland S DPM, Murray Jas E MD, Pathology Institute, Polito John F MD, Sakamoto H R DDS PC, Walker Philip L DC, Weight Central Clinics, Wortham E 4th MD 1380 Bancroft Avenue - Franklin Douglas DR, Husain Abid MD, Opthlmc Diag Services, Whelan Douglas

Year(s)	Address - Occupant Listed
1996	1300 Bancroft Avenue - Bancroft Pediatric, Beamer Maria E MD, Benson Optical, Eisenberg H J MD, Ezekiel Geo MD, Harris C I MD, Ju Werner MD, Meris Labs, Miller James W MD, Miller Richard, Miller Richard MD, Mocker Leland S DPM, Polito John F MD, Powell Kimberly, Sakamoto H R DDS PC, Walker Philip L DC 1380 Bancroft Avenue - Career Temps, Franklin Douglas DR, Hanson Abid MD, Lapins Nikolajs MD
2001	1300 Bancroft Avenue - Alcala Gloria G MD, Bancroft Pediatric Medical Group, Beamer Maria E MD, The Elegant Touch, Ezekiel Geo S MD, Laura Grunbaum MD, Harris Clifford I MD, Miller Richard R MD, Mocker Leland S DPM, Polito John F MD, Powell Kimberly, STARS CMTY Service Program, Sakamoto H R DDS, Unilab Patient Service Centers, Wong Ricky J DDS 1380 Bancroft Avenue - Bhullar Santokh MD, Hason Abid MD, Lapins Nikolajs A MD
2006	1300 Bancroft Avenue - Bancroft Pediatric Medical Group, Century Home Loan Center, Daniels John W Dr, The Elegant Touch, Jerome Elliot, Janet Jonet, Natasha Jefferson, Eleanor Z Haley DDS, Residents, Richard R Miller MD, Barbara Polito, John F Polito, MD, William Stahl DPM, Michael Stein DPM, Dr Michael Stein, The Foot Doctor of the East Bay, Ricky J Wong DDS, Richard Woo DPM 1380 Bancroft Avenue - Simply Soothing, Unilab Quest Diagnostics Inc, United Financial Services

AEI did not identify potential environmental concerns in association with the historical use of the subject property during the city directory review.

3.5 Historical Topographic Maps

In accordance with our approved scope of services, historical topographic maps were not reviewed as a part of this assessment.

3.6 Chain of Title

In accordance with our approved scope of services, a chain of title search was not performed as part of this assessment.

4.0 REGULATORY AGENCY RECORDS REVIEW

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous substance use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to AULs, defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1 Local Environmental Health Department and/or State Environmental Agency

On November 17, 2015, AEI contacted the City of San Leandro Environmental Services via email for information on the subject property. Files at this agency may contain information regarding hazardous substance storage and use, underground storage tanks, unauthorized releases of petroleum hydrocarbons or other contaminants that may affect the soil or groundwater in the area, wells and/or septic systems.

AEI spoke with Gail Schino, Administrative Assistant, who indicated that evidence of current or prior use or storage of hazardous substances was not on file for the subject property with the City of San Leandro Environmental Services.

4.2 Fire Department

On November 20, 2015, the City of San Leandro Fire Prevention Services was contacted for information on the subject property in order to identify historical tenants, property use and/or hazardous materials handling. AEI spoke with Mr. Bob Snodgrass , who indicated that records are on file for the subject property with the City of San Leandro Fire Prevention Services; however, due to the time frame of this assessment, records with the City of San Leandro Fire Prevention Services could not be reviewed.

- However, based on the quality of information obtained from other sources including City Directories, Sanborn Maps, and Building Records, this limitation is not expected to significantly alter the Findings of this assessment.
- When the files are made available to AEI, if the records review reveals any items of concern for the subject property, an addendum to this report will be issued.

4.3 Building Department

On November 23, 2015, AEI contacted the City of San Leandro Building and Safety Services via office visit for information on the subject property in order to identify historical tenants, features of concern and property use.

Please refer to the following table for a listing of permits reviewed:

Year(s)	Owner/Applicant	Description of Permit and Building Use
1959	Estuban Corporation	Demolition of Cottage
1959	Estuban Corporation	Additions to professional medical building
1961	Estuban Corporation	Building Permit, for Professional Use
1963	Estuban Corporation	Addition and alterations to the second story

Year(s)	Owner/Applicant	Description of Permit and Building Use
1965	Estuban Corporation	One-story single family residence to be demolished/removed
1977	Estuban Corporation	Installation of heating and cooling utilities
1981	Estuban & General Partnership	City Business License, Radiology Medical Group of the East Bay license to operate xray equipment
1994	Wortham Family Partnership	Commercial Alterations

Evidence indicating current or prior use or storage of hazardous substances was not on file for the subject property with the City of San Leandro Building and Safety Services, with the exception of photochemicals and photoprocessing waste generated as a result of x-ray equipment operation; refer to Section 4.7 for further discussion.

4.4 Planning Department

On November 23, 2015, AEI contacted the City of San Leandro Planning Services via telephone for information on the subject property in order to identify AULs associated with the subject property.

AEI spoke with a representative with the City of San Leandro Planning Services, who indicated that evidence indicating the existence of AULs was not on file for the subject property with the City of San Leandro Planning Services.

4.5 County Assessor Office

On November 24, 2015, AEI contacted the Alameda County assessor's office via telephone for information on the subject property in order to determine the earliest recorded date of development and use.

According to the Alameda County assessor's office, the current building was constructed in 1955.

4.6 Oil and Gas Wells/Pipelines

On November 23, 2015, AEI reviewed the California Division of Oil, Gas & Geothermal Resources (DOGGR) maps and the National Pipeline Mapping System (NPMS) Public Map Viewer concerning the subject property and nearby properties. The maps contain information regarding oil and gas development.

According to the DOGGR map, oil or gas wells are not located within 500 feet of the subject property. AEI did not identify evidence of environmental concerns during the map review.

According to the NPMS Public Map Viewer, pipelines are not located within 500 feet of the subject property. AEI did not identify evidence of environmental concerns during the map review.

4.7 Other Agencies Searched

On November 10, 2015, AEI accessed the California State Water Resources Control Board GeoTracker database, a data management system for managing sites that impact groundwater,

especially those requiring groundwater cleanup [USTs, Department of Defense, Site Cleanup Program] as well as permitted facilities such as operating USTs and land disposal sites.

The subject property was not listed on the GeoTracker Database. Information obtained from the RWQCB for nearby sites has been included in Section 5.1.

On November 10, 2015, AEI accessed the California Department of Toxic Substances Control (DTSC) EnviroStor database, which contains information of investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted or have been completed under DTSC oversight.

No information indicating any release of hazardous materials from the subject property was found on the EnviroStor website.

On November 10, 2015, AEI accessed the California Department of Toxic Substances Control (DTSC) Hazardous Waste Tracking System (HWTS) online database for information pertaining to hazardous waste disposal associated with the subject property. The HWTS generates reports on hazardous waste shipments for generators, transporters, and treatment, storage or disposal facilities (TSDFs).

The subject property was listed on the DTSC HWTS with the following listings:

- Bancroft Medical Laboratory (1300 Bancroft Avenue) is listed for generating photochemical/photoprocessing waste for the years 1997, 1998, 1999, 2001, 2002 and 2003. The total waste generated (in tons) for these years are 0.625, 0.625, 0.625, 0.625, 0.626, and 0.626, respectively.
- Bancroft medical laboratory is also listed for generating silver waste in the years 1997, 1998, 1999, 2001, 2002, and 2003. The total waste generated (in tons) for these years are 0.625, 0.625, 0.625, 0.625, 0.626, and 0.626, respectively.

Based on the lack of a release case associated with these records, they are not expected to represent a significant environmental concern.

Refer to Sections 5.1 and 7.1 for further discussion.

4.8 State Environmental Superliens and Property Transfer Laws

In accordance with our approved scope of services, AEI did not assess whether the subject property is subject to any state environmental superliens and/or property transfer laws.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted Environmental Risk Information Services (ERIS) to conduct a search of publicly available information from federal, state, tribal, and local databases containing known and suspected sites of environmental contamination and sites of potential environmental significance. Data gathered during the current regulatory database search is compiled by ERIS into one regulatory database report. Location information for listed sites is designated using geocoded information provided by federal, state, or local agencies and commonly used mapping databases with the exception of "Orphan" sites. Due to poor or inadequate address information, Orphan sites are identified but not geocoded/mapped by ERIS, rather, information is provided based upon vicinity zip codes, city name, and state. The number of listed sites identified within the approximate minimum search distance from the federal and state environmental records database listings specified in ASTM Standard E1527-13 is summarized in Section 5.1, along with the total number of Orphan sites. A copy of the regulatory database report is included in Appendix C of this report.

The subject property was identified in the regulatory database report as follows: RCRA Gen. See Section 5.1 for additional discussion.

In determining if a listed site is a potential environmental concern to the subject property, AEI generally applies the following criteria to classify the site as lower potential environmental concern: 1) the site only holds an operating permit (which does not imply a release), 2) the site's distance from, and/or topographic position relative to, the subject property, and/or 3) the site has recently been granted "No Further Action" by the appropriate regulatory agency.

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Subject Property Listed	Number of Listings within Search Distance	Recognized Environmental Condition or Other Environmental Consideration (Yes or No)
NPL	1	No	0	
DELISTED NPL	0.5	No	0	
CERCLIS	0.5	No	0	
CERCLIS NFRAP	0.5	No	0	
RCRA CORRACTS	1	No	1	No; based on distance from subject property and hydrologic gradient
RCRA-TSDF	0.5	No	0	
RCRA LQG, SQG, CESQGs, VGN, NLR	SP/ADJ	**Yes**	2	No, discussed below
US ENG CONTROLS	SP	No	0	
US INST CONTROLS	SP	No	0	
ERNS	SP	No	0	
STATE/TRIBAL HWS	1	No	12	No; based on distance from subject property and hydrologic gradient

Database	Search Distance (Miles)	Subject Property Listed	Number of Listings within Search Distance	Recognized Environmental Condition or Other Environmental Consideration (Yes or No)
STATE/TRIBAL SWLF	0.5	No	0	
STATE/TRIBAL REGISTERED STORAGE TANKS	SP/ADJ	No	0	
STATE/TRIBAL LUST	0.5	No	5	Yes; one site is further discussed below
STATE/TRIBAL EC and IC	SP	No	0	
STATE/TRIBAL VCP	0.5	No	0	
STATE/TRIBAL BROWNFIELD	0.5	No	0	
ORPHAN	N/A	No	43	No; none of the identified orphan sites are located in the immediate vicinity (500-feet) of the subject property, and/or based upon the distance and relative gradient, the sites are not expected to represent a significant environmental concern.
ADDITIONAL ENVIRONMENTAL RECORD SOURCES	SP/ADJ	No	2	No; two sites are further discussed below

Facility Name: Bancroft Medical Laboratory
Database: RCRA Gen Address: 1300 Bancroft Avenue (Subject Property) Distance: Subject property Direction: Subject property
Comments: The subject property is listed as a RCRA Small Quantity Generator (SQG) for the generation of photoprocessing waste and silver used in association with dental and medical operations conducted on the subject property. Based on the lack of a release case associated with this listing, it is not expected to represent a significant environmental concern.

Facility Name: Shell #13-6017 Service Station
Databases: RCRA Gen, LUST, Alameda LOP Address: 1285 Bancroft Avenue Distance: Adjacent Direction: North-northwest (hydrologically crossgradient)

Comments: The adjacent property to the northwest is listed in the Alameda LOP database for identified pollution related to automotive gasoline pollution, affecting both soil and groundwater. The pollution is a result of leaking underground storage tanks previously present on the property.

Due to the leaking underground storage tanks and identified pollution, this property is also listed as a LUST site, currently deemed closed with a No Further Action declaration. The most recent water quality report, Groundwater Monitoring Report - Second Quarter 2010, accessed via the Regional Water Quality Control Board (RWQCB) GeoTracker database, reveals that no monitoring wells are present on or near the subject property.

Based on the groundwater contour and chemical concentration map, the preferential path for the flow of residual contaminants in groundwater is flowing in the southwest-west direction (away from the subject property).

Maximum documented contaminant concentrations before and after cleanup are as follows:

In soil - TPH (Gas) was identified at 8,800 ppm before cleanup, and 820 ppm after cleanup; TPH (Diesel) was identified at 4,500 ppm before cleanup, and 1.5 ppm after; Oil and Grease were identified at 583 ppm before cleanup, and 583 ppm after; Benzene was identified at 1.12 ppm before cleanup, and 1.12 ppm after; Toluene was identified at 1.31 ppm before cleanup, and 1.31 ppm after; Ethylbenzene was identified at 3.1 ppm before cleanup, and 3.1 ppm after; Xylenes were identified at 14.2 ppm before cleanup, and 14.2 ppm after; Heavy Metals (Cd, Cr, Pb, Ni, Zn) were identified at 8 ppm before cleanup, and 8 ppm after; MTBE was identified at 2.25 ppm before cleanup, and 2.25 ppm after; and Other contaminants were identified at 0.0045 ppm before cleanup, and 0.0045 ppm after.

In groundwater - TPH (Gas) was identified at 1,200,000 ppb before cleanup, and 16,000 ppb after; TPH (Diesel) was identified at 830 ppb before cleanup, and 830 ppb after; Oil and Grease were not analyzed; Benzene was identified at 7,800 ppb before cleanup, and 51 ppb after; Toluene was identified at 38,000 ppb before cleanup, and 2,600 ppb after; Ethylbenzene was identified at 20,000 ppb before cleanup, and 6,400 ppb after; Xylenes were identified at 130,000 ppb before cleanup, and 36,000 ppb after; Heavy Metals were not analyzed; MTB was identified at 70,000 ppb before cleanup, and 140 ppb after; Other contaminants were identified at 35 ppb before cleanup, and 35 ppb after.

The No Further Action/Case Closure letter advised that the following conditions exist at the site:

- Total Petroleum Hydrocarbons as gasoline remain in the soil at concentrations up to 820 ppm.
- Total Petroleum Hydrocarbons as gasoline remain in groundwater at concentrations up to 16,000 ppb.
- The case was closed with Site Management Requirements that limit future land use to commercial land use only

Based on the case closure status of this listing, in addition to the hydrologic gradient flowing away from the subject property, this site is not expected to represent a significant environmental concern; however; due to the current level of contaminants present at this site, this listing represents an other environmental consideration.

Facility Name: Bancroft Junior High School
Database: HHSS Address: 1150 Bancroft Avenue Distance: Adjacent Direction: North (hydrologically crossgradient)

Comments: The adjacent site to the north is listed as a HHSS site for a 1,500 underground storage tank that was installed in 1936, and last used in 1973. Contents of the tank are not available, and chemical composition of substances currently stored in the tank is listed at none. It is likely that this tank contained heating oil for the school's various buildings. Based on the lack of a release case associated with this listing, it is not expected to represent a significant environmental concern.

5.2 VAPOR MIGRATION

AEI reviewed reasonably ascertainable information for the subject and nearby properties, including a regulatory database, files for nearby release sites, and/or historical documentation, to determine if potential vapor-phase migration concerns may be present which could impact the subject property.

Based on a review of available resources as documented in this report, AEI did not identify significant on-site concerns and/or regulated listings from nearby sites which suggest that a vapor-phase migration concern currently exists at the subject property.

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 Interviews

Pursuant to ASTM E1527-13, the following interviews were performed during this assessment in order to obtain information indicating RECs in connection with the subject property.

6.1.1 Interview with Owner

AEI requested an interview with the subject property owner; however, the subject property owner has not responded as of this report date. Based on the quality of information obtained from other sources, this limitation is not expected to alter the overall Findings of this assessment.

6.1.2 Interview with Key Site Manager

AEI requested an interview with the key site manager; however, the key site manager has not responded as of this report date. Based on the quality of information obtained from other sources, this limitation is not expected to alter the overall Findings of this assessment.

6.1.3 Past Owners, Operators, and Occupants

In an attempt to interview past owners, operators and occupants regarding historical on-site operations, AEI requested the contact information for these entities from the current subject property owner. The current subject property owner was unable to provide the contact information for the past owners, operators, and occupants. Other methods of researching the contact information for past owners, operators, and occupants are performed by AEI when a data gap is encountered and/or if an item of environmental concern is identified for the subject property, which include reviewing historical agency records and/or online research. None of these additional research methods provided AEI contact information for past owners, operators, and occupants. As such, interviews with past owners, operators, and occupants regarding historical on-site operations were not reasonably ascertainable.

6.1.4 Interview with Others

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this section.

6.2 User Provided Information

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to ASTM E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the Environmental Professional. The responsibility for qualifying for LLPs by conducting the inquiries ultimately rests with the User, and providing the information to the Environmental Professional would be prudent if such information is available.

The User did not complete the ASTM User Questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this assessment.

6.3 Previous Reports and Other Provided Documentation

No prior reports or other relevant documentation in association with the subject property was made available to AEI during the course of this assessment.

7.0 SITE RECONNAISSANCE

Site Reconnaissance Date	November 11, 2015
AEI Site Assessor(s)	Meghan Bowen
Property Escort(s)/Relationship(s) to Property	Mr. Ed Vergara, property lawyer Mr. David Campbell, property broker
Units/Areas Observed	Representative portions of the interiors of the two buildings on site including common areas, restrooms, maintenance room, and units United Financial Services, Bayview Med, Aging Care Inc, Natural Image Dental Lab, Elegant Touch Hair Salon, Michael Stein, John W Daniels Chiropractic, Ricky J Wong DDS, Foot Spa, Eleanor Haley DDS, and two vacant tenant spaces (approximately 67% total tenant units) , as well as the elevator equipment and storage room of the basement of 1300 Bancroft Ave.
Area(s) not accessed and reason(s)	Based on the nature of property occupancy, this method of limited inspection is presumed to be appropriate due to the size of the subject property.
Weather	70°F and sunny

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
✔		Regulated Hazardous Substances/Wastes and/or Petroleum Products in Connection with Property Use
	✔	Aboveground/Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)
	✔	Hazardous Substance and Petroleum Product Containers Not in Connection with Property Use
	✔	Unidentified Substance Containers
✔		Electrical or Mechanical Equipment Likely to Contain Fluids
	✔	Interior Stains or Corrosion
	✔	Strong, Pungent, or Noxious Odors
	✔	Pools of Liquid
✔		Drains, Sumps, and Clarifiers
	✔	Pits, Ponds, and Lagoons
	✔	Stained Soil or Pavement
	✔	Stressed Vegetation
	✔	Solid Waste Disposal or Evidence of Fill Materials
	✔	Waste Water Discharges
	✔	Wells
	✔	Septic Systems
✔		Biomedical Wastes
	✔	Other

The subject property is currently occupied by tenants as outlined in Section 2.1. On-site operations consist of office activities, medical practices, and dental implant molds.

Regulated Hazardous Substances/Wastes and/or Petroleum Products in Connection with Property Use

Several one- and five-gallon containers of paint and property maintenance materials were observed in the basement of the subject property located at 1300 Bancroft Avenue. Additionally, several one-gallon and smaller containers of housekeeping materials were located throughout tenant spaces of both property buildings. No staining or evidence of materials mishandling was observed. Based on this information, these materials are not expected to represent a significant environmental concern.

Regulated Hazardous Substances/Wastes (size/ quantity)	Location	Operations Associated with Material	Secondary Containment	Staining / Spills
Propane (two containers/ approximately one gallon each)	Natural Image Dental Lab	Mechanical fuel	No	No
Oxygen (two containers/ approximately one gallon each)	Natural Image Dental Lab	Mechanical fuel	No	No
Turbine oil (two containers/ approximately one gallon each)	Southeast of 1300 Bancroft Building	Air compressor lubricant	No	Yes

No drains or other subsurface conduits were observed near hazardous materials. Slight staining was observed on the concrete beneath the turbine oil located in a locked area southeast of the property building located at 1300 Bancroft Avenue. Based on the small quantities present and the lack of subsurface conduits, the presence of these materials is not expected to represent a significant environmental concern.

Additionally, several one- and five-gallon containers of paint and property maintenance materials were observed in the basement of the subject property located at 1300 Bancroft Avenue and in the maintenance area of 1380 Bancroft Avenue. Additionally, several one-gallon and smaller containers of housekeeping materials were located throughout tenant spaces of both property buildings. No staining or evidence of materials mishandling was observed. Based on this information, these materials are not expected to represent a significant environmental concern.

Electrical or Mechanical Equipment Likely to Contain Fluids

Toxic PCBs were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered "Non-PCB"; between 50 and 500 ppm is considered "PCB-Contaminated"; and >500 ppm is considered "PCB-Containing". Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Elevators

The subject property building is equipped with a hydraulic elevator. The hydraulic fluid contained within elevator systems can potentially contain toxic PCBs. Based on the construction date of

the building (pre-1978), the potential exists that hydraulic fluid within the equipment may have contained PCBs. The equipment for the elevator is located in the basement of the property building located at 1300 Bancroft Avenue. No evidence of stains or leaks was observed at the base of the equipment during the site inspection. The elevator is reportedly maintained by Paramount Elevators. Based on the good condition and regular maintenance of the elevator is not expected to represent a significant environmental concern.

DRAINS, SUMPS, AND CLARIFIERS

Multiple floor drains were observed throughout the subject property buildings. No significant stains were observed in the area of the drains, and no evidence of the improper discharge of hazardous materials or petroleum products was apparent. No storage of hazardous materials or petroleum products appeared present near the drains. Based on these observations, the presence of the drains is not expected to represent a significant environmental concern.

A sump was observed in the basement of the subject property building. The sump is used to capture and pump domestic sewage to the public sewer system. No hazardous materials were observed around the sump. Based on this information and the residential nature of use of the subject property, the presence of a sump is not expected to represent a significant environmental concern.

BIOMEDICAL WASTES

Michael A Stein stores biohazardous waste on site. Most of the biohazardous waste consists of syringes and gauze pads. According to an employee, the biohazardous waste is collected once a week and stored in a designated waste storage area. This waste is then picked up periodically by a licensed transporter. Based on the nature of the biohazardous waste stored on site and the associated proper off-site disposal, the storage and handling of this material is not expected to represent a significant environmental concern.

7.2 ADJACENT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	✔	Hazardous Substances/Wastes and/or Petroleum Products in Connection with Property Use
✔		Aboveground/Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)
	✔	Hazardous Substance and Petroleum Product Containers Not in Connection with Property Use
	✔	Unidentified Substance Containers
✔		Electrical or Mechanical Equipment Likely to Contain Fluids
	✔	Strong, Pungent, or Noxious Odors
	✔	Pools of Liquid
	✔	Drains, Sumps, and Clarifiers
	✔	Pits, Ponds, and Lagoons
	✔	Stained Soil or Pavement
	✔	Stressed Vegetation
	✔	Solid Waste Disposal or Evidence of Fill Materials
	✔	Waste Water Discharges
	✔	Wells

Yes	No	Observation
	✔	Septic Systems
	✔	Other

ABOVEGROUND/UNDERGROUND HAZARDOUS SUBSTANCE OR PETROLEUM PRODUCT STORAGE TANKS (ASTS/USTS)

The northwest adjacent property was identified as a Shell gasoline service station and contains USTs on-site; refer to Section 5.1 for further discussion.

ELECTRICAL OR MECHANICAL EQUIPMENT LIKELY TO CONTAIN FLUIDS

Transformers

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

One pole-mounted transformer was observed on the adjacent sites during the site reconnaissance. No spills, staining, or leaks were observed on or around the transformer. Based on the good condition of the equipment, the transformer is not expected to represent a significant environmental concern.

8.0 OTHER ENVIRONMENTAL CONSIDERATIONS

8.1 Asbestos-Containing Building Materials

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be "fibrous" and through processing can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. They are also long, thin and flexible, so they can even be woven into cloth. Because of these qualities, asbestos was considered an ideal product and has been used in thousands of consumer, industrial, maritime, automotive, scientific, and building products.

At the federal level, asbestos is primarily regulated by the USEPA primarily through the EPA's NESHAP (Standard 40 CFR Chapter 61, Subpart M), the OSHA through the General Industry Standard, and the Construction Industry Standard (29 CFR 1926.1101 and 29 CFR 1910.1001). Many states have regulations in place for the inspection, management, and remediation of asbestos including company and individual licensing requirements for all activities relating to asbestos. Under both federal and state regulations building owners and employers may be required to perform certain activities related to the in-place management of asbestos, and prior to renovations or demolition activities (i.e. asbestos inspections or remediation) that may disturb building materials suspected of containing asbestos.

The information below is for general informational purposes only and does not constitute an asbestos survey. In addition, the information is not intended to comply with federal, state, or local regulations in regards to ACM.

Due to the age of the subject property buildings, there is a potential that ACMs are present. A limited list of typical suspect ACMs is included in the following table:

Material Type	Location
Plaster (Acoustical and Smooth)	Walls and Ceilings
Ceiling Tile	Ceiling Systems
Thermal Systems Insulations, Packings, Gaskets	Heating Systems, Cooling Systems, Domestic and Heating and Cooling Piping, Ductwork, Other Equipment
Floor Tile and Associated Mastics, Flooring Felts, Papers (under hardwood/other)	Floors
Vinyl Sheet Flooring and Adhesives	Floors
Cove Base and Associated Mastics	Walls
Ceramic Tile Adhesives and Grouts	Walls, Floors, and Ceilings
All Adhesives	Mirrors, Wall Coverings, Construction, etc.
Grout and Caulking	Windows and Doors
Gypsum Board, Tape, and Joint Compound	Wall and Ceiling Systems
Insulation Materials	Walls, Ceilings, Attic Spaces
Roofing Materials (Felts, Rolled, Shingle, Flashings, Adhesives, Tar, Insulations)	Roof and Parapet Wall Systems
Brick and Block, Mortars	Walls

According to the site escort, Mr. David Campbell, renovations to the interior of the buildings are planned for the near future. Regardless of building construction date, the EPA's NESHAP requires that an asbestos survey adhering to AHERA sampling protocol be performed prior to demolition or renovation activities that may disturb ACMs. This requirement may be enforced by the local agency enforcing the federal EPA regulations. The NESHAP regulation specifies that all suspect ACMs be sampled to determine the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants. Similarly, OSHA regulations require that specific work practices be implemented when handling construction materials and debris that contain lead-containing materials.

Based on the potential presence of ACMs, AEI recommends the property owner develop and implement an O&M Plan for the subject property which stipulates the identification, assessment, repair and maintenance of building materials to protect the health and safety of the building occupants, visitors to the site, and the environment.

8.2 Lead-Based Paint

LBP is defined as any paint, varnish, stain, or other applied coating that has ≥1 mg/cm² (5,000 µg/g or 5,000 ppm) or more of lead by federal guidelines; state and local definitions may differ from the federal definitions in amounts ranging from 0.5 mg/cm² to 2.0 mg/cm². Section 1017 of the Housing and Urban Development (HUD) Guidelines, Residential Lead-Based Paint Hazard Reduction Act of 1992, otherwise known as "Title X", defines a LBP hazard as "any condition that causes exposure to lead that would result in adverse human health effects" resulting from lead-contaminated dust, bare, lead-contaminated soil, and/or lead-contaminated paint that is deteriorated or present on accessible, friction, or impact surfaces. Therefore, under Title X, intact LBP on most walls and ceilings would not be considered a "hazard", although the paint should be maintained and its condition monitored to ensure that it does not deteriorate and become a hazard. Additionally, Section 1018 of this law directed HUD and EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978. Most private housing, public housing, or federally owned or subsidized housing is affected by this rule.

LCP is defined as any paint with any detectable amount of lead present in it. It is important to note that LCP may create a lead hazard when being removed. The condition of these materials must be monitored when they are being disturbed. In the event LCP is subject to abrading, sanding, torching, and/or cutting during demolition or renovation activities, there may be regulatory issues that must be addressed.

The information below is for general informational purposes only and does not constitute a lead hazard evaluation. In addition, the information is not intended to comply with federal, state, or local regulations in regards to LCP.

In buildings constructed after 1978, it is unlikely that LBP is present. Structures built prior to 1978 and especially prior to the 1960s should be expected to contain LBP.

Due to the age of the subject property buildings, there is a potential that LBP is present. AEI understands that renovation and/or demolition activities of the subject property buildings are

planned. AEI recommends that the property owner consult with a certified Lead Risk Assessor to determine options for control of possible LBP hazards. Stringent local and State regulations may apply to LBP in association with building demolition/renovations and worker/occupant protection. It should be noted that construction activities that disturb materials or paints containing any amount of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.

8.3 Radon

Radon is a naturally-occurring, odorless, and invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

The United States EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three radon zones, with Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action Limit of 4.0 pCi/L. It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not requested as part of this assessment. According to the California Department of Health Services Radon Database, 36 tests were conducted for radon levels in the subject property zip code (94577) in 2010. Only one of the tests exceeded the action level of 4.0 pCi/L set forth by the US EPA. Based on the commercial nature of the property, radon does not appear to be a concern. However, radon sampling would be required to determine site-specific radon levels.

8.4 Drinking Water Sources and Lead in Drinking Water

The East Bay Municipal Utilities District supplies potable water to the subject property. The most recent water quality report (2014) states that the most recent lead monitoring event occurred in 2012. In 2012 the 90th percentile value for lead levels in samples obtained from the area's water supply was not detected, and therefore are well within standards established by the US EPA.

8.5 Mold/Indoor Air Quality Issues

Molds are simple, microscopic organisms, which can often be seen in the form of discoloration, frequently green, gray, white, brown, or black. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or is not addressed. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations of mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation, and carpeting often play host to such growth. Mold spores primarily cause health problems through the inhalation of mold spores or the toxins they emit when they are present in large numbers. This can occur primarily when there is active mold growth within places where people live or work.

Mold, if present, may or may not visually manifest itself. Neither the individual completing this inspection, nor AEI has any liability for the identification of mold-related concerns except as defined in applicable industry standards. In short, this Phase I ESA should not be construed as a mold survey or inspection.

AEI observed interior areas of the subject property buildings in order to identify the presence of mold. During the on-site reconnaissance, the following obvious visible signs of mold growth or conditions conducive for mold growth were observed:

Location	Material Affected	Condition	Size of Area Affected
Basement of 1300 Bancroft Ave	Ceiling	Good	Less than five SF

Please refer to the appendices for related photographs.

Although typically not included in the scope of work for a Phase I ESA, the presence of the mold identified may pose a health and safety concern to any subsequent occupants and/ or construction workers during future renovation activities. Based upon the amount of fungal growth observed, AEI recommends that remediation clean-up of visible mold be conducted within the affected area, which should include but not be limited to the following:

- Remediation/cleanup using a mild bleach solution or mold cleaning solution and mild disinfectant by appropriate personnel utilizing appropriate PPE and engineering controls.
- Disposal of all mold affected building materials that may not be cleaned, as well as used disposable PPE gloves and masks, in sealed plastic bags.
- Repairs to prevent or correct the source of the water damage should also be performed.

AEI's remediation recommendations are based upon accepted guidelines determined by the American Conference of Industrial Hygienists (ACGIH), New York City Department of Health (NYCDOH), and Environmental Protection Agency (EPA).

In addition, in order to assist on-site staff with proper methods of mold growth evaluation and remediation, as well as proper training for on-site maintenance personnel, it would be prudent for the property owner to implement a Mold/Moisture Plan (MMP).

This activity was not designed to discover all areas which may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication if significant (based on observed areas) mold growth is present at the subject property. Additional areas of mold not observed as part of this limited assessment, possibly in pipe chases, HVAC systems, and behind enclosed walls and ceilings, may be present on the subject property.

9.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

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

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

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10.0 REFERENCES

Item	Date(s)	Source
Soils Information	November, 2015	USDA Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
Topographic Map	2015	USGS
Depth to Groundwater Information	November, 2015	GeoTracker geotracker.waterboards.ca.gov
Aerial Photographs	1946, 1958, 1968, 1974, 1980, 1993, 2005, 2014	ERIS
Sanborn Map Report/Search	1928, 1950, 1957, 1963, 1968	ERIS
City Directories	1971-2006	AEI's Private Collection of Haines Crisscross Directories
Environmental Health Department/ State Environmental Agency	November 17, 2015	City of San Leandro Environmental Services
Fire Department	November 19, 2015	City of San Leandro Fire Prevention Services
Building Department	November 23, 2015	City of San Leandro Building and Safety Services
Planning Department	November 23, 2015	City of San Leandro Planning Services
Assessor's Information and Parcel Map	November 24, 2015	Alameda County Assessor's Office
Oil and Gas Wells/Pipelines	November 23, 2015	DOGGR
Other Agencies Searched	November 10, 2015	GeoTracker geotracker.waterboards.ca.gov EnviroStor envirostor.dtsc.ca.gov/public/ Department of Toxic Substances Control (DTSC) Hazardous Waste Tracking System (HWTS) http://www.hwts.dtsc.ca.gov/
Regulatory Database Report	November 17, 2015	ERIS
Radon Zone Information	2010	California Department of Health Services Indoor Radon Level Report, 2010
Water Quality Report	2014	East Bay Municipal Utilities District