

Appendix 1

Notice of Preparation (NOP), NOP Responses , and Initial Study



NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WHITECOTTON COTTAGE DEMOLITION PROJECT

The County of Alameda General Services Agency is preparing a Draft Environmental Impact Report (EIR) for the Whitecotton Cottage Demolition Project (“proposed project”), as identified below, and is requesting comments on the scope and content of the Draft EIR. The Draft EIR will address the potential physical and environmental effects of the proposed project in accordance with the California Environmental Quality Act (CEQA).

The County of Alameda is the Lead Agency for the proposed project. This notice is being sent to the California State Clearinghouse, Alameda County Clerk, and other interested agencies and parties. No responsible agencies, or public agencies besides the County of Alameda that also have a role in approving or carrying out the project, have been identified for this project. When the Draft EIR is published, a Notice of Availability of a Draft EIR will be sent to the California State Clearinghouse, Alameda Public Clerk, and interested parties and individuals who have indicated that they would like to review the Draft EIR.

Responses to this NOP and any questions or comments should be directed in writing to: *Jason Garrison, Environmental Project Manager, Environmental Department-Capital Programs, 1401 Lakeside Drive, Suite 800, Oakland, CA 94612*, or jason.garrison@acgov.org. Comments on the NOP must be received **on or before May 17, 2019**. Comments should focus on possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the proposed project.

PROJECT TITLE: Whitecotton Cottage Demolition Project

PROJECT LOCATION: The project site is an approximately 2,000 square-foot portion of a larger, approximately 82-acre parcel (APN 80A-238-10) in unincorporated Alameda County. The parcel is one of eight parcels on which the Alameda County Fairmont Hospital campus is located. The campus is bounded by Fairmont Drive to the northwest and Foothill Boulevard to the southeast. The project site occurs towards the southeastern portion of the campus and is bounded by a roadway (Meadow Drive) to the west, a parking lot to the south, a medical building (Cherry Hill Detox Center) to the northeast, and landscaped area to the north. Figure 1 shows the project site. The project site is not included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5.

PROJECT DESCRIPTION: The proposed project would involve the demolition of the existing Whitecotton cottage, an existing vacant 3,942 square-foot building with two stories above grade and a basement. While the building remains in its historic location, it has not been maintained for approximately 20 years and is in an advanced state of disrepair.

Demolition of the structure would involve:

- The removal of asbestos-containing materials
- Stabilization of loose and peeling lead-based paint
- Removal and proper disposal of components coated with lead-based paint

- Excavation and disposal of approximately 222 cubic yards of soil, including lead contaminated soil around the structure
- Rough grading of the site

The County of Alameda General Services Agency would manage the demolition project and ensure compliance with all appropriate regulatory guidelines associated with hazardous materials abatement and demolition. All project activities, including demolition, excavation, remediation, and grading would be expected to take approximately eight weeks, including approximately two weeks for demolition, one week for excavation, four weeks for soil and waste testing, and one week for rough grading. There are no current redevelopment plans for the site. Once the structure is demolished and grading has occurred, the site would be covered in gravel.

POTENTIAL ENVIRONMENTAL EFFECTS: It is anticipated that the proposed project would result in potentially significant environmental effects relating to Historic Resources. This issue will be analyzed in the Draft EIR. As discussed in the Initial Study, all other issue areas were found to have no physical environmental effects, a less than significant environmental effect, or a less than significant environmental effect with incorporation of mitigation measures. Mitigation measures related to nesting birds (Mitigation Measure BIO-1), bats (Mitigation Measure BIO-2), archeological resources (Mitigation Measure CR-1), construction noise (Mitigation Measure N-1), construction vibration (Mitigation Measure N-2), and the unanticipated discovery of tribal cultural resources (Mitigation Measure TCR-1) are required and with implementation of these measures impacts related to sensitive species, construction noise, construction vibration, and tribal cultural resources would be less than significant.

The Draft EIR will also examine a reasonable range of alternatives to the proposed project, including the CEQA-mandated No Project Alternative and other potential alternatives that may be capable of reducing or avoiding potential environmental effects.

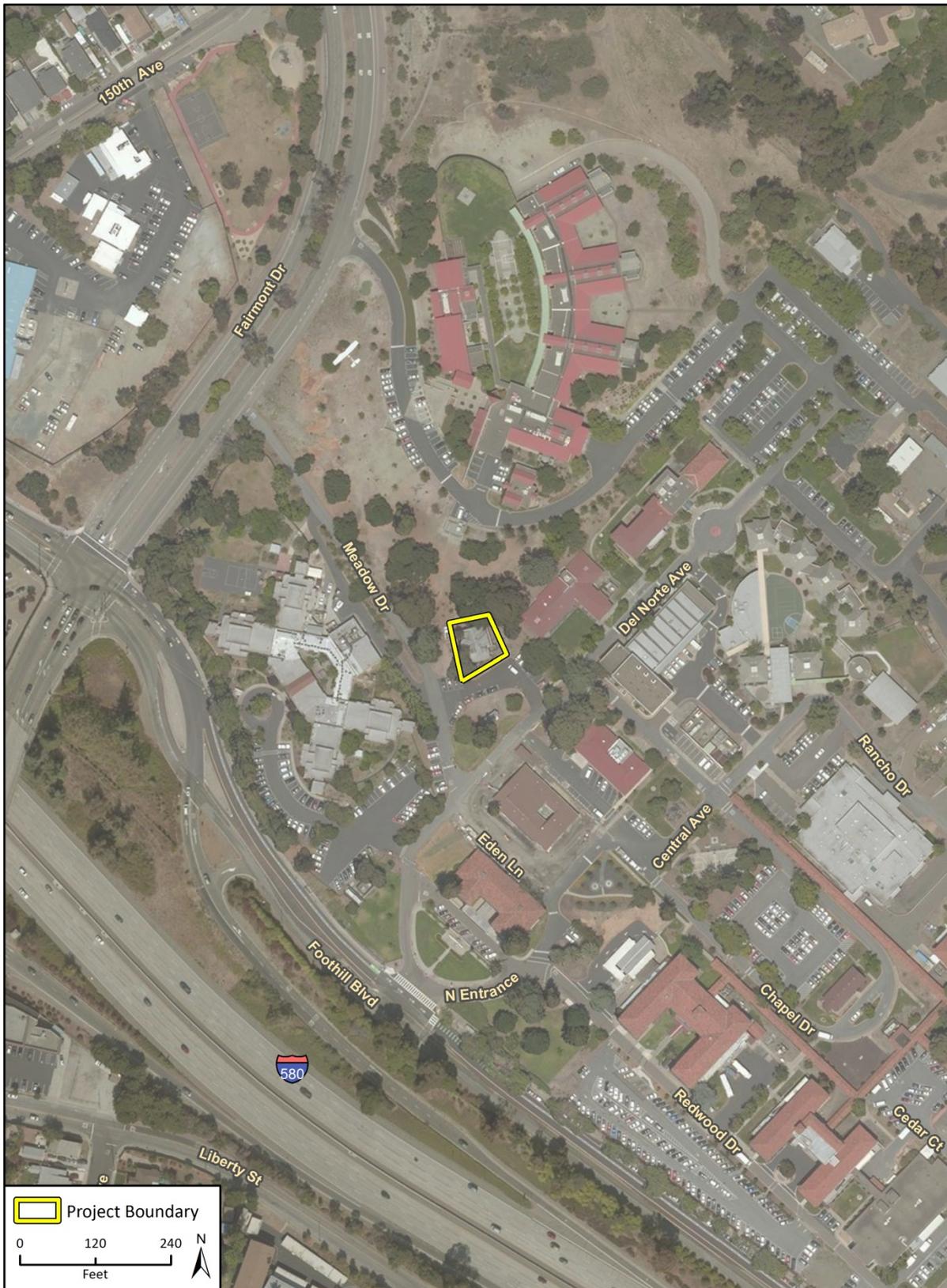
Jason B. Garrison

Signature: Jason Garrison, Environmental Project Manager, County of Alameda General Services Agency

Date of Distribution: April 17, 2019

Attachment: Figure 1, Project Location

Figure 1: Project Location



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Fig. 2 Project Location Surrounding Area



Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Kate Gordon
Director

Notice of Preparation

April 17, 2019

RECEIVED
COUNTY OF ALAMEDA

APR 23 2019

GSA - TECHNICAL SERVICES DEPARTMENT
DESIGN AND CONSTRUCTION

To: Reviewing Agencies
Re: Whitecotton Cottage Demolition Project
SCH# 2019049101

Attached for your review and comment is the Notice of Preparation (NOP) for the Whitecotton Cottage Demolition Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Jason Garrison
Alameda County
1401 Lakeside Drive, Suite 800
Oakland, CA 94612

with a copy to the State Clearinghouse in the Office of Planning and Research at state.clearinghouse@opr.ca.gov. Please refer to the SCH number noted above in all correspondence concerning this project on our website: <https://ceqanet.opr.ca.gov/2019049101/2>.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Lead Agency

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# 9049101

Project Title: Whitecotton Cottage Demolition Project

Lead Agency: Alameda County Contact Person: Jason Garrison
 Mailing Address: 1401 Lakeside Drive, Suite 800 Phone: (510) 208-9520
 City: Oakland Zip: 94612 County: Alameda

Project Location: County: Alameda City/Nearest Community: San Leandro

Cross Streets: Meadow Drive and Del Norte Avenue Zip Code: 94612

Longitude/Latitude (degrees, minutes and seconds): 37 ° 42 ' 33 " N / 122 ° 07 ' 11.8 " W Total Acres: 0.134034

Assessor's Parcel No.: 80A-238-10 Section: _____ Twp.: _____ Range: _____ Base: _____

Within 2 Miles: State Hwy #: I-580, CA-185 Waterways: Lake Chabot

Airports: none Railways: none Schools: multiple

Document Type:

- | | | | |
|---|--|------------------------------------|--|
| CEQA: <input checked="" type="checkbox"/> NOP | <input type="checkbox"/> Draft EIR | NEPA: <input type="checkbox"/> NOI | Other: <input type="checkbox"/> Joint Document |
| <input type="checkbox"/> Early Cons | <input type="checkbox"/> Supplement/Subsequent EIR | <input type="checkbox"/> EA | <input type="checkbox"/> Final Document |
| <input type="checkbox"/> Neg Dec | (Prior SCH No.) _____ | <input type="checkbox"/> Draft EIS | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Mit Neg Dec | Other: _____ | <input type="checkbox"/> FONSI | |

Local Action Type:

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> General Plan Update | <input type="checkbox"/> Specific Plan | <input type="checkbox"/> Rezone | <input type="checkbox"/> Annexation |
| <input type="checkbox"/> General Plan Amendment | <input type="checkbox"/> Master Plan | <input type="checkbox"/> Prezone | <input type="checkbox"/> Redevelopment |
| <input type="checkbox"/> General Plan Element | <input type="checkbox"/> Planned Unit Development | <input type="checkbox"/> Use Permit | <input type="checkbox"/> Coastal Permit |
| <input type="checkbox"/> Community Plan | <input type="checkbox"/> Site Plan | <input type="checkbox"/> Land Use Change | Other: <u>Demolition</u> |

Governor's Office of Planning & Research
 After 12PM
 APR 16 2019
 STATE CLEARINGHOUSE

Development Type:

- | | |
|---|--|
| <input type="checkbox"/> Residential: Units _____ Acres _____ | <input type="checkbox"/> Transportation: Type _____ |
| <input type="checkbox"/> Office: Sq.ft. _____ Acres _____ Employees _____ | <input type="checkbox"/> Mining: Mineral _____ |
| <input type="checkbox"/> Commercial: Sq.ft. _____ Acres _____ Employees _____ | <input type="checkbox"/> Power: Type _____ MW _____ |
| <input type="checkbox"/> Industrial: Sq.ft. _____ Acres _____ Employees _____ | <input type="checkbox"/> Waste Treatment: Type _____ MGD _____ |
| <input type="checkbox"/> Educational: _____ | <input type="checkbox"/> Hazardous Waste: Type _____ |
| <input type="checkbox"/> Recreational: _____ | <input checked="" type="checkbox"/> Other: <u>Demolition</u> |
| <input type="checkbox"/> Water Facilities: Type _____ MGD _____ | |

Project Issues Discussed in Document:

- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Aesthetic/Visual | <input type="checkbox"/> Fiscal | <input checked="" type="checkbox"/> Recreation/Parks | <input checked="" type="checkbox"/> Vegetation |
| <input checked="" type="checkbox"/> Agricultural Land | <input checked="" type="checkbox"/> Flood Plain/Flooding | <input checked="" type="checkbox"/> Schools/Universities | <input checked="" type="checkbox"/> Water Quality |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Forest Land/Fire Hazard | <input type="checkbox"/> Septic Systems | <input checked="" type="checkbox"/> Water Supply/Groundwater |
| <input checked="" type="checkbox"/> Archeological/Historical | <input checked="" type="checkbox"/> Geologic/Seismic | <input checked="" type="checkbox"/> Sewer Capacity | <input checked="" type="checkbox"/> Wetland/Riparian |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Minerals | <input checked="" type="checkbox"/> Soil Erosion/Compaction/Grading | <input checked="" type="checkbox"/> Growth Inducement |
| <input type="checkbox"/> Coastal Zone | <input checked="" type="checkbox"/> Noise | <input checked="" type="checkbox"/> Solid Waste | <input checked="" type="checkbox"/> Land Use |
| <input checked="" type="checkbox"/> Drainage/Absorption | <input checked="" type="checkbox"/> Population/Housing Balance | <input checked="" type="checkbox"/> Toxic/Hazardous | <input checked="" type="checkbox"/> Cumulative Effects |
| <input type="checkbox"/> Economic/Jobs | <input checked="" type="checkbox"/> Public Services/Facilities | <input checked="" type="checkbox"/> Traffic/Circulation | <input type="checkbox"/> Other: _____ |

Present Land Use/Zoning/General Plan Designation:

Vacant building/Planned Development/Public Facilities

Project Description: (please use a separate page if necessary)

The proposed project would involve the demolition of the existing Whitecotton cottage, an existing vacant 3,942 square-foot building with two stories above grade and a basement. Demolition of the structure would involve:

- The removal of asbestos-containing materials
- Stabilization of loose and peeling lead-based paint
- Removal and proper disposal of components coated with lead-based paint
- Excavation and disposal of approximately 222 cubic yards of soil, including lead contaminated soil around the structure
- Rough grading of the site

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

- | | |
|---|--|
| <input checked="" type="checkbox"/> Air Resources Board | <input checked="" type="checkbox"/> Office of Historic Preservation |
| <input type="checkbox"/> Boating & Waterways, Department of | <input type="checkbox"/> Office of Public School Construction |
| <input type="checkbox"/> California Emergency Management Agency | <input type="checkbox"/> Parks & Recreation, Department of |
| <input type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input type="checkbox"/> Caltrans District # _____ | <input type="checkbox"/> Public Utilities Commission |
| <input type="checkbox"/> Caltrans Division of Aeronautics | <input checked="" type="checkbox"/> Regional WQCB # <u>2</u> |
| <input type="checkbox"/> Caltrans Planning | <input type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input type="checkbox"/> Resources Recycling and Recovery, Department of |
| <input type="checkbox"/> Coachella Valley Mtns. Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Comm. |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mtns. Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input type="checkbox"/> SWRCB: Water Quality |
| <input type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region # <u>3</u> | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input type="checkbox"/> Food & Agriculture, Department of | <input checked="" type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> Forestry and Fire Protection, Department of | <input type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> General Services, Department of | Other: _____ |
| <input type="checkbox"/> Health Services, Department of | Other: _____ |
| <input type="checkbox"/> Housing & Community Development | |
| <input checked="" type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date April 17, 2019 Ending Date May 17, 2019

Lead Agency (Complete if applicable):

| | |
|--|-----------------------|
| Consulting Firm: <u>Rincon Consultants</u> | Applicant: _____ |
| Address: <u>449 15th Street, Suite 303</u> | Address: _____ |
| City/State/Zip: <u>Oakland, CA 94612</u> | City/State/Zip: _____ |
| Contact: <u>Karly Kaufman</u> | Phone: _____ |
| Phone: <u>(510) 671-0179</u> | |

Signature of Lead Agency Representative: Jason B. Harrison Date: 4/8/2019
AE4C34DE737943F...

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Resources Agency

Resources Agency
Nadell Gayou

Dept. of Boating & Waterways
Denise Peterson

California Coastal Commission
Allyson Hitt

Colorado River Board
Elsa Contreras

Dept. of Conservation
Crina Chan

Cal Fire
Dan Foster

Central Valley Flood Protection Board
James Herota

Office of Historic Preservation
Ron Parsons

Dept of Parks & Recreation Environmental Stewardship Section

S.F. Bay Conservation & Dev't. Comm.
Steve Goldbeck

Dept. of Water Resources Agency
Nadell Gayou

Fish and Wildlife

Dept. of Fish & Wildlife
Scott Flint
Environmental Services Division

Fish & Wildlife Region 1
Curt Babcock

Fish & Wildlife Region 1E
Laurie Harnsberger

Fish & Wildlife Region 2
Jeff Drongesen

Fish & Wildlife Region 3
Craig Weightman

Fish & Wildlife Region 4
Julie Vance

Fish & Wildlife Region 5
Leslie Newton-Reed
Habitat Conservation Program

Fish & Wildlife Region 6
Tiffany Ellis
Habitat Conservation Program

Fish & Wildlife Region 6 I/M
Heidi Calvert
Inyo/Mono, Habitat Conservation Program

Dept. of Fish & Wildlife M
William Paznokas
Marine Region

Other Departments

California Department of Education
Lesley Taylor

OES (Office of Emergency Services)
Monique Wilber

Food & Agriculture
Sandra Schubert
Dept. of Food and Agriculture

Dept. of General Services
Cathy Buck
Environmental Services Section

Housing & Comm. Dev.
CEQA Coordinator
Housing Policy Division

Independent Commissions, Boards

Delta Protection Commission
Erik Vink

Delta Stewardship Council
Anthony Navasero

California Energy Commission
Eric Knight

Native American Heritage Comm.
Debbie Treadway

Public Utilities Commission
Supervisor

Santa Monica Bay Restoration
Guangyu Wang

State Lands Commission
Jennifer Deleong

Tahoe Regional Planning Agency (TRPA)
Cherry Jacques

Cal State Transportation Agency CalSTA

Caltrans - Division of Aeronautics
Philip Grimmins

Caltrans - Planning HQ LD-IGR
Christian Bushong

California Highway Patrol
Suzann Ikeuchi
Office of Special Projects

Dept. of Transportation

Caltrans, District 1
Rex Jackman

Caltrans, District 2
Marcelino Gonzalez

Caltrans, District 3
Susan Zanchi

Caltrans, District 4
Patricia Maurice

Caltrans, District 5
Larry Newland

Caltrans, District 6
Michael Navarro

Caltrans, District 7
Dianna Watson

Caltrans, District 8
Mark Roberts

Caltrans, District 9
Gayle Rosander

Caltrans, District 10
Tom Dumas

Caltrans, District 11
Jacob Armstrong

Caltrans, District 12
Maureen El Harake

Cal EPA

Air Resources Board

Airport & Freight
Jack Wursten

Transportation Projects
Nesamani Kalandiyur

Industrial/Energy Projects
Mike Tollstrup

California Department of Resources, Recycling & Recovery
Kevin Taylor/Jeff Esquivel

State Water Resources Control Board
Regional Programs Unit
Division of Financial Assistance

State Water Resources Control Board
Cindy Forbes - Asst Deputy
Division of Drinking Water

State Water Resources Control Board
Div. Drinking Water #

State Water Resources Control Board
Student Intern, 401 Water Quality
Certification Unit
Division of Water Quality

State Water Resources Control Board
Phil Crader
Division of Water Rights

Dept. of Toxic Substances Control Reg. #
CEQA Tracking Center

Department of Pesticide Regulation
CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

RWQCB 1
Cathleen Hudson
North Coast Region (1)

RWQCB 2
Environmental Document Coordinator
San Francisco Bay Region (2)

RWQCB 3
Central Coast Region (3)

RWQCB 4
Teresa Rodgers
Los Angeles Region (4)

RWQCB 5S
Central Valley Region (5)

RWQCB 5F
Central Valley Region (5)
Fresno Branch Office

RWQCB 5R
Central Valley Region (5)
Redding Branch Office

RWQCB 6
Lahontan Region (6)

RWQCB 6V
Lahontan Region (6)
Victorville Branch Office

RWQCB 7
Colorado River Basin Region (7)

RWQCB 8
Santa Ana Region (8)

RWQCB 9
San Diego Region (9)

Other

Conservancy

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC



RECEIVED
COUNTY OF ALAMEDA
MAY 21 2019

GSA - TECHNICAL SERVICES DEPARTMENT
DESIGN AND CONSTRUCTION

May 17, 2019

Jason Garrison
Alameda County
1401 Lakeside Drive, Suite 800
Oakland, CA 94612

RE: SCH# 2019049101 Whitecotton Cottage Demolition Project, Alameda County

Dear Mr. Garrison:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
 - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
 - a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
 - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subs. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email

address: Gayle.Totton@nahc.ca.gov.

Sincerely,



for

Gayle Totton

Associate Governmental Program Analyst

cc: State Clearinghouse



Whitecotton Cottage Demolition Project

Initial Study

prepared by

County of Alameda

General Services Agency

1401 Lakeside Drive, Suite 800

Oakland, California 94612

Contact: Jason B. Garrison, Environmental Project Manager

prepared with the assistance of

Rincon Consultants, Inc.

449 15th Street, Suite 303

Oakland, California 94612

July 2019



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

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Table of Contents

| | |
|---|----|
| Initial Study..... | 1 |
| 1. Project Title..... | 1 |
| 2. Lead Agency Name and Address..... | 1 |
| 3. Contact Person and Phone Number..... | 1 |
| 4. Project Location..... | 1 |
| 5. General Plan Designation..... | 1 |
| 6. Zoning..... | 1 |
| 7. Surrounding Land Uses and Environmental Setting..... | 5 |
| 8. Existing Conditions and Background..... | 5 |
| 9. Description of Project..... | 6 |
| 10. Other Public Agencies Whose Approval is Required..... | 6 |
| 11. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun and is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?..... | 6 |
| Environmental Factors Potentially Affected..... | 7 |
| Determination..... | 7 |
| Environmental Checklist..... | 9 |
| 1 Aesthetics..... | 9 |
| 2 Agriculture and Forestry Resources..... | 11 |
| 3 Air Quality..... | 13 |
| 4 Biological Resources..... | 19 |
| 5 Cultural Resources..... | 23 |
| 6 Energy..... | 27 |
| 7 Geology and Soils..... | 29 |
| 8 Greenhouse Gas Emissions..... | 33 |
| 9 Hazards and Hazardous Materials..... | 35 |
| 10 Hydrology and Water Quality..... | 39 |
| 11 Land Use and Planning..... | 43 |
| 12 Mineral Resources..... | 45 |
| 13 Noise..... | 47 |
| 14 Population and Housing..... | 55 |
| 15 Public Services..... | 57 |

| | | |
|-------------------------|--|----|
| 16 | Recreation | 59 |
| 17 | Transportation | 61 |
| 18 | Tribal Cultural Resources | 63 |
| 19 | Utilities and Service Systems | 67 |
| 20 | Wildfire..... | 69 |
| 21 | Mandatory Findings of Significance | 71 |
| References | | 73 |
| Bibliography | | 73 |
| List of Preparers | | 74 |

Tables

| | | |
|---------|---|----|
| Table 1 | Health Effects Associated with Non-Attainment Criteria Pollutants | 14 |
| Table 2 | Air Quality Thresholds of Significance | 15 |
| Table 3 | Construction Emissions (pounds/day) | 16 |
| Table 4 | County of Alameda Noise and Land Use Compatibility Guidelines | 49 |
| Table 5 | Indoor Groundborne Vibration Impact Criteria | 50 |
| Table 6 | Construction Noise Levels by Phase..... | 51 |
| Table 7 | Vibration Levels During Demolition | 52 |
| Table 8 | Construction-Related Trips | 62 |

Figures

| | | |
|----------|--|---|
| Figure 1 | Regional Location..... | 2 |
| Figure 2 | Project Site in its Neighborhood Context | 3 |
| Figure 3 | Project Site and Immediate Surroundings | 4 |

Appendices

| | |
|------------|---|
| Appendix A | Air Quality and Greenhouse Gas Emissions Modeling Results |
| Appendix B | Historic and Architectural Assessment |
| Appendix C | Soil Sampling and Analysis Report (2018) and Asbestos and Lead Survey Report (2001) |
| Appendix D | Roadway Construction Noise Model (RCNM) Results |
| Appendix E | Assembly Bill 52 Consultation Correspondence |

Initial Study

1. Project Title

Whitecotton Cottage Demolition Project

2. Lead Agency Name and Address

Alameda County
General Services Agency
1401 Lakeside Drive, Suite 800
Oakland, California 94612

3. Contact Person and Phone Number

Jason B. Garrison, Environmental Project Manager
Office: (510) 208-9520

4. Project Location

The project site is an approximately 2,000 square-foot portion of a larger, approximately 82-acre parcel (APN 80A-238-10) in unincorporated Alameda County. The parcel is one of eight parcels on which the Alameda County Fairmont Hospital campus is located. The campus is bounded by Fairmont Drive to the northwest and Foothill Boulevard to the southeast. The project site occurs towards the southeastern portion of the campus and is bounded by Meadow Drive to the west, a parking lot to the south, a medical building to the northeast, and landscaped area to the north. Figure 1 shows the location of the site in the region, Figure 2 shows the project site in its neighborhood context, and Figure 3 depicts the project site and its immediate surroundings.

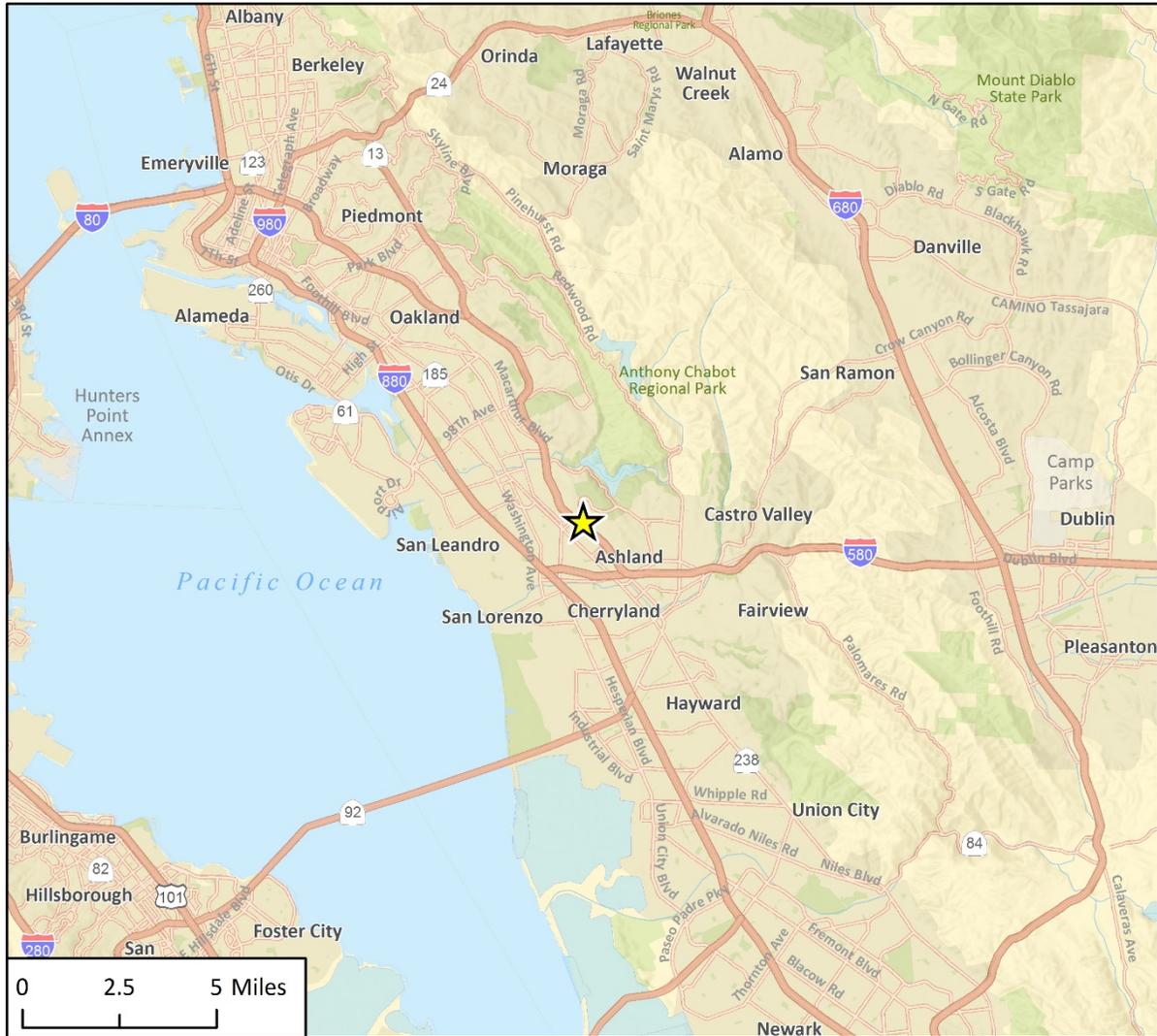
5. General Plan Designation

The project site is designated Public Facilities (PF) in the Castro Valley General Plan (Alameda County 2014).

6. Zoning

The project site is zoned Planned Development (PD) according to the Castro Valley General Plan.

Figure 1 Regional Location



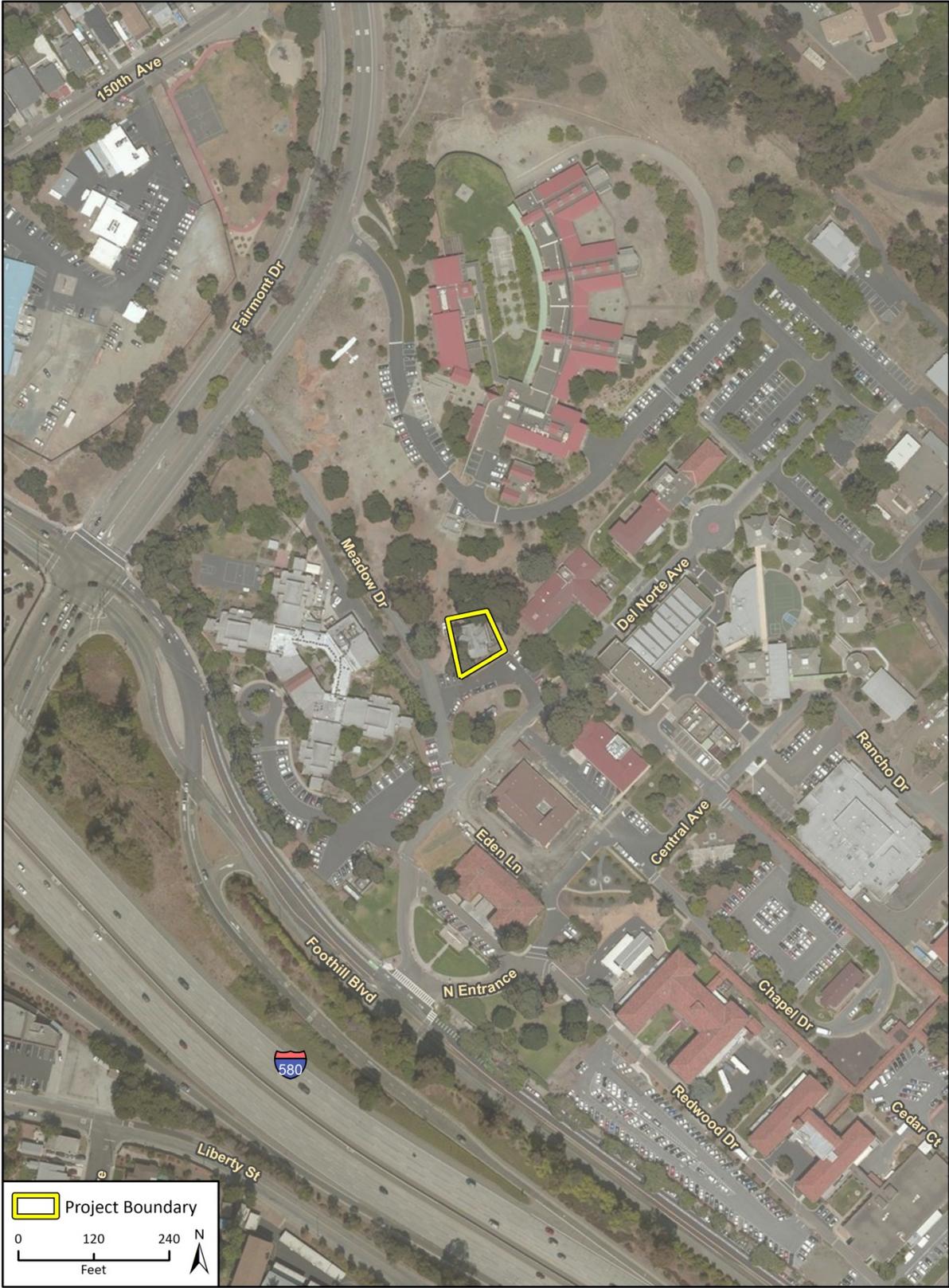
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★ Project Location



Fig 1 Regional Location

Figure 2 Project Site in its Neighborhood Context



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Fig. 2 Project Location Surrounding Area

Figure 3 Project Site and Immediate Surroundings



Imagery provided by Microsoft Bing and its licensors © 2019.

Fig 2 Project Location

7. Surrounding Land Uses and Environmental Setting

The project site is situated in the foothills of the Diablo Range, approximately one mile west of Lake Chabot in unincorporated Alameda County. The project area occurs on the Alameda County Fairmont Hospital campus, which comprises medical and office buildings, the Alameda County Superior Court, a Juvenile Justice Center and other uses associated to the institutional uses, including recreational facilities and a cafeteria. Lake Chabot occurs further north on the other side of Fairmont Drive and residential neighborhoods occur to the east, south and west of the campus. Figure 2 shows the project site in its neighborhood context. The project site occurs at relatively flat topography and at the southern edge of a hilly landscaped area at the east portion of the campus. The project site occurs towards the southeastern portion of the campus and is bounded by a roadway (Meadow Drive) to the west, a parking lot to the south/southeast, a medical building to the northeast (Cherry Hill Detox Center), and landscaped area to the north. Across Meadow Drive to the southwest is the Villa Fairmont Mental Health Rehabilitation Center. Other medical offices associated with the hospital campus are located approximately 300 feet to the southeast. Figure 3 shows the project site and its immediate surroundings.

8. Existing Conditions and Background

The site occurs within the Fairmont Hospital Campus (originally called the Alameda County Infirmary), which was established in its current location in 1869 to meet state law that required provision of care to the indigent sick. The County continued to develop the campus over the next several decades and established several new buildings, including a hospital building and other medical offices, staff residences, administrative buildings, dining halls, a chapel, and farming structures. Following World War II, several new medical buildings were constructed at the campus, and the County shifted its focus to convalescent, rehabilitation, and long-term mental health care (Preservation Architecture 2018, Appendix B).

The project site contains one existing building, a dwelling known as Whitecotton cottage, which was built in 1903. The building was also known as the Superintendent's House because it was originally built to house the Superintendent of the Alameda County Infirmary. It was adapted for other uses in the 1970s, including a community-based organization for research and treatment of addiction, and has been vacant since 2000. The building is approximately 3,942 square feet in size and two stories in height. It is a wood-frame structure with a brick foundation and partial basement. It is encompassed by a small grove of mature trees and a variety of shrubs around the base of the building.

While the building remains in its historic location, it has not been maintained for approximately 20 years and is in an advanced state of disrepair. Several holes are present on the roof and the interior of the building has extensive water damage and mold contamination. In addition, the exterior of the structure is covered with a high concentration of peeling lead-based paint that has contaminated surrounding soil, which in turn has the potential to impact downgradient properties and storm drains. There is also asbestos present in the roofing materials, which could cause environmental and health impacts. Asbestos was also present in other locations in the building, but these asbestos-containing materials were abated and removed in 2018.

9. Description of Project

The proposed project would involve the demolition of the existing Whitecotton cottage, an existing vacant 3,942 square-foot building with two stories above grade and a basement. Demolition of the structure would involve:

- The removal of asbestos-containing materials
- Stabilization of loose and peeling lead-based paint
- Removal and proper disposal of components coated with lead-based paint
- Excavation and disposal of approximately 222 cubic yards of soil, including lead contaminated soil around the structure
- Rough grading of the site

The County of Alameda General Services Agency would manage the demolition project and ensure compliance with appropriate regulatory guidelines associated with hazardous materials abatement and demolition. All project activities, including demolition, excavation, remediation, and grading would be expected to take approximately eight weeks, including approximately two weeks for demolition, one week for excavation, four weeks for soil and waste testing, and one week for rough grading. There are no current redevelopment plans for the site. Once the structure is demolished and grading has occurred, the site would be covered in gravel.

10. Other Public Agencies Whose Approval is Required

The County of Alameda is the lead agency with responsibility for approving the project. Discretionary approval from other public agencies is not required.

11. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun and is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

No California Native American Tribes have requested consultation pursuant to Public Resources Code Section 21080.3.1.

Environmental Factors Potentially Affected

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

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

Determination

Based on this initial evaluation:

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

- I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier 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.

DocuSigned by:
Jason B. Garrison
AF4C34DE737842E

Signature

Jason B. Garrison

Printed Name

4/8/2019

Date

Environmental Project Manager

Title

Environmental Checklist

1 Aesthetics

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

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

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

a. *Would the project have a substantial adverse effect on a scenic vista?*

The grade at Fairmont Hospital campus generally slopes downwards from northeast to southwest, and views of the city of San Leandro to the west and the San Francisco Bay beyond are available from Fairmont Drive and Foothill Boulevard. However, because the project site occurs at a relatively topographically flat area of the campus and is surrounded by other one- and two-story buildings and mature vegetation, substantial views are not available from or through the site. Moreover, the project area is not within a designated scenic vista.

In addition, the proposed project does not involve construction of new uses that would adversely affect scenic vistas. The project would remove a 2-story building and not involve new structures that would add bulk or adversely affect available views. Thus, no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

- b. *Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Interstate 580 (I-580), which occurs to the southwest of the project site, is an eligible but not officially designated State Scenic Highway. However, intervening topography currently obstructs views of the project site from I-580. Although the proposed project would involve removal of a historic building, the building is not visible from a state scenic highway. The project does not involve tree removal. Cultural resources impacts related to the demolition of the historic building are discussed in Section 5. *Cultural Resources* of this report. Therefore, no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

- c. *Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The project site is in an urbanized area in the Castro Valley unincorporated area of Alameda County. It is on the southeastern portion of the Fairmont Hospital campus. Since the project would involve demolition of an existing building, no new structures would be introduced to add visual bulk at the project site, and neither Alameda County Design Guidelines nor zoning regulations controlling design of new construction would apply. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

- d. *Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The project would involve the demolition of an existing building and not the construction of new structures. Thus, there would be no new sources of light or glare. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

2 Agriculture and Forestry Resources

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a. *Would the project convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The project site does not occur within or near an area designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance. The California Department of Conservation defines the project site as Urban and Built Up Land (2016). Moreover, the project involves the demolition of a building and not the construction of new structures or the conversion of existing farmland. Thus, no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site abuts the Agriculture (A) zoning district to the east. However, the site is not currently in active agricultural use and is surrounded by development associated with the Fairmont Hospital campus. The project site is not on land under a Williamson Act contract. Since the project would involve the demolition of an existing dwelling in a developed area that is not in agricultural production, it would not involve the construction of new uses or the conversion of existing farmland. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project area is not in an area containing forest land, nor would it convert existing forest land. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The project would involve the demolition of an existing building and not the construction of new structures or the establishment of new uses that would result in the conversion of nearby farmland. Thus, the project would not result in the conversion of existing Farmland or forest land and no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

3 Air Quality

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

Air Quality Standards and Attainment

The project site is located within the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met, and, if they are not met, to develop strategies to meet standards.

Depending on whether or not the standards are met or exceeded, the Basin is classified as being in “attainment” or “nonattainment.” Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The BAAQMD is in non-attainment for the state and federal ozone standards, the state and federal PM_{2.5} (particulate matter up to 2.5 microns in size) standards and the state PM₁₀ (particulate matter up to 10 microns in size) standards and is required to prepare a plan for improvement (BAAQMD 2017a).

The health effects associated with criteria pollutants for which the Basin is in non-attainment are described in Table 1.

Table 1 Health Effects Associated with Non-Attainment Criteria Pollutants

| Pollutant | Adverse Effects |
|---|--|
| Ozone | (1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage. |
| Suspended particulate matter (PM ₁₀) | (1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). ^a |
| Suspended particulate matter (PM _{2.5}) | (1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma. ^a |

^a More detailed discussions on the health effects associated with exposure to suspended particulate matter can be found in the following documents: EPA, Air Quality Criteria for Particulate Matter, October 2004.

Source: U.S. EPA 2018

Clean Air Plan

The Bay Area 2017 Clean Air Plan provides a plan to improve Bay Area air quality and protect public health as well as the climate. The legal impetus for the Plan is to update the most recent ozone plan, the 2010 Clean Air Plan, to comply with state air quality planning requirements as codified in the California Health & Safety Code. Although steady progress has been made to reduce ozone levels in the Bay Area, the region continues to be designated as non-attainment for both the one-hour and eight-hour state ozone standards as noted previously. In addition, emissions of ozone precursors in the Bay Area contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the Clean Air Plan to include all feasible measures to reduce emissions of ozone precursors and reduce transport of ozone precursors to neighboring air basins (BAAQMD 2017b).

Air Emission Thresholds

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

such as the project, emissions would be less than the greenfield-type project on which the screening criteria are based (BAAQMD 2017c).

Table 2 presents the significant thresholds for construction, demolition, and operational-related criteria air pollutant and precursor emissions being used for the purposes of this analysis. These represent the levels at which a project’s individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the Basin’s existing air quality conditions. For the purposes of this analysis, the proposed project would result in a significant impact if construction or operational emissions would exceed any of the thresholds shown in Table 2.¹

Table 2 Air Quality Thresholds of Significance

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

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

Source: Table 2-2, Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2011.

Impact Analysis

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

Vehicle use, energy consumption, and associated air pollutant emissions are directly related to population growth. A project would generally conflict with or potentially obstruct implementation of an air quality management plan if it would contribute to population growth in excess of that forecast in the plan. The proposed project would involve demolition of an existing building and not additional construction of new structures. Therefore, the proposed project would not generate new population or employment growth. Consequently, the project would not contribute to an exceedance of the projected population growth forecast in the 2017 BAAQMD Clean Air Plan. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

Long-term operational emissions generated by a project would result from area source emissions or mobile emissions. Area sources include the use of natural gas, electricity, and landscaping maintenance equipment. Mobile emissions include emissions from vehicles associated with a project. Since the proposed project would involve demolition activities during a limited period and

¹ Note the thresholds for PM₁₀ and PM_{2.5} apply to construction exhaust emissions only.

not construction of new uses, no new area source or mobile emissions would occur. Moreover, while the project site and surrounding area would undergo ongoing landscape maintenance activities, these activities are not specifically associated with the proposed demolition project. Further, maintenance activities would be intermittent and infrequent and would not generate emissions such that an exceedance of an air quality standard or a cumulatively considerable net increase of a criteria pollutant would occur.

The major source of emissions associated with the project result from emissions during the proposed building demolition. Demolition activities would include operation of construction vehicles and equipment over unpaved areas and soil disturbance which has the potential to generate fugitive dust (PM₁₀) through the exposure of soil to wind erosion and dust entrainment. In addition, exhaust emissions associated with heavy construction equipment would potentially degrade regional air quality. Temporary demolition emissions were estimated using the California Emissions Estimator Model (CalEEMod) v.2016.3.2 and are shown in Table 3.

Table 3 Construction Emissions (pounds/day)

| Pollutant | Maximum Daily Emissions | Significance Threshold | Significant Impact? |
|-----------------------------|-------------------------|------------------------|---------------------|
| ROG | 0.9 | 54 | No |
| NO _x | 8.7 | 54 | No |
| CO | 8.0 | 82 | No |
| PM ₁₀ (exhaust) | 0.5 | 82 | No |
| PM _{2.5} (exhaust) | 0.5 | 54 | No |

See Appendix A for CalEEMod worksheets.

As shown in Table 3, the proposed project would not exceed the BAAQMD short-term construction thresholds shown in Table 2. Impacts from demolition emissions would therefore be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

The California Air Resources Board (CARB) has identified diesel particulate matter as the primary airborne carcinogen in the state (CARB 2014). In addition, Toxic Air Contaminants (TACs) are a defined set of air pollutants that may pose a present or potential hazard to human health. Common sources of TACs and PM_{2.5} include gasoline stations, dry cleaners, diesel backup generators, truck distribution centers, freeways, and other major roadways (BAAQMD 2017c). The project does not include construction of new gas stations, dry cleaners, highways, roadways, or other sources that could be considered new permitted or non-permitted source of TAC or PM_{2.5} in proximity to receptors. In addition, the project would not introduce a new stationary source of emissions and would not result in particulate matter greater than BAAQMD thresholds (see response under questions a, b, and c). Therefore, a Health Risk Assessment was not performed for this project. Moreover, as described above in Table 3, temporary demolition emissions were estimated using the CalEEMod v.2016.3.2 computer model, and the proposed project would not exceed emissions

thresholds during demolition activities. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

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

During demolition activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust both during normal use and when idling. However, these odors would be temporary and would cease upon completion. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people. This impact would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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4 Biological Resources

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

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

According to the Biological Resources Chapter of the Castro Valley Area Plan (Figure 7-2, Alameda County 2012), the site occurs at the southern edge of a Moderate Priority Biological Resources Area, which includes the undeveloped area north of the portion of the Fairmont Hospital campus that is developed with buildings. However, according to Figure 7-2, no special-status species, riparian habitat, or other sensitive habitats occur within the project site. According to the Castro Valley Area Plan, the project site is not located within a migration route. Therefore, the project would not result in interference with the movement of a native resident, migratory fish or wildlife species. In addition, the project site does not occur on a native wildlife nursery site, and the project would not involve removal of existing trees.

The project site is developed with one structure, a driveway, and a trash collection area and has been continually disturbed through on- and off-site activities including nearby traffic, landscaping activities, and the presence of humans. Therefore, the site includes minimal native vegetation that might provide habitat for any sensitive or special status. Moreover, the project only involves the demolition of the existing building; no existing trees would be removed and no new structures or uses would be established that could adversely affect native species.

However, it is possible that mature trees within the project site could be indirectly disturbed during demolition activities. Surrounding trees could contain bird nests and birds which are protected under the Migratory Bird Treaty Act. Implementation of Mitigation Measure BIO-1 would reduce impacts to nesting birds to a less than significant level and further analysis of this issue in an EIR is not warranted.

Further, bats may be present in the existing vacant building. Therefore, the proposed project has the potential to result in direct impacts to special-status bats if bat roosts are destroyed during demolition. Implementation of Mitigation Measure BIO-2 would reduce impacts to special-status bat species to a less than significant level and further analysis of this issue in an EIR is not warranted. These measures will be included in the EIR's executive summary and mitigation monitoring and reporting program.

Mitigation Measures

The following mitigation measures are required:

BIO-1 Nesting/Breeding Native Bird Protection

To avoid impacts to nesting birds, including birds protected under the Migratory Bird Treaty Act, ground disturbing activities should be limited to the time period between September 1 and January 1 (i.e., outside the nesting season) if feasible. If initial site disturbance, grading, and vegetation

removal cannot be conducted during this time period, a pre-construction survey for active nests within and around the project site shall be conducted by a qualified biologist at the site no more than two weeks prior to any construction activities. The survey shall include the project site and other such habitat within 500 feet of the project site.

If active nests are identified, species specific exclusion buffers shall be determined by the biologist (i.e., 500 feet for raptor nests), and construction timing and location adjusted accordingly. The buffer shall be adhered to until the adults and young are no longer reliant on the nest site, as determined by the biologist. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area.

The biological monitor shall be present on site during all grubbing and clearing of vegetation to ensure that these activities remain within the project footprint (i.e., outside the demarcated buffer) and that the flagging/stakes/fencing is being maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities.

BIO-2 Special-status Bat Species Avoidance and Minimization

Focused surveys of the building to be demolished to determine the presence/absence of roosting bats shall be conducted by a qualified biologist prior to the initiation of demolition activities. If active maternity roosts are identified, at a minimum, no demolition, clearing, or grading shall occur within 500 feet of the roost until the young are able to fly from the roost. If active day or night roosts are found on the project site, measures shall be implemented to safely flush bats from the roosts prior to the onset of demolition activities. Such measures may include removal of roosting site during the time of day the roost is unoccupied or the installation of one-way doors, allowing the bats to leave the roost but not to re-enter.

Significance After Mitigation

Implementation of mitigation measures BIO-1 and BIO-2 would ensure that nesting birds and bats are not directly or indirectly affected by demolition activities. These measures will be included in the EIR's executive summary and mitigation monitoring and reporting program.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The project is not located on or in the vicinity of state or federally protected wetlands (US Fish and Wildlife Wetlands Mapper, accessed February 2019). No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

As noted above, the project site occurs within Moderate Priority Biological Resources Area. However, the project would involve the removal of an existing building and not tree removal or the establishment of new uses that would conflict with local policies or ordinances protecting biological resources. Moreover, compliance with the above mitigation measures BIO-1 and BIO-2 would

ensure that potential resources in the existing building and nearby existing trees would be protected during demolition activities. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

No adopted conservation plan covers an area that includes the project site. Therefore, no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

5 Cultural Resources

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

Cultural Resources Background

The California Environmental Quality Act (CEQA) requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b]).

PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impact Analysis

- a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

A Historical and Architectural Assessment of the existing building proposed for demolition was prepared by Preservation Architecture in 2018 (Appendix B). The assessment concludes that the Whitecotton Cottage is eligible for the California Register of Historical Resources because of its association with historic events. Therefore, the proposed project may result in a substantial adverse change in the significance of a historical resource. Impacts related to historic resources are potentially significant and will be analyzed further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?*

A California Historical Resources Information System (CHRIS) records search at the Northwest Information Center (NWIC) did not result in the identification of known archaeological resources within the project site or within a 0.5-mile radius of the project site. The project site has been disturbed by the construction of the Whitecotton Cottage. Thus, the project site is not considered archaeologically sensitive. Nevertheless, the following mitigation measure is required to reduce impacts to less than significant in the case of unanticipated discoveries. This measure will be included in the EIR's executive summary and mitigation monitoring and reporting program. Further analysis of this issue in an EIR is not warranted.

CUL-1 Unanticipated Discovery of Cultural Resources.

If cultural resources are encountered during ground disturbing activities, work in the immediate area shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (NPS 1983) shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and testing for the California Register of Historical Resources (CRHR) eligibility. If the discovery proves to be eligible for listing in the CRHR and cannot be avoided by the project, additional work, such as data recovery excavation, may be required to mitigate potentially significant impacts to historical resources.

Significance After Mitigation

Implementation of Mitigation Measure CUL-1 would ensure that impacts would be reduced to a less than significant level. This measure will be included in the EIR's executive summary and mitigation monitoring and reporting program.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance may occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD would complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access. With adherence to these existing regulations, impacts to human remains will be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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6 Energy

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

Energy Setting

CEQA Guidelines appendix F (Energy Conservation) and the updated Appendix G guidelines published in December of 2018, require that environmental analysis include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Energy consumption accounts for energy consumed during construction and operation of a proposed project, such as fuel consumed by vehicles, natural gas consumed for heating and/or power, and electricity consumed for power. In this case, energy consumption would only occur during the proposed demolition activities.

Impact Analysis

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

Pacific Gas and Electric supplies electricity and natural gas to the project site. Demolition of the existing building would result in short-term consumption of energy from the use of equipment and vehicles associated with demolition and grading activities and transportation of waste and debris during demolition. Energy use would primarily be from fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may be provided to construction trailers or electric construction equipment. Energy use during demolition would be temporary and would be used for the purpose of completing demolition and grading activities. Construction equipment used would be typical of construction projects in the region. No additional energy would be used after demolition is completed. Therefore, the project would no result in significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of

energy resources. This impact would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

The project involves energy use associated with demolition and grading activities only and no additional energy would be used after the demolition of the existing building because no new buildings or uses would be established at the project site. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

7 Geology and Soils

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

Would the project:

| | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving: | | | | |
| 1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a.1. *Directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*
- a.2. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*
- a.3. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*
- a.4. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*
- c. *Would the project be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?*

According to the Castro Valley Area Plan (March 2012), the project site occurs within approximately 0.1 miles of the Alquist-Priolo Earthquake Fault Zone and 0.5 miles of the Earthquake-Induced Landslide Zone and Liquefaction Zone. However, the project would involve demolition of an existing building, and no new buildings, structures, or uses which could cause risk of loss, injury, or death involving rupture, seismic activity, ground failure, landslides, or unstable soil would be introduced. Thus, the project would not cause potential adverse effects related to geologic or seismic hazards. No impact would occur and further analysis of these issues in an EIR is not warranted.

NO IMPACT

- b. *Would the project result in substantial soil erosion or the loss of topsoil?*

The project site is developed and located on sloping topography. Removal of the existing structure and grading activities associated with the proposed project would increase exposure of soils to direct rainfall and significant wind events, which could increase the potential for erosion. Per Section 15.36.050(C) of the Alameda General Ordinance Code, grading done under the supervision or construction control of the County is exempt from needing a grading permit. Nonetheless, according to the Code, the County must assume full responsibility for the work in conformance with the design and documentation provisions of Chapter 15.36, Grading Erosion and Sediment Control. Compliance with the standards in that chapter would ensure that grading would not result in substantial erosion and would reduce potential impacts associated with soil erosion to a less than significant level. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

The proposed project involves demolition of an existing structure and would not involve construction of new structures or the establishment of new uses. Therefore, no life or property would be exposed to construction on expansive soils. Moreover, demolition of the project would be required to comply with the Alameda County Grading Ordinance, which includes required safety protections during demolition and grading activities. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

- e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The project would involve the demolition of an existing building and not the construction of new structures; it would not involve the use of septic tanks or other alternative waste water disposal systems. No impact would occur and further analysis of this issue in an EIR is not warranted

NO IMPACT

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The project would involve demolition of the existing building and excavation of approximately 222 cubic yards of material to remove the existing foundation and lead-contaminated soils. No additional soil disturbance would occur, and the material to be excavated would consist primarily of soils disturbed during original site preparation for and construction of the existing building. Therefore, it is not anticipated that the project would destroy a unique paleontological resource or geologic feature. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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8 Greenhouse Gas Emissions

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

Would the project:

| | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with any applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Greenhouse Gas Emissions Setting

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

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

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

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a Climate Action Plan).

For the purposes of this analysis, the County of Alameda has determined the GHG emissions thresholds contained in the BAAQMD's May 2017 *CEQA Air Quality Guidelines* are the appropriate thresholds to use. The BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether the proposed project could result in potentially significant GHG emissions. If all of the screening criteria are met by a proposed project, then the lead agency or applicant would not need to perform a detailed GHG assessment of their project's GHG emissions. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. For projects that involve only demolition and not the construction of new buildings or uses, such as the proposed project, emissions would be less than the greenfield type project that the screening criteria are based on (BAAQMD 2017b).

Impact Analysis

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*
- b. *Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Since the project would not involve the construction of new structures or the establishment of new uses, there would be no operational emissions (stationary or mobile sources) associated with the project. However, there would be temporary emissions related to the operation of vehicles and equipment used in the demolition process.

Based on the CalEEMod results (Appendix A), the demolition of the existing building and re-grading associated with the proposed project would generate an estimated 24 metric tons of CO₂E. Emissions would cease after demolition and grading completes. Since emissions would be below 1,200 metric tons CO₂e, impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

9 Hazards and Hazardous Materials

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

Would the project:

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

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

The project site contains one residential building that would be demolished with the proposed project. According to an Asbestos and Lead Survey Report prepared for the project site by RGA Environmental, Inc. in January 2001, and the soil sampling and analysis conducted by Terracon in November 2018 (both reports included in Appendix C), this structure contains asbestos and lead-based paint. The lead-based paint coating exterior wood components (i.e., siding, windows) has been damaged due to weathering, has flaked off, and impacted soils on the project site. Soils at the project site have also been impacted by pesticides. Demolition of this structure could expose and/or release these contaminants which could result in health hazard impacts to workers if not remediated prior to construction activities. However, existing regulatory requirements would ensure that if such materials are disturbed during demolition, they would be handled and disposed in a manner that protects public and environmental health and safety. The project would be required to adhere to BAAQMD Regulation 11, Rule 2, which governs the proper handling and disposal of asbestos-containing materials for demolition, renovation, and manufacturing activities in the Bay Area, and California Occupational Safety and Health Administration (CalOSHA) regulations regarding asbestos and lead-containing materials. The California Code of Regulations Section 1532.1 requires testing, monitoring, containment, and proper disposal of lead-based paint. With adherence to BAAQMD and CalOSHA policies and regulations regarding asbestos-containing material and lead-based paint, impacts associated with the disturbance of hazardous materials would be less than significant.

Demolition activities associated with the proposed project may include the temporary transport, storage, and use of potentially hazardous materials including fuels, lubricating fluids, cleaners, or solvents. The proposed project involves the removal of contaminated soil, asbestos, and lead-based paint components. Completing this work would result in the transport and disposal of these materials as they are abated and removed from the site. However, the transport, storage, use, or disposal of hazardous materials would be subject to federal, state, and local regulations pertaining to the transport, use, storage, and disposal of hazardous materials, which would assure that risks associated with hazardous materials are minimized. In addition, construction activities that transport hazardous materials would be required to transport such materials along designated roadways in the city and county, thereby limiting risk of upset. Impacts would be less than significant and further analysis of these issues in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

While school facilities occur in the greater project vicinity, including Quest Academy, James Baldwin Academy, and the Alameda County Juvenile Justice Center, no existing or proposed schools are located within 0.25 mile of the project site. As outlined above under items (a) and (b), demolition of the existing structure would require removal and movement of materials contaminated by asbestos and lead-based paint. Hauling of such materials may occur within 0.25 mile of the project site. However, given the site's distance from existing educational facilities and required compliance with

the rules and regulations described above under items (a) and (b), impacts to schools would be less than significant, and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The following databases were checked, pursuant to Government Code Section 95962.5, on January 30, 2019 for known hazardous materials contamination at the project site:

- **United States Environmental Protection Agency**
 - Comprehensive Environmental Response, Compensation, and Liability Information System/ Superfund Enterprise Management System / Envirofacts database search
- **State Water Resources Control Board (SWRCB)**
 - GeoTracker search for leaking underground storage tanks and other cleanup sites
- **California Department of Toxic Substances Control**
 - EnviroStor search for hazardous facilities or known contamination sites
 - Cortese List of Hazardous Waste and Substances Sites
 - Cleanup Site and Hazardous Waste Facilities Database

The project site is not included on a list compiled pursuant to Section 65962.5 of the Government Code. Therefore, the project would not create a significant hazard to the public or the environment; no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site is not located near a public or private airstrip or airport, and the site is not located in an airport hazard area. No impact would occur.

NO IMPACT

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

The proposal would involve demolition of an existing building and not the construction of new structures that could block emergency response or evacuation routes or the introduction of new uses that would interfere with adopted emergency response and emergency evacuation plans. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

While the project site does not occur within a fire hazard zone, the project site occurs approximately 1.5 miles south of a very high fire severity zone (CalFire 2007). However, the project would involve the demolition of an existing building and not the construction of new structures that would increase exposure of people or structures to risk involving wildland fires. In addition, the project would involve rough grading at the site, not new landscaping requiring maintenance, which would also reduce existing risk of wildland fires. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

10 Hydrology and Water Quality

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

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

The project would not involve the establishment of new uses that would create new wastewater or discharge. Moreover, the project would replace impermeable surfaces with permeable surfaces, which would result in a decrease in runoff. As noted in Section 7, *Geology and Soils*, ground disturbing activities associated with the proposal would be required to meet the design and documentation provisions in Alameda County Code Chapter 15.36, *Grading Erosion and Sediment Control*. Compliance with these standards would reduce potential impacts to water quality and discharge. Thus, with adherence to existing regulations, no impacts to water quality would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

Regional water demand is primarily a function of population growth. The project would not increase the region's population and, in turn, the regional demand for potable water. (Please refer to Section 19, *Utilities and Service Systems*, for further discussion of this impact.) The proposed project also would not interfere with groundwater recharge because it would not increase the amount of impermeable surface at the site or involve the establishment of new uses that would increase water demand. Therefore, the 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. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

- c.(i) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*
- c.(ii) *Would the project substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- c.(iii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
- c.(iv) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would impede or redirect flood flows?*

The proposed project would not involve new construction that would substantially alter drainage patterns. The proposed project would not involve the alternation of a stream or river or the addition of impervious surfaces that would result in runoff, flooding, erosion, or siltation on or off-site. The project would involve demolition of an existing building and rough grading carried out in a manner

that would avoid erosion. No impacts would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site is not within a 100-year flood hazard area (1% chance annually) (FEMA 2009). The project is also outside of ABAG's mapped dam failure inundation area (ABAG 1995), and there is not a body of water near the site that is capable of seiche. The nearest body of water is Lake Chabot, which is approximately 1.5 miles north of the project site. There would be no impact and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project would involve the demolition of an existing building and not the introduction of new structures or uses that would obstruct water quality controls or groundwater management plans. Moreover, as outlined above in item (a), the proposed grading would be required to comply with applicable provisions of Alameda County Code Chapter 15.36, which ensures protection of watercourses and drainage. Thus, no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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11 Land Use and Planning

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

a. Would the project physically divide an established community?

The project would involve the demolition of an existing building and not the construction of structures or other elements that would physically divide an established community. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site is designated as Public Facilities in the Castro Valley Area Plan (Alameda County 2012) and zoned Agriculture. The project would involve demolition of an existing building and would not introduce new structures or uses that would conflict with the site’s designation or applicable policies. Therefore, no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

This page intentionally left blank.

12 Mineral Resources

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

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

The project site is not used for mining and is not zoned for mining uses. Further, the demolition of the existing vacant residence would not affect mineral resources. Thus, no impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

This page intentionally left blank.

13 Noise

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

Noise and Vibration Setting

Ambient Noise

Noise is defined as unwanted sound. 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). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dBA level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the ambient noise level to be judged as twice as loud. In general, a 3 dBA change in the ambient noise level is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while areas adjacent to arterial streets are typically in the 50-60+ dBA range. Normal conversational levels are usually in the 60-65 dBA range and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels from point sources, such as those from individual pieces of machinery, typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from the noise source. Noise levels from lightly traveled roads typically attenuate at a rate of about 4.5 dBA per doubling of distance. Noise levels from heavily traveled roads typically attenuate at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source can reduce noise levels by about 5 dBA, while a solid wall or berm can reduce noise levels by 5 to 10 dBA (Federal Transit Administration [FTA] 2018). The manner in which homes in California are constructed generally provides a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows (FTA 2018).

The duration of noise is important because sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period. Lmax is the highest RMS (root mean squared) sound pressure level within the measurement period, and Lmin is the lowest RMS sound pressure level within the measurement period.

The time period in which noise occurs is also important since nighttime noise tends to disturb people more than daytime noise. Community noise is usually measured using the Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10 PM to 7 AM) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5 dBA penalty for noise occurring from 7 PM to 10 PM and a 10 dBA penalty for noise occurring from 10 PM to 7 AM. The Ldn and CNEL typically do not differ by more than 1 dBA. In practice, CNEL and Ldn are often used interchangeably.

Some land uses are more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. For example, residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, museums, cultural facilities, parks, and outdoor recreation areas are more sensitive to noise than commercial and industrial land uses. The closest noise-sensitive receptors to the project site are the Cherry Hill Detox Center approximately 50 feet northeast of the project site, the Villa Fairmont Mental Health Rehabilitation Center approximately 100 feet to the southwest, and other buildings associated with Fairmont Hospital approximately 300 feet to the southeast.

Noise regulations and ordinances typically establish allowable noise levels for different land uses and define exempt noise activities. Chapter 6.60 of the Alameda County General Ordinance Code provides provision for restrictions and regulations for noise in the County of Alameda. Table 4 provides a summary of the exterior noise standards for different receiving land uses based on times of day. However, per Section 6.60.070, such restrictions do not apply to construction activities, provided that such activities occur between 7 AM and 7 PM on weekdays and between 8 AM and 5 PM on weekends.

Table 4 County of Alameda Noise and Land Use Compatibility Guidelines

| Receiving Land Use Category | Time | Noise Level Standards (dBA) | | | | |
|---|-------------|--|----|----|----|----|
| | | Cumulative Number of Minutes in Any One Hour | | | | |
| | | 30 | 15 | 5 | 1 | 0 |
| Residential uses, schools, hospitals, churches, and libraries | 7AM – 10 PM | 50 | 55 | 60 | 65 | 70 |
| | 10 PM – 7AM | 45 | 50 | 55 | 60 | 65 |
| Commercial uses | 7AM – 10 PM | 65 | 70 | 75 | 80 | 85 |
| | 10 PM – 7AM | 60 | 65 | 70 | 75 | 80 |

Source: County of Alameda General Ordinance Code Section 6.60.040

Vibration

Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas sound 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, ground-borne vibration generated by manmade 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 measured in vibration decibels (VdB).

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 the slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads.

The County of Alameda does not have adopted thresholds for levels at which vibration would cause significant effects. Therefore, thresholds provided by the Federal Transit Administration were used for this analysis. Vibration impacts would be significant if they would exceed the thresholds shown in Table 5.

Table 5 Indoor Groundborne Vibration Impact Criteria

| Land Use Category | VdB Impact Levels | | |
|--|---|---|--|
| | Frequent Events (more than 70 events per day) | Occasional Events (30-70 events per day) | Infrequent Events (fewer than 30 events per day) |
| Category 1: Buildings where vibration would interfere with interior operations | 65 Vdb | 65 Vdb | 65 Vdb |
| Category 2: Residences and places where people normally sleep | 72 Vdb | 75 Vdb | 80 Vdb |
| Category 3: Institutional land uses with primarily daytime use | 75 Vdb | 78 Vdb | 83 Vdb |

Source: Table 6-3, FTA 2018

Impact Analysis

- a. *Would the project result generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Demolition and grading activities associated with the proposed project could result in the temporary elevation of noise levels at the project site and surrounding areas. Construction-related noise impacts typically occur when construction activities take place during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), when construction activities occur immediately adjacent to noise sensitive land uses, or when construction durations last over extended periods of time. The closest noise-sensitive receptors to the project site are the Cherry Hill Detox Center approximately 50 feet northeast of the project site, the Villa Fairmont Mental Health Rehabilitation Center approximately 100 feet to the southwest, and other buildings associated with Fairmont Hospital approximately 300 feet to the southeast.

Noise levels associated with demolition and grading for the proposed project were estimated using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Because a specific construction equipment list is not yet available for the project, the construction equipment list used in RCNM was generated using the CalEEMod output for the air quality and GHG analysis (see Appendix A). Noise was modeled based on the project’s construction equipment list for each phase and distance to nearby receptors. Table 6 identifies the maximum expected noise levels at the nearest sensitive receptors based on the combined use of equipment anticipated to be used concurrently during the demolition and grading phases.

Table 6 Construction Noise Levels by Phase

| Construction Phase | Equipment | Approximate Noise Level at Nearest Sensitive Receptors (dBA Leq) | | |
|--------------------|------------------------------|--|----------|----------|
| | | 50 feet | 100 feet | 300 feet |
| Demolition | Dozer, Backhoe, Saw, Tractor | 86 | 80 | 70 |
| Grading | Dozer, Backhoe, Saw, Tractor | 86 | 80 | 70 |

Source: Roadway Construction Noise Model (RCNM) version 1.1, Appendix D

As Table 6 indicates, the proposed demolition and grading activities would temporarily elevate ambient noise levels at the nearby sensitive receptors. The Alameda County Code exempts construction noise between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. through 5:00 p.m. Saturday and Sunday. Although demolition noise would be perceptible at adjacent sensitive receptors, the additional noise would not be louder than typical urban construction as no major excavation or non-standard construction methods such as pile driving are proposed. Therefore, project construction would be within the range of typical construction noise for an urban area. In addition, demolition and grading activities would occur over the course of a short period (approximately two weeks for demolition, one week for excavation, four weeks for soil and waste testing, and one week for grading) and noise associated with the project would cease after that period. Mitigation Measure N-1 would ensure that construction noise occurs within the hours specified in the County Code and would reduce construction noise to the extent feasible. Impacts would be less than significant with mitigation incorporated, and further analysis in an EIR is not warranted. This measure will be included in the EIR's executive summary and mitigation monitoring and reporting program.

Mitigation Measure

The following mitigation measure would be required to reduce construction noise impacts to a less than significant level.

N-1 Demolition Noise Reduction

The following measures shall be implemented during project construction and demolition.

- **Construction Hours.** Construction activity shall not occur between 7:00 p.m. and 7:00 a.m. Monday through Friday and 5:00 p.m. through 8:00 a.m. Saturday and Sunday.
- **Mufflers.** During all project site demolition and grading, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards.
- **Equipment Staging Areas.** Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receptors.
- **Electrically-Powered Tools and Facilities.** Electrical power shall be used to run power tools and to power any temporary structures, such as construction trailers or caretaker facilities.
- **Smart Back-up Alarms.** Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels.

Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.

Significance After Mitigation

With implementation of Mitigation Measure N-1, temporary noise associated with demolition and grading would be reduced to the extent feasible and would be limited to daytime hours.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Table 7 identifies various vibration velocity levels for the types of equipment that would operate at the project site during demolition.

Table 7 Vibration Levels During Demolition

| Equipment | Approximate VdB at 25 feet (reference distance) | Approximate VdB at 50 feet | Approximate VdB at 100 feet | Approximate VdB at 300 feet |
|---------------|---|----------------------------|-----------------------------|-----------------------------|
| Bulldozer | 87 | 81 | 75 | 65 |
| Jackhammer | 79 | 73 | 67 | 57 |
| Loaded Trucks | 86 | 80 | 74 | 64 |

Source: Table 7-4, FTA 2018, assuming vibration attenuation of 6 VdB per doubling of distance

The closest vibration-sensitive receptors to the project site are the Cherry Hill Detox Center approximately 50 feet to the northeast, the Villa Fairmont Mental Health Rehabilitation Center approximately 100 feet to the southwest, and the Fairmont Hospital, approximately 300 feet to the southeast. These uses meet the criteria for Category 2 and Category 3 as shown on Table 5 because they involve sleeping activities (overnight hospital stays) and daytime uses such as professional office and rehabilitation activities.

As shown in Table 6, vibration levels could temporarily and intermittently reach up to approximately 81 VdB at areas 50 feet from the project site, up to 75 VdB at areas within 100 feet of the project site, and up to approximately 65 VdB at areas 300 feet from the project site. It is assumed that demolition and grading activities would cause occasional vibration events, or no more than 70 vibration events during the day. Because the proposed project would not involve construction during evening or nighttime hours, per compliance with Alameda General Ordinance requirements and the provisions of Mitigation Measure N-1, the project would not exceed the FTA criteria of 75 VdB for occasional events where people sleep during normal sleep hours.

The proposed project would not exceed the FTA criteria of 78 VdB for occasional events during daytime hours for the noise-sensitive receptors 100 or more feet away. However, it may exceed the FTA criteria of 78 VdB for at the nearest sensitive receptor during demolition activities when bulldozers are in operation. The demolition phase is estimated to occur over approximately two weeks. The project does not involve major excavation or non-standard construction methods such as pile driving. Therefore, project construction would be within the range of typical construction noise for an urban area and vibration effects would be temporary.

Nonetheless, because vibration could exceed FTA criteria and could be perceptible for patients and staff at the adjacent Cherry Hill Detox Center, mitigation is required. Impacts would be less than significant with mitigation incorporated, and further analysis in an EIR is not warranted. This measure will be included in the EIR's executive summary and mitigation monitoring and reporting program.

Mitigation Measure

The following mitigation measure would be required to reduce construction vibration impacts to a less than significant level.

N-2 Demolition Vibration Reduction

The following vibration measures shall be applied during project demolition activity.

- Keep vibration-intensive equipment as far as possible from vibration-sensitive site boundaries. Machines and equipment shall not be left idling.
- Schedule vibration-intensive operations to minimize their duration. Notify adjacent noise sensitive receptors in advance of performing work creating unusual noise and schedule such work at times mutually agreeable.
- Whenever practical, the most vibration-intensive construction operations shall be scheduled to occur together in the construction program to avoid continuous periods of vibration.

Significance After Mitigation

Demolition activities would contribute intermittent vibration adjacent to the project site. Implementation of Mitigation Measure N-2 would ensure that vibration levels at sensitive receptors would be reduced to a level below the perceptibility threshold for vibration. This measure would reduce the potentially significant impact due to construction vibration to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The project site is not within two miles of a public or private airstrip or airport, and thus no impacts would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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14 Population and Housing

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

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*
- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The proposed project involves the demolition of one residence. However, the residence is vacant and has not been maintained for at least 20 years; no displacement would occur. The proposed project does not include the construction of residential units. Because the project does not include the construction of residential units or any job-creating uses, no increase in the City's population would occur. The project would therefore have no impact related to inducing substantial population growth or require the construction of housing, and further analysis of these issues in an EIR is not warranted

NO IMPACT

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15 Public Services

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| 1 Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2 Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3 Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4 Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5 Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

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

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

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

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

The project would not lead to an increase in population or jobs and thus would not create new demand for or increase the use of fire facilities, police facilities, schools, parks, or other public facilities, and further analysis of these issues in an EIR is not warranted.

NO IMPACT

16 Recreation

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

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Since the project would involve the demolition of an existing vacant building and not the construction of new structures or the introduction of new uses, it would not increase the use of nearby recreational facilities. In addition, the project does not include recreational facilities. There would be no impact and further analysis of these issues in an EIR is not warranted.

NO IMPACT

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17 Transportation

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

- a. *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*
- b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The project would involve the demolition of a vacant building and not the construction of new buildings or the establishment of new uses that would generate new traffic. Therefore, the proposed project would not affect traffic patterns or conflict with any applicable transportation plan.

During demolition, traffic near the project site would temporarily increase compared to existing conditions because construction workers and haul trucks would travel to and from the project site. Construction-related worker trips were calculated using CalEEMod and are shown below in Table 8.

Table 8 Construction-Related Trips

| Trip Type | Number of One-Way Trips |
|----------------------------------|-------------------------|
| Hauling Trips¹ | |
| Demolition | 9 total |
| Grading | 28 total |
| Worker Trips² | |
| Demolition | 10 daily |
| Grading | 10 daily |

¹Assumes 222 cubic yards of export and 16 cubic yards of earth material per truck trip

²Assumes 1.25 worker trips per equipment

Source: CalEEMod v.2016.3.2 (see Appendix A)

As described in the Project Description, demolition and grading activities would last approximately eight weeks, including two weeks for demolition, one week for excavation, four weeks for soil and waste testing, and one week for grading. Hauling would involve removal of building materials from the existing building during the demolition phase and removal of approximately 222 cubic yards of exported earth material and regrading at the project site during the grading phase. Assuming approximately 16 cubic yards of material per truck trip, the proposed project would result in approximately nine total one-way hauling trips to remove demolition materials and 28 one-way hauling truck trips to remove earth materials during grading. Assuming trips would be generally spread across the one week (5 working days) grading schedule, the average number of trips per day would be fewer than six trips per day. Conservatively assuming a more consolidated construction period of two days of demolition, the project would generate approximately five trips per day during the hauling. Given the low volume of trips expected throughout the day, hauling activities during any hourly period would not cause significant traffic impacts.

The proposed project would also generate an estimated 10 one-way worker trips per day during each phase. Unlike hauling trips and vendor trips which are spread across the day, worker trips are expected to occur primarily at the beginning of the construction day (7:00 AM) and at the end of the construction day (5:00 PM). This low number of additional trips would not cause significant congestion on surrounding roadways, and would be temporary.

Given the expected number of hauling and worker trips and that demolition and grading activities would only occur during a limited period, impacts to roadways and traffic would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*
- d. *Would the project result in inadequate emergency access?*

The project site is directly accessible from existing roadways and the project would not involve construction of new structures or roadways or the introduction of new uses. Therefore, it would not increase hazards due to a geometric design feature or incompatible use. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

18 Tribal Cultural Resources

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| <p>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> | | | | |
| <p>a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 2024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Tribal Cultural Resources Setting

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

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

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

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

A contact list was requested from the Native American Heritage Commission (NAHC) for the purposes of initiating AB 52 consultation. The County of Alameda General Services Agency mailed notification letters to the six tribes listed by the NAHC on February 7, 2019. Under AB 52, tribes have 30 days to respond and request consultation. Over 30 days have elapsed since the notification letters were sent and no tribes requested AB 52 consultation with the County. Thus, the County assumes that no known tribal cultural resources are present on the project site.

AB 52 consultation correspondence between the County and tribes is included in Appendix E.

Impact Analysis

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 2024.1?*

Although no tribal cultural resources are expected to be present on-site, there is the possibility of encountering undisturbed subsurface tribal cultural resources. The proposed grading of the project site could potentially result in significant impacts on unanticipated tribal cultural resources. Mitigation Measure TCR-1 identified below would reduce impacts on unidentified tribal cultural resources to a less than significant level and further analysis of this issue in an EIR is not warranted. This measure will be included in the EIR’s executive summary and mitigation monitoring and reporting program.

Mitigation Measure

TCR-1 Unanticipated Discovery of Tribal Cultural Resources

In the event that cultural resources of Native American origin are identified during construction, all earth-disturbing work in the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the County, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The plan would include avoidance of the resource or, if avoidance of the resource is infeasible, the plan would outline the appropriate treatment of the resource in coordination with the archeologist, if applicable, and the appropriate Native American tribal representative.

Significance After Mitigation

Mitigation Measure TCR-1 would ensure that tribal cultural resources are identified properly and preserved in the event they are uncovered during construction and would reduce impacts regarding disrupting tribal cultural resources to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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19 Utilities and Service Systems

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project: | | | | |
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*
- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The proposed project would involve demolition of a vacant building and would not generate wastewater. No impact associated with additional wastewater generation and need for treatment would occur and further analysis of these issues in an EIR is not warranted.

NO IMPACT

- b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

The project would involve demolition of a vacant building and would not include water-consuming uses. The project does not involve the construction of new buildings or the establishment of new uses that would increase the region's population and, in turn, the regional demand for potable water. Therefore, no impact would occur.

NO IMPACT

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

The project would involve the demolition of an existing building. Once demolished, the demolition waste would be segregated into the following waste streams: hazardous waste, non-hazardous construction waste, and recyclable waste (i.e., metal, wood, and concrete). Non-recyclable waste would be transported to a landfill and properly disposed of. Thus, there would be a temporary increase in solid waste at area landfills. However, based on the size of the residence, the project would not generate a substantial increase in solid waste. Impacts would be less than significant and further analysis of these issues in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

20 Wildfire

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | | | |
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*
- b. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

As noted in Section 9, *Hazards and Hazardous Materials*, while the project site is not within a fire hazard zone, the project site occurs approximately 1.5 miles south of a very high fire severity zone (CalFire 2007). However, the project would involve the demolition of an existing building and not the construction of new structures that could impair an adopted emergency response or evacuation plan. Moreover, demolition activities would be temporary and there would be no project occupants

after demolition. No impact would occur and further analysis of these issues in an EIR is not warranted.

NO IMPACT

- c. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The project would involve the demolition of an existing building and not the construction of new buildings or the establishment of new uses that would require new infrastructure. No impact would occur.

NO IMPACT

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

As noted in Section 10, *Hydrology and Water Quality*, the proposed project would not involve new construction that would substantially alter drainage patterns. The project would involve demolition of an existing building and would also involve rough grading, which would be required to comply with Alameda County Code Chapter 15.36 *Grading, Erosion, and Sediment Control*, which include requirements to prevent future erosion and runoff. No impacts would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

21 Mandatory Findings of Significance

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

Does the project:

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

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

As discussed in Section 4, *Biological Resources*, the project would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife species population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of a rare or endangered plant or animal with compliance with mitigation measures BIO-1 and BIO-2.

As discussed in Section 5, *Cultural Resources*, the project could result in potentially significant impacts to existing historic resources. This impact is potentially significant and will be discussed further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

The proposed project involves demolition of a new building and not construction of new buildings or establishment of new uses, which could contribute to cumulatively considerable impacts at or near the project area. Demolition activities would be temporary and would cease completely after approximately eight weeks. Moreover, as discussed throughout this Initial Study, impacts from these temporary activities, including impacts to air quality, noise, and greenhouse gases, would be less than significant or nonexistent. Therefore, impacts would not be cumulatively considerable and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

As discussed in Section 3, *Air Quality*, the project would not conflict with an air quality plan, result in cumulatively considerable net increase in pollutants, expose sensitive receptors to substantial concentrations of pollutants or odors. According to Section 9, *Hazards and Hazardous Materials*, the project would not create a significant hazard to the public, interfere with applicable emergency response and evacuation plans, or expose people or structures to risk of loss, injury, or death. Per Section 13, *Noise*, the project would not generate significant impacts to ambient noise or groundborne vibration with incorporation of mitigation measures N-1 and N-2. Therefore, the project would not cause substantial adverse effects on human beings with mitigation and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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List of Preparers

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

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Appendix A

Air Quality and Greenhouse Gas Emissions Modeling Results

Whitecotton Cottage Demo Project - Alameda County, Winter

Whitecotton Cottage Demo Project
Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|----------------------------|------|--------|-------------|--------------------|------------|
| Other Non-Asphalt Surfaces | 0.50 | Acre | 0.50 | 21,780.00 | 0 |

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/MW hr) | 641.35 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Estimated 2 weeks demo 4 weeks grading/remediation

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Demolition - Demo of approx 3,942 sf building

Grading - 222 cubic yards export

Whitecotton Cottage Demo Project - Alameda County, Winter

| Table Name | Column Name | Default Value | New Value |
|----------------------|-------------------|---------------|-----------|
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblGrading | MaterialExported | 0.00 | 222.00 |
| tblTripsAndVMT | HaulingTripNumber | 18.00 | 9.00 |

2.0 Emissions Summary

Whitecotton Cottage Demo Project - Alameda County, Winter

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |
| 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 | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | 0.0000 | 1.2000e-004 |

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 | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |
| 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 | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | 0.0000 | 1.2000e-004 |

Whitecotton Cottage Demo Project - Alameda County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 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 | 1/1/2020 | 1/14/2020 | 5 | 10 | |
| 2 | Grading | Grading | 1/15/2020 | 1/28/2020 | 5 | 10 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |

Trips and VMT

Whitecotton Cottage Demo Project - Alameda County, Winter

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 4 | 10.00 | 0.00 | 9.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 28.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.3880 | 0.0000 | 0.3880 | 0.0588 | 0.0000 | 0.0588 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.8674 | 7.8729 | 7.6226 | 0.0120 | | 0.4672 | 0.4672 | | 0.4457 | 0.4457 | | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |
| Total | 0.8674 | 7.8729 | 7.6226 | 0.0120 | 0.3880 | 0.4672 | 0.8552 | 0.0588 | 0.4457 | 0.5044 | | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |

Whitcotton Cottage Demo Project - Alameda County, Winter

3.2 Demolition - 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 | 7.7500e-003 | 0.2634 | 0.0485 | 7.1000e-004 | 0.0158 | 8.5000e-004 | 0.0166 | 4.3200e-003 | 8.1000e-004 | 5.1300e-003 | | 75.1376 | 75.1376 | 3.9800e-003 | | 75.2372 |
| 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 | 0.0382 | 0.0280 | 0.2694 | 7.7000e-004 | 0.0822 | 5.5000e-004 | 0.0827 | 0.0218 | 5.1000e-004 | 0.0223 | | 76.8709 | 76.8709 | 2.0100e-003 | | 76.9210 |
| Total | 0.0459 | 0.2914 | 0.3178 | 1.4800e-003 | 0.0979 | 1.4000e-003 | 0.0993 | 0.0261 | 1.3200e-003 | 0.0274 | | 152.0085 | 152.0085 | 5.9900e-003 | | 152.1582 |

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 | | | | | 0.3880 | 0.0000 | 0.3880 | 0.0588 | 0.0000 | 0.0588 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.8674 | 7.8729 | 7.6226 | 0.0120 | | 0.4672 | 0.4672 | | 0.4457 | 0.4457 | 0.0000 | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |
| Total | 0.8674 | 7.8729 | 7.6226 | 0.0120 | 0.3880 | 0.4672 | 0.8552 | 0.0588 | 0.4457 | 0.5044 | 0.0000 | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |

Whitcotton Cottage Demo Project - Alameda County, Winter

3.2 Demolition - 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 | 7.7500e-003 | 0.2634 | 0.0485 | 7.1000e-004 | 0.0158 | 8.5000e-004 | 0.0166 | 4.3200e-003 | 8.1000e-004 | 5.1300e-003 | | 75.1376 | 75.1376 | 3.9800e-003 | | 75.2372 |
| 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 | 0.0382 | 0.0280 | 0.2694 | 7.7000e-004 | 0.0822 | 5.5000e-004 | 0.0827 | 0.0218 | 5.1000e-004 | 0.0223 | | 76.8709 | 76.8709 | 2.0100e-003 | | 76.9210 |
| Total | 0.0459 | 0.2914 | 0.3178 | 1.4800e-003 | 0.0979 | 1.4000e-003 | 0.0993 | 0.0261 | 1.3200e-003 | 0.0274 | | 152.0085 | 152.0085 | 5.9900e-003 | | 152.1582 |

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7553 | 0.0000 | 0.7553 | 0.4142 | 0.0000 | 0.4142 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.8674 | 7.8729 | 7.6226 | 0.0120 | | 0.4672 | 0.4672 | | 0.4457 | 0.4457 | | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |
| Total | 0.8674 | 7.8729 | 7.6226 | 0.0120 | 0.7553 | 0.4672 | 1.2225 | 0.4142 | 0.4457 | 0.8598 | | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |

Whitcotton Cottage Demo Project - Alameda County, Winter

3.3 Grading - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0241 | 0.8194 | 0.1508 | 2.2000e-003 | 0.0490 | 2.6300e-003 | 0.0517 | 0.0134 | 2.5200e-003 | 0.0160 | | 233.7615 | 233.7615 | 0.0124 | | 234.0712 |
| 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 | 0.0382 | 0.0280 | 0.2694 | 7.7000e-004 | 0.0822 | 5.5000e-004 | 0.0827 | 0.0218 | 5.1000e-004 | 0.0223 | | 76.8709 | 76.8709 | 2.0100e-003 | | 76.9210 |
| Total | 0.0623 | 0.8474 | 0.4201 | 2.9700e-003 | 0.1312 | 3.1800e-003 | 0.1344 | 0.0352 | 3.0300e-003 | 0.0383 | | 310.6323 | 310.6323 | 0.0144 | | 310.9922 |

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 | | | | | 0.7553 | 0.0000 | 0.7553 | 0.4142 | 0.0000 | 0.4142 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.8674 | 7.8729 | 7.6226 | 0.0120 | | 0.4672 | 0.4672 | | 0.4457 | 0.4457 | 0.0000 | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |
| Total | 0.8674 | 7.8729 | 7.6226 | 0.0120 | 0.7553 | 0.4672 | 1.2225 | 0.4142 | 0.4457 | 0.8598 | 0.0000 | 1,147.2352 | 1,147.2352 | 0.2169 | | 1,152.6578 |

Whitcotton Cottage Demo Project - Alameda County, Winter

3.3 Grading - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0241 | 0.8194 | 0.1508 | 2.2000e-003 | 0.0490 | 2.6300e-003 | 0.0517 | 0.0134 | 2.5200e-003 | 0.0160 | | 233.7615 | 233.7615 | 0.0124 | | 234.0712 |
| 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 | 0.0382 | 0.0280 | 0.2694 | 7.7000e-004 | 0.0822 | 5.5000e-004 | 0.0827 | 0.0218 | 5.1000e-004 | 0.0223 | | 76.8709 | 76.8709 | 2.0100e-003 | | 76.9210 |
| Total | 0.0623 | 0.8474 | 0.4201 | 2.9700e-003 | 0.1312 | 3.1800e-003 | 0.1344 | 0.0352 | 3.0300e-003 | 0.0383 | | 310.6323 | 310.6323 | 0.0144 | | 310.9922 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Whitecotton Cottage Demo Project - Alameda County, Winter

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

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|----------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|----------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Other Non-Asphalt Surfaces | 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 |
|----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Other Non-Asphalt Surfaces | 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

Whitcotton Cottage Demo Project - Alameda County, Winter

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 | | | | | |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Whitcotton Cottage Demo Project - Alameda County, Winter

5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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 | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |
| Unmitigated | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |

Whitcotton Cottage Demo Project - Alameda County, Winter

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 | 2.4900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 7.7100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |
| Total | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |

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 | 2.4900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 7.7100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |
| Total | 0.0102 | 0.0000 | 5.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | | 1.2000e-004 |

7.0 Water Detail

Whitecotton Cottage Demo Project - Alameda County, Winter

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

Whitecotton Cottage Demo Project - Alameda County, Annual

Whitecotton Cottage Demo Project
Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|----------------------------|------|--------|-------------|--------------------|------------|
| Other Non-Asphalt Surfaces | 0.50 | Acre | 0.50 | 21,780.00 | 0 |

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/MW hr) | 641.35 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Estimated 2 weeks demo 4 weeks grading/remediation

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Demolition - Demo of approx 3,942 sf building

Grading - 222 cubic yards export

Whitecotton Cottage Demo Project - Alameda County, Annual

| Table Name | Column Name | Default Value | New Value |
|----------------------|-------------------|---------------|-----------|
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblGrading | MaterialExported | 0.00 | 222.00 |
| tblTripsAndVMT | HaulingTripNumber | 18.00 | 9.00 |

2.0 Emissions Summary

Whitecotton Cottage Demo Project - Alameda County, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 1-1-2020 | 3-31-2020 | 0.0936 | 0.0936 |
| | | Highest | 0.0936 | 0.0936 |

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 | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |
| 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 | 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 | 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 | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |

Whitcotton Cottage Demo Project - Alameda County, Annual

2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |
| 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 | 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 | 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 | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |

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

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 | 1/1/2020 | 1/14/2020 | 5 | 10 | |
| 2 | Grading | Grading | 1/15/2020 | 1/28/2020 | 5 | 10 | |

Whitecotton Cottage Demo Project - Alameda County, Annual

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 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 | 10.00 | 0.00 | 9.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 28.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Whitcotton Cottage Demo Project - Alameda County, Annual

3.2 Demolition - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.9400e-003 | 0.0000 | 1.9400e-003 | 2.9000e-004 | 0.0000 | 2.9000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | | 2.3400e-003 | 2.3400e-003 | | 2.2300e-003 | 2.2300e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |
| Total | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | 1.9400e-003 | 2.3400e-003 | 4.2800e-003 | 2.9000e-004 | 2.2300e-003 | 2.5200e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |

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 | 4.0000e-005 | 1.3100e-003 | 2.3000e-004 | 0.0000 | 8.0000e-005 | 0.0000 | 8.0000e-005 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.3445 | 0.3445 | 2.0000e-005 | 0.0000 | 0.3450 |
| 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 | 1.7000e-004 | 1.3000e-004 | 1.3100e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3514 | 0.3514 | 1.0000e-005 | 0.0000 | 0.3517 |
| Total | 2.1000e-004 | 1.4400e-003 | 1.5400e-003 | 0.0000 | 4.8000e-004 | 0.0000 | 4.8000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.6960 | 0.6960 | 3.0000e-005 | 0.0000 | 0.6966 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.2 Demolition - 2020

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 | | | | | 1.9400e-003 | 0.0000 | 1.9400e-003 | 2.9000e-004 | 0.0000 | 2.9000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | | 2.3400e-003 | 2.3400e-003 | | 2.2300e-003 | 2.2300e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |
| Total | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | 1.9400e-003 | 2.3400e-003 | 4.2800e-003 | 2.9000e-004 | 2.2300e-003 | 2.5200e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |

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 | 4.0000e-005 | 1.3100e-003 | 2.3000e-004 | 0.0000 | 8.0000e-005 | 0.0000 | 8.0000e-005 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.3445 | 0.3445 | 2.0000e-005 | 0.0000 | 0.3450 |
| 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 | 1.7000e-004 | 1.3000e-004 | 1.3100e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3514 | 0.3514 | 1.0000e-005 | 0.0000 | 0.3517 |
| Total | 2.1000e-004 | 1.4400e-003 | 1.5400e-003 | 0.0000 | 4.8000e-004 | 0.0000 | 4.8000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.6960 | 0.6960 | 3.0000e-005 | 0.0000 | 0.6966 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 3.7800e-003 | 0.0000 | 3.7800e-003 | 2.0700e-003 | 0.0000 | 2.0700e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | | 2.3400e-003 | 2.3400e-003 | | 2.2300e-003 | 2.2300e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |
| Total | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | 3.7800e-003 | 2.3400e-003 | 6.1200e-003 | 2.0700e-003 | 2.2300e-003 | 4.3000e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.2000e-004 | 4.0800e-003 | 7.2000e-004 | 1.0000e-005 | 2.4000e-004 | 1.0000e-005 | 2.5000e-004 | 7.0000e-005 | 1.0000e-005 | 8.0000e-005 | 0.0000 | 1.0719 | 1.0719 | 5.0000e-005 | 0.0000 | 1.0732 |
| 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 | 1.7000e-004 | 1.3000e-004 | 1.3100e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3514 | 0.3514 | 1.0000e-005 | 0.0000 | 0.3517 |
| Total | 2.9000e-004 | 4.2100e-003 | 2.0300e-003 | 1.0000e-005 | 6.4000e-004 | 1.0000e-005 | 6.5000e-004 | 1.8000e-004 | 1.0000e-005 | 1.9000e-004 | 0.0000 | 1.4233 | 1.4233 | 6.0000e-005 | 0.0000 | 1.4249 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.3 Grading - 2020

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 | | | | | 3.7800e-003 | 0.0000 | 3.7800e-003 | 2.0700e-003 | 0.0000 | 2.0700e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | | 2.3400e-003 | 2.3400e-003 | | 2.2300e-003 | 2.2300e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |
| Total | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | 3.7800e-003 | 2.3400e-003 | 6.1200e-003 | 2.0700e-003 | 2.2300e-003 | 4.3000e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.2000e-004 | 4.0800e-003 | 7.2000e-004 | 1.0000e-005 | 2.4000e-004 | 1.0000e-005 | 2.5000e-004 | 7.0000e-005 | 1.0000e-005 | 8.0000e-005 | 0.0000 | 1.0719 | 1.0719 | 5.0000e-005 | 0.0000 | 1.0732 |
| 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 | 1.7000e-004 | 1.3000e-004 | 1.3100e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3514 | 0.3514 | 1.0000e-005 | 0.0000 | 0.3517 |
| Total | 2.9000e-004 | 4.2100e-003 | 2.0300e-003 | 1.0000e-005 | 6.4000e-004 | 1.0000e-005 | 6.5000e-004 | 1.8000e-004 | 1.0000e-005 | 1.9000e-004 | 0.0000 | 1.4233 | 1.4233 | 6.0000e-005 | 0.0000 | 1.4249 |

4.0 Operational Detail - Mobile

Whitcotton Cottage Demo Project - Alameda County, Annual

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

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|----------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|----------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Other Non-Asphalt Surfaces | 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 |
|----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Other Non-Asphalt Surfaces | 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 |

Whitecotton Cottage Demo Project - Alameda County, Annual

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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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 |

Whitecotton Cottage Demo Project - Alameda County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|----------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use | kWh/yr | MT/yr | | | |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|----------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use | kWh/yr | MT/yr | | | |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

6.0 Area Detail

6.1 Mitigation Measures Area

Whitcotton Cottage Demo Project - Alameda County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |
| Unmitigated | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |

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 | 4.5000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.4100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |
| Total | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |

Whitecotton Cottage Demo Project - Alameda County, Annual

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 | 4.5000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.4100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |
| Total | 1.8600e-003 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 |

7.0 Water Detail

7.1 Mitigation Measures Water

Whitecotton Cottage Demo Project - Alameda County, Annual

| | 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 | | | |
| Other Non-Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Whitecotton Cottage Demo Project - Alameda County, Annual

7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|----------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| Other Non-Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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 |

Whitcotton Cottage Demo Project - Alameda County, Annual

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|----------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|----------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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 |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

Whitecotton Cottage Demo Project - Alameda County, Annual

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 B

Historic and Architectural Assessment

August 27, 2018

**Superintendent's Residence/Whitecotton Cottage
Fairmont Hospital, Alameda County
Historic Resource Summary**

Introduction

As requested by the County of Alameda's General Services Administration, this report addresses historic resource issues related to the former Superintendent's Residence (aka Whitecotton Cottage) located on the campus of Alameda County's Fairmont Hospital. This evaluation has specifically been requested by the County to address the subject building's historic resource status and is based on several site visits and research, including historical research inquiries at:

- The Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS), where there are no available records for the subject property;
- The Oakland Public Library's History Room, which had a newspaper clipping folder for Fairmont Hospital with general historical information;
- The Hayward Area Historical Society (HAHS), which has a small collection of previous research records for Fairmont Hospital, including a research file folder specific to the "Fairmont Hospital – Superintendent's Residence," and which is discussed below.

Resource Summary

The former Superintendent's Residence was previously evaluated for the County and resulted, in August of 2001, in the publication of an *Historical and Architectural Assessment of the Superintendent's Residence at Fairmont Hospital* for the County of Alameda and prepared by the architectural historian Woodruff Minor (attached).

While there was evidently minimal available historical information about the building, that report pinpointed the 1903 origins of the Superintendent's Residence and indicated that it remained in use as the residence of the hospital superintendent (aka resident physician) until c1970, when it was adapted for other hospital program uses, until c2000, when it was vacated. That report also parenthetically identified the building by its common name, White Cotton Cottage.

Regarding that common name, a c1980 map of the campus was included in the 2001 report and is also presently displayed on the wall in the ground floor of the existing cafeteria building. Alongside the latter, there is a building index and which labeled the subject building the "Whitecotton Cottage." That label is evidently the accurate one, as Whitecotton is the surname of a family whose head, Dr. G. Otis Whitecotton, was medical director of the Alameda County hospitals from c1947 to c1960. While there is no specific evidence for this assertion, nor evidence that Whitecotton may have resided in this house, it may be presumed that the Whitecotton name was given to this building during or after his leadership of the County hospitals.

In summary, based on the 2001 evaluation, the subject building has been identified as an historic resource per a finding of eligibility to the California Register of Historical Resources (CR), the bases for which are twofold:

- Under CR criterion 1, the subject building is identifiably associated with historic events, specifically the original Alameda County Infirmery and its successor, Fairmont Hospital;
- Under CR criterion 3, the subject building is identified as embodying design and construction distinction as it is “an excellent and illustrative local example of the Shingle Style.”
(from *Assessment*, p7)

Consequently, the former Superintendent’s Residence/Whitecotton Cottage is presently listed on the Alameda County Register of Historic Resources (see attached).

In addition to identifying applicable areas of significance, the previous evaluation requisitely addressed the building’s historic “integrity.” For historic resource evaluation purposes, “integrity” is a secondary measure of a given resource’s identified significance – in addition to fulfilling a given criteria of significance, the resource must also retain sufficient integrity with which to convey its importance in the present. To reiterate, in this case, the identified importance of the former Superintendent’s Residence/Whitecotton Cottage is its association to the original Alameda County Infirmery and early Fairmont Hospital, plus its architectural distinction as an excellent example of the Shingle Style. Relative to which, the previous evaluation generally concluded that the “house and setting retain a relatively high degree of integrity” (*Assessment*, p6).

Evidently, since 2001, further and relatively substantive changes have occurred to the site, the setting and the building itself, including:

- Additional building removals and additions on the directly adjacent campus;
- Overall exterior building deterioration due to its vacancy;
- Deterioration of the surrounding landscape;
- Extensive interior dilapidation.

Such changes have resulted in the existing poor condition (i.e., overall design and material degradation and loss) of the subject building exterior and site, and of the very poor condition (i.e., extensive degradation) of its interior.

Thus, at this juncture, a re-evaluation of the integrity of the subject resource is warranted in order to confirm its current historic resource eligibility status and based on the seven “aspects of integrity” defined under the National and California registers, as follows:

- *Location* – the former Superintendent’s Residence/Whitecotton Cottage remains in its historic location, so this integrity aspect is fully intact;
- *Setting* – the former residence has an immediate and associated setting amidst its early landscape. While deteriorated and beyond its immediate setting substantially changed, the integrity of its setting is largely intact;
- *Feeling and Association* – the former residence remains associated with yet semi-isolated from the hospital, which was also an original characteristic. Though use changes and subsequent vacancy have diminished the historic feeling of this former residence as well as its residential association, both integrity aspects are partially intact.

Consequently, under these four related aspects of integrity, the former Superintendent’s Residence/Whitecotton Cottage continues to convey the significance of the identified historic events,

specifically the original Alameda County Infirmary and the early Fairmont Hospital, of which the subject building is the only (now partially) intact as well as oldest surviving building.

There are three additionally interrelated integrity aspects – *design, materials* and *workmanship* – that directly relate to the subject building's original and early design and construction. Per photos included in the 2001 evaluation (figs.2 & 4), the former residence was then in an intact state and in use. Since, the building has been vacant. Its current state is dilapidated, fenced and boarded-up. At present, it is in a diminished state with respect to the workmanship that is embodied in its original/early design and materials. As these three aspects of integrity have been substantially affected and are insufficiently intact, the extant building does not continue to convey design or construction excellence or importance. Therefore, the existing Superintendent's Residence/Whitecotton Cottage no longer appears to meet CR criterion 3.

In conclusion, a single basis for a finding of historical significance has sustained. Based on its association to historic events – both the original Alameda County Infirmary and the early Fairmont Hospital – the Superintendent's Residence/Whitecotton Cottage remains eligible for the CR, though no longer on the basis of its design and construction..

Signed:

A handwritten signature in black ink, appearing to read "Mark Hulbert", with a long horizontal flourish extending to the right.

Mark Hulbert
Preservation Architect

attached: figs.1-4; 2001 historic resource evaluation; page from Alameda County Register



Fig.1 – Superintendent's Residence/Whitecotton Cottage, Front (south), 2018



Figure 3. South Elevation, Superintendent's Residence, Fairmont Hospital.

Fig.2 – Superintendent's Residence/Whitecotton Cottage, Front (south), 2001



Fig.3 – Superintendent's Residence/Whitecotton Cottage, West side, 2018



Figure 2. West Elevation, Superintendent's Residence, Fairmont Hospital.

Fig.4 – Superintendent's Residence/Whitecotton Cottage, West side, 2001

Historical and Architectural Assessment

**Superintendent's Residence
Fairmont Hospital
San Leandro
CA**

Prepared for:

**County of Alameda
General Services Agency
Oakland, CA 94612**

By:

**Woodruff Minor
Corbett & Minor
2054 University Avenue #505
Berkeley, CA 94704**

August 31, 2001

CONTENTS

| | |
|---|---|
| Summary of Findings | 1 |
| Background | 1 |
| Historical Overview of Fairmont Hospital | 1 |
| Historical Overview of Superintendent's Residence | 4 |
| Description of Superintendent's Residence | 5 |
| Findings | 6 |
| Sources | 8 |
| Map and Photographs | |
| Figure 1: Location Map | |
| Figure 2: West elevation of residence | |
| Figure 3: South elevation of residence | |

Summary of Findings

This report provides an historical and architectural assessment of the former Superintendent's Residence ("White Cotton Cottage") on the campus of Fairmont Hospital, San Leandro, California. Owned and operated by Alameda County since 1869, the hospital was originally known as the Alameda County Infirmary. The facility has undergone several major phases of redevelopment since the early 1900s. The Superintendent's Residence, erected in 1903, is the oldest surviving building on the campus. It is also an excellent local example of the Shingle Style, a popular eclectic style of the late 19th and early 20th centuries.

Potential significance has been assessed in relation to the criteria of the California Register of Historical Resources, the standard for evaluating cultural resources under the California Environmental Quality Act (CEQA). Based on an evaluation of its historical associations and architectural qualities, the Alameda County Infirmary Superintendent's Residence appears to be eligible for listing on the California Register of Historical Resources.

Background

The report was prepared by Woodruff Minor, an architectural historian who meets the qualifications of the State Office of Historic Preservation. Michael R. Adamson served as research assistant. The property was inspected on July 16, 2001, when field notes were taken. Research was performed at the following repositories and archives: Earth Sciences and Map Library, University of California, Berkeley; Office of the Alameda County Board of Supervisors, Oakland; and the Oakland History Room and Newspaper Room, Oakland Public Library. Sources are listed at the end of the report.

Historical Overview of Fairmont Hospital

Under early California law, county governments were mandated to provide medical care for the poor (the "indigent sick") within their jurisdiction. State laws enacted in 1855 and 1860 enabled county governments to levy taxes for the purpose of establishing county infirmaries. The tax revenues could be used to buy land, erect buildings, and hire administrative and medical staff.

Following its establishment in 1853, Alameda County initially provided medical care under contract to private practitioners. In 1864, the Alameda County Board of Supervisors rented a house in Oakland to serve as a hospital, staffed by one doctor and a steward. This facility was closed in 1869, when the County's new infirmary opened on a rural site south of Oakland.

Early Development of the Alameda County Infirmary: 1869–1912

The Alameda County Infirmary, now known as Fairmont Hospital, was the first medical facility in Alameda County to be owned and operated by the county government. Acquired in 1869, the site consisted of 123.92 acres of level and sloping land at the base of the hills near the town of San Leandro. Access was provided by a county road (today's Foothill Boulevard) bordering the west edge of the property.

The first hospital building at the new site opened in 1869. Several buildings were added during the 1870s, and other facilities were erected gradually over the following three decades. By 1910, the Alameda County Infirmary consisted of a dozen or so larger buildings and many smaller structures clustered at the northwest corner of the hospital property. They included an administration building, various wards, a dining hall, laundry, shop buildings, a chapel, and staff residences, including the residence of the superintendent and resident physician. Buildings were wood-framed and many were of temporary construction. There was no coherent site plan, and the grounds were minimally landscaped.

Most of the hospital property functioned as a farm supplying milk, eggs, pork, and bacon to the infirmary (and later to other county hospitals). Barns and sheds were grouped to the east of the infirmary complex. Much of the rest of the property was given over to grazing. Because of this farming activity, the Alameda County Infirmary was commonly known as "The Farm." The farm itself remained in operation on the hospital grounds until the 1950s.

Expansion and Reconstruction: 1912–1945

The Alameda County Infirmary had long been considered inadequate due to substandard facilities and chronic overcrowding. In 1912, the Board of Supervisors agreed to hold an architectural competition for a new hospital complex to replace the existing infirmary. The supervisors retained Henry H. Meyers as consulting architect to administer the competition. First prize was awarded in 1913 to San Francisco architect Charles Peter Weeks.

The winning design called for linked groups of buildings oriented around two axes, running east–west and north–south. All buildings were to be steel-framed, with hollow-tile walls, stucco veneer, and Renaissance styling. The principal (east–west) axis, facing west to Foothill Boulevard, contained an administration building and wards for short-term acute care. The north–south axis contained men's and women's dormitory wards for long-term convalescent care. The ten dormitories (and adjoining assembly and dining halls) were grouped around a rectangular courtyard incorporating a small artificial lake (already on the site). Estimated cost of construction for the entire complex was \$1 million. In 1916, work was completed on two ward buildings and an assembly hall at the north end of the dormitory group; the rest of the proposed complex was never built.

The complex was not completed due to budgetary constraints and a new county policy calling for separate medical facilities with specialized functions rather than

one general facility. Arroyo Sanatorium (1918), near Livermore, provided long-term care for curable tuberculosis patients. Delle Valle Farm (1924), adjoining Arroyo Sanatorium, served as a treatment center for tubercular children. Highland Hospital (1926), located in East Oakland near the county's population center, functioned as a major acute-care facility. Small outpatient clinics were also opened in several of the county's cities.

Under this new plan, the Alameda County Infirmary—renamed Fairmont Hospital when Highland Hospital opened—specialized in long-term care for convalescent patients, the aged and infirm, and persons with chronic and contagious diseases. Patients treated at Highland were transferred to Fairmont for recovery. Incurable tuberculosis patients were domiciled at Fairmont rather than at Arroyo or Del Valle.

Fairmont Hospital was largely rebuilt between 1917 and 1922 to accommodate its new mission. A number of older buildings were rehabilitated and remodeled, and some were moved to new sites. More than a dozen new buildings were erected. The hospital campus was extended south. New structures included ward buildings, dormitories for nurses and employees, a cafeteria, laundry, powerhouse, corporation yard, greenhouse, and entrance gates. The last major project prior to World War II was a ward building for incurable tuberculosis patients, opened in 1931 at the south end of the campus. The grounds were extensively landscaped with trees, shrubs, lawns, and trellis-covered walkways. The architect responsible for these site improvements was Henry H. Meyers, who served as the county's consulting architect until his retirement in 1935.

Developments since World War II: 1945–present

The next major phase of development at Fairmont occurred in the decade following World War II. The hospital ceased caring for the aged and infirm during these years, concentrating instead on convalescent care and chronic rehabilitation. Based on a 1935 master plan by architect Will G. Corlett, the hospital was substantially rebuilt between 1946 and 1955. New construction during this period included three large ward buildings, an interns' building, an administration building, a cafeteria, a powerhouse and shop building, and a firehouse. Most of these structures were designed by Corlett, and most are located in the south section of the hospital campus in a landscaped setting with covered walkways. Reinforced-concrete construction and Spanish Colonial Revival styling followed the model of the 1931 tuberculosis ward.

The postwar reconstruction of Fairmont Hospital was brought to completion in the early 1960s by the addition of a rehabilitation ward and a laundry at the south end of the campus. Facilities added since the 1960s have focused on long-term mental-health care. They include the Villa Fairmont (1981), Eden Outpatient Facility (1991), and John George Psychiatric Pavilion (1992).

Historical Overview of the Superintendent's Residence

Prior to the construction of the existing building in 1903, the Superintendent of the Alameda County Infirmary (who also bore the title of Resident Physician) presumably lived elsewhere on the grounds, though no reference to an earlier residence has been found. In any case, the new residence met a long-felt need at the hospital for a permanent, detached dwelling for the superintendent. The site at the north edge of the campus, apart from the other buildings, provided a modicum of privacy that was progressively enhanced as the landscaping took hold. By the 1930s, the residence sat in a thick grove of trees, screened from the hospital proper. The elegant little house in its secluded setting would have given the superintendent a sense of retreat from the stress of a demanding job. In addition, the superintendent's family required separation from the hospital grounds, where patients with contagious diseases were housed.

The first mention of the residence in the *Minutes* of the Alameda County Board of Supervisors, who oversaw the hospital, appeared in the entry for May 4, 1903. At that meeting, "The county surveyor presented, and the Board approved and adopted, the plans and specifications for the residence of the Superintendent and Resident Physician. A contract bid notice is to be published in the Oakland Tribune, fixing the final day for acceptance of bids at May 25, 1903." Five bids were submitted, ranging from \$5,400 (E. Andersen) to \$6,100 (George C. Noll). The *Minutes* for the May 25th meeting noted: "Finding the lowest bid to be satisfactory, the Board accepted the bid of, and awarded the building contract to, E. Andersen, stipulating that all work had to be completed within ninety days from the Board's acceptance of a bond from Andersen." This occurred at the June 8th meeting, as recorded in the *Minutes*: "E. Andersen presented a contract and bond for the construction of the Superintendents' cottage. The Board approved the bond." Presumably the building was completed in September, though no further reference to the project has been found in the 1903 *Minutes*.

Little is known about the contractor, E. Andersen. There is a listing for an "Edward Andersen, carp (carpenter)" in the 1910 city directory for San Francisco. The name does not appear in city directories for Oakland, Alameda, and Berkeley. The architect of the building has not been documented. It is possible that the county surveyor (who presented the plans to the supervisors) may have been the designer, but it is not likely given the sophistication of the building. At any rate, the index to the *Minutes* of the Board of Supervisors makes no mention of a contract being awarded to an architect, nor do the contractor's magazines of the period. Oakland newspapers from June–September 1903 were scanned for some mention of the building, but no articles on the project were located.

The later history of the structure has not been fully documented. On the 1928 Sanborn map of the hospital campus, the building is identified as "Sup't's D" ("Superintendent's Dwelling"). This designation also appears on the revised 1950 Sanborn map of the campus. Site plans of Fairmont Hospital, dated 1948 and 1949, identify the building simply as "Cottage No. 1." In a 1973 site plan, it is identified as "Public Works Office." To summarize, it appears that the Superintendent's Residence served its original purpose until the 1950s, and that

had been adapted to new uses by the 1970s. The most recent tenant was a community-based organization called Humanistic Alternatives to Addiction Research and Treatment (HAART). Since 2000, the building has been vacant.

Description of the Superintendent's Residence

The building occupies a somewhat isolated site near the northwest corner of the Fairmont Hospital Campus. It is encompassed by a small grove of mature trees, both conifer and deciduous, with a variety of shrubs planted around the base of the building. Remnants of a more extensive landscaping scheme survive, such as an abandoned terrace with deteriorated brick stairs on the south side of the house. An unpaved parking area, served by a short access road, adjoins the terrace. The house is on axis with the hospital's central quad, which is situated several hundred yards to the south.

The building is a one-and-one-half story, wood-frame structure with a brick foundation and partial basement. Walls are sheathed in wood shingles. The house has a generally rectangular plan elaborated by a staggered section on the east and a prominent semi-circular bay on the west. The roof system consists of a main gable facing south and north, an east-facing subsidiary gable on the house's staggered east section, and a rounded hip on the west-facing semi-circular bay. Shed-roofed dormers extend across the east and west slopes of the main gable. The wood-sash windows (double-hung and casement) have thin surrounds and simply detailed sills. The soffited eaves are delicately trimmed with narrow wood molding and understated dentil courses.

The symmetrical south façade, facing toward the hospital complex, has a full recessed porch with shingled piers. The glass-panel double doors of the entry are flanked by tall casement windows wrapping around the porch. Trimmed with mullion borders, they were added when the porch was enclosed. Two sets of casement windows (three per set) form a balanced pair in the gable, with an attic vent above. The focus of the west façade is the centrally placed semi-circular bay. A decorative course of sawtooth and gap-tooth shingles demarcates the two levels of the bay. Three double-hung windows wrap around the lower level, and three small casement windows with diamond-pattern sash are set into a stucco band tucked under the eave. The adjoining dormers have double-hung windows, with tiny casement windows flanking the bay. A porch supported by one shingled post is recessed into the northwest corner of the house, sheltering an entry with a massive wood door. The north façade is similar to the south façade, though lacking a full porch. The east side of the house is less formally composed, with windows at both levels and a tall brick chimney.

The interior is currently accessible through the door on the northwest porch. One enters a medium-sized entry hall. A curving seat is set into the rounded bay alcove on the right. To the left is a partially enclosed opening framing the staircase. Straight ahead, through a wide opening with pocket doors, is a large living room that once extended the full width of the house. A partition to the left cuts off a fireplace with an elaborate over-scaled mantle from the rest of the

room. Offices have been partitioned off in the former porch area. A single pocket door in the entry hall, to the left of the staircase, opens into a narrow hallway adjoined by three small rooms that may have originally functioned as servants' quarters. The hallway connects with a kitchen and two bathrooms at the rear. The elaborate staircase, with two landings, winds up to a gallery-like hall that wraps around the stairwell on all four sides. The staircase has multiple newel posts and a banister with curved elements; the newel posts and railing of the hall match the staircase. The semi-circular bay alcove opens onto the hall. Two bedrooms run across the north end of the house, two bedrooms are at the south end, and two bathrooms adjoined by closets are on the east side. The interior has plaster walls, plaster cove ceilings, and extensive wood trim.

The residence combines elements of the Queen Anne and Colonial Revival styles. The semi-circular bay window with its band of decorative shingles recalls the Queen Anne predilection for applied ornament and rounded forms. The shingle skin and gables belong to that phase of the Colonial Revival sometimes called "Old Colonial," which looked back to the vernacular, late-medieval architecture of 17th century New England. (The symmetry of the front façade and the eave denticulation make muted reference to 18th century colonial architecture, which tended to be Georgian, i.e., classically derived.) Eclectic combinations of Queen Anne and "Old Colonial" elements produced the residential Shingle Style, invented in the 1880s by several leading East Coast firms. Introduced in the Bay Area around 1890, the style achieving widespread popularity by 1900, when it began to be superseded by the more rustic shingled style known as Craftsman. The Superintendent's Residence is an excellent local example of the Shingle Style.

The house and setting retain a relatively high degree of integrity. Although the landscape plan of the garden is no longer intact and the grounds are unkempt, many of the trees survive. Remarkably, the site still retains a feeling of seclusion on Fairmont's crowded campus. The only significant change to the exterior of the house is the front porch, which appears to have been enclosed at an early date (ca. 1915–25). The alteration is compatible with the original design. The interior has been altered by the application of paint to the woodwork; by the addition of partitions to the entry hall, living room, former front porch, and south bedrooms; and by the remodeling of the bathrooms and kitchen.

Findings

The Superintendent's Residence at Fairmont Hospital appears to be eligible for the California Register of Historical Resources under Criterion 1 (historical associations) and Criterion 3 (architectural quality). To be eligible for the California Register, an historical resource must be significant at the local, state, or national level, under one or more of the following four criteria:

- (1) It is associated 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;

- (2) It is associated with lives of persons important to local, California, or national history;
- (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- (4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The Superintendent's Residence appears to be eligible for the California Register under Criterion 1 because of its association with the Alameda County Infirmary and Fairmont Hospital. As the residence of the superintendent of the first county-run hospital in Alameda County, operating under a statewide mandate to provide medical care for the poor, the building "is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California. . . ." It is the only intact building on the campus associated with the Infirmary's first phase of construction. It is also the oldest surviving building on the Fairmont Hospital campus—and probably the oldest building in Alameda County associated with a county-run hospital. As such, it appears to possess historical significance on the local level.

The Superintendent's Residence appears to be eligible for the California Register under Criterion 3 because it "embodies the distinctive characteristics of a type, period, region, or method of construction. . . [and] possesses high artistic values." The residence is an excellent and illustrative local example of the Shingle Style, embodying national design trend of the period. The house also displays a high level of workmanship as well as a high degree of integrity. As a presumably rare building type—an early 20th-century superintendent's residence on a hospital campus—the structure has further importance. As such, it appears to possess architectural significance on the local level.

Over the past two decades, most of the older buildings at Fairmont Hospital have been demolished or abandoned. The reasons for this include abatement for seismic safety, structural damage from the 1989 Loma Prieta earthquake, and site clearance for new projects. Today, extent historical resources are limited to the former Superintendent's Residence (1903), the Chapel (ca. 1910), the former Nurses' Dormitory (1918), Ward Building D (1931), and a half-dozen structures (and landscape features) dating from 1949–1955. With the exception of the Superintendent's Residence and Nurses' Dormitory, these older buildings and landscape features form the central quad of the campus. The Superintendent's Residence, though located to the north of the quad, is on axis with it. Together, these ten structures—the nine buildings of the quad and the residence—may be eligible for listing on the California Register of Historical Resources as an historic district. However, to make such an assessment would require further analysis beyond the scope of this report.

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Figure 1. Map of a Portion of Fairmont Hospital, ca. 1985.
 (Superintendent's Residence circled.)

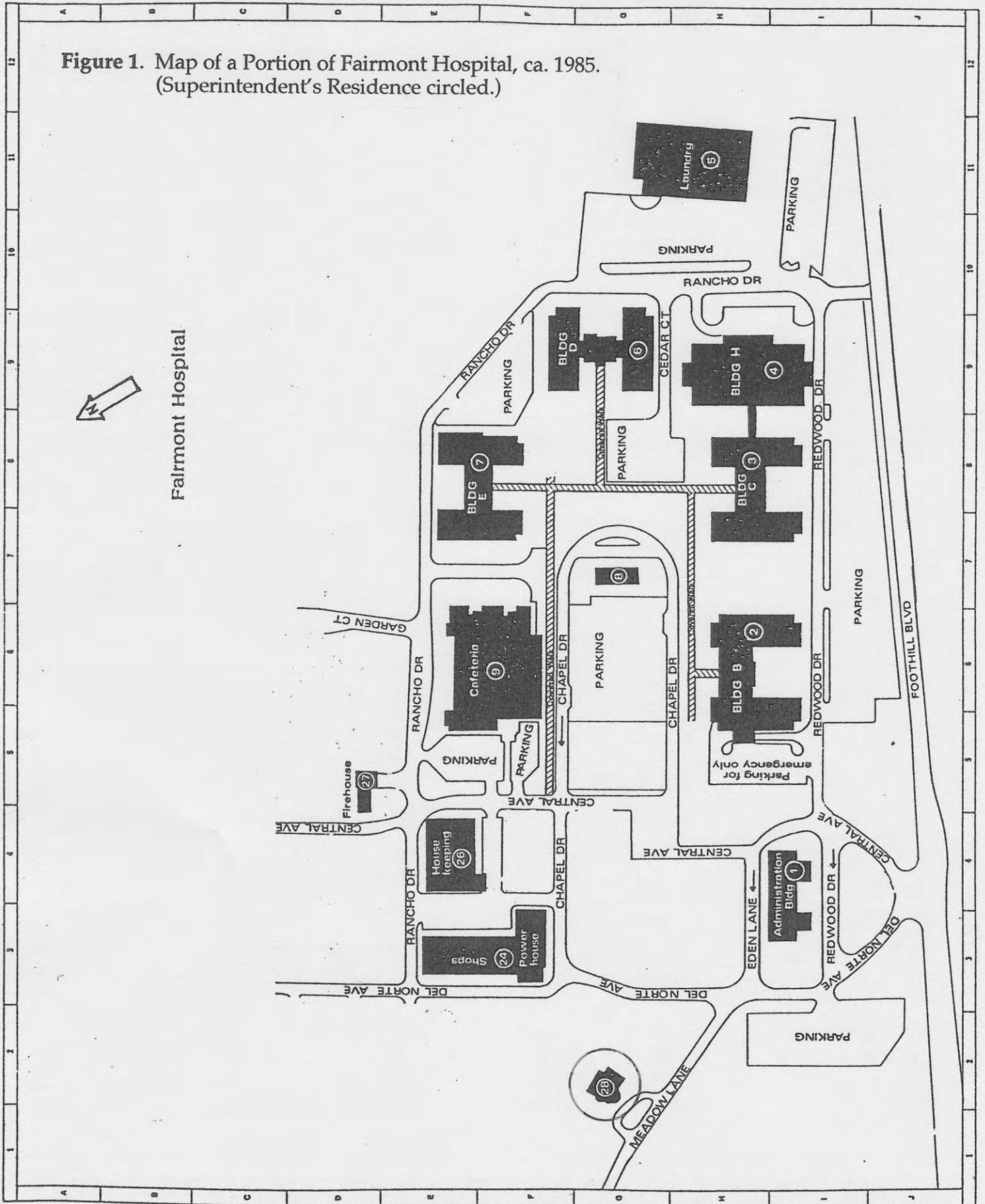




Figure 2. West Elevation, Superintendent's Residence, Fairmont Hospital.



Figure 3. South Elevation, Superintendent's Residence, Fairmont Hospital.



Fairmont Hospital

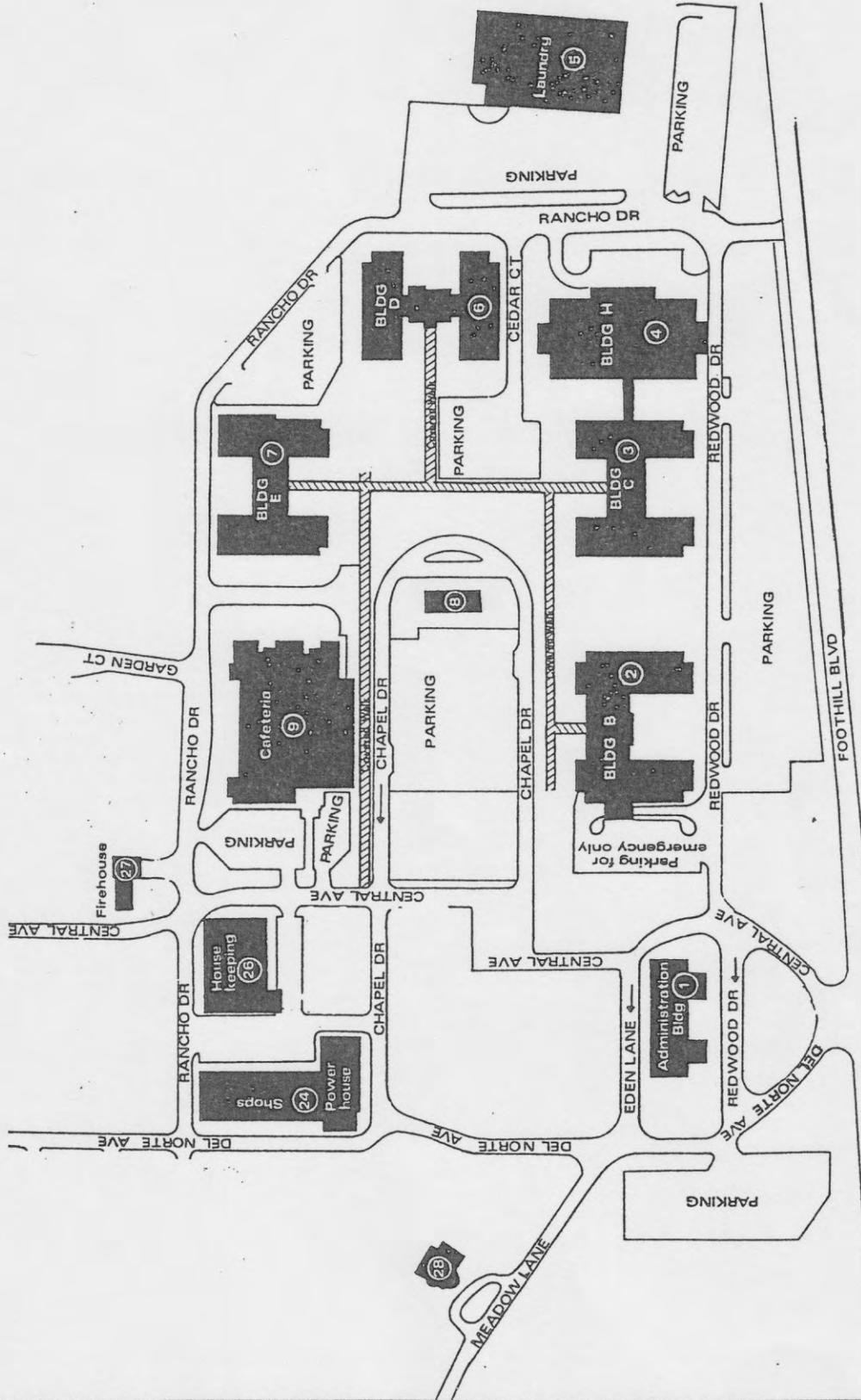


Figure 1. Map of a Portion of Fairmont Hospital, ca. 1985.
(Superintendent's Residence circled.)

Figure 2. West Elevation, Superintendent's Residence, Fairmont Hospital.

Figure 3. South Elevation, Superintendent's Residence, Fairmont Hospital.

Alameda County Landmarks & Contributing Buildings Identified in 2005-2008 Comprehensive Survey

| Address | Area | Property Type | Age | Previous Survey |
|--------------------------------------|--------------------|---|--------|--|
| 4951 Arroyo Road | East County | Spanish Colonial VA Hospital | 1925 | East Alameda Survey - likely eligible |
| 728 Bockman Road | San Lorenzo | Queen Anne Cottage | 1895 | San Lorenzo Survey - likely eligible under Criterion A |
| 782 Bockman Road | San Lorenzo | Henry Bockman House | | |
| 2495 Castro Valley Blvd | Castro Valley | Castro Valley Lumber | | |
| 2520 Castro Valley Blvd | Castro Valley | Connie's Tropical Fish | 1934 | |
| 2544 Castro Valley Blvd | Castro Valley | Formerly Crowe's Feed Shop | | |
| 2845-61 Castro Valley Blvd | Castro Valley | Chabot Theater | | |
| 22047-55 Center Street | Castro Valley | Four Square House | | |
| 14563 Cull Canyon Road | Castro Valley | Red barn, Cull's ranch | 1855 | |
| 16874 Cull Canyon Road | Castro Valley | Farmhouse and barn | | |
| 2440 Depot Road | Hayward | Mt. Eden Cemetery | 1860 | |
| 2595 Depot Road | Hayward/ Eden Area | Queen Anne - Herman Mohr House "Sea Breeze" | | |
| 22380 Eden Canyon Road | Castro Valley | Bank barn and associated barns | | |
| 10366 S. Flynn Road | East County | Period Revival farmstead | | |
| 15400 Foothill Boulevard | Fairmont | Fairmont Hospital | 1920s | |
| 15400 Foothill Boulevard | Fairmont | Queen Anne Victorian, White Cotton Cottage | | |
| 1048 Grant Avenue | San Lorenzo | Queen Anne – Heidi House | 1890 | San Lorenzo Survey - likely eligible under criteria A, B and C |
| Grove Way at Mission | Cherryland | Grove Way Bridge | c.1925 | |
| 24985 Hesperian Boulevard | Hayward | Cornelius Mohr house and farm, Classical Revival, Victorian with mansard roof, barn | | San Lorenzo Survey - likely eligible under criteria A, B and C |
| End of Hollis Canyon off Eden Canyon | Castro Valley | Eastwood House | | |
| 5922 Jensen Road | Castro Valley | Jensen farmhouse; Salt box | 1872 | |
| 16331 Kent Avenue | Ashland | Barn | 1890 | Ashland/Cherryland - possibly eligible |

Appendix C

Soil Sampling and Analysis Report (2018) and Asbestos and Lead Survey Report (2001)

November 1, 2018

Mr. Michael Bishop
Environmental Project Manager
Alameda County
1401 Lakeside Drive, Suite 800
Oakland, CA 94612

RE: Soil Sampling and Analyses
White Cotton Cottage
Fairmont Hospital Campus
San Leandro, CA

Dear Mr. Bishop:

Terracon Consultants, Inc. (Terracon) is pleased to provide this letter presenting the results of the evaluation of lead and pesticide concentrations in soil at the above-referenced site. Terracon understands that the County is seeking to evaluate whether soils adjacent to the building have been impacted by lead from the peeling exterior paint and historical application of pesticides.

Terracon performed the following tasks:

- n Collected soil samples from 0-6" and 6-12" below ground surface (bgs). Some samples were not collected or collected at different depths because of surface obstructions. Sampling locations and depths are presented on Table 1 and shown on Exhibit 1;
- n Collected samples at the drip line of the building, the approximate midpoint between the building and site perimeter, and the site perimeter;
- n Analyzed samples for lead and organochlorine pesticides (OCPs);
- n Compared results to Tier 1 Residential Environmental Screening Levels (ESLs) (RWQCB, May 2018); and
- n Estimated the amount of soil that may require excavation such that the remaining lead and pesticide concentrations at excavation limits do not exceed ESLs.

Terracon performed these services in accordance with our Standard Services Agreement with County of Alameda, dated August 14, 2017.

Soil samples were collected on the northern, western, and southern sides of the building. Some planned samples were not collected because concrete or asphalt occurred at the ground surface. Samples were collected using a 2.5-inch hand auger, which was decontaminated between sample collection. Samples were transferred to glass jars and stored on ice for transportation to McCampbell Analytical, Inc. (McCampbell) located in Pittsburg, California. The laboratory report and field documentation are included in the attachments.

Soil Sampling and Analyses Report

White Cotton Cottage ■ Fairmont Hospital Campus
San Leandro, California ■ Terracon Project No. R1187878



Table 1 presents details of the sampling, including sample names, depths, and concentrations. The table presents results for those constituents detected above ESLs in at least one sample. Concentrations exceeding ESLs are shown in bold font. Sample intervals were 0-6" and 6-12" bgs. The northern midpoint sample (WCNMID2-8-14) was collected 8-14" bgs because degraded concrete occurred in the upper 8 inches. Exhibit 1 shows sample names and their approximate locations. Perimeter samples were not collected on the northern and western sides of the building because of the presence of asphalt or concrete at the ground surface. Samples were not collected on the east side of the building because surface asphalt extended from the building wall to the perimeter fence.

Results

Lead, Chlordane, and Endosulfan I are the most frequently detected constituents. Lead and Chlordane were detected in all dripline samples above their respective ESLs of 80 and 0.48 mg/kg. Endosulfan I was detected in samples collected on the western side of the building, except in sample WCWDL2-0-6, in three samples from the south side of the building (WCSDL1-6-12 and WCSMID2-0-6 and -6-12) and WCSW-0-6, which is located at the southwest corner of the building. Endosulfan I concentrations ranged from 0.0029 to 0.69 mg/kg. The ESL for Endosulfan I is 0.0046 mg/kg. Dieldrin, Heptachlor Epoxide, and Methoxychlor were infrequently detected above their ESLs in a few samples (Table 1).

The highest concentrations of lead (1,200 mg/kg), Chlordane (10 mg/kg), and Endosulfan I (0.069 mg/kg) were found in dripline samples collected from the western and southern sides of the building. The highest concentrations of these constituents in midpoint samples were 890 mg/kg, 1.1 mg/kg, and 0.29 mg/kg, respectively. These samples were collected from the western side of the site. At most locations, the concentrations were higher in shallow samples. However, concentrations in midpoint samples WCWMID1-6-12 and WCWMID2-6-12 (Table 1) collected on the western side of the building, the concentrations of lead were highest in the samples collected between 6-12". Because of the infrequency of detected results, consistent changes in concentrations with depth are not observed for Dieldrin, Heptachlor, Methoxychlor. The vertical distribution of lead and pesticides to below their respective ESLs has not been defined at all locations.

Table 1 – Concentrations¹ of Constituents Exceeding Tier 1 ESLs²

| SAMPLE ID | DEPTH (ft) | LEAD [80 mg/kg] ³ | CHLORDANE [0.48 mg/kg] | ENDOSULFAN I [0.0046] | DIELDRIN [0.00017 mg/kg] | HEPTACHLOR EPOXIDE [0.00042 mg/kg] | METHOXYCHLOR [1.9 mg/kg] |
|--------------|------------|------------------------------|------------------------|-----------------------|--------------------------|------------------------------------|--------------------------|
| WCNDL1-0-6 | 0-6 | 210 | 8.4 | ND | ND ⁴ | ND | ND |
| WCNDL1-6-12 | 6-12 | 190 | 1.7 | ND | ND | ND | ND |
| WCSDL1-0-6 | 0-6 | 1200 | 4.1 | ND | 0.074 | ND | ND |
| WCSDL1-6-12 | 6-12 | 390 | 2.2 | 0.22 | 0.034 | ND | ND |
| WCWDL1-0-6 | 0-6 | 900 | 10 | 0.69 | ND | ND | ND |
| WCWDL1-6-12 | 6-12 | 160 | 1.4 | 0.10 | ND | ND | ND |
| WCWDL2-0-6 | 0-6 | 1100 | 1.7 | ND | ND | ND | ND |
| WCWDL2-6-12 | 6-12 | 740 | 0.50 | 0.04 | ND | ND | ND |
| WCNMID2-8-14 | 8-14 | 3.3 | ND | ND | ND | ND | ND |
| WCSMID1-0-6 | 0-6 | 63 | 0.033 | ND | 0.00048 | ND | ND |
| WCSMID1-6-12 | 6-12 | 3.4 | ND | ND | ND | ND | ND |
| WCSMID2-0-6 | 0-6 | 110 | 0.28 | 0.029 | ND | ND | ND |
| WCSMID2-6-12 | 6-12 | 31 | ND | 0.0098 | ND | ND | ND |
| WCWMID1-0-6 | 0-6 | 400 | 1.0 | 0.16 | ND | ND | 0.025 |
| WCWMID1-6-12 | 6-12 | 890 | 1.1 | 0.11 | ND | ND | ND |
| WCWMID2-0-6 | 0-6 | 290 | 0.28 | 0.29 | 0.0065 | 0.0027 | ND |
| WCWMID2-6-12 | 6-12 | 300 | 0.11 | 0.011 | ND | ND | ND |
| WCSW-0-6 | 0-6 | 77 | 0.21 | 0.0029 | ND | 0.002 | ND |

Notes:

¹Concentrations in milligrams per kilogram (mg/kg)

²ESL = Environmental Screening Levels (RWQCB, May 2018); Concentrations in bold font greater than Tier 1 ESL

³[] = Tier I ESL

⁴Reporting limits are included in the laboratory report (Attachment 1)

Samples collected 0-6"

WCN – collected on the north side of building

WCS – collected on the south side of the building

NCW – collected on the west side of the building

WCSW – collected southwest of the building

Estimation of Soil Removal Quantity

The estimation is based on the following assumptions:

- n The vertical distributions of lead and pesticides to below their respective ESLs have not been defined;
- n Soil removal will not occur within the building footprint;
- n Soil removal will not occur on the east side of the building where asphalt or concrete extends from the building exterior to approximately the perimeter fence.
- n The limits of soil removal to the north, west, and east of the building shown on Exhibit 1 are defined by the building, concentrations near or below the ESLs, and concrete and asphalt at the ground surface (soil removal will not occur below asphalt or concrete);
- n Soil removal will not extend beyond the perimeter fence or within the fenced area at the southeast corner of the building for restricting basement access;
- n Soil removal will not occur in the extreme corners of the site because they are not adjacent to the building;
- n Volume adjustments associated with the sewer line or other subsurface utilities have not been attempted;
- n Soil removal area dimensions, depths, and bank cubic yards were estimated using the parameters in Table 2.

- n Specific Assumptions for Polygons (Exhibit 1)
 - o North –
 - § Area of lead and pesticide data from MWNDL1-0-6/-6-12 and WCNMID2-8-14 and the location of the concrete pathway were used to establish the boundaries along the northern building wall; and
 - § Maximum depth to concentrations less than ESLs – 3 ft.
 - o East – no excavation because asphalt extends from wall to approximate fence line.
 - o South-1 and -2
 - § Area of lead and pesticide data from WCSDL1-0-6/-6-12, and WCSMID2-6-12 were used to establish the boundaries along the southern portion of the building wall;
 - § Surface asphalt or concrete were observed at some scattered locations on the southern side of the building (e.g., adjacent to steps leading to the building); and
 - § Maximum depth to concentrations less than ESLs: South-1 – 3.5 ft/South-2 – 3 ft.
 - o West Southwest-1 and -2
 - § Area of lead and pesticide data from WCWDL2-0-6/-6-12, and WCWMID2-0-6/-6-12, and surface concrete and asphalt, were used

Soil Sampling and Analyses Report

White Cotton Cottage ■ Fairmont Hospital Campus
San Leandro, California ■ Terracon Project No. R1187878



- to establish the boundaries along the western portion of the building near the perimeter fence; and
- § Maximum depth to concentrations less than ESLs: Part 1 – 4 ft/Part 2 – 4.0 ft.
- West Northwest
 - § Area of lead and pesticide data from WCWDL1-0-6/6-12 and WCWMID1-0-6/6-12, surface concrete and asphalt near the perimeter fence, were used to establish the boundaries along the western portion of the building; and
 - § Maximum depth to concentrations less than Tier I ESLs: 4.0 ft.

Table 2 Area-Specific Calculations

| Area | Area to be Excavated (sq. ft) | Depth, (ft)* | Cubic Ft | Cubic Yards | Dimensions (ft) |
|-------------------|-------------------------------|--------------|-------------|-------------|-----------------|
| North | 240 | 3 | 720 | 27 | 40x6x3 |
| East | 0 | 0 | 0 | 0 | Not applicable |
| South-1 | 320 | 3.5 | 1120 | 41 | 40x8x3.5 |
| South-2 | 240 | 3 | 720 | 27 | 40x6x3 |
| West Southwest-1 | 360 | 4 | 1440 | 53 | 45x8x4 |
| West Southwest-2* | 180 | 4 | 720 | 17 | 45x4x4 |
| West Northwest | <u>320</u> | <u>4</u> | <u>1280</u> | <u>47</u> | 40x8x4 |
| Totals | 1340 | | 6000 | 222 | |

*Excludes 0.5 ft of overlying asphalt

sq. ft = square feet

Rounded to nearest whole quantities

SUMMARY

Lead, and the two pesticides Chlordane and Endosulfan I, are the most frequently detected constituents. Lead and Chlordane were detected in all dripline samples at concentrations above their respective ESLs of 80 mg/kg and 0.48 mg/kg. When detected, the concentrations of Endosulfan I, Dieldrin, Heptachlor Epoxide, were generally above their ESLs (Table 1). At most locations, the concentrations of lead and the four pesticides were highest in shallow samples. However, the lead concentration in midpoint sample WCWMID1-0-6 was 400 mg/kg (sample depth 0-6" bgs), which is lower than in the deeper sample WCWMID-6-12 (sample depth 6-12" bgs) at 890 mg/kg.

The mode of deposition for lead is most likely from deterioration and deposition of lead-based paint on the ground surface near the dripline. The higher levels of lead on the west side of the building is considered the result of greater sun exposure. The likely source of pesticides is surface application for the control of certain forms of plant or animal life.

The horizontal limits of the areas for soil removal are defined by the distribution of lead and pesticides, and the occurrence of asphalt and concrete in the northern, eastern, and western portions of the site. The horizontal limits shown on Exhibit 1 assume soil removal will not occur east side of the building and the presence of asphalt and concrete would limit deposition under those surfaces. Consequently, the areas shown for soil removal exclude those areas.

As noted above, the vertical distribution of lead and pesticides to below their respective ESLs has not been defined at all locations. The areas and depths of soil removal necessary to achieve ESLs was estimated assuming a maximum excavation depth of 4 ft below ground, as summarized on Table 1. These distances correspond to the approximate decreases with in lead and pesticide concentrations between dripline and midpoint samples.

We appreciate the opportunity to be of service to you on this project. In addition to these services, our professionals provide geotechnical, environmental, construction materials, and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at www.terracon.com. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Respectfully,
Terracon Consultants, Inc.

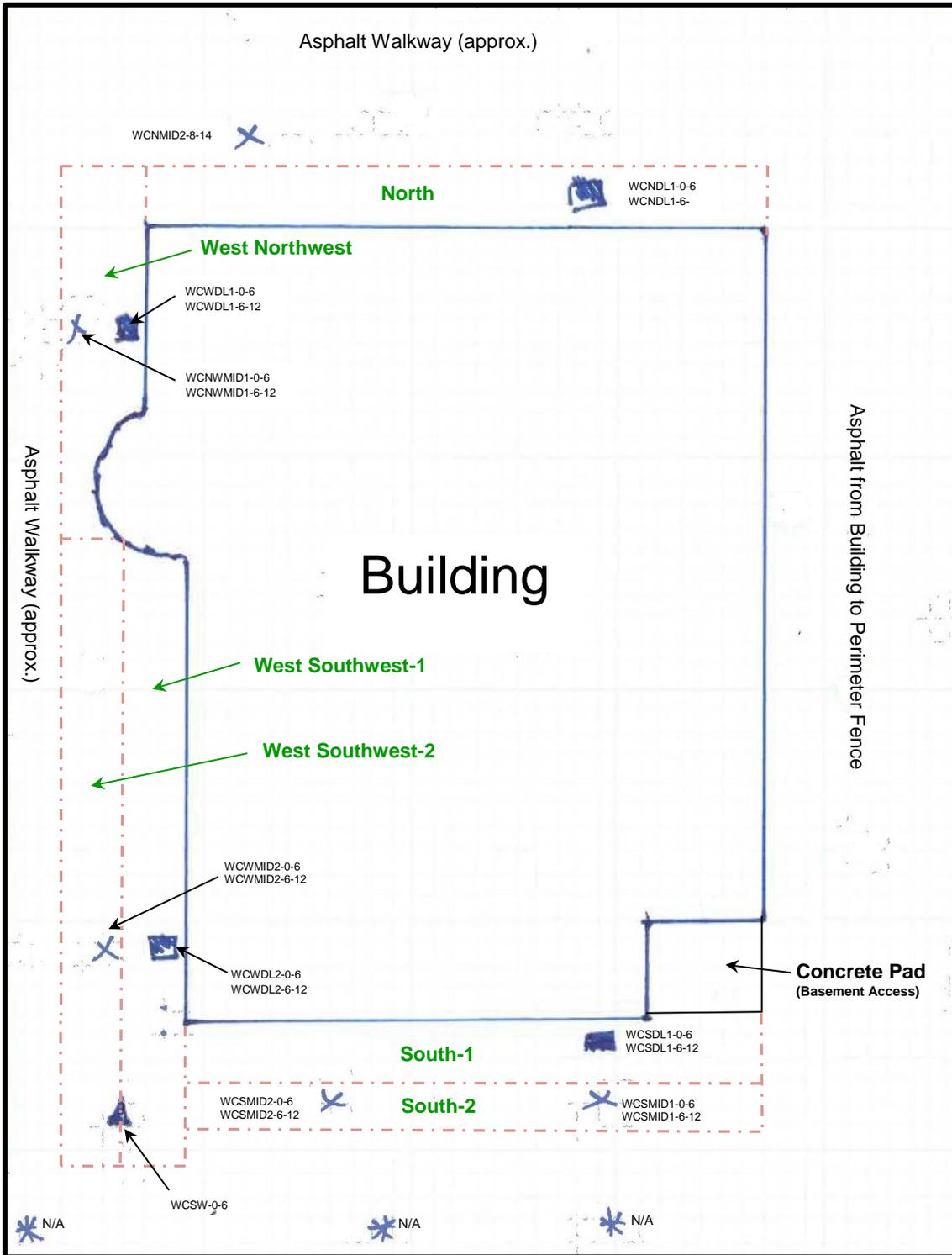


Stephen Farley, P.G. 4672
Senior Scientist



Steffen Steiner
Office Manager

Attachments
Exhibit 1 – Sampling Locations and Soil Removal Areas
Laboratory Report and Field Form



■ Dripline Sample
× Midpoint Sample
* Perimeter Sample
▲ Southwest Sample
 N/A – Not Analyzed

Note: Preliminary Excavation Areas are Approximate. See Table 2 for Dimensions

| | |
|------------------|-----|
| Project Manager: | SMF |
| Drawn by: | SMF |
| Checked by: | SS |
| Approved by: | SMF |

| | |
|-------------|-----------|
| Project No. | R1187858 |
| Scale: | 1 = 12 |
| File Name: | |
| Date: | 110/22/18 |

1466 66th St
 Emeryville, CA 94608-1014

Sampling Locations and Preliminary Excavation Areas
 White Cotton College
 Fairmont Hospital Campus

| |
|---------|
| Exhibit |
| 1 |



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1808E99

Report Created for: Terracon

1466 66th Street
Emeryville, CA 94608

Project Contact: Steve Farley

Project P.O.:

Project: White Cottage

Project Received: 08/31/2018

Analytical Report reviewed & approved for release on 09/10/2018 by:

Angela Rydelius
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

| | | | | |
|-------------------------|------------------|--|--------------|---------|
| Project Manager: SMF | Project No. |  1466 66th St Emeryville, CA 94608-1014 | SITE DIAGRAM | Exhibit |
| Drawn by: SMF | Scale: | | | 2 |
| Checked by: SS | File Name: -- | | | |
| Approved by: SMF | Date: | | | |



Glossary of Terms & Qualifier Definitions

Client: Terracon
Project: White Cottage
WorkOrder: 1808E99

Glossary Abbreviation

| | |
|--------------|--|
| 95% Interval | 95% Confident Interval |
| c | Serial Dilution Percent Difference |
| DF | Dilution Factor |
| DI WET | (DISTLC) Waste Extraction Test using DI water |
| DISS | Dissolved (direct analysis of 0.45 µm filtered and acidified water sample) |
| DLT | Dilution Test (Serial Dilution) |
| DUP | Duplicate |
| EDL | Estimated Detection Limit |
| ERS | External reference sample. Second source calibration verification. |
| ITEF | International Toxicity Equivalence Factor |
| LCS | Laboratory Control Sample |
| MB | Method Blank |
| MB % Rec | % Recovery of Surrogate in Method Blank, if applicable |
| MDL | Method Detection Limit |
| ML | Minimum Level of Quantitation |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| N/A | Not Applicable |
| ND | Not detected at or above the indicated MDL or RL |
| NR | Data Not Reported due to matrix interference or insufficient sample amount. |
| PDS | Post Digestion Spike |
| PDSD | Post Digestion Spike Duplicate |
| PF | Prep Factor |
| RD | Relative Difference |
| RL | Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.) |
| RPD | Relative Percent Deviation |
| RRT | Relative Retention Time |
| SPK Val | Spike Value |
| SPKRef Val | Spike Reference Value |
| SPLP | Synthetic Precipitation Leachate Procedure |
| ST | Sorbent Tube |
| TCLP | Toxicity Characteristic Leachate Procedure |
| TEQ | Toxicity Equivalents |
| WET (STLC) | Waste Extraction Test (Soluble Threshold Limit Concentration) |



Glossary of Terms & Qualifier Definitions

Client: Terracon
Project: White Cottage
WorkOrder: 1808E99

Analytical Qualifiers

P Agreement between quantitative confirmation results exceed method recommended limits
S Surrogate spike recovery outside accepted recovery limits
a1 Sample diluted due to matrix interference
a2 Sample diluted due to cluttered chromatogram
c1 Surrogate recovery outside of the control limits due to the dilution of the sample.

Quality Control Qualifiers

F13 Indigenous sample results too high for a representative matrix spike analysis.



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------|--------------|--------|------------------|-----------------|----------|
| WCNDL1-0-6 | 1808E99-001A | Soil | 08/29/2018 09:22 | GC40 09091861.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|-------------|------------|------|-------|------------------|
| Aldrin | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| a-BHC | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| b-BHC | ND | | 0.30 | 1,000 | 09/09/2018 23:46 |
| d-BHC | ND | | 0.20 | 1,000 | 09/09/2018 23:46 |
| g-BHC | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Chlordane (Technical) | 8.4 | | 2.5 | 1,000 | 09/09/2018 23:46 |
| a-Chlordane | 0.75 | | 0.10 | 1,000 | 09/09/2018 23:46 |
| g-Chlordane | 0.83 | | 0.10 | 1,000 | 09/09/2018 23:46 |
| p,p-DDD | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| p,p-DDE | 0.23 | | 0.10 | 1,000 | 09/09/2018 23:46 |
| p,p-DDT | 0.15 | P | 0.10 | 1,000 | 09/09/2018 23:46 |
| Dieldrin | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Endosulfan I | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Endosulfan II | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Endosulfan sulfate | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Endrin | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Endrin aldehyde | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Endrin ketone | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Heptachlor | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Heptachlor epoxide | ND | | 0.10 | 1,000 | 09/09/2018 23:46 |
| Hexachlorobenzene | ND | | 1.0 | 1,000 | 09/09/2018 23:46 |
| Hexachlorocyclopentadiene | ND | | 2.0 | 1,000 | 09/09/2018 23:46 |
| Methoxychlor | ND | | 0.20 | 1,000 | 09/09/2018 23:46 |
| Toxaphene | ND | | 5.0 | 1,000 | 09/09/2018 23:46 |

| Surrogates | REC (%) | Qualifiers | Limits | |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 690 | S | 20-145 | 09/09/2018 23:46 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-----------------|----------|
| WCNDL1-6-12 | 1808E99-002A | Soil | 08/29/2018 09:22 | GC40 09091862.d | 164427 |

| Analytes | Result | RL | DF | Date Analyzed |
|---------------------------|--------------|-------|-----|------------------|
| Aldrin | ND | 0.020 | 200 | 09/09/2018 23:59 |
| a-BHC | ND | 0.020 | 200 | 09/09/2018 23:59 |
| b-BHC | ND | 0.060 | 200 | 09/09/2018 23:59 |
| d-BHC | ND | 0.040 | 200 | 09/09/2018 23:59 |
| g-BHC | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Chlordane (Technical) | 1.7 | 0.50 | 200 | 09/09/2018 23:59 |
| a-Chlordane | 0.16 | 0.020 | 200 | 09/09/2018 23:59 |
| g-Chlordane | 0.17 | 0.020 | 200 | 09/09/2018 23:59 |
| p,p-DDD | ND | 0.020 | 200 | 09/09/2018 23:59 |
| p,p-DDE | ND | 0.020 | 200 | 09/09/2018 23:59 |
| p,p-DDT | 0.024 | 0.020 | 200 | 09/09/2018 23:59 |
| Dieldrin | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Endosulfan I | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Endosulfan II | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Endosulfan sulfate | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Endrin | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Endrin aldehyde | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Endrin ketone | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Heptachlor | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Heptachlor epoxide | ND | 0.020 | 200 | 09/09/2018 23:59 |
| Hexachlorobenzene | ND | 0.20 | 200 | 09/09/2018 23:59 |
| Hexachlorocyclopentadiene | ND | 0.40 | 200 | 09/09/2018 23:59 |
| Methoxychlor | ND | 0.040 | 200 | 09/09/2018 23:59 |
| Toxaphene | ND | 1.0 | 200 | 09/09/2018 23:59 |

| Surrogates | REC (%) | Qualifiers | Limits | |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 185 | S | 20-145 | 09/09/2018 23:59 |

Analyst(s): KX

Analytical Comments: a1,a2,c1



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------|--------------|--------|------------------|-----------------|----------|
| WCSDL1-0-6 | 1808E99-003A | Soil | 08/29/2018 11:15 | GC40 09091863.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|--------------|------------|-------|-----|------------------|
| Aldrin | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| a-BHC | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| b-BHC | ND | | 0.15 | 500 | 09/10/2018 00:13 |
| d-BHC | ND | | 0.10 | 500 | 09/10/2018 00:13 |
| g-BHC | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Chlordane (Technical) | 4.1 | | 1.2 | 500 | 09/10/2018 00:13 |
| a-Chlordane | 0.41 | | 0.050 | 500 | 09/10/2018 00:13 |
| g-Chlordane | 0.35 | P | 0.050 | 500 | 09/10/2018 00:13 |
| p,p-DDD | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| p,p-DDE | 0.35 | | 0.050 | 500 | 09/10/2018 00:13 |
| p,p-DDT | 0.35 | | 0.050 | 500 | 09/10/2018 00:13 |
| Dieldrin | 0.074 | | 0.050 | 500 | 09/10/2018 00:13 |
| Endosulfan I | 0.43 | P | 0.050 | 500 | 09/10/2018 00:13 |
| Endosulfan II | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Endosulfan sulfate | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Endrin | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Endrin aldehyde | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Endrin ketone | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Heptachlor | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Heptachlor epoxide | ND | | 0.050 | 500 | 09/10/2018 00:13 |
| Hexachlorobenzene | ND | | 0.50 | 500 | 09/10/2018 00:13 |
| Hexachlorocyclopentadiene | ND | | 1.0 | 500 | 09/10/2018 00:13 |
| Methoxychlor | ND | | 0.10 | 500 | 09/10/2018 00:13 |
| Toxaphene | ND | | 2.5 | 500 | 09/10/2018 00:13 |

| Surrogates | REC (%) | Qualifiers | Limits | Date Analyzed |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 398 | S | 20-145 | 09/10/2018 00:13 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-----------------|----------|
| WCSDL1-6-12 | 1808E99-004A | Soil | 08/29/2018 11:20 | GC40 09091864.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|--------------|------------|-------|-----|------------------|
| Aldrin | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| a-BHC | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| b-BHC | ND | | 0.060 | 200 | 09/10/2018 00:27 |
| d-BHC | ND | | 0.040 | 200 | 09/10/2018 00:27 |
| g-BHC | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Chlordane (Technical) | 2.2 | | 0.50 | 200 | 09/10/2018 00:27 |
| a-Chlordane | 0.21 | | 0.020 | 200 | 09/10/2018 00:27 |
| g-Chlordane | 0.18 | P | 0.020 | 200 | 09/10/2018 00:27 |
| p,p-DDD | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| p,p-DDE | 0.20 | | 0.020 | 200 | 09/10/2018 00:27 |
| p,p-DDT | 0.17 | | 0.020 | 200 | 09/10/2018 00:27 |
| Dieldrin | 0.034 | | 0.020 | 200 | 09/10/2018 00:27 |
| Endosulfan I | 0.22 | P | 0.020 | 200 | 09/10/2018 00:27 |
| Endosulfan II | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Endosulfan sulfate | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Endrin | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Endrin aldehyde | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Endrin ketone | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Heptachlor | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Heptachlor epoxide | ND | | 0.020 | 200 | 09/10/2018 00:27 |
| Hexachlorobenzene | ND | | 0.20 | 200 | 09/10/2018 00:27 |
| Hexachlorocyclopentadiene | ND | | 0.40 | 200 | 09/10/2018 00:27 |
| Methoxychlor | ND | | 0.040 | 200 | 09/10/2018 00:27 |
| Toxaphene | ND | | 1.0 | 200 | 09/10/2018 00:27 |

| Surrogates | REC (%) | Qualifiers | Limits | |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 210 | S | 20-145 | 09/10/2018 00:27 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------|--------------|--------|------------------|-----------------|----------|
| WCWDL1-0-6 | 1808E99-005A | Soil | 08/29/2018 10:33 | GC40 09091871.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|--------------|------------|-------|-----|------------------|
| Aldrin | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| a-BHC | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| b-BHC | ND | | 0.15 | 500 | 09/10/2018 02:05 |
| d-BHC | ND | | 0.10 | 500 | 09/10/2018 02:05 |
| g-BHC | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Chlordane (Technical) | 10 | | 1.2 | 500 | 09/10/2018 02:05 |
| a-Chlordane | 1.0 | | 0.050 | 500 | 09/10/2018 02:05 |
| g-Chlordane | 1.0 | | 0.050 | 500 | 09/10/2018 02:05 |
| p,p-DDD | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| p,p-DDE | 0.067 | | 0.050 | 500 | 09/10/2018 02:05 |
| p,p-DDT | 0.25 | | 0.050 | 500 | 09/10/2018 02:05 |
| Dieldrin | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Endosulfan I | 0.69 | P | 0.050 | 500 | 09/10/2018 02:05 |
| Endosulfan II | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Endosulfan sulfate | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Endrin | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Endrin aldehyde | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Endrin ketone | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Heptachlor | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Heptachlor epoxide | ND | | 0.050 | 500 | 09/10/2018 02:05 |
| Hexachlorobenzene | ND | | 0.50 | 500 | 09/10/2018 02:05 |
| Hexachlorocyclopentadiene | ND | | 1.0 | 500 | 09/10/2018 02:05 |
| Methoxychlor | ND | | 0.10 | 500 | 09/10/2018 02:05 |
| Toxaphene | ND | | 2.5 | 500 | 09/10/2018 02:05 |

| Surrogates | REC (%) | Qualifiers | Limits | |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 995 | S | 20-145 | 09/10/2018 02:05 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-----------------|----------|
| WCWDL1-6-12 | 1808E99-006A | Soil | 08/29/2018 10:36 | GC40 09091872.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|--------------|------------|-------|-----|------------------|
| Aldrin | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| a-BHC | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| b-BHC | ND | | 0.060 | 200 | 09/10/2018 02:19 |
| d-BHC | ND | | 0.040 | 200 | 09/10/2018 02:19 |
| g-BHC | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Chlordane (Technical) | 1.4 | | 0.50 | 200 | 09/10/2018 02:19 |
| a-Chlordane | 0.13 | | 0.020 | 200 | 09/10/2018 02:19 |
| g-Chlordane | 0.13 | | 0.020 | 200 | 09/10/2018 02:19 |
| p,p-DDD | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| p,p-DDE | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| p,p-DDT | 0.038 | | 0.020 | 200 | 09/10/2018 02:19 |
| Dieldrin | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Endosulfan I | 0.10 | P | 0.020 | 200 | 09/10/2018 02:19 |
| Endosulfan II | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Endosulfan sulfate | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Endrin | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Endrin aldehyde | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Endrin ketone | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Heptachlor | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Heptachlor epoxide | ND | | 0.020 | 200 | 09/10/2018 02:19 |
| Hexachlorobenzene | ND | | 0.20 | 200 | 09/10/2018 02:19 |
| Hexachlorocyclopentadiene | ND | | 0.40 | 200 | 09/10/2018 02:19 |
| Methoxychlor | ND | | 0.040 | 200 | 09/10/2018 02:19 |
| Toxaphene | ND | | 1.0 | 200 | 09/10/2018 02:19 |

| Surrogates | REC (%) | Qualifiers | Limits | |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 187 | S | 20-145 | 09/10/2018 02:19 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------|--------------|--------|------------------|-----------------|----------|
| WCWDL2-0-6 | 1808E99-007A | Soil | 08/29/2018 10:53 | GC40 09091873.d | 164427 |

| Analytes | Result | RL | DF | Date Analyzed |
|---------------------------|--------------|-------|-----|------------------|
| Aldrin | ND | 0.020 | 200 | 09/10/2018 02:33 |
| a-BHC | ND | 0.020 | 200 | 09/10/2018 02:33 |
| b-BHC | ND | 0.060 | 200 | 09/10/2018 02:33 |
| d-BHC | ND | 0.040 | 200 | 09/10/2018 02:33 |
| g-BHC | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Chlordane (Technical) | 1.7 | 0.50 | 200 | 09/10/2018 02:33 |
| a-Chlordane | 0.17 | 0.020 | 200 | 09/10/2018 02:33 |
| g-Chlordane | 0.15 | 0.020 | 200 | 09/10/2018 02:33 |
| p,p-DDD | ND | 0.020 | 200 | 09/10/2018 02:33 |
| p,p-DDE | ND | 0.020 | 200 | 09/10/2018 02:33 |
| p,p-DDT | 0.034 | 0.020 | 200 | 09/10/2018 02:33 |
| Dieldrin | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Endosulfan I | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Endosulfan II | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Endosulfan sulfate | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Endrin | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Endrin aldehyde | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Endrin ketone | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Heptachlor | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Heptachlor epoxide | ND | 0.020 | 200 | 09/10/2018 02:33 |
| Hexachlorobenzene | ND | 0.20 | 200 | 09/10/2018 02:33 |
| Hexachlorocyclopentadiene | ND | 0.40 | 200 | 09/10/2018 02:33 |
| Methoxychlor | ND | 0.040 | 200 | 09/10/2018 02:33 |
| Toxaphene | ND | 1.0 | 200 | 09/10/2018 02:33 |

| Surrogates | REC (%) | Qualifiers | Limits | |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 234 | S | 20-145 | 09/10/2018 02:33 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-----------------|----------|
| WCWDL2-6-12 | 1808E99-008A | Soil | 08/29/2018 10:53 | GC40 09091874.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|---------------|------------|--------|----|------------------|
| Aldrin | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| a-BHC | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| b-BHC | ND | | 0.015 | 50 | 09/10/2018 02:47 |
| d-BHC | ND | | 0.010 | 50 | 09/10/2018 02:47 |
| g-BHC | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Chlordane (Technical) | 0.50 | | 0.12 | 50 | 09/10/2018 02:47 |
| a-Chlordane | 0.049 | | 0.0050 | 50 | 09/10/2018 02:47 |
| g-Chlordane | 0.046 | | 0.0050 | 50 | 09/10/2018 02:47 |
| p,p-DDD | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| p,p-DDE | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| p,p-DDT | 0.0088 | | 0.0050 | 50 | 09/10/2018 02:47 |
| Dieldrin | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Endosulfan I | 0.040 | P | 0.0050 | 50 | 09/10/2018 02:47 |
| Endosulfan II | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Endosulfan sulfate | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Endrin | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Endrin aldehyde | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Endrin ketone | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Heptachlor | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Heptachlor epoxide | ND | | 0.0050 | 50 | 09/10/2018 02:47 |
| Hexachlorobenzene | ND | | 0.050 | 50 | 09/10/2018 02:47 |
| Hexachlorocyclopentadiene | ND | | 0.10 | 50 | 09/10/2018 02:47 |
| Methoxychlor | ND | | 0.010 | 50 | 09/10/2018 02:47 |
| Toxaphene | ND | | 0.25 | 50 | 09/10/2018 02:47 |

| Surrogates | REC (%) | Limits | |
|--------------------|---------|--------|------------------|
| Decachlorobiphenyl | 136 | 20-145 | 09/10/2018 02:47 |

Analyst(s): KX

Analytical Comments: a1,a2

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|---------------------------|----------------|------------|------------------|-----------------|------------------|
| WCNMID2-8-14 | 1808E99-009A | Soil | 08/29/2018 09:48 | GC40 09071829.d | 164427 |
| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
| Aldrin | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| a-BHC | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| b-BHC | ND | | 0.00030 | 1 | 09/07/2018 23:21 |
| d-BHC | ND | | 0.00020 | 1 | 09/07/2018 23:21 |
| g-BHC | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Chlordane (Technical) | ND | | 0.0025 | 1 | 09/07/2018 23:21 |
| a-Chlordane | 0.00012 | | 0.00010 | 1 | 09/07/2018 23:21 |
| g-Chlordane | 0.00013 | P | 0.00010 | 1 | 09/07/2018 23:21 |
| p,p-DDD | 0.00032 | | 0.00010 | 1 | 09/07/2018 23:21 |
| p,p-DDE | 0.00013 | | 0.00010 | 1 | 09/07/2018 23:21 |
| p,p-DDT | 0.0014 | | 0.00010 | 1 | 09/07/2018 23:21 |
| Dieldrin | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Endosulfan I | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Endosulfan II | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Endosulfan sulfate | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Endrin | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Endrin aldehyde | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Endrin ketone | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Heptachlor | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Heptachlor epoxide | ND | | 0.00010 | 1 | 09/07/2018 23:21 |
| Hexachlorobenzene | ND | | 0.0010 | 1 | 09/07/2018 23:21 |
| Hexachlorocyclopentadiene | ND | | 0.0020 | 1 | 09/07/2018 23:21 |
| Methoxychlor | ND | | 0.00020 | 1 | 09/07/2018 23:21 |
| Toxaphene | ND | | 0.0050 | 1 | 09/07/2018 23:21 |
| Surrogates | REC (%) | | Limits | | |
| Decachlorobiphenyl | 81 | | 20-145 | | 09/07/2018 23:21 |
| Analyst(s): KX | | | | | |

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-----------------|----------|
| WCSMID1-0-6 | 1808E99-010A | Soil | 08/29/2018 11:35 | GC40 09071830.d | 164427 |

| Analytes | Result | RL | DF | Date Analyzed |
|---------------------------|----------------|---------|----|------------------|
| Aldrin | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| a-BHC | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| b-BHC | ND | 0.00030 | 1 | 09/07/2018 23:34 |
| d-BHC | ND | 0.00020 | 1 | 09/07/2018 23:34 |
| g-BHC | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Chlordane (Technical) | 0.033 | 0.0025 | 1 | 09/07/2018 23:34 |
| a-Chlordane | 0.0027 | 0.00010 | 1 | 09/07/2018 23:34 |
| g-Chlordane | 0.0036 | 0.00010 | 1 | 09/07/2018 23:34 |
| p,p-DDD | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| p,p-DDE | 0.014 | 0.00010 | 1 | 09/07/2018 23:34 |
| p,p-DDT | 0.013 | 0.00010 | 1 | 09/07/2018 23:34 |
| Dieldrin | 0.00048 | 0.00010 | 1 | 09/07/2018 23:34 |
| Endosulfan I | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Endosulfan II | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Endosulfan sulfate | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Endrin | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Endrin aldehyde | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Endrin ketone | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Heptachlor | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Heptachlor epoxide | ND | 0.00010 | 1 | 09/07/2018 23:34 |
| Hexachlorobenzene | ND | 0.0010 | 1 | 09/07/2018 23:34 |
| Hexachlorocyclopentadiene | ND | 0.0020 | 1 | 09/07/2018 23:34 |
| Methoxychlor | ND | 0.00020 | 1 | 09/07/2018 23:34 |
| Toxaphene | ND | 0.0050 | 1 | 09/07/2018 23:34 |

| Surrogates | REC (%) | Limits | |
|--------------------|---------|--------|------------------|
| Decachlorobiphenyl | 106 | 20-145 | 09/07/2018 23:34 |

Analyst(s): KX

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|---------------------------|----------------|--------|------------------|-----------------|----------------------|
| WCSMID1-6-12 | 1808E99-011A | Soil | 08/29/2018 11:40 | GC40 09071831.d | 164427 |
| <u>Analytes</u> | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Aldrin | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| a-BHC | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| b-BHC | ND | | 0.00030 | 1 | 09/07/2018 23:49 |
| d-BHC | ND | | 0.00020 | 1 | 09/07/2018 23:49 |
| g-BHC | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Chlordane (Technical) | ND | | 0.0025 | 1 | 09/07/2018 23:49 |
| a-Chlordane | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| g-Chlordane | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| p,p-DDD | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| p,p-DDE | 0.00057 | | 0.00010 | 1 | 09/07/2018 23:49 |
| p,p-DDT | 0.00052 | | 0.00010 | 1 | 09/07/2018 23:49 |
| Dieldrin | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Endosulfan I | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Endosulfan II | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Endosulfan sulfate | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Endrin | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Endrin aldehyde | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Endrin ketone | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Heptachlor | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Heptachlor epoxide | ND | | 0.00010 | 1 | 09/07/2018 23:49 |
| Hexachlorobenzene | ND | | 0.0010 | 1 | 09/07/2018 23:49 |
| Hexachlorocyclopentadiene | ND | | 0.0020 | 1 | 09/07/2018 23:49 |
| Methoxychlor | ND | | 0.00020 | 1 | 09/07/2018 23:49 |
| Toxaphene | ND | | 0.0050 | 1 | 09/07/2018 23:49 |
| <u>Surrogates</u> | <u>REC (%)</u> | | <u>Limits</u> | | |
| Decachlorobiphenyl | 101 | | 20-145 | | 09/07/2018 23:49 |
| <u>Analyst(s):</u> KX | | | | | |

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|--------------|--------------|--------|------------------|-----------------|----------|
| WCSDMID2-0-6 | 1808E99-012A | Soil | 08/29/2018 14:30 | GC40 09091875.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|---------------|------------|--------|----|------------------|
| Aldrin | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| a-BHC | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| b-BHC | ND | | 0.015 | 50 | 09/10/2018 03:01 |
| d-BHC | ND | | 0.010 | 50 | 09/10/2018 03:01 |
| g-BHC | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Chlordane (Technical) | 0.28 | | 0.12 | 50 | 09/10/2018 03:01 |
| a-Chlordane | 0.023 | | 0.0050 | 50 | 09/10/2018 03:01 |
| g-Chlordane | 0.015 | P | 0.0050 | 50 | 09/10/2018 03:01 |
| p,p-DDD | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| p,p-DDE | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| p,p-DDT | 0.0068 | | 0.0050 | 50 | 09/10/2018 03:01 |
| Dieldrin | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Endosulfan I | 0.029 | P | 0.0050 | 50 | 09/10/2018 03:01 |
| Endosulfan II | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Endosulfan sulfate | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Endrin | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Endrin aldehyde | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Endrin ketone | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Heptachlor | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Heptachlor epoxide | ND | | 0.0050 | 50 | 09/10/2018 03:01 |
| Hexachlorobenzene | ND | | 0.050 | 50 | 09/10/2018 03:01 |
| Hexachlorocyclopentadiene | ND | | 0.10 | 50 | 09/10/2018 03:01 |
| Methoxychlor | ND | | 0.010 | 50 | 09/10/2018 03:01 |
| Toxaphene | ND | | 0.25 | 50 | 09/10/2018 03:01 |

| Surrogates | REC (%) | Limits | |
|--------------------|---------|--------|------------------|
| Decachlorobiphenyl | 133 | 20-145 | 09/10/2018 03:01 |

Analyst(s): KX

Analytical Comments: a1,a2

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|--------------|--------------|--------|------------------|-----------------|----------|
| WCMSID2-6-12 | 1808E99-013A | Soil | 08/29/2018 14:33 | GC40 09091876.d | 164427 |

| Analytes | Result | RL | DF | Date Analyzed |
|---------------------------|---------------|--------|----|------------------|
| Aldrin | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| a-BHC | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| b-BHC | ND | 0.015 | 50 | 09/10/2018 03:15 |
| d-BHC | ND | 0.010 | 50 | 09/10/2018 03:15 |
| g-BHC | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Chlordane (Technical) | ND | 0.12 | 50 | 09/10/2018 03:15 |
| a-Chlordane | 0.0073 | 0.0050 | 50 | 09/10/2018 03:15 |
| g-Chlordane | 0.0080 | 0.0050 | 50 | 09/10/2018 03:15 |
| p,p-DDD | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| p,p-DDE | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| p,p-DDT | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Dieldrin | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Endosulfan I | 0.0098 | 0.0050 | 50 | 09/10/2018 03:15 |
| Endosulfan II | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Endosulfan sulfate | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Endrin | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Endrin aldehyde | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Endrin ketone | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Heptachlor | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Heptachlor epoxide | ND | 0.0050 | 50 | 09/10/2018 03:15 |
| Hexachlorobenzene | ND | 0.050 | 50 | 09/10/2018 03:15 |
| Hexachlorocyclopentadiene | ND | 0.10 | 50 | 09/10/2018 03:15 |
| Methoxychlor | ND | 0.010 | 50 | 09/10/2018 03:15 |
| Toxaphene | ND | 0.25 | 50 | 09/10/2018 03:15 |

| Surrogates | REC (%) | Limits | |
|--------------------|---------|--------|------------------|
| Decachlorobiphenyl | 124 | 20-145 | 09/10/2018 03:15 |

Analyst(s): KX

Analytical Comments: a1,a2

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-----------------|----------|
| WCWMID1-0-6 | 1808E99-014A | Soil | 08/29/2018 10:43 | GC40 09091877.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|--------------|------------|-------|-----|------------------|
| Aldrin | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| a-BHC | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| b-BHC | ND | | 0.030 | 100 | 09/10/2018 03:29 |
| d-BHC | ND | | 0.020 | 100 | 09/10/2018 03:29 |
| g-BHC | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Chlordane (Technical) | 1.8 | | 0.25 | 100 | 09/10/2018 03:29 |
| a-Chlordane | 0.17 | | 0.010 | 100 | 09/10/2018 03:29 |
| g-Chlordane | 0.16 | | 0.010 | 100 | 09/10/2018 03:29 |
| p,p-DDD | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| p,p-DDE | 0.092 | | 0.010 | 100 | 09/10/2018 03:29 |
| p,p-DDT | 0.14 | | 0.010 | 100 | 09/10/2018 03:29 |
| Dieldrin | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Endosulfan I | 0.16 | P | 0.010 | 100 | 09/10/2018 03:29 |
| Endosulfan II | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Endosulfan sulfate | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Endrin | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Endrin aldehyde | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Endrin ketone | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Heptachlor | ND | | 0.010 | 100 | 09/10/2018 03:29 |
| Heptachlor epoxide | 0.010 | | 0.010 | 100 | 09/10/2018 03:29 |
| Hexachlorobenzene | ND | | 0.10 | 100 | 09/10/2018 03:29 |
| Hexachlorocyclopentadiene | ND | | 0.20 | 100 | 09/10/2018 03:29 |
| Methoxychlor | 0.025 | | 0.020 | 100 | 09/10/2018 03:29 |
| Toxaphene | ND | | 0.50 | 100 | 09/10/2018 03:29 |

| Surrogates | REC (%) | Qualifiers | Limits | |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 223 | S | 20-145 | 09/10/2018 03:29 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|--------------|--------------|--------|------------------|-----------------|----------|
| WCWMID1-6-12 | 1808E99-015A | Soil | 08/29/2018 10:43 | GC40 09091878.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|-------------|------------|-------|-----|------------------|
| Aldrin | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| a-BHC | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| b-BHC | ND | | 0.030 | 100 | 09/10/2018 03:43 |
| d-BHC | ND | | 0.020 | 100 | 09/10/2018 03:43 |
| g-BHC | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Chlordane (Technical) | 1.1 | | 0.25 | 100 | 09/10/2018 03:43 |
| a-Chlordane | 0.11 | | 0.010 | 100 | 09/10/2018 03:43 |
| g-Chlordane | 0.10 | | 0.010 | 100 | 09/10/2018 03:43 |
| p,p-DDD | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| p,p-DDE | 0.12 | | 0.010 | 100 | 09/10/2018 03:43 |
| p,p-DDT | 0.11 | | 0.010 | 100 | 09/10/2018 03:43 |
| Dieldrin | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Endosulfan I | 0.11 | P | 0.010 | 100 | 09/10/2018 03:43 |
| Endosulfan II | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Endosulfan sulfate | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Endrin | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Endrin aldehyde | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Endrin ketone | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Heptachlor | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Heptachlor epoxide | ND | | 0.010 | 100 | 09/10/2018 03:43 |
| Hexachlorobenzene | ND | | 0.10 | 100 | 09/10/2018 03:43 |
| Hexachlorocyclopentadiene | ND | | 0.20 | 100 | 09/10/2018 03:43 |
| Methoxychlor | ND | | 0.020 | 100 | 09/10/2018 03:43 |
| Toxaphene | ND | | 0.50 | 100 | 09/10/2018 03:43 |

| Surrogates | REC (%) | Qualifiers | Limits | Date Analyzed |
|--------------------|---------|------------|--------|------------------|
| Decachlorobiphenyl | 178 | S | 20-145 | 09/10/2018 03:43 |

Analyst(s): KX

Analytical Comments: a1,a2,c1

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-----------------|----------|
| WCWMID2-0-6 | 1808E99-016A | Soil | 08/29/2018 11:00 | GC40 09091879.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|---------------|------------|--------|----|------------------|
| Aldrin | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| a-BHC | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| b-BHC | ND | | 0.0060 | 20 | 09/10/2018 03:57 |
| d-BHC | ND | | 0.0040 | 20 | 09/10/2018 03:57 |
| g-BHC | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| Chlordane (Technical) | 0.28 | | 0.050 | 20 | 09/10/2018 03:57 |
| a-Chlordane | 0.029 | | 0.0020 | 20 | 09/10/2018 03:57 |
| g-Chlordane | 0.023 | | 0.0020 | 20 | 09/10/2018 03:57 |
| p,p-DDD | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| p,p-DDE | 0.063 | | 0.0020 | 20 | 09/10/2018 03:57 |
| p,p-DDT | 0.10 | | 0.0020 | 20 | 09/10/2018 03:57 |
| Dieldrin | 0.0065 | | 0.0020 | 20 | 09/10/2018 03:57 |
| Endosulfan I | 0.029 | P | 0.0020 | 20 | 09/10/2018 03:57 |
| Endosulfan II | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| Endosulfan sulfate | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| Endrin | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| Endrin aldehyde | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| Endrin ketone | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| Heptachlor | ND | | 0.0020 | 20 | 09/10/2018 03:57 |
| Heptachlor epoxide | 0.0027 | | 0.0020 | 20 | 09/10/2018 03:57 |
| Hexachlorobenzene | ND | | 0.020 | 20 | 09/10/2018 03:57 |
| Hexachlorocyclopentadiene | ND | | 0.040 | 20 | 09/10/2018 03:57 |
| Methoxychlor | ND | | 0.0040 | 20 | 09/10/2018 03:57 |
| Toxaphene | ND | | 0.10 | 20 | 09/10/2018 03:57 |

| Surrogates | REC (%) | Limits | Date Analyzed |
|--------------------|---------|--------|------------------|
| Decachlorobiphenyl | 114 | 20-145 | 09/10/2018 03:57 |

Analyst(s): KX

Analytical Comments: a1,a2



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|--------------|--------------|--------|------------------|-----------------|----------|
| WCWMID2-6-12 | 1808E99-017A | Soil | 08/29/2018 11:00 | GC40 09091880.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|---------------|------------|--------|----|------------------|
| Aldrin | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| a-BHC | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| b-BHC | ND | | 0.0060 | 20 | 09/10/2018 04:11 |
| d-BHC | ND | | 0.0040 | 20 | 09/10/2018 04:11 |
| g-BHC | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Chlordane (Technical) | 0.11 | | 0.050 | 20 | 09/10/2018 04:11 |
| a-Chlordane | 0.010 | | 0.0020 | 20 | 09/10/2018 04:11 |
| g-Chlordane | 0.0084 | P | 0.0020 | 20 | 09/10/2018 04:11 |
| p,p-DDD | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| p,p-DDE | 0.034 | | 0.0020 | 20 | 09/10/2018 04:11 |
| p,p-DDT | 0.045 | | 0.0020 | 20 | 09/10/2018 04:11 |
| Dieldrin | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Endosulfan I | 0.011 | P | 0.0020 | 20 | 09/10/2018 04:11 |
| Endosulfan II | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Endosulfan sulfate | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Endrin | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Endrin aldehyde | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Endrin ketone | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Heptachlor | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Heptachlor epoxide | ND | | 0.0020 | 20 | 09/10/2018 04:11 |
| Hexachlorobenzene | ND | | 0.020 | 20 | 09/10/2018 04:11 |
| Hexachlorocyclopentadiene | ND | | 0.040 | 20 | 09/10/2018 04:11 |
| Methoxychlor | ND | | 0.0040 | 20 | 09/10/2018 04:11 |
| Toxaphene | ND | | 0.10 | 20 | 09/10/2018 04:11 |

| Surrogates | REC (%) | Limits | |
|--------------------|---------|--------|------------------|
| Decachlorobiphenyl | 103 | 20-145 | 09/10/2018 04:11 |

Analyst(s): KX

Analytical Comments: a1,a2

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 9/5/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-----------|--------------|--------|------------------|-----------------|----------|
| WCSW-0-6 | 1808E99-018A | Soil | 08/29/2018 11:08 | GC40 09091887.d | 164427 |

| Analytes | Result | Qualifiers | RL | DF | Date Analyzed |
|---------------------------|---------------|------------|--------|----|------------------|
| Aldrin | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| a-BHC | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| b-BHC | ND | | 0.0060 | 20 | 09/10/2018 05:49 |
| d-BHC | ND | | 0.0040 | 20 | 09/10/2018 05:49 |
| g-BHC | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Chlordane (Technical) | 0.21 | | 0.050 | 20 | 09/10/2018 05:49 |
| a-Chlordane | 0.022 | | 0.0020 | 20 | 09/10/2018 05:49 |
| g-Chlordane | 0.019 | P | 0.0020 | 20 | 09/10/2018 05:49 |
| p,p-DDD | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| p,p-DDE | 0.017 | | 0.0020 | 20 | 09/10/2018 05:49 |
| p,p-DDT | 0.036 | | 0.0020 | 20 | 09/10/2018 05:49 |
| Dieldrin | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Endosulfan I | 0.0029 | P | 0.0020 | 20 | 09/10/2018 05:49 |
| Endosulfan II | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Endosulfan sulfate | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Endrin | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Endrin aldehyde | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Endrin ketone | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Heptachlor | ND | | 0.0020 | 20 | 09/10/2018 05:49 |
| Heptachlor epoxide | 0.0020 | | 0.0020 | 20 | 09/10/2018 05:49 |
| Hexachlorobenzene | ND | | 0.020 | 20 | 09/10/2018 05:49 |
| Hexachlorocyclopentadiene | ND | | 0.040 | 20 | 09/10/2018 05:49 |
| Methoxychlor | ND | | 0.0040 | 20 | 09/10/2018 05:49 |
| Toxaphene | ND | | 0.10 | 20 | 09/10/2018 05:49 |

| Surrogates | REC (%) | Limits | |
|--------------------|---------|--------|------------------|
| Decachlorobiphenyl | 139 | 20-145 | 09/10/2018 05:49 |

Analyst(s): KX

Analytical Comments: a1,a2



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 8/31/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-----------------------|----------------|--------|------------------|-------------------|----------------------|
| WCNDL1-0-6 | 1808E99-001A | Soil | 08/29/2018 09:22 | ICP-MS3 019SMPL.D | 164282 |
| <u>Analytes</u> | | | | | |
| | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 210 | | 0.50 | 1 | 09/04/2018 10:17 |
| <u>Surrogates</u> | | | | | |
| | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 103 | | 70-130 | | 09/04/2018 10:17 |
| <u>Analyst(s):</u> ND | | | | | |

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------------------|----------------|--------|------------------|-------------------|----------------------|
| WCNDL1-6-12 | 1808E99-002A | Soil | 08/29/2018 09:22 | ICP-MS2 032SMPL.D | 164282 |
| <u>Analytes</u> | | | | | |
| | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 190 | | 0.50 | 1 | 09/04/2018 12:44 |
| <u>Surrogates</u> | | | | | |
| | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 103 | | 70-130 | | 09/04/2018 12:44 |
| <u>Analyst(s):</u> MIG | | | | | |

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------------------|----------------|--------|------------------|-------------------|----------------------|
| WCSDL1-0-6 | 1808E99-003A | Soil | 08/29/2018 11:15 | ICP-MS2 063SMPL.D | 164282 |
| <u>Analytes</u> | | | | | |
| | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 1200 | | 5.0 | 10 | 09/04/2018 15:53 |
| <u>Surrogates</u> | | | | | |
| | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 107 | | 70-130 | | 09/04/2018 15:53 |
| <u>Analyst(s):</u> MIG | | | | | |

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------------------|----------------|--------|------------------|-------------------|----------------------|
| WCSDL1-6-12 | 1808E99-004A | Soil | 08/29/2018 11:20 | ICP-MS2 036SMPL.D | 164282 |
| <u>Analytes</u> | | | | | |
| | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 390 | | 0.50 | 1 | 09/04/2018 13:09 |
| <u>Surrogates</u> | | | | | |
| | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 111 | | 70-130 | | 09/04/2018 13:09 |
| <u>Analyst(s):</u> MIG | | | | | |

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 8/31/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------|--------------|--------|------------------|-------------------|----------|
| WCWDL1-0-6 | 1808E99-005A | Soil | 08/29/2018 10:33 | ICP-MS2 065SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|-----|----|------------------|
| Lead | 900 | 5.0 | 10 | 09/04/2018 16:06 |

| Surrogates | REC (%) | Limits | Date Analyzed |
|------------|---------|--------|------------------|
| Terbium | 95 | 70-130 | 09/04/2018 16:06 |

Analyst(s): MIG

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-------------------|----------|
| WCWDL1-6-12 | 1808E99-006A | Soil | 08/29/2018 10:36 | ICP-MS2 038SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|------|----|------------------|
| Lead | 160 | 0.50 | 1 | 09/04/2018 13:21 |

| Surrogates | REC (%) | Limits | Date Analyzed |
|------------|---------|--------|------------------|
| Terbium | 113 | 70-130 | 09/04/2018 13:21 |

Analyst(s): MIG

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|------------|--------------|--------|------------------|-------------------|----------|
| WCWDL2-0-6 | 1808E99-007A | Soil | 08/29/2018 10:53 | ICP-MS2 066SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|-----|----|------------------|
| Lead | 1100 | 5.0 | 10 | 09/04/2018 16:12 |

| Surrogates | REC (%) | Limits | Date Analyzed |
|------------|---------|--------|------------------|
| Terbium | 98 | 70-130 | 09/04/2018 16:12 |

Analyst(s): MIG

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-------------------|----------|
| WCWDL2-6-12 | 1808E99-008A | Soil | 08/29/2018 10:53 | ICP-MS2 070SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|-----|----|------------------|
| Lead | 740 | 5.0 | 10 | 09/04/2018 16:36 |

| Surrogates | REC (%) | Limits | Date Analyzed |
|------------|---------|--------|------------------|
| Terbium | 98 | 70-130 | 09/04/2018 16:36 |

Analyst(s): MIG

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 8/31/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-----------------------|----------------|--------|------------------|-------------------|----------------------|
| WCNMID2-8-14 | 1808E99-009A | Soil | 08/29/2018 09:48 | ICP-MS2 044SMPL.D | 164282 |
| <u>Analytes</u> | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 3.3 | | 0.50 | 1 | 09/04/2018 13:57 |
| <u>Surrogates</u> | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 106 | | 70-130 | | 09/04/2018 13:57 |
| <u>Analyst(s):</u> JC | | | | | |

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-----------------------|----------------|--------|------------------|-------------------|----------------------|
| WCNMID1-0-6 | 1808E99-010A | Soil | 08/29/2018 11:35 | ICP-MS2 045SMPL.D | 164282 |
| <u>Analytes</u> | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 63 | | 0.50 | 1 | 09/04/2018 14:03 |
| <u>Surrogates</u> | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 110 | | 70-130 | | 09/04/2018 14:03 |
| <u>Analyst(s):</u> JC | | | | | |

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-----------------------|----------------|--------|------------------|-------------------|----------------------|
| WCNMID1-6-12 | 1808E99-011A | Soil | 08/29/2018 11:40 | ICP-MS2 046SMPL.D | 164282 |
| <u>Analytes</u> | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 3.4 | | 0.50 | 1 | 09/04/2018 14:09 |
| <u>Surrogates</u> | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 109 | | 70-130 | | 09/04/2018 14:09 |
| <u>Analyst(s):</u> JC | | | | | |

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-----------------------|----------------|--------|------------------|-------------------|----------------------|
| WCNMID2-0-6 | 1808E99-012A | Soil | 08/29/2018 14:30 | ICP-MS2 047SMPL.D | 164282 |
| <u>Analytes</u> | <u>Result</u> | | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
| Lead | 110 | | 0.50 | 1 | 09/04/2018 14:15 |
| <u>Surrogates</u> | <u>REC (%)</u> | | <u>Limits</u> | | |
| Terbium | 115 | | 70-130 | | 09/04/2018 14:15 |
| <u>Analyst(s):</u> JC | | | | | |

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 8/31/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|--------------|--------------|--------|------------------|-------------------|----------|
| WCMSID2-6-12 | 1808E99-013A | Soil | 08/29/2018 14:33 | ICP-MS2 048SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|------|----|------------------|
| Lead | 31 | 0.50 | 1 | 09/04/2018 14:22 |

| Surrogates | REC (%) | Limits |
|------------|---------|--------|
| Terbium | 105 | 70-130 |

Analyst(s): JC

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-------------------|----------|
| WCWMID1-0-6 | 1808E99-014A | Soil | 08/29/2018 10:43 | ICP-MS2 049SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|------|----|------------------|
| Lead | 400 | 0.50 | 1 | 09/04/2018 14:28 |

| Surrogates | REC (%) | Limits |
|------------|---------|--------|
| Terbium | 104 | 70-130 |

Analyst(s): JC

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|--------------|--------------|--------|------------------|-------------------|----------|
| WCWMID1-6-12 | 1808E99-015A | Soil | 08/29/2018 10:43 | ICP-MS2 062SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|-----|----|------------------|
| Lead | 890 | 5.0 | 10 | 09/04/2018 15:47 |

| Surrogates | REC (%) | Limits |
|------------|---------|--------|
| Terbium | 99 | 70-130 |

Analyst(s): MIG

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-------------|--------------|--------|------------------|-------------------|----------|
| WCWMID2-0-6 | 1808E99-016A | Soil | 08/29/2018 11:00 | ICP-MS2 051SMPL.D | 164282 |

| Analytes | Result | RL | DF | Date Analyzed |
|----------|--------|------|----|------------------|
| Lead | 290 | 0.50 | 1 | 09/04/2018 14:40 |

| Surrogates | REC (%) | Limits |
|------------|---------|--------|
| Terbium | 102 | 70-130 |

Analyst(s): JC

(Cont.)



Analytical Report

Client: Terracon
Date Received: 8/31/18 15:50
Date Prepared: 8/31/18
Project: White Cottage

WorkOrder: 1808E99
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|--------------|--------------|--------|------------------|-------------------|----------|
| WCWMID2-6-12 | 1808E99-017A | Soil | 08/29/2018 11:00 | ICP-MS2 052SMPL.D | 164282 |

| <u>Analytes</u> | <u>Result</u> | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
|-----------------|---------------|-----------|-----------|----------------------|
| Lead | 300 | 0.50 | 1 | 09/04/2018 14:46 |

| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |
|-------------------|----------------|---------------|
| Terbium | 110 | 70-130 |

Analyst(s): JC

| Client ID | Lab ID | Matrix | Date Collected | Instrument | Batch ID |
|-----------|--------------|--------|------------------|-------------------|----------|
| WCSW-0-6 | 1808E99-018A | Soil | 08/29/2018 11:08 | ICP-MS2 053SMPL.D | 164282 |

| <u>Analytes</u> | <u>Result</u> | <u>RL</u> | <u>DF</u> | <u>Date Analyzed</u> |
|-----------------|---------------|-----------|-----------|----------------------|
| Lead | 77 | 0.50 | 1 | 09/04/2018 14:52 |

| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |
|-------------------|----------------|---------------|
| Terbium | 106 | 70-130 |

Analyst(s): JC



Quality Control Report

Client: Terracon
Date Prepared: 9/5/18
Date Analyzed: 9/6/18 - 9/7/18
Instrument: GC23
Matrix: Soil
Project: White Cottage

WorkOrder: 1808E99
BatchID: 164427
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg
Sample ID: MB/LCS/LCSD-164427

QC Summary Report for SW8081A/8082

| Analyte | MB Result | RL | SPK Val | MB SS %REC | MB SS Limits |
|---------------------------|-----------|---------|---------|------------|--------------|
| Aldrin | ND | 0.00010 | - | - | - |
| a-BHC | ND | 0.00010 | - | - | - |
| b-BHC | ND | 0.00030 | - | - | - |
| d-BHC | ND | 0.00020 | - | - | - |
| g-BHC | ND | 0.00010 | - | - | - |
| Chlordane (Technical) | ND | 0.0025 | - | - | - |
| a-Chlordane | ND | 0.00010 | - | - | - |
| g-Chlordane | ND | 0.00010 | - | - | - |
| p,p-DDD | ND | 0.00010 | - | - | - |
| p,p-DDE | ND | 0.00010 | - | - | - |
| p,p-DDT | ND | 0.00010 | - | - | - |
| Dieldrin | ND | 0.00010 | - | - | - |
| Endosulfan I | ND | 0.00010 | - | - | - |
| Endosulfan II | ND | 0.00010 | - | - | - |
| Endosulfan sulfate | ND | 0.00010 | - | - | - |
| Endrin | ND | 0.00010 | - | - | - |
| Endrin aldehyde | ND | 0.00010 | - | - | - |
| Endrin ketone | ND | 0.00010 | - | - | - |
| Heptachlor | ND | 0.00010 | - | - | - |
| Heptachlor epoxide | ND | 0.00010 | - | - | - |
| Hexachlorobenzene | ND | 0.0010 | - | - | - |
| Hexachlorocyclopentadiene | ND | 0.0020 | - | - | - |
| Methoxychlor | ND | 0.00020 | - | - | - |
| Toxaphene | ND | 0.0050 | - | - | - |
| Surrogate Recovery | | | | | |
| Decachlorobiphenyl | 0.00495 | | 0.0050 | 99 | 28-170 |

(Cont.)



Quality Control Report

Client: Terracon
Date Prepared: 9/5/18
Date Analyzed: 9/6/18 - 9/7/18
Instrument: GC23
Matrix: Soil
Project: White Cottage

WorkOrder: 1808E99
BatchID: 164427
Extraction Method: SW3550B/3640Am/3630Cm
Analytical Method: SW8081A
Unit: mg/kg
Sample ID: MB/LCS/LCSD-164427

QC Summary Report for SW8081A/8082

| Analyte | LCS Result | LCSD Result | SPK Val | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Limit |
|---------------------------|------------|-------------|---------|----------|-----------|-----------------|-------|-----------|
| Aldrin | 0.00495 | 0.00490 | 0.0050 | 99 | 98 | 31-155 | 1.10 | 20 |
| a-BHC | 0.00488 | 0.00488 | 0.0050 | 98 | 98 | 32-160 | 0 | 20 |
| b-BHC | 0.00472 | 0.00468 | 0.0050 | 94 | 94 | 44-149 | 0 | 20 |
| d-BHC | 0.00578 | 0.00576 | 0.0050 | 116 | 115 | 37-157 | 0.388 | 20 |
| g-BHC | 0.00517 | 0.00514 | 0.0050 | 103 | 103 | 43-154 | 0 | 20 |
| a-Chlordane | 0.00460 | 0.00466 | 0.0050 | 92 | 93 | 39-150 | 1.34 | 20 |
| g-Chlordane | 0.00468 | 0.00514 | 0.0050 | 94 | 103 | 39-151 | 9.34 | 20 |
| p,p-DDD | 0.00385 | 0.00397 | 0.0050 | 77 | 79 | 30-158 | 3.07 | 20 |
| p,p-DDE | 0.00475 | 0.00485 | 0.0050 | 95 | 97 | 47-149 | 2.17 | 20 |
| p,p-DDT | 0.00477 | 0.00506 | 0.0050 | 95 | 101 | 56-166 | 5.83 | 20 |
| Dieldrin | 0.00513 | 0.00517 | 0.0050 | 103 | 103 | 50-163 | 0 | 20 |
| Endosulfan I | 0.00455 | 0.00456 | 0.0050 | 91 | 91 | 45-159 | 0 | 20 |
| Endosulfan II | 0.00434 | 0.00445 | 0.0050 | 87 | 89 | 41-155 | 2.66 | 20 |
| Endosulfan sulfate | 0.00489 | 0.00513 | 0.0050 | 98 | 103 | 45-156 | 4.67 | 20 |
| Endrin | 0.00478 | 0.00487 | 0.0050 | 96 | 97 | 54-154 | 1.97 | 20 |
| Endrin aldehyde | 0.00475 | 0.00494 | 0.0050 | 95 | 99 | 27-159 | 3.81 | 20 |
| Endrin ketone | 0.00466 | 0.00492 | 0.0050 | 93 | 98 | 40-147 | 5.38 | 20 |
| Heptachlor | 0.00498 | 0.00493 | 0.0050 | 100 | 99 | 52-165 | 1.07 | 20 |
| Heptachlor epoxide | 0.00438 | 0.00433 | 0.0050 | 88 | 87 | 46-145 | 1.20 | 20 |
| Hexachlorobenzene | 0.00446 | 0.00444 | 0.0050 | 89 | 89 | 22-156 | 0 | 20 |
| Hexachlorocyclopentadiene | 0.00550 | 0.00548 | 0.0050 | 110 | 110 | 43-173 | 0 | 20 |
| Methoxychlor | 0.00456 | 0.00479 | 0.0050 | 91 | 96 | 49-150 | 4.99 | 20 |
| Surrogate Recovery | | | | | | | | |
| Decachlorobiphenyl | 0.00455 | 0.00471 | 0.0050 | 91 | 94 | 28-170 | 3.40 | 20 |



Quality Control Report

Client: Terracon
Date Prepared: 8/31/18
Date Analyzed: 9/4/18
Instrument: ICP-MS3
Matrix: Soil
Project: White Cottage

WorkOrder: 1808E99
BatchID: 164282
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-164282
 1808E99-001AMS/MSD

QC Summary Report for Metals

| Analyte | MB Result | RL | SPK Val | MB SS %REC | MB SS Limits |
|---------|-----------|------|---------|------------|--------------|
| Lead | ND | 0.50 | - | - | - |

Surrogate Recovery

| | | | | | |
|---------|-----|--|-----|-----|--------|
| Terbium | 510 | | 500 | 102 | 70-130 |
|---------|-----|--|-----|-----|--------|

| Analyte | LCS Result | LCSD Result | SPK Val | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Limit |
|---------|------------|-------------|---------|----------|-----------|-----------------|------|-----------|
| Lead | 49.4 | 51.5 | 50 | 99 | 103 | 75-125 | 4.04 | 20 |

Surrogate Recovery

| | | | | | | | | |
|---------|-----|-----|-----|-----|-----|--------|------|----|
| Terbium | 507 | 528 | 500 | 101 | 106 | 70-130 | 4.04 | 20 |
|---------|-----|-----|-----|-----|-----|--------|------|----|

| Analyte | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
|---------|-----------|------------|---------|------------|---------|----------|---------------|----------|-----------|
| Lead | 444 | 286 | 50 | 214.3 | 459,F13 | 144,F13 | 75-125 | 43.1,F13 | 20 |

Surrogate Recovery

| | | | | | | | | | |
|---------|-----|-----|-----|--|-----|-----|--------|------|----|
| Terbium | 530 | 517 | 500 | | 106 | 103 | 70-130 | 2.44 | 20 |
|---------|-----|-----|-----|--|-----|-----|--------|------|----|

| Analyte | DLT Result | DLTRef Val | %D | %D Limit |
|---------|------------|------------|-------|----------|
| Lead | 213 | 214.3 | 0.607 | 20 |

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262



WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1808E99

ClientCode: RGAE

Excel EQuIS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:

Steve Farley
Terracon
1466 66th Street
Emeryville, CA 94608
(510) 547-7771 FAX: (510) 547-1983

Email: steve.farley@terracon.com
cc/3rd Party:
PO:
Project: White Cottage

Bill to:

Anita G. Ilsley
Terracon
1466 66th Street
Emeryville, CA 94608
anita.ilsley@rgaenv.com

Requested TAT: 5 days;

Date Received: 08/31/2018

Date Logged: 08/31/2018

| Lab ID | Client ID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | |
|-------------|--------------|--------|-----------------|--------------------------|------------------------------------|---|---|---|---|---|---|---|---|----|----|----|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1808E99-001 | WCNDL1-0-6 | Soil | 8/29/2018 09:22 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-002 | WCNDL1-6-12 | Soil | 8/29/2018 09:22 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-003 | WCSDL1-0-6 | Soil | 8/29/2018 11:15 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-004 | WCSDL1-6-12 | Soil | 8/29/2018 11:20 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-005 | WCWDL1-0-6 | Soil | 8/29/2018 10:33 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-006 | WCWDL1-6-12 | Soil | 8/29/2018 10:36 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-007 | WCWDL2-0-6 | Soil | 8/29/2018 10:53 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-008 | WCWDL2-6-12 | Soil | 8/29/2018 10:53 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-009 | WCNMID2-8-14 | Soil | 8/29/2018 09:48 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-010 | WCSMID1-0-6 | Soil | 8/29/2018 11:35 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-011 | WCSMID1-6-12 | Soil | 8/29/2018 11:40 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-012 | WCSMID2-0-6 | Soil | 8/29/2018 14:30 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-013 | WCSMID2-6-12 | Soil | 8/29/2018 14:33 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-014 | WCWMID1-0-6 | Soil | 8/29/2018 10:43 | <input type="checkbox"/> | A | A | | | | | | | | | | |
| 1808E99-015 | WVWMID1-6-12 | Soil | 8/29/2018 10:43 | <input type="checkbox"/> | A | A | | | | | | | | | | |

Test Legend:

| | | | | | | | |
|---|--------|----|-------------|----|--|----|--|
| 1 | 8081_S | 2 | PBMS_TTLC_S | 3 | | 4 | |
| 5 | | 6 | | 7 | | 8 | |
| 9 | | 10 | | 11 | | 12 | |

Prepared by: Kena Ponce

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1808E99

ClientCode: RGAE

Excel EQuIS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:

Steve Farley
Terracon
1466 66th Street
Emeryville, CA 94608
(510) 547-7771 FAX: (510) 547-1983

Email: steve.farley@terracon.com
cc/3rd Party:
PO:
Project: White Cottage

Bill to:

Anita G. Ilesley
Terracon
1466 66th Street
Emeryville, CA 94608
anita.ilesley@rgaenv.com

Requested TAT: 5 days;

Date Received: 08/31/2018

Date Logged: 08/31/2018

| Lab ID | Client ID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | | |
|-------------|--------------|--------|-----------------|--------------------------|------------------------------------|---|---|---|---|---|---|---|---|----|----|----|--|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 1808E99-016 | WCWMID2-0-6 | Soil | 8/29/2018 11:00 | <input type="checkbox"/> | A | A | | | | | | | | | | | |
| 1808E99-017 | WCWMID2-6-12 | Soil | 8/29/2018 11:00 | <input type="checkbox"/> | A | A | | | | | | | | | | | |
| 1808E99-018 | WCSW-0-6 | Soil | 8/29/2018 11:08 | <input type="checkbox"/> | A | A | | | | | | | | | | | |

Test Legend:

| | | | | | | | |
|---|--------|----|-------------|----|--|----|--|
| 1 | 8081_S | 2 | PBMS_TTLC_S | 3 | | 4 | |
| 5 | | 6 | | 7 | | 8 | |
| 9 | | 10 | | 11 | | 12 | |

Prepared by: Kena Ponce

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TERRACON
Client Contact: Steve Farley
Contact's Email: steve.farley@terracon.com

Project: White Cottage

Comments:

Work Order: 1808E99
QC Level: LEVEL 2
Date Logged: 8/31/2018

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

| Lab ID | Client ID | Matrix | Test Name | Containers /Composites | Bottle & Preservative | De-chlorinated | Collection Date & Time | TAT | Sediment Content | Hold | SubOut |
|--------------|-------------|--------|-------------------------|------------------------|-----------------------|--------------------------|------------------------|--------|------------------|--------------------------|--------|
| 1808E99-001A | WCNDL1-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 9:22 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-002A | WCNDL1-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 9:22 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-003A | WCSDL1-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:15 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-004A | WCSDL1-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:20 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-005A | WCWDL1-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 10:33 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-006A | WCWDL1-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 10:36 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-007A | WCWDL2-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 10:53 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-008A | WCWDL2-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 10:53 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: TERRACON
Client Contact: Steve Farley
Contact's Email: steve.farley@terracon.com

Project: White Cottage

Comments:

Work Order: 1808E99
QC Level: LEVEL 2
Date Logged: 8/31/2018

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

| Lab ID | Client ID | Matrix | Test Name | Containers /Composites | Bottle & Preservative | De-chlorinated | Collection Date & Time | TAT | Sediment Content | Hold | SubOut |
|--------------|--------------|--------|-------------------------|------------------------|-----------------------|--------------------------|------------------------|--------|------------------|--------------------------|--------|
| 1808E99-009A | WCNMID2-8-14 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 9:48 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-010A | WCSMID1-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:35 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-011A | WCSMID1-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:40 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-012A | WCSMID2-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 14:30 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-013A | WCSMID2-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 14:33 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-014A | WCWMID1-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 10:43 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-015A | WVWMID1-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 10:43 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-016A | WCWMID2-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:00 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: TERRACON
Client Contact: Steve Farley
Contact's Email: steve.farley@terracon.com

Project: White Cottage

Comments:

Work Order: 1808E99
QC Level: LEVEL 2
Date Logged: 8/31/2018

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

| Lab ID | Client ID | Matrix | Test Name | Containers /Composites | Bottle & Preservative | De-chlorinated | Collection Date & Time | TAT | Sediment Content | Hold | SubOut |
|--------------|--------------|--------|-------------------------|------------------------|-----------------------|--------------------------|------------------------|--------|------------------|-------------------------------------|--------|
| 1808E99-017A | WCWMID2-6-12 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:00 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-018A | WCSW-0-6 | Soil | SW6020 (Lead) | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:08 | 5 days | | <input type="checkbox"/> | |
| | | | SW8081A (OC Pesticides) | | | <input type="checkbox"/> | | | | | |
| 1808E99-019A | WCSP1-0-6 | Soil | | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:50 | | | <input checked="" type="checkbox"/> | |
| 1808E99-020A | WCSP2-0-6 | Soil | | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 11:50 | | | <input checked="" type="checkbox"/> | |
| 1808E99-021A | WCWP1-0-6 | Soil | | 1 | 8OZ GJ, Unpres | <input type="checkbox"/> | 8/29/2018 14:30 | | | <input checked="" type="checkbox"/> | |

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1808 E99

|  McCAMPBELL ANALYTICAL, INC. 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701 Telephone: (877) 252-9262 / Fax: (925) 252-9269 www.mccampbell.com main@mccampbell.com | | | | | | CHAIN OF CUSTODY RECORD | | | | | | | | | | | | | | | | | |
|---|----------|-------|-------------|--------|--------------|--------------------------------|----------------------------|--|----------------|---------|--|------------------|--|--|----------------|--|---------|---|--|--|--|--|--|
| | | | | | | Turn Around Time: 1 Day Rush | | | 2 Day Rush | | | 3 Day Rush | | | STD | | Quote # | | | | | | |
| | | | | | | J-Flag / MDL | | | ESL | | | Cleanup Approved | | | Bottle Order # | | | | | | | | |
| | | | | | | Delivery Format: PDF | | | GeoTracker EDF | | | EDD | | | Write On (DW) | | | EQuIS | | | | | |
| Report To: Steve Farley Bill To: Terracon | | | | | | Analysis Requested | | | | | | | | | | | | | | | | | |
| Company: Terracon | | | | | | Lead (6020) | Pesticide (8081A) | | | | | | | | | | | | | | | | |
| Email: Steve.Farley@terracon.com | | | | | | | | | | | | | | | | | | | | | | | |
| Alt Email: steff.steiner@terracon.com Tele: 510-899-7091 | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: White Cottage Project #: | | | | | | | | | | | | | | | | | | | | | | | |
| Project Location: Fairmont Hospital PO # | | | | | | | | | | | | | | | | | | | | | | | |
| Sampler Signature: <i>Steve Farley</i> | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID Location / Field Point | Sampling | | #Containers | Matrix | Preservative | Analysis Requested | | | | | | | | | | | | | | | | | |
| | Date | Time | | | | Lead (6020) | Pesticide (8081A) | | | | | | | | | | | | | | | | |
| WCNDL1-0-6 | 8/29 | 922 | 1 | Soil | Ice | X | X | | | | | | | | | | | | | | | | |
| WCNDL1-6-12 | 8/29 | 922 | X | " | " | X | X | | | | | | | | | | | | | | | | |
| WCEDL1-0-6 | | | | | | | | | | | | | | | | | | | | | | | |
| WCEDL1-6-12 | | | | | | | | | | | | | | | | | | | | | | | |
| WCSDL1-0-6 | 8/29 | 11:15 | 1 | | | X | X | | | | | | | | | | | | | | | | |
| WCSDL1-6-12 | 8/29 | 11:20 | 1 | | | X | X | | | | | | | | | | | | | | | | |
| WCWDL1-0-6 | 8/29 | 1033 | 1 | | | X | X | | | | | | | | | | | | | | | | |
| WCWDL1-6-12 | 8/29 | 1036 | 1 | | | X | X | | | | | | | | | | | | | | | | |
| WCWDL2-0-6 | 8/29 | 1053 | 1 | | | X | X | | | | | | | | | | | | | | | | |
| WCWDL2-6-12 | 8/29 | 1053 | 1 | | | X | X | | | | | | | | | | | | | | | | |
| MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely. | | | | | | | | | | | | | | | | | | | | | | | |
| * If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8. | | | | | | | | | | | | | | | | | | Comments / Instructions *=Hold Sample Call Steve Farley 510-899-7091 | | | | | |
| Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report. | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By / Company Name | | | Date | | Time | | Received By / Company Name | | | Date | | Time | | | | | | | | | | | |
| <i>Steve Farley / TERRACON</i> | | | 8/31/18 | | 1358 | | <i>[Signature]</i> | | | 8/31/18 | | 1358 | | | | | | | | | | | |
| <i>[Signature]</i> | | | 8/31/18 | | 1550 | | <i>[Signature]</i> | | | 8/31/18 | | 1550 | | | | | | | | | | | |

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 4.2 °C Initials _____

| | | | | | | | | |
|--|--------------------------------|--|-------------------------------------|--|------------------|--|----------------|---|
|  <p>McCAMPBELL ANALYTICAL, INC. 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701 Telephone: (877) 252-9262 / Fax: (925) 252-9269 www.mccampbell.com main@mccampbell.com</p> | CHAIN OF CUSTODY RECORD | | | | | | | |
| | Turn Around Time: 1 Day Rush | | 2 Day Rush | | 3 Day Rush | | STD | <input checked="" type="checkbox"/> Quote # |
| | J-Flag / MDL | | ESL | | Cleanup Approved | | Bottle Order # | |
| | Delivery Format: PDF | | <input checked="" type="checkbox"/> | | GeoTracker EDF | | EDD | Write On (DW) |

Report To: Steve Farley Bill To: Terracon

Company: Terracon

Email: Steve.Farley@terracon.com

Alt Email: steff.steiner@terracon.com Tele: 510-899-7091

Project Name: White Cottage Project #:

Project Location: Fairmont Hospital PO #

Sampler Signature: *Steph Steiner*

| SAMPLE ID Location / Field Point | Sampling | | #Containers | Matrix | Preservative |
|-------------------------------------|----------|------|-------------|--------|--------------|
| | Date | Time | | | |
| WCSMID2-0-6 | 8/29 | 1430 | 1 | Soil | Ice |
| WCSMID2-6-12 | 8/29 | 1433 | | | |
| WCWMID1-0-6 | 8/29 | 1043 | | | |
| WCWMID1-6-12 | 8/29 | 1043 | | | |
| WCWMID2-0-6 | 8/29 | 1100 | | | |
| WCWMID2-6-12 | 8/29 | 1100 | | | |
| WCSW-0-6 | 8/29 | 1108 | | | |
| WCSW-6-12 | | | | | |

| Analysis Requested | | | | | | | | | | | |
|--------------------|-------------------|--|--|--|--|--|--|--|--|--|--|
| LEAD (6020) | Pesticide (8081A) | | | | | | | | | | |
| X | X | | | | | | | | | | |
| X | X | | | | | | | | | | |
| X | X | | | | | | | | | | |
| X | X | | | | | | | | | | |
| X | X | | | | | | | | | | |
| X | X | | | | | | | | | | |
| X | X | | | | | | | | | | |

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

| | | | | | | | |
|---|--|---------|------|----------------------------|--|---|------|
| * If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8. | | | | | | Comments / Instructions *= Hold Sample Call Steve Farley 510-899-7019 7091 | |
| Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report. | | | | | | | |
| Relinquished By / Company Name | | Date | Time | Received By / Company Name | | Date | Time |
| <i>Steph Steiner / Terracon</i> | | 8/21/18 | 1358 | <i>[Signature]</i> | | 8/21/18 | 1358 |
| | | 8/31/18 | 1500 | <i>[Signature]</i> | | 8/21/18 | 1500 |

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____



Sample Receipt Checklist

| | |
|--|--|
| Client Name: Terracon | Date and Time Received: 8/31/2018 15:50 |
| Project: White Cottage | Date Logged: 8/31/2018 |
| WorkOrder No: 1808E99 Matrix: <u>Soil</u> | Received by: Kena Ponce |
| Carrier: <u>Benjamin Yslas (MAI Courier)</u> | Logged by: Kena Ponce |

Chain of Custody (COC) Information

| | | | |
|---|---|-----------------------------|--|
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample IDs noted by Client on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Date and Time of collection noted by Client on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sampler's name noted on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| COC agrees with Quote? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Sample Receipt Information

| | | | |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper containers/bottles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

Sample Preservation and Hold Time (HT) Information

| | | | |
|---|---|-----------------------------|-----------------------------|
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| Samples Received on Ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

(Ice Type: WET ICE)

| | | | |
|---|---|-----------------------------|--|
| Sample/Temp Blank temperature | | Temp: 4.2°C | NA <input type="checkbox"/> |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

UCMR Samples:

| | | | |
|--|------------------------------|-----------------------------|--|
| pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
|--|------------------------------|-----------------------------|--|

| | | | |
|--|------------------------------|-----------------------------|--|
| Free Chlorine tested and acceptable upon receipt (<0.1mg/L)? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
|--|------------------------------|-----------------------------|--|

Comments: Sample WCWP1-0-6 was not received.

| DAILY OBSERVATION LOG | | | Page <u>1</u> of <u>3</u> |
|-----------------------|---------------------|-------------------------|---------------------------|
| PROJECT NAME | WHITE COTTON CENTER | DATE | 8/29/18 |
| SITE ADDRESS | FARMHOLT HOST | PROJECT NUMBER | R11995840 |
| CLIENT CONTACT | MICHAEL BISHOP | TERRACON REPRESENTATIVE | S. FARLEY |
| CLIENT PHONE NUMBER | | | |

830 - ARRIVED ON SITE, MET JASON (COAL). APPROVED TO LOCK GATE AFTER COMPLETION OF JOB

WCNDLI-0-6 - 13' NE, 2 1/2" → DRIP LINE ^{mist} ~~922~~
 WCNDLI-6-12 ↓ ↓ Dry ↓
~~WCN MID 1-0-6 13' NE 6" - MID LEASE~~
~~WCN MID 1-6-12 ↓ ↓~~
 WCN MID 2-8-14 ASPHALT @ 8" THICK AT 8' FROM DL, ^{30' NE} ~~1048~~
 Surface sample - 8-14, 948
 Rock ↓ @ 15"
 ASPHALT & Concrete to @ 16"

WCWDL1-0-6 - 6' NW DRIP LINE ^{mist-dry} 1033
 WCWDL1-6-12 6' NW ↓ Dry 1036

WCW MID 1-0-6 6' NW - 4' from Drip line ^{mist/dry} 1043
 6-12 ↓ ↓ Dry ↓

WCW DL 2-0-6- 40' NW DRIP LINE ^{Slightly mist} 1053
 WCW DL 2 6-12 40' NW DRIP LINE ↓ ↓
 ↳ Photo @ 16"

SIGNATURE: _____
 DATE: _____

| DAILY OBSERVATION LOG | | | Page <u>2</u> of <u>3</u> |
|-----------------------|-------------------|-------------------------|---------------------------|
| PROJECT NAME | WHITE LOTION BOLL | DATE | 8/29/18 |
| SITE ADDRESS | FARMOUTH RD ST | PROJECT NUMBER | R1187858 |
| CLIENT CONTACT | MICHAEL BISHOP | TERRACON REPRESENTATIVE | B. FARLEY |
| CLIENT PHONE NUMBER | | | |

WCW MED 2-0-6 - 40' NW 5' FROM DRIP LINE slightly moist 1108
 WCW MED 2-6-12 40' NW ↓ ↓

WC SW-0-6 10' SW CORNER slightly moist 1108
 Surface only, Pb only

WCSDL1-0-6 8' SE DRIP LINE DRY
 6-12 ↓ ↓
 LIMITED HORIZONTAL DUE TO CONCRETE & STAIRS

WCSMID1-0-6 8' SE 8' DRIP LINE DRY
 ↓ 6-12 ↓ ↓

ASPHALT CAP @ FOLLOWING LOCATIONS
 3 WEST PERIMETERS
 2 NORTH MED LINES
 1 EAST DRIP LINE
 2 EAST MED LINES
 1 NOA EAST

WCSP1-0-6 8^{SE} 12' FROM DRIP LINE LEAD ONLY DRY
 WCSP2-0-6 35' SE, 15' DRIP LINE ↓ DRY

SIGNATURE: _____

DATE: _____

| DAILY OBSERVATION LOG | | Page <u>3</u> of <u>3</u> | |
|-----------------------|-------------------|---------------------------|-----------|
| PROJECT NAME | WHITE COTTON COTL | DATE | 8/29/18 |
| SITE ADDRESS | FALMOUTH RD 5P | PROJECT NUMBER | R1180858 |
| CLIENT CONTACT | MICHAEL BISHOP | TERRACON REPRESENTATIVE | S. FARLEY |
| CLIENT PHONE NUMBER | | | |

W C ^WPI-8-^H - ~~8"~~ ^{8"} BELOW SURFACE ASPHALT LEAD ONLY
 8" THICK ASPHALT MOIST
 10' FROM DRAIN LINE
 4' NW

W.C. SMID 2-0-4 30' ^{SE}; 4' DRAIN LINE DRY
 6-12 ↓

ALBERTO - TERRACON ARRIVED @ 1300 to PROVIDE
 CORE DRILLING THROUGH ASPHALT, DID (2) TEST
 HOLES, WILL HAVE TO RETURN TO COMPLETE, AWAITING CLIENT
 RESPONSE - @ 8 CORES

NOA - 1E, 1F GRAY CRUSHED ROCK CONCRETE @ 14" DEPTH

SIGNATURE: _____
 DATE: _____

4701 Doyle Street
Suite 14
Emeryville, CA 94608
(510) 547-7771
(510) 547-1983 fax

BLDU 5371

RGAs Environmental, Inc.

Asbestos and Lead Survey Report

*White Cotton Cottage
San Leandro, California*

Asbestos and Lead Testing

RGAs Project No. COAL6017

January 29, 2001

Table of Contents

| | |
|---|----------|
| 1. Executive Summary | 1 |
| 2. Scope of Work | 2 |
| 3. Methods and Sampling Strategy | 3 |
| 4. Asbestos Results | 4 |
| 5. Lead Results | 6 |
| 6. Regulatory Requirements | 7 |
| 7. Limitations..... | 8 |

Appendices

- A. Tables**
- B. Laboratory Results and Chain of Custody**
- C. Site Inspector Certificates**

Asbestos and Lead Survey Report

Asbestos and Lead Testing

White Cotton Cottage

1. Executive Summary

The following is a report of the asbestos and lead survey conducted by Mr. Kenneth Pilgrim, California Certified Asbestos Consultant (CAC) and Bill Mcalhattan, California Certified Site Surveillance Technician (CSST), with RGA Environmental, Inc. (RGA). The survey was performed on December 29, 2000 at the White Cotton Cottage located at the Fairmont Hospital in San Leandro, California.

All nine (9) of the painted surfaces sampled from the building were found to contain detectable levels of lead. Paint sampled on the interior and exterior of the buildings was damaged and peeling from the substrate. The highest lead content (304,000 ppm) was detected in the white paint on the exterior wood window frames and the white paint on the interior plaster walls in the kitchen.

Twenty-nine (29) homogeneous suspect asbestos-containing materials (ACMs) were identified in building during the survey. Nine (9) of the homogeneous materials tested positive for asbestos-content. Regulations require that any time ACMs are impacted during repair, renovation, removal or demolition that the work be performed by properly trained and certified workers. The ACMs identified are listed below:

**TABLE I
ASBESTOS-CONTAINING MATERIAL(S)**

| Material Description | Material Location | Friability | Asbestos Type |
|--|---|-------------------|-------------------------------|
| Drywall with joint compound | Partition wall and patch locations | Friable | Compounds >1% CH, Drywall: ND |
| Pipe Insulation | Wall cavities associated with radiators | Friable | 7% CH, 3% AM |
| 12" x 12" Light brown floor tile with streaks and mastic | Hallway and kitchen | Non-friable | Tile: 2% CH, Mastic: ND |

| Material Description | Material Location | Friability | Asbestos Type |
|--|---|-------------|-------------------------------|
| 12" x 12" floor tile with light brown streaks, mastic, and vapor barrier | NE corner room – 1 st floor | Non-friable | Floor tile: 2% CH, Mastic: ND |
| 12" x 12" Floor tile – patch tiles | Mud/laundry room – 1 st floor | Non-friable | Tile >1% CH, Mastic: ND |
| Pipe wrap | Basement – associated with domestic hot water | Friable | 90% CH |
| Floor tile and mastic under carpet | Basement – large office | Non-friable | Tile: 3% CH, Mastic: ND |
| Roofing cement | Roof penetrations and patch locations | Non-friable | 4% CH |
| Asbestos paper | Light fixture – 2 nd floor – SW room | Friable | Paper 70% CH |

CH=Chrysotile asbestos

2. Scope of Work

The scope of the survey was as follows:

- Collect a representative number of samples of suspect asbestos-containing materials (ACMs) following a National Emissions Standards for Hazardous Air Pollutants (NESHAPS) protocol for sample collection for a demolition/renovation survey.
- Provide a DHS lead certified inspector to collect bulk paint chip samples of peeling and/or stratified paint suspected to be lead-containing. Bulk samples were analyzed at an accredited laboratory by Flame Atomic Absorption (AA) for Total Lead reported in parts per million (ppm).
- Asbestos bulk samples will be analyzed using polarized light microscopy (PLM) in accordance with EPA's July 1993 method for the determination of asbestos in bulk building materials - EPA 600/R-93/116.
- Submit written report including analytical results, regulatory requirements, and conclusions.

3. Methods and Sampling Strategy

Visual Inspection

Accessible building materials were visually inspected using the methods presented in the federal Asbestos Hazard Emergency Response Act (AHERA) regulations (40 CFR, Part 763) as a guideline. AHERA was originally only applicable to schools, however State and Federal OSHA and ASHARA have adopted the AHERA sampling methodology for all buildings subject to demolition or renovation.

Potential ACM was also physically assessed for friability, condition and disturbance factors.

Bulk Sampling of Asbestos

Bulk samples of all suspect homogeneous materials were collected. A homogeneous material is defined as a surfacing material, thermal system insulation, or miscellaneous material that is uniform in color, texture or age of construction. Examples of homogeneous materials include:

- Pipe-insulation produced by the same manufacturer and installed during the same time period;
- Resilient flooring of identical color and pattern;
- Troweled on surfacing materials located in contiguous areas.

The building was visually inspected for the presence of suspect materials. As materials were identified, bulk samples were obtained with the aid of a coring device or other hand tool and placed into individual sampling bags. Each sample was given a discreet identification number and recorded on field notes as well as chain-of-custody forms. Refer to accompanying tables and appendices for details on material sample locations and results.

Bulk Sampling of Lead Paint

Paint chip samples were collected using a hand scraper and were placed into individual plastic sampling containers. Each sample was provided a discreet sample number, which was recorded on a chain-of-custody form. The samples were transported under chain-of-custody procedures to RJ Lee Group, Inc. (RJ Lee). Please refer to Table III for details on sample locations and sample results.

Bulk Sample Analysis

Bulk asbestos and lead samples were analyzed by RJ Lee. RJ Lee is accredited under the National Institute of Standards and Technology's National Voluntary Laboratory Accreditation Program (NVLAP).

All samples were analyzed using polarized light microscopy (PLM) techniques in accordance with methodology approved by the U.S. Environmental Protection

Agency (EPA). As set forth in the Code of Federal Regulations, 40 CFR Part 763, Appendix A to Subpart F, Section 1.2 and 1.7.2.4, the lower limit of reliability detection for asbestos using the PLM method is approximately one percent (1%) by volume. Cal-OSHA defines asbestos containing construction materials (ACCM) as those materials having an asbestos content of greater than one tenth of one percent (>0.1%).

When None Detected (ND) appears in this report, it should be interpreted as meaning no asbestos was observed in the sample material above the reliable limit of detection for the PLM method.

Note: under EPA assessment criteria, if a single sample of a homogeneous material tests positive for asbestos, all homogeneous materials in that functional space are considered to be asbestos containing.

All paint samples were analyzed for lead content using the Flame Atomic Absorption spectroscopy in accordance to EPA Method SW846-3050-7000A. When "<" appears in the lead sample report, it should be interpreted as meaning below analytical detection limit and no lead was detected in the paint sample.

4. Asbestos Results

During the survey, twenty-nine (29) homogeneous suspect asbestos-containing materials (ACMs) were identified at the White Cotton Cottage. Nine (9) of the homogeneous materials tested positive for asbestos-content. The results are summarized in the tables below:

**TABLE I
 ASBESTOS-CONTAINING MATERIAL(S)**

| Material Description | Material Location | Friability | Asbestos Type | Approx. Quantity |
|--|---|-------------|-------------------------------|------------------|
| Drywall with joint compound | Partition wall and patch locations | Friable | Compounds >1% CH, Drywall: ND | 2,000 sf |
| Pipe Insulation | Wall cavities associated with radiators | Friable | 7% CH, 3% AM | 5 lf |
| 12" x 12" Light brown floor tile with streaks and mastic | Hallway and kitchen | Non-friable | Tile: 2% CH, Mastic: ND | 200 sf |
| 12" x 12" floor tile with light brown streaks, mastic, and vapor barrier | NW corner room – 1 st floor | Non-friable | Floor tile: 2% CH, Mastic: ND | 150 sf |

| Material Description | Material Location | Friability | Asbestos Type | Approx. Quantity |
|------------------------------------|---|-------------|-------------------------|------------------|
| 12" x 12" Floor tile – patch tiles | Mud/laundry room – 1 st floor | Non-friable | Tile >1% CH, Mastic: ND | 20 sf |
| Pipe wrap | Basement – associated with domestic hot water | Friable | 90% CH | 5 lf |
| Floor tile and mastic under carpet | Basement – large office | Non-friable | Tile: 3% CH, Mastic: ND | 250 sf |
| Roofing cement | Roof penetrations and patch locations | Non-friable | 4% CH | 50 sf |
| Asbestos paper | Light fixture – 2 nd floor – SE room | Friable | Paper 70% CH | 1 sf |

CH = Chrysotile asbestos

Twenty of the suspect ACMs sampled at the White Cotton Cottage did not contain asbestos. The materials are presented in Table II:

**TABLE II
 NON-ASBESTOS CONTAINING MATERIAL(S)**

| | |
|--|---|
| Plaster on wood lath – walls and ceilings | Wall covering – cloth - walls |
| Plaster on wire lath – random walls | Ceramic tile grout - bathroom |
| Linoleum – 2 nd floor bathroom | Blown insulation – 2 nd floor – ceiling space |
| Plaster over button board – 1 st floor – NE corner bathroom | 12" x 12" floor tile, white with blue spots with mastic and vapor barrier – kitchen |
| Basecove, light brown – kitchen | Basecove - SE bathroom |
| Black and gold floor tile – 1 st floor – southern rooms | Basecove, 4", dark brown – basement – large office |
| Plaster over concrete | Basement |
| Vapor barrier – 1 st floor living room wall | Checker board floor tile – 1 st floor – SW corner |

| | |
|----------------|-------------------|
| Window putty | Roofing shingles |
| Skylight putty | Anti-skid coating |

5. Lead Results

Nine (9) samples were collected from various surfaces on the interior and exterior of the building. Most of the sampled paint was peeling and in poor condition. Table III below summarizes the sampling locations and lead content of each material.

**TABLE III
 LEAD IN PAINT SAMPLE RESULTS**

| Sample Number | Location | Results mg/kg (ppm) |
|---------------|---|---------------------|
| 123473 | Pink paint on interior wood window frame – 2 nd floor southwest corner | 115,000 |
| 123460 | Gray paint on interior wood door frame, northwest corner | 33,300 |
| 123444 | Pink paint on plaster wall – 1 st floor north wall of center room | 1,370 |
| 117637 | White paint on wood – 1 st floor bathroom near kitchen | 149,000 |
| 121177 | White paint on exterior wood window frame – kitchen | 304,000 |
| 121183 | White paint on exterior wood shingles – northeast corner | 288,000 |
| 121194 | White paint on exterior wood door threshold - | 310,000 |
| 121196 | Black paint on metal roof ladder – roof | 2,440 |
| 121216 | White paint on interior plaster wall – kitchen | 304,000 |

mg/kg – milligrams per kilogram, ppm – parts per million

6. Regulatory Requirements

Asbestos

Asbestos-containing building materials at the White Cotton Cottage contain asbestos in concentrations greater than one tenth of one percent (0.1%). Impacting materials containing greater than 0.1% asbestos either through repair, maintenance, renovation or demolition activities triggers numerous regulations enforced by such agencies as OSHA (worker protection) and EPA (environmental exposure, transportation and disposal).

Listed below are the regulations that apply if the materials are removed:

- Any individual who contracts to provide health and safety services relating to asbestos-containing materials must be certified by Cal-OSHA as either a Certified Asbestos Consultant or a Site Surveillance Technician. The activities they are certified to provide include: conducting asbestos surveys; writing work plans or specifications for abatement; monitoring the work of abatement contractors; collecting air samples; and determining if the work area is safe for re-occupancy by non-asbestos workers. Regulation: Cal-OSHA 8 CCR 1529 (q)(1).
- More than 100 square feet of materials that contain greater than 0.1% asbestos will be abated. Therefore, the material must be abated by a licensed asbestos abatement contractor. Regulation: Cal-OSHA 8 CCR 1529 (R).
- ACMs that are classified by OSHA as miscellaneous materials will be abated. This work is considered a Class II activity according to OSHA regulations. Work practices and engineering controls include critical barriers or isolation of the work area in combination with perimeter monitoring. Regulation: Cal-OSHA 8 CCR 1529 (g) (7) (B)
- Friable ACMs greater than 1% asbestos must be disposed of as hazardous waste in accordance with the Department of Toxic and Substances Control (DTSC) which is a division of Cal-EPA. DTSC regulates disposal of asbestos waste. In California, friable asbestos waste is required to be handled and manifested as a hazardous waste. DTSC issues U.S. EPA hazardous waste generator identification numbers.

Lead-Based Paint

Peeling and otherwise damaged lead-containing paints were identified at the White Cotton Cottage. Impacting lead-containing paint either through repair, maintenance, renovation or demolition activities triggers numerous regulations enforced by such agencies as OSHA (worker protection) and EPA (environmental exposure, transportation and disposal).

Listed below are the lead paint regulations that apply if the paint is removed:

- There are presently no federal, state or local regulations limiting the concentration of lead in public sector buildings, however several regulations established for the private sector as well as for government subsidized housing are used industry wide as guidelines for assessing exposure to lead. The Consumer Product Safety Commission (CPSC) has set a maximum limit of 600 ppm in paint used for residential purposes and the Department of Housing and Urban Development (HUD) requires abatement of paints containing lead in concentrations exceeding 5,000 ppm.
- Disposal of all lead-based paints is regulated at concentrations at or exceeding 350 ppm as stated in 40 Code of Federal Regulations (CFR) Part 263 - Land Disposal Regulations and Title 22, Division 4 Environmental Health of the California Administrative Code. This level is often used as the threshold to determine which peeling and stratified paints must be abated prior to building demolition, however lead related work at any lead concentration is regulated under the Occupational Safety and Health statutes.
- The Federal Occupations Safety and Health Administration (OSHA) as well as California OSHA regulate all worker exposure during construction activities that impact lead-based paint. OSHA enforces the Lead Exposure in Construction; Interim Final Rule found in 29 CFR Part 1926.62. The scope covers construction work where employees may be exposed to lead during such activities as demolition, removal, surface preparation for re-painting, renovation, clean-up and routine maintenance. The OSHA specified method of compliance includes respiratory protection, protective clothing and equipment, housekeeping, hygiene facilities, medical surveillance, training, etc.
- EPA Title X requires that the EPA and/or individual states develop training/certification regulations for individuals engaged in lead-based paint activities and requires the EPA to issue guidelines and evaluate renovation and remodeling activities involving lead paint.

7. Limitations

The information provided in this report is not intended to be used as a biddable document for abatement purposes.

APPENDIX A

TABLES

White cotton cottage
 San Leandro
 Renovation Survey

Date Sampled: 12/29/00
 Date Printed: 1/23/2001
 Project Number: COAL6017
 Surveyed By: Ken Pilgrim, Bill McIlhannan

Table I Asbestos Bulk Sample Results

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|--------|--|------------|----------------|-----------------------------------|
| 001 | Drywall with joint compound | | | |
| 117639 | Basement, small office | Friable | Good Condition | Sample Not Analyzed |
| 117651 | Downstairs, NW room | | | Sample Not Analyzed |
| 121125 | NW, upstairs corner room | | | ND |
| 121143 | SW, upstairs corner room | | | ND |
| 123249 | Downstairs living room, east wall in front of fire place | | | Compounds > 1% CH; Other Layer ND |
| 123446 | Downstairs small room, NW corner | | | Sample Not Analyzed |
| 123447 | Downstairs, north middle room | | | Sample Not Analyzed |

All analyses completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982). PLM may detect asbestos in "Trace" concentrations (<1%). Thus negative (ND) results cannot be guaranteed. The absence of asbestos in vinyl floor tiles, wipes or other similar samples cannot be conclusively established by this method, and should be confirmed by an independent analytical method such as Transmission Electron Microscopy (TEM). Detection Limit: <1% ("Trace"). Quantification range 1-100%. ND = None Detected. NA = Not Applicable.

HMN = Homogenous material number, CH=Chrysotile, Am=Amosite, TR=Tremolite, CR=Crocidolite, AN=Anthophyllite, AC=Actinolite

White cotton cottage

RGA Environmental Inc.
 510 547-7771

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|------------|--|------------|-----------|-------------------------|
| 002 | Plaster with skim coat | NA | NA | |
| 117640 | Downstairs North hallway | | | ND |
| 117643 | Living room wall | | | ND |
| 123337 | West upstairs middle room | | | ND |
| 123438 | East upstairs middle bathroom | | | ND |
| 123468 | Downstairs kitchen steps | | | ND |
| 123472 | Downstairs, NW corner by radiator | | | ND |
| 123477 | NW, upstairs corner room | | | ND |
| 003 | Wall covering, cloth | NA | NA | |
| 117636 | Downstairs hallway | | | ND |
| 123479 | Downstairs next to front door | | | ND |
| 123480 | Upstairs west middle room | | | ND |
| 004 | Plaster on wire lath | NA | NA | |
| 123465 | Kitchen North wall | | | ND |
| 123466 | Kitchen South wall | | | ND |
| 123475 | SW upstairs corner room | | | ND |

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HMN Material Description / Sample Location Friability Condition Asbestos Type / Percent

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|--------|--|------------|-------------------|-------------------------|
| 005 | Pipe Insulation | | | |
| 123436 | Radiator upstairs NE corner bathroom | Friable | Damaged Condition | 7% CH; 3% AM |
| 006 | Ceramic tile grout | | | |
| 123443 | Bathroom upstairs, NE corner wall | NA | NA | ND |
| 123471 | Bathroom upstairs, NE corner floor | | | ND |
| 007 | Linoleum | | | |
| 123437 | Upstairs, SE corner bathroom | NA | NA | ND |
| 008 | Blown Insulation | | | |
| 123439 | Crawl space, SE upstairs corner room | NA | NA | ND |
| 009 | Plaster over button beard | | | |
| 123462 | Downstairs, NE corner room | NA | NA | ND |
| 123463 | Downstairs, NE corner bathroom | | | ND |
| 123467 | Downstairs, NE corner bathroom | | | ND |

All analyses completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982). PLM may detect asbestos in "Trace" concentrations (<1%). Thus negative (ND) results cannot be guaranteed. The absence of asbestos in vinyl floor tiles, wipes or other similar samples cannot be conclusively established by this method, and should be confirmed by an independent analytical method such as Transmission Electron Microscopy (TEM). Detection Limit: <1% ("Trace"). Quantification range 1-100%. ND = None Detected. NA = Not Applicable.

HMN = Homogenous material number, CH=Chrysotile, Am=Amosite, TR=Tremolite, CR=Crocidolite, AN=Anthophyllite, AC=Actinolite

White cotton cottage

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|--------|--|-------------|----------------|----------------------------------|
| 010 | 12 x12 floor tile, light brown w/ streaks, w/ mastic barrier | Non-Friable | Good Condition | |
| 117622 | Downstairs hallway, Northside | | | Floor tile 2% CH; Other Layer ND |
| 117628 | Kitchen | | | Sample Not Analyzed |
| 011 | 12 x12 floor tile, light brown streaks, w/ mastic/barrier | Non-Friable | Good Condition | |
| 117626 | NE corner downstairs room | | | Floor tile 2% CH; Other Layer ND |
| 117642 | NE corner downstairs room | | | Sample Not Analyzed |
| 012 | 12 x12 floor tile, white w/ blue spots, w/ mastic barrier | NA | NA | |
| 117624 | Downstairs kitchen | | | ND |
| 117631 | Downstairs kitchen | | | ND |
| 013 | Basecove, light brown | NA | NA | |
| 117625 | Kitchen | | | ND |
| 117629 | Kitchen | | | ND |

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HMN = Homogenous material number, CH=Chrysotile, Am=Amosite, TR=Tremolite, CR=Crocidolite, AN=Anthophyllite, AC=Actinolite

White cotton cottage

RGA Environmental Inc.
510 547-7771

HMN Material Description / Sample Location

Friability

Asbestos Type / Percent

Condition

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|------------|--|------------|-------------------|------------------------------|
| 014 | Base covering | | | |
| 117627 | Bathroom, SE corner of kitchen | NA | NA | ND |
| 015 | 12 x 12 patch tiles, Mud room | | | |
| 117630 | Mudroom | NA | NA | Sample Not Analyzed |
| 117635 | Mudroom | | | Sample Not Analyzed |
| 117646 | Mudroom | | | Tile >1% CH; Other Layer: ND |
| 016 | Black and gold floor tile | | | |
| 117645 | Downstairs South middle room | NA | NA | ND |
| 117647 | Downstairs, SE corner room | | | ND |
| 117658 | Downstairs, SE corner room | | | ND |
| 017 | Pipe wrap, canvas | | | |
| 117648 | Basement, SE corner, near exit | Friable | Damaged Condition | 90% CH |

All analyses completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982). PLM may detect asbestos in "Trace" concentrations (<1%). Thus negative (ND) results cannot be guaranteed. The absence of asbestos in vinyl floor tiles, wipes or other similar samples cannot be conclusively established by this method, and should be confirmed by an independent analytical method such as Transmission Electron Microscopy (TEM). Detection Limit: <1% ("Trace"). Quantification range 1-100%. ND = None Detected. NA = Not Applicable.

HMN = Homogenous material number, CH=Chrysotile, Am=Amosite, TR=Tremolite, CR=Crocidolite, AN=Anthophyllite, AC=Actinolite

White cotton cottage

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|--------|--|-------------|----------------|-------------------------------------|
| 018 | Floor tile under carpet | | | |
| 117641 | Downstairs, large office room | Non-Friable | Good Condition | Floor tile 3% CH; Other Layer ND |
| 117650 | Downstairs, large office room | | | ND |
| 019 | Basecove, 4" dark brown | NA | NA | |
| 117623 | Large office, basement | | | ND |
| 117638 | Large office, basement | | | ND |
| 020 | Plaster over concrete | NA | NA | |
| 117632 | Downstairs, small office | | | ND |
| 117633 | Downstairs, large office | | | ND |
| 117634 | Downstairs, large office | | | ND |
| 021 | Vapor barrier | NA | NA | |
| 123375 | Behind plywood, living room, SE wall | | | ND |
| 022 | Basecove, 4" and mastic | NA | NA | |
| 123448 | Sunroom, SW, downstairs corner | | | ND |

All analyses completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982). PLM may detect asbestos in "Trace" concentrations (<1%). Thus negative (ND) results cannot be guaranteed. The absence of asbestos in vinyl floor tiles, wipes or other similar samples cannot be conclusively established by this method, and should be confirmed by an independent analytical method such as Transmission Electron Microscopy (TEM). Detection Limit: <1% ("Trace"). Quantification range 1-100%. ND = None Detected. NA = Not Applicable.

HMN = Homogenous material number, CH=Chrysotile, Am=Amosite, TR=Tremolite, CR=Crocidolite, AN=Anthophyllite, AC=Actinolite

White cotton cottage

HMN Material Description / Sample Location Friability Condition Asbestos Type / Percent

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|--------|---|-------------|----------------|-------------------------|
| 023 | Tile floor | NA | NA | |
| 123445 | Checkerboard floor tile, sunroom, SW corner | | | ND |
| 123461 | Checkerboard floor tile, sunroom, SW corner | | | ND |
| 024 | Window putty | NA | NA | |
| 121156 | NW turret | | | ND |
| 121187 | Kitchen window, over sink | | | ND |
| 121213 | SE corner, sunroom | | | ND |
| 025 | Roofing cement | Non-Friable | Good Condition | |
| 121180 | Skylight | | | Sample Not Analyzed |
| 121181 | At pipe penetration | | | Sample Not Analyzed |
| 121195 | Chimney | | | 4% CH |
| 026 | Roofing shingles | NA | NA | |
| 121157 | SE corner at ladder | | | ND |
| 121182 | North peak | | | ND |
| 121184 | East roof (top) | | | ND |

All analyses completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982). PLM may detect asbestos in "Trace" concentrations (<1%). Thus negative (ND) results cannot be guaranteed. The absence of asbestos in vinyl floor tiles, wipes or other similar samples cannot be conclusively established by this method, and should be confirmed by an independent analytical method such as Transmission Electron Microscopy (TEM). Detection Limit: <1% ("Trace"). Quantification range 1-100%. ND = None Detected. NA = Not Applicable.

HMN = Homogenous material number, CH=Chrysotile, Am=Amosite, TR=Tremolite, AN=Anthophyllite, AC=Actinolite

White cotton cottage

| HMN | Material Description / Sample Location | Friability | Condition | Asbestos Type / Percent |
|--------|--|------------|-------------------|------------------------------|
| 027 | Skylight putty | NA | NA | |
| 121173 | Skylight | | | ND |
| 121189 | Skylight | | | ND |
| 028 | Anti-skid coating | NA | NA | |
| 121210 | Front porch | | | ND |
| 121215 | Front porch | | | ND |
| 029 | Light fixture paper | Friable | Damaged Condition | |
| 121214 | 2nd floor, SW room | | | Paper 70% CH; Other Layer ND |

All analyses completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982). PLM may detect asbestos in "Trace" concentrations (<1%). Thus negative (ND) results cannot be guaranteed. The absence of asbestos in vinyl floor tiles, wipes or other similar samples cannot be conclusively established by this method, and should be confirmed by an independent analytical method such as Transmission Electron Microscopy (TEM). Detection Limit: <1% ("Trace"). Quantification range 1-100%. ND = None Detected. NA = Not Applicable.

HMN = Homogenous material number, CH=Chrysotile, Am=Amosite, TR=Tremolite, CR=Crocidolite, AN=Anthophyllite, AC=Actinolite

White cotton cottage

RGA Environmental Inc.

APPENDIX B

LABORATORY RESULTS AND CHAIN OF CUSTODY

Test Report - RGA Environmental, Inc.

Polarized Light Microscopy Analysis Results

Project AOC101020

| Sample Number / Sample Appearance | Client Sample Number | Asbestos-----Nonasbestos----- | | | | | | | | | | | |
|---|----------------------|-------------------------------|---------|-------------|---------------|-----------|------------|-----------|------|-------|--------|---------------------------|----------|
| | | Chrysotile | Amosite | Crocidolite | Anthophyllite | Tremolite | Actinolite | Cellulose | Wool | Glass | Fibers | Other NonFibrous Material | Run Date |
| 1727970CPL Plaster - NS ; wht. drywall ; wht. comp | 121125 | - | - | - | - | - | 3 % | - | - | - | - | 97 % | 1/4/01 |
| NFM: Qtz, Carb, Binder, Opaq, Gyp, Mica, Misc. Part. Non Homogeneous | | | | | | | | | | | | | |
| 1727971CPL Plaster - NS ; wht. drywall ; wht. comp | 121143 | - | - | - | - | - | 3 % | - | - | - | - | 97 % | 1/4/01 |
| NFM: Qtz, Carb, Binder, Opaq, Gyp, Mica, Misc. Part. Non Homogeneous | | | | | | | | | | | | | |
| 1727972CPL Plaster - NS ; wht. drywall ; wht. comp | 123249 | <1 % | - | - | - | - | 3 % | - | - | - | - | 97 % | 1/4/01 |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. Non Homogeneous | | | | | | | | | | | | | |
| Layer Content: Comp >1% Chrysotile ; Other Layer : None Detected | | | | | | | | | | | | | |

1727973CPL 123446
Sample Location Sample Not Analyzed

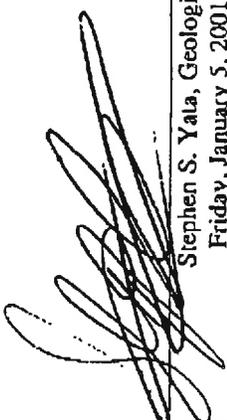
1727974CPL 117639
Sample Location Sample Not Analyzed

1727975CPL 117651
Sample Location Sample Not Analyzed

Samples received on: Thursday, January 4, 2001

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Authorized Signature: 
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Test Report - RGA Environmental, Inc.

Polarized Light Microscopy Analysis Results

Project AOC101020

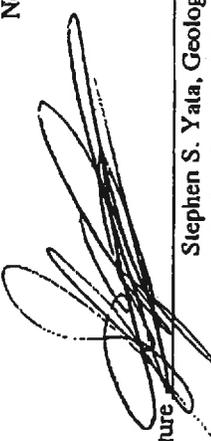
3 P

-----Asbestos-----Nonasbestos-----

Sample Number / Client Sample Number Chrysotile Amosite Crocidolite Anthophyllite Tremolite Actinolite Cellulose Wool Glass Fibers Synthetic Fibers Other NonFibrous Run Date
 Sample Appearance 123447
 1727976CPL

| Sample Location | Sample Not Analyzed | NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | 40 % | 60 % | 1/4/01 |
|-----------------|---------------------|---|------|------|-----------------|
| 1727977CPL | 123480 | White cloth wall covering | | | SSY |
| 1727978CPL | 123479 | White cloth wall covering | | | Homogeneous |
| 1727979CPL | 117636 | White cloth wall covering | | | SSY |
| 1727980CPL | 123475 | Grey plaster ; wht. skim coat | | | Homogeneous |
| 1727981CPL | 123465 | Grey plaster ; wht. skim coat | | | Non Homogeneous |

Samples received on: Thursday, January 4, 2001

Authorized Signature  Date
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Page: 2 of 11

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Polarized Light Microscopy Analysis Results

Project AOC101020

NO. 5029 P. 5

Sample Number / Sample Appearance Client Sample Number Chrysotile Amosite Crocidolite Anthophyllite Tremolite Actinolite Cellulose Wool Glass Fibers Synthetic Fibers Other NonFibrous Run Date

1727988CPL 123462 Offwhite plaster ; wht. skim coat NFM: Qiz, Carb, Binder, Opaq, Mica, Misc. Part. 100 % 1/4/01 SSY Non Homogeneous

1727989CPL 123463 Offwhite plaster ; wht. skim coat NFM: Qiz, Carb, Binder, Opaq, Mica, Misc. Part. 100 % 1/4/01 SSY Non Homogeneous

1727990CPL 123467 Offwhite plaster ; wht. skim coat NFM: Qiz, Carb, Binder, Opaq, Mica, Misc. Part. 100 % 1/4/01 SSY Non Homogeneous

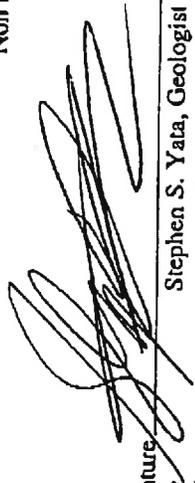
1727991CPL 117622 Brown floortile ; yellow mastic ; blk. felt Layer Content: Floortile 2% Chrysotile ; Other Layer : None Detected 2 % 8 % 90 % 1/4/01 SSY Non Homogeneous

1727992CPL 117628 Brown floortile ; yellow mastic ; blk. felt Layer Content: Floortile 2% Chrysotile ; Other Layer : None Detected 2 % 8 % 90 % 1/4/01 SSY Non Homogeneous

Sample Location Sample Not Analyzed

1727993CPL 117626 Brown floortile ; yellow mastic ; blk. felt Layer Content: Floortile 2% Chrysotile ; Other Layer : None Detected 2 % 8 % 90 % 1/4/01 SSY Non Homogeneous

Samples received on: Thursday, January 4, 2001

Authorized Signature  Date Friday, January 5, 2001

Stephen S. Yata, Geologist
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Polarized Light Microscopy Analysis Results

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P. 6

Sample Number / Client Sample Number
 1727994CPL 117642
 Asbestos-----Nonasbestos-----
 Mineral Fibrous Fibers Glass Fibers Synthetic Fibers Other NonFibrous Run Date
 Chrysotile Amosite Crocidolite Anthophyllite Tremolite Actinolite Cellulose Wool Misc. Part. Material Analyst

| Sample Location | Sample Not Analyzed | NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part. | 8 % | 92 % | 1/4/01 | SSY |
|-------------------|--|--|-----|------|--------|-----------------|
| 1727995CPL 117631 | Beige floor tile ; yellow mastic ; blk. felt | | | | | Non Homogeneous |
| 1727996CPL 117624 | Beige floor tile ; yellow mastic ; blk. felt | | | | | Non Homogeneous |
| 1727997CPL 117629 | Light brn. basecove ; brn. mastic | | | | | Non Homogeneous |
| 1727998CPL 117625 | Light brn. basecove ; brn. mastic | | | | | Non Homogeneous |
| 1727999CPL 117627 | Black base covering ; brn. mastic | | | | | Non Homogeneous |

Samples received on: Thursday, January 4, 2001

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 Page: 5 of 11

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Polarized Light Microscopy Analysis Results

Project AOC101020

P. 7

| Sample Number / Sample Appearance | Client Sample Number | Chrysotile | Asbestos | | | | | Nonasbestos | | | | | NonFibrous Run Date | | | | | | |
|--|----------------------|---|----------|-------------|---------------|-----------|------------|-------------|------|-------|--------|--------|---------------------|-------|---------|----------|---------|-----|-----------------|
| | | | Amosite | Crocidolite | Anthophyllite | Tremolite | Actinolite | Cellulose | Wool | Glass | Fibers | Fibers | | Other | Fibrous | Material | Analyst | | |
| 1728000CPL Beige tile ; yellow mastic | 117646 | >1 % | - | - | - | - | - | - | - | - | - | - | - | - | - | 99 % | 1/4/01 | SSY | |
| Layer Content: | | Tile >1% Chrysotile ; Other Layer : None Detected | | | | | | | | | | | | | | | | | |
| 1728001CPL | 117635 | | | | | | | | | | | | | | | | | | Non Homogeneous |

NFM: Qtz, Carb, Binder, Opaq, Misc. Part.

Sample Location Sample Not Analyzed

1728002CPL 117630

Sample Location Sample Not Analyzed

1728003CPL 117658

Black tile - NS ; bm. linoleum ; yellow mastic

1728004CPL 117647

Black linoleum ; ye4llow mastic

1728005CPL 117645

Black linoleum ; yellow mastic ; bm. linoleum

NFM: Qtz, Carb, Binder, Opaq, Misc. Part. 35 % 65 % 1/4/01 SSY Non Homogeneous

NFM: Qtz, Carb, Binder, Opaq, Misc. Part. 35 % 65 % 1/4/01 SSY Non Homogeneous

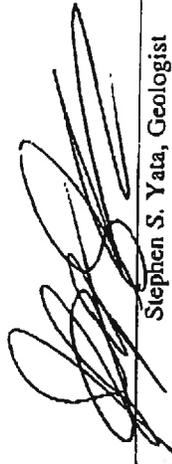
NFM: Qtz, Carb, Binder, Opaq, Misc. Part. 35 % 65 % 1/4/01 SSY Non Homogeneous

Samples received on: Thursday, January 4, 2001

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Polarized Light Microscopy Analysis Results

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8 P.

| Sample Number / Sample Appearance | Client Sample Number | Asbestos | | | | Nonasbestos | | | | Other NonFibrous Material | Run Date | |
|---|----------------------|------------|---------|-----------|------------|-------------|------|-------|--------|---------------------------|----------|------------------------|
| | | Chrysotile | Amosite | Tremolite | Actinolite | Cellulose | Wool | Glass | Fibers | | | Fibers |
| 1728006CPL Tan pipe wrap | 117648 | 90 % | - | - | - | - | - | - | - | 10 % | 1/4/01 | SSY Homogeneous |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | |
| 1728007CPL Grey pad | 117650 | - | - | - | - | - | - | 60 % | - | 40 % | 1/4/01 | SSY Homogeneous |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | |
| 1728008CPL Brown floor tile ; blk. mastic | 117641 | 3 % | - | - | <1 % | - | - | - | - | 97 % | 1/4/01 | SSY Non Homogeneous |
| Layer Content: Floor tile 3% Chrysotile ; Other Layer : None Detected | | | | | | | | | | | | |
| 1728009CPL Dark brn. basecoat ; tan mastic | 117638 | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY Non Homogeneous |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | |
| 1728010CPL Dark brn. basecoat ; tan mastic | 117623 | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY Non Homogeneous |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | |
| 1728011CPL Grey plaster | 117634 | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY Homogeneous |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | |

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Page: 7 of 11

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NO. 5029 P. 9

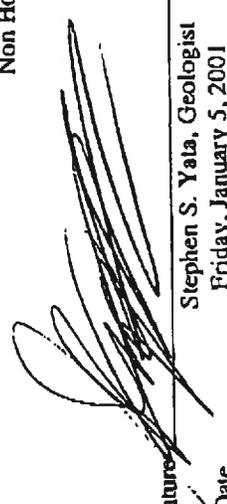
| Sample Number / Sample Appearance | Client Sample Number | Asbestos | | | | Nonasbestos | | | | Material | Analyst | Run Date | | | | |
|---|----------------------|------------|---------|-------------|----------------|-------------|------------|-----------|------|----------|---------|----------|-------|--------|--------|-----------------|
| | | Chrysotile | Amosite | Crocidolite | Anthrophyllite | Tremolite | Actinolite | Cellulose | Wool | | | | Glass | Fibers | Fibers | Other |
| 1728012CPL Grey plaster | 117633 | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY | Homogeneous |
| 1728013CPL Grey plaster | 117632 | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY | Homogeneous |
| 1728014CPL Black vapor barrier | 123375 | - | - | - | - | 80 % | - | - | - | - | - | - | 20 % | 1/4/01 | SSY | Homogeneous |
| 1728015CPL Grey basecoat ; yellow mastic | 123448 | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY | Non Homogeneous |
| 1728016CPL Black tile ; bm. mastic | 123445 | - | - | - | - | 30 % | - | - | - | - | - | - | 70 % | 1/4/01 | SSY | Non Homogeneous |
| 1728017CPL Brown tile ; bm. mastic | 123461 | - | - | - | - | 30 % | - | - | - | - | - | - | 70 % | 1/4/01 | SSY | Non Homogeneous |

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Polarized Light Microscopy Analysis Results

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NO. 5029 P. 10

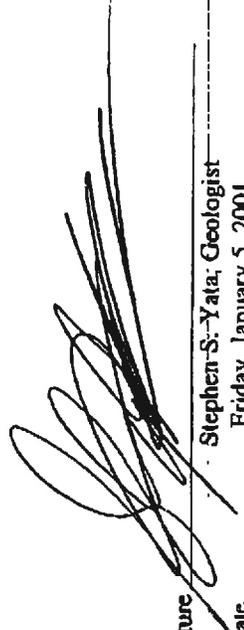
| Sample Number / Sample Appearance | Client Sample Number | Asbestos-----Nonasbestos----- | | | | | | | | | | Run Date | | | | |
|---|----------------------|-------------------------------|---------|-------------|---------------|-----------|------------|-----------|------|-------|--------|----------|--------|----------|---------|-----|
| | | Chrysotile | Amosite | Crocidolite | Anthophyllite | Tremolite | Actinolite | Cellulose | Wool | Glass | Fibers | | Fibers | Material | Analyst | |
| 1728018CPL Grey window putty | 121156 | - | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. Homogeneous | | | | | | | | | | | | | | | | |
| 1728019CPL Tan window putty | 121187 | - | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. Homogeneous | | | | | | | | | | | | | | | | |
| 1728020CPL Grey window putty | 121213 | - | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. Homogeneous | | | | | | | | | | | | | | | | |
| 1728021CPL Black roofing cement | 121195 | - | - | - | - | - | - | - | - | - | - | - | - | 96 % | 1/4/01 | SSY |
| NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part. Homogeneous | | | | | | | | | | | | | | | | |

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Sample Location Sample Not Analyzed

JAN. 4. 2001 4:49PM

Sample Location Sample Not Analyzed

Authorized Signature 

Samples received on: Thursday, January 4, 2001

Stephen S. Yata; Geologist
Friday, January 5, 2001

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Polarized Light Microscopy Analysis Results

Project AOC101020

NO. 5029 P. 11

Asbestos-----Nonasbestos-----

| Sample Number / Sample Appearance | Client Sample Number | Chrysotile | Amosite | Crocidolite | Anthophyllite | Tremolite | Actinolite | Cellulose | Wool | Glass | Fibers | Other Fibers | Synthetic | NonFibrous | Run Date | Analyst |
|--|----------------------|------------|---------|-------------|---------------|-----------|------------|-----------|------|-------|--------|--------------|-----------|------------|----------|---------|
| 1728024CPL Black shingle | 121157 | - | - | - | - | - | - | 60 % | - | - | - | - | - | 40 % | 1/4/01 | SSY |
| NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | | | | | |
| 1728025CPL Black shingle | 121184 | - | - | - | - | - | - | 60 % | - | - | - | - | - | 40 % | 1/4/01 | SSY |
| NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | | | | | |
| 1728026CPL Black shingle | 121182 | - | - | - | - | - | - | 60 % | - | - | - | - | - | 40 % | 1/4/01 | SSY |
| NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | | | | | |
| 1728027CPL Tan putty | 121189 | - | - | - | - | - | - | <1 % | - | - | - | - | - | 99+ % | 1/4/01 | SSY |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | | | | | |
| 1728028CPL Tan putty | 121173 | - | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | | | | | |
| 1728029CPL Grey anti skid coating | 121215 | - | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 | SSY |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | | | | | | | | | | | | | | |

Authorized Signature  Date
 Stephen S. Yata, Geologist
 Friday, January 5, 2001

Samples received on: Thursday, January 4, 2001

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Polarized Light Microscopy Analysis Results

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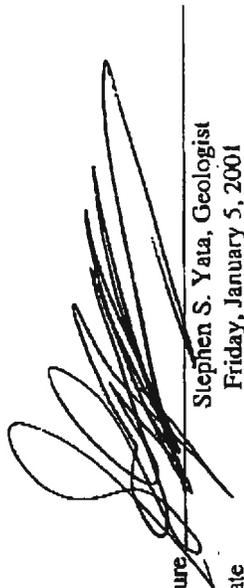
NO. 5029 P. 12

| | | | | | |
|------------------------|--------------------|---|-------------|---------------|-------------|
| | -----Asbestos----- | -----Nonasbestos----- | | | |
| Sample Number / | Mineral | Fibrous | Synthetic | Other | NonFibrous |
| Sample Appearance | Wool | Glass | Fibers | Fibers | Material |
| Client Sample Number | Chrysotile | Amosite | Crocidolite | Anthophyllite | Tremolite |
| 1728030CPL | 121210 | Cellulose | Actinolite | 100 % | 1/4/01 |
| Grey anti skid coating | | NFM: Qtz, Carb, Binder, Opaq, Misc. Part. | | | SSY |
| | | | | | Homogeneous |

| | | | | | |
|-------------------------|--------|------|------|------|-----------------|
| 1728031CPL | 121214 | 70 % | 10 % | 20 % | 1/4/01 |
| Tan paper ; silver foil | | | | | SSY |
| Layer Content: | | | | | Non Homogeneous |

Paper 70% Chrysotile ; Other Layer : None Detected

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 Page: 11 of 11

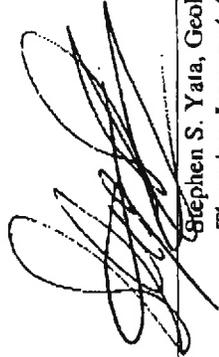
Test Report - RGA Environmental, Inc.

Polarized Light Microscopy Analysis Results

Project AOC101027

-----Asbestos-----Nonasbestos-----
 Mineral Fibrous Synthetic Other NonFibrous Run Date
 Sample Number / Client Sample Number Chrysotile Amosite Crocidolite Anthophyllite Tremolite Actinolite Cellulose Wool Glass Fibers Fibers Material Analyst

| Sample Number / Client Sample Number | Chrysotile | Amosite | Crocidolite | Anthophyllite | Tremolite | Actinolite | Cellulose | Wool | Glass | Fibers | Fibers | Material | Analyst |
|--|------------|---------|-------------|---------------|-----------|------------|-----------|------|-------|--------|--------|----------|---------------|
| 1727963CPL Grey plaster | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 SSY |
| NFM: Qtz, Carb, Binder, Opaq, Mica, Misc. Part. Homogeneous | | | | | | | | | | | | | |
| 1727964CPL Grey plaster | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 SSY |
| NFM: Qtz, Carb, Binder, Opaq, Mica, Misc. Part. Homogeneous | | | | | | | | | | | | | |
| 1727965CPL Grey plaster ; wht. skim coat | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 SSY |
| NFM: Qtz, Carb, Binder, Opaq, Misc. Part. Non Homogeneous | | | | | | | | | | | | | |
| 1727966CPL Grey plaster ; wht. skim coat | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 SSY |
| NFM: Qtz, Carb, Binder, Opaq, Mica, Misc. Part. Non Homogeneous | | | | | | | | | | | | | |
| 1727967CPL Grey plaster | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 SSY |
| NFM: Qtz, Carb, Opaq, Mica, Misc. Part. Homogeneous | | | | | | | | | | | | | |
| 1727968CPL Grey plaster ; wht. skim coat | - | - | - | - | - | - | - | - | - | - | - | 100 % | 1/4/01 SSY |
| NFM: Qtz, Carb, Opaq, Mica, Misc. Part. Non Homogeneous | | | | | | | | | | | | | |

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Samples received on: Wednesday, January 3, 2001

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 Page: 1 of 2

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Polarized Light Microscopy Analysis Results
Project AOC101027

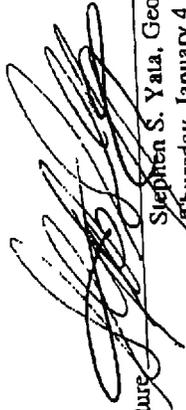
| Sample Number / Sample Appearance | Client Sample Number | Asbestos | | | | | | | | | | Nonasbestos | | | | Material | Analyst | Run Date | | | |
|--|----------------------|------------|---------|-------------|---------------|-----------|------------|-----------|------|-------|--------|-------------|-------|--------|--------|----------|---------|----------|--------|-----------------|--|
| | | Chrysotile | Amosite | Crocidolite | Anthophyllite | Tremolite | Actinolite | Cellulose | Wool | Glass | Fibers | Synthetic | Other | Fibers | Fibers | | | | Fibers | | |
| 1727969CPL Grey plaster ; whit. skim coat | 123468 | | | | | | | | | | | | | | | | 100 % | 1/4/01 | SSY | Non Homogeneous | |

NFM: Qtz, Carb, Opaq, Mica, Misc. Part.

Samples received on: Wednesday, January 3, 2001

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Authorized Signature  Stephen S. Yala, Geologist
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ACC 101020

Bulk Chain of Custody Form

RGA Environmental Inc.

4701 Doyle Street, Ste; 14, Emeryville, CA 94608, 510 547-7771

Project #: COAL6017

Building #: White cotton cottage

Building : San Leandro
Location

Turn Around Time: 8 hr Standard

First positive for each homogenous area. Yes No

02-Jan-01

Homogenous Areas Sample Number Check

| Homogenous Areas | Sample Number | Material Description | Check |
|------------------|---------------|--|-------------------------------------|
| 001 | | Plaster on wood lath | |
| 62 | 121125 | NW, upstairs corner room | <input checked="" type="checkbox"/> |
| | 121143 | SW, upstairs corner room | <input checked="" type="checkbox"/> |
| | 123249 | Downstairs living room, east wall in front of fire place | <input checked="" type="checkbox"/> |
| | 123446 | Downstairs small room, NW corner | <input checked="" type="checkbox"/> |
| | 1-17639 | Basement, small office | <input checked="" type="checkbox"/> |
| | 117651 | Downstairs, NW room | <input checked="" type="checkbox"/> |
| 003 | 123447 | Downstairs, north middle room | <input checked="" type="checkbox"/> |
| | | Wall covering, cloth | |
| | 123480 | Upstairs west middle room | <input checked="" type="checkbox"/> |
| 004 | 123479 | Downstairs next to front door | <input checked="" type="checkbox"/> |
| | 117636 | Downstairs hallway | <input checked="" type="checkbox"/> |
| | | Plaster on wire lath | |
| 005 | 123475 | SW upstairs corner room | <input checked="" type="checkbox"/> |
| | 123465 | Kitchen North wall | <input checked="" type="checkbox"/> |
| | 123466 | Kitchen South wall | <input checked="" type="checkbox"/> |
| | | Pipe Insulation | |
| 006 | 123436 | Radiator upstairs NE corner bathroom | <input checked="" type="checkbox"/> |
| | | Ceramic tile grout | |
| 007 | 123443 | Bathroom upstairs, NE corner wall | <input checked="" type="checkbox"/> |
| | 123471 | Bathroom upstairs, NE corner floor | <input checked="" type="checkbox"/> |
| | | Linoleum | |
| | 123437 | Upstairs, SE corner bathroom | <input checked="" type="checkbox"/> |

Report any missing pages immediately. Include the material description with the sampling results. All analyses to be completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982).

17

17
25
52

Homogenous Areas Sample Number Check

| 008 | Material Description | Blown Insulation | |
|-----|----------------------|--|-------------------------------------|
| | 123439 | Crawl space, SE upstairs corner room | <input checked="" type="checkbox"/> |
| 009 | Material Description | Plaster over button board | |
| | 123462 | Downstairs, NE corner room | <input checked="" type="checkbox"/> |
| | 123463 | Downstairs, NE corner bathroom | <input checked="" type="checkbox"/> |
| | 123467 | Downstairs, NE corner bathroom | <input checked="" type="checkbox"/> |
| 010 | Material Description | 12x12 floor tile, lightbrown w/ streaks, w/ mastic barrier | |
| | 117622 | Downstairs hallway, Northside | <input checked="" type="checkbox"/> |
| | 117628 | Kitchen | <input checked="" type="checkbox"/> |
| 011 | Material Description | 12x12 floor tile, light brown streaks, w/ mastic/barrier | |
| | 117626 | NE corner downstairs room | <input checked="" type="checkbox"/> |
| | 117642 | NE corner downstairs room | <input checked="" type="checkbox"/> |
| 012 | Material Description | 12x12 floor tile, white w/ blue spots, w/ mastic barrier | |
| | 117631 | Downstairs kitchen | <input checked="" type="checkbox"/> |
| | 117624 | Downstairs kitchen | <input checked="" type="checkbox"/> |
| 013 | Material Description | Basecove, light brown | |
| | 117629 | Kitchen | <input checked="" type="checkbox"/> |
| | 117625 | Kitchen | <input checked="" type="checkbox"/> |
| 014 | Material Description | Base covering | |
| | 117627 | Bathroom, SE corner of kitchen | <input checked="" type="checkbox"/> |
| 015 | Material Description | 12x12 patch tiles, Mud room | |
| | 117646 | Mudroom | <input checked="" type="checkbox"/> |
| | 117635 | Mudroom | <input checked="" type="checkbox"/> |
| | 117630 | Mudroom | <input checked="" type="checkbox"/> |
| 016 | Material Description | Black and gold floor tile | |
| | 117658 | Downstairs, SE corner room | <input checked="" type="checkbox"/> |
| | 117647 | Downstairs, SE corner room | <input checked="" type="checkbox"/> |

Report any missing pages immediately. Include the material description with the sampling results. All analyses to be completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982).

18

| Homogenous Areas | Sample Number | Check |
|------------------|--|-------------------------------------|
| 017 | 117645 Material Description Downstairs South middle room Pipe wrap, canvas | <input checked="" type="checkbox"/> |
| 018 | 117648 Material Description Basement, SE corner, near exit Carpet pad mastic | <input checked="" type="checkbox"/> |
| 019 | 117650 117641 Material Description Downstairs, large office room Downstairs, large office room Basecove, 4" dark brown | <input checked="" type="checkbox"/> |
| 020 | 117638 117623 Material Description Large office, basement Large office, basement Plaster over concrete | <input checked="" type="checkbox"/> |
| 021 | 117634 117633 117632 Material Description Downstairs, large office Downstairs, large office Downstairs, small office Vapor barrier | <input checked="" type="checkbox"/> |
| 022 | 123375 Material Description Behind plywood, living room, SE wall Basecove, 4" and mastic | <input checked="" type="checkbox"/> |
| 023 | 123448 Material Description Sunroom, SW, downstairs corner Tile floor | <input checked="" type="checkbox"/> |
| 024 | 123445 123461 Material Description Checkerboard floortile, sunroom, SW corner Checkerboard floortile, sunroom, SW corner Window putty | <input checked="" type="checkbox"/> |
| 025 | 121156 121187 121213 Material Description NW turret Kitchen window, over sink SE corner, sunroom Roofing cement | <input checked="" type="checkbox"/> |
| | 121195 121180 Chimney Skylight | <input checked="" type="checkbox"/> |

Report any missing pages immediately. Include the material description with the sampling results. All analyses to be completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982).

18

| Homogenous Areas | Sample Number | Material Description | Check |
|------------------|---------------|---|-------------------------------------|
| 026 | 121181 | At pipe penetration Roofing shingles | <input checked="" type="checkbox"/> |
| 027 | 121157 | SE corner at ladder | <input checked="" type="checkbox"/> |
| | 121184 | East roof (top) | |
| | 121182 | North peak Skylight putty | |
| 028 | 121189 | Skylight | <input checked="" type="checkbox"/> |
| | 121173 | Skylight Anti-skid coating | |
| 029 | 121215 | Front porch | <input checked="" type="checkbox"/> |
| | 121210 | Front porch Light fixture paper | |
| | 121214 | 2nd floor, SW room | <input checked="" type="checkbox"/> |

Contact Person for these samples is: Ken Pilgrim / Bill McIlhatton

Samples Relinquished by: Johanne Tonia Date: 1/2/00

Samples Received by: Ben Schindler Date: 01-02-01

51007

Notes: _____

9

Report any missing pages immediately. Include the material description with the sampling results. All analyses to be completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982).

AOC101027

Bulk Chain of Custody Form

RGA Environmental Inc.

4701 Doyle Street, Ste: 14, Emeryville, CA 94608, 510 541-7771

Project #: COAL6017
Building #: White cotton cottage
Building : San Leandro
Location

Turn Around Time: 8 hr Standard
First positive for each homogenous area. Yes No

02-Jan-01

to
-
en
that were
being.

| Homogenous Areas | Sample Number | Material Description | Check |
|------------------|---------------|--------------------------------------|-------------------------------------|
| 002 | | Plaster on wood lath | |
| | 123477 | NW, upstairs corner room | <input checked="" type="checkbox"/> |
| | 123337 | West upstairs middle room | <input checked="" type="checkbox"/> |
| | 123438 | East upstairs middle bathroom | <input checked="" type="checkbox"/> |
| | 123472 | Downstairs, NW corner by radiator | <input checked="" type="checkbox"/> |
| | 117643 | Living room wall | <input checked="" type="checkbox"/> |
| | 117640 | Downstairs North hallway | <input checked="" type="checkbox"/> |
| | 123468 | Downstairs kitchen steps | <input checked="" type="checkbox"/> |
| 003 | | Wall covering, cloth | |
| | 123480 | Upstairs west middle room | <input checked="" type="checkbox"/> |
| | 123479 | Downstairs next to front door | <input checked="" type="checkbox"/> |
| | 117636 | Downstairs hallway | <input checked="" type="checkbox"/> |
| 004 | | Plaster on wire lath | |
| | 123475 | SW upstairs corner room | <input checked="" type="checkbox"/> |
| | 123465 | Kitchen North wall | <input checked="" type="checkbox"/> |
| | 123466 | Kitchen South wall | <input checked="" type="checkbox"/> |
| 005 | | Pipe Insulation | |
| | 123436 | Radiator upstairs NE corner bathroom | <input checked="" type="checkbox"/> |
| 006 | | Ceramic tile grout | |
| | 123443 | Bathroom upstairs, NE corner wall | <input checked="" type="checkbox"/> |
| | 123471 | Bathroom upstairs, NE corner floor | <input checked="" type="checkbox"/> |
| 007 | | Linoleum | |
| | 123437 | Upstairs, SE corner bathroom | <input checked="" type="checkbox"/> |

Report any missing pages immediately. Include the material description with the sampling results. All analyses to be completed by Polarized Light Microscopy (PLM) following EPA Interim method (EPA-600/M4-82-020, Dec 1982).

350 Hochberg Road Monroeville, PA 15146
 Phone (724) 325-1776 Fax (724) 733-1799

LABORATORY REPORT

RGA Environmental
 4701 Doyle Street, Suite 14
 Emeryville, CA 94608
 Attention: Gene Spector
 (510) 547-7771 FAX: (510) 547-1983

Analysis: Lead in Paint
 Method: EPA SW846-7420 ---- FLAA

RJ Lee Group Job No.: ACC101506
 Samples Received: 4-Jan-01
 Report Date: 4-Jan-01
 Client Project: COAL 6017
 White Cotton Cottage
 Sampling Date: 28-Dec-00

| Sample Identification | Lead | |
|--------------------------------|----------------|-------------------|
| | Weight Percent | Parts per Million |
| RJ Lee Group 123473 0310237 | 11.5 | 115,000 |
| 123460 0310238 | 3.33 | 33,300 |
| 123444 0310239 | 0.137 | 1,370 |
| 117637 0310240 | 14.9 | 149,000 |
| 121177 0310241 | 30.4 | 304,000 |
| 121183 0310242 | 28.8 | 288,000 |
| 121194 0310243 | 31.0 | 310,000 |
| 121196 0310244 | 0.244 | 2,440 |
| 121216 0310245 | 30.4 | 304,000 |

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any samples.

S. Paul Cohen, Laboratory Manager
 Brandon J. Miller, Assistant Scientist
 Ryan B. Walters, Assistant Scientist

Kimberly S. DiNatale, Scientist
 Philip Grindie, Supervisor
 Melisa Varner, Assistant Scientist

Alan M. Levine, Manager

Please direct inquiries to Brandon J. Miller in Client Services.

AIHA ELLAP #8204
 CA ELAP #1970
 PA DEP #02-396

Authorized Signature 
 Date 1/4/01

Monroeville, PA - San Leandro, CA - Washington, DC

ACC101506

LEAD-BASED PAINT SAMPLES JOB # COAL 6017 BLDG NAME OR # White Cotton Cottage

DATE 12/20/01 PROJECT MGR Steff Steiner PAGE 1 OF 1

| SAMPLE # | COMPONENT/LOCATION | COLOR/SUBSTRATE | GOOD | CRACKED/ EST. QUAN. | STRATIFIED/ EST. QUAN. |
|----------|--|-----------------|-------------------------------------|---------------------|-------------------------------------|
| 123473 | upstairs, south west, corner interior window frame | pink / Wood | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> |

COMMENTS:

| | | | | | |
|--------|--|-------------|--|-------------------------------------|--|
| 123460 | door frame paint, main door, north west corner | gray / Wood | | <input checked="" type="checkbox"/> | |
|--------|--|-------------|--|-------------------------------------|--|

COMMENTS:

| | | | | | |
|--------|--------------------------------------|----------------|--|--|-------------------------------------|
| 123444 | wall, downstairs, middle room north. | pink / Plaster | | | <input checked="" type="checkbox"/> |
|--------|--------------------------------------|----------------|--|--|-------------------------------------|

COMMENTS:

| | | | | | |
|-------|---------------------------------------|--------------|--|--|-------------------------------------|
| 17687 | downstairs, bathroom off kitchen wall | white / Wood | | | <input checked="" type="checkbox"/> |
|-------|---------------------------------------|--------------|--|--|-------------------------------------|

COMMENTS:

| | | | | | |
|-------|----------------------------|--------------|--|-------------------------------------|--|
| 21177 | exterior window of kitchen | white / Wood | | <input checked="" type="checkbox"/> | |
|-------|----------------------------|--------------|--|-------------------------------------|--|

COMMENTS:

| | | | | | |
|--------|--|--------------|--|--|-------------------------------------|
| 121183 | shingle paint, northeast corner Exterior | white / Wood | | | <input checked="" type="checkbox"/> |
|--------|--|--------------|--|--|-------------------------------------|

COMMENTS:

| | | | | | |
|-------|--|--------------|--|--|-------------------------------------|
| 21184 | south son room door threshold - exterior | white / Wood | | | <input checked="" type="checkbox"/> |
|-------|--|--------------|--|--|-------------------------------------|

COMMENTS:

| | | | | | |
|--------|--------------------|---------------|--|-------------------------------------|--|
| 121196 | black, roof ladder | black / Metal | | <input checked="" type="checkbox"/> | |
|--------|--------------------|---------------|--|-------------------------------------|--|

COMMENTS:

| | | | | | |
|--------|-------------------------|-----------------|--|--|--|
| 121216 | Interior wall / Kitchen | white / Plaster | | | |
|--------|-------------------------|-----------------|--|--|--|

COMMENTS:

| | | | | | |
|-----------|---|---------|--|--|--|
| COMMENTS: |  | 0310237 | | | |
|-----------|---|---------|--|--|--|

| | | | | | |
|-----------|---|---------|--|--|--|
| COMMENTS: |  | 0310245 | | | |
|-----------|---|---------|--|--|--|

COMMENTS:

| | | | | | |
|-----------|--|--|--|--|--|
| COMMENTS: | | | | | |
|-----------|--|--|--|--|--|

COMMENTS:

| | | | | | |
|-----------|--|--|--|--|--|
| COMMENTS: | | | | | |
|-----------|--|--|--|--|--|

COMMENTS:

Joe 1/4/01 10:00
Bm 01-02-01

Relinquished by: *[Signature]* Date & Time: 11/2/2001 1603
 Relinquished to: *[Signature]* Date & Time: 5:00 P
 MONA 113901 2:30 Pm

APPENDIX C
SITE INSPECTOR CERTIFICATES

State of California
Division of Occupational Safety and Health

Certified Asbestos Consultant

Kenneth M. Pilgrim



Name

Certification No. **97-2267**

Expires on **10/15/2001**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code

State of California
Department of Health Services
**Lead-Related Construction
Interim Certificate**

Kenneth M. Pilgrim

**Project Monitor
M-1105 (Exp. 09/22/01)**



State of California
Division of Occupational Safety and Health

Certified Site Surveillance Technician
William H McIlhattan

Name

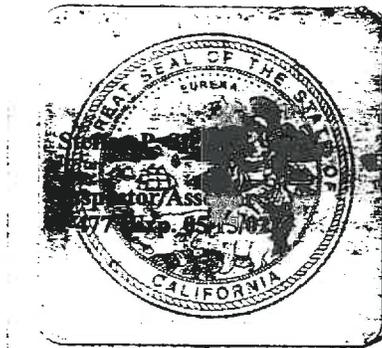
99-2791

Certification No.

FF2622001

Expires on

This certificate was issued by the Division of Occupational Safety and Health, as authorized by Section 7300 et seq. of the Business and Professions Code.



State of California
Department of Health Services
Asbestos-Related Construction
Interim Certificate



State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Steffen Paul Steiner

Name



Certification No. **92-0850**

Expires on **1/8/2002**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code

Appendix D

Roadway Construction Noise Model (RCNM) Results

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/28/2019
 Case Description: Whitcotton Demolition Phase

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|--------------|-------------|-----------------|---------|-------|
| Description | Land Use | Daytime | Evening | Night |
| Detox Center | Residential | 65 | 55 | 45 |

| | | Equipment | | | | |
|--------------|----------|-----------|--------|----------|-----------|--|
| | | Spec | Actual | Receptor | Estimated | |
| | | Lmax | Lmax | Distance | Shielding | |
| Description | Impact | (dBA) | (dBA) | (feet) | (dBA) | |
| Device | Usage(%) | | | | | |
| Concrete Saw | No | 20 | 89.6 | 100 | 0 | |
| Backhoe | No | 40 | 77.6 | 100 | 0 | |
| Dozer | No | 40 | 81.7 | 100 | 0 | |
| Tractor | No | 40 | 84 | 100 | 0 | |

| | | Results | | | | | | | | | | | | |
|--------------|--|------------------|------|---------|-----|--------------------|-----|------|-----|------------------------------|-----|-------|-----|------|
| | | Calculated (dBA) | | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | |
| | | Day | | Evening | | Night | | Day | | Evening | | Night | | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax |
| Concrete Saw | | 83.6 | 76.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 71.5 | 67.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | | 75.6 | 71.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 78 | 74 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | | 83.6 | 79.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|--------------|-------------|-----------------|---------|-------|
| Description | Land Use | Daytime | Evening | Night |
| Rehab Center | Residential | 65 | 55 | 45 |

| | | Equipment | | | | |
|--------------|----------|-----------|--------|----------|-----------|--|
| | | Spec | Actual | Receptor | Estimated | |
| | | Lmax | Lmax | Distance | Shielding | |
| Description | Impact | (dBA) | (dBA) | (feet) | (dBA) | |
| Device | Usage(%) | | | | | |
| Concrete Saw | No | 20 | 89.6 | 50 | 0 | |
| Backhoe | No | 40 | 77.6 | 50 | 0 | |
| Dozer | No | 40 | 81.7 | 50 | 0 | |
| Tractor | No | 40 | 84 | 50 | 0 | |

| | | Results | | | | | | | | | | | | |
|--------------|--|------------------|------|---------|-----|--------------------|-----|------|-----|------------------------------|-----|-------|-----|------|
| | | Calculated (dBA) | | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | |
| | | Day | | Evening | | Night | | Day | | Evening | | Night | | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax |
| Concrete Saw | | 89.6 | 82.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 77.6 | 73.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | | 81.7 | 77.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 84 | 80 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | | 89.6 | 85.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|-------------|-------------|-----------------|---------|-------|
| Description | Land Use | Daytime | Evening | Night |
| Hospital | Residential | 65 | 55 | 45 |

| | | Equipment | | | | |
|--------------|----------|-----------|--------|----------|-----------|--|
| | | Spec | Actual | Receptor | Estimated | |
| | | Lmax | Lmax | Distance | Shielding | |
| Description | Impact | (dBA) | (dBA) | (feet) | (dBA) | |
| Device | Usage(%) | | | | | |
| Concrete Saw | No | 20 | 89.6 | 300 | 0 | |
| Backhoe | No | 40 | 77.6 | 300 | 0 | |
| Dozer | No | 40 | 81.7 | 300 | 0 | |
| Tractor | No | 40 | 84 | 300 | 0 | |

| | | Results | | | | | | | | | | | | |
|--------------|--|------------------|------|---------|-----|--------------------|-----|------|-----|------------------------------|-----|-------|-----|------|
| | | Calculated (dBA) | | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | |
| | | Day | | Evening | | Night | | Day | | Evening | | Night | | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax |
| Concrete Saw | | 74 | 67 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 62 | 58 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | | 66.1 | 62.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 68.4 | 64.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | | 74 | 70 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/28/2019
 Case Description: Whitecotton Demolition Phase

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|--------------|-------------|-----------------|---------|-------|
| Description | Land Use | Daytime | Evening | Night |
| Detox Center | Residential | 65 | 55 | 45 |

| | | Equipment | | | | |
|--------------|---------------|-----------|------------|------------|-----------------|-----------------|
| Description | Impact Device | Usage(%) | Spec | Actual | Receptor | Estimated |
| | | | Lmax (dBA) | Lmax (dBA) | Distance (feet) | Shielding (dBA) |
| Concrete Saw | No | 20 | | 89.6 | 100 | 0 |
| Backhoe | No | 40 | | 77.6 | 100 | 0 |
| Dozer | No | 40 | | 81.7 | 100 | 0 |
| Tractor | No | 40 | 84 | | 100 | 0 |

| | | Results | | | | | | | | | | | | | |
|--------------|--------------|------------------|-------------|------------|------------|--------------------|------------|------------|------------|------------------------------|------------|------------|------------|------------|------------|
| | | Calculated (dBA) | | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | |
| Equipment | Total | Day | | Evening | | Night | | Day | | Evening | | Night | | | |
| | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Concrete Saw | | 83.6 | 76.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 71.5 | 67.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | | 75.6 | 71.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 78 | 74 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 83.6 | 79.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|--------------|-------------|-----------------|---------|-------|
| Description | Land Use | Daytime | Evening | Night |
| Rehab Center | Residential | 65 | 55 | 45 |

| | | Equipment | | | | |
|--------------|---------------|-----------|------------|------------|-----------------|-----------------|
| Description | Impact Device | Usage(%) | Spec | Actual | Receptor | Estimated |
| | | | Lmax (dBA) | Lmax (dBA) | Distance (feet) | Shielding (dBA) |
| Concrete Saw | No | 20 | | 89.6 | 50 | 0 |
| Backhoe | No | 40 | | 77.6 | 50 | 0 |
| Dozer | No | 40 | | 81.7 | 50 | 0 |
| Tractor | No | 40 | 84 | | 50 | 0 |

| | | Results | | | | | | | | | | | | | |
|--------------|--------------|------------------|-------------|------------|------------|--------------------|------------|------------|------------|------------------------------|------------|------------|------------|------------|------------|
| | | Calculated (dBA) | | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | |
| Equipment | Total | Day | | Evening | | Night | | Day | | Evening | | Night | | | |
| | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Concrete Saw | | 89.6 | 82.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 77.6 | 73.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | | 81.7 | 77.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 84 | 80 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 89.6 | 85.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|-------------|-------------|-----------------|---------|-------|
| Description | Land Use | Daytime | Evening | Night |
| Hospital | Residential | 65 | 55 | 45 |

| | | Equipment | | | | |
|--------------|---------------|-----------|------------|------------|-----------------|-----------------|
| Description | Impact Device | Usage(%) | Spec | Actual | Receptor | Estimated |
| | | | Lmax (dBA) | Lmax (dBA) | Distance (feet) | Shielding (dBA) |
| Concrete Saw | No | 20 | | 89.6 | 300 | 0 |
| Backhoe | No | 40 | | 77.6 | 300 | 0 |
| Dozer | No | 40 | | 81.7 | 300 | 0 |
| Tractor | No | 40 | 84 | | 300 | 0 |

| | | Results | | | | | | | | | | | | | |
|--------------|--------------|------------------|-----------|------------|------------|--------------------|------------|------------|------------|------------------------------|------------|------------|------------|------------|------------|
| | | Calculated (dBA) | | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | |
| Equipment | Total | Day | | Evening | | Night | | Day | | Evening | | Night | | | |
| | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Concrete Saw | | 74 | 67 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 62 | 58 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | | 66.1 | 62.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 68.4 | 64.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 74 | 70 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

Appendix E

Assembly Bill 52 Consultation Correspondence



February 6, 2019

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637-4238
Via Email: ams@indiancanyon.org

RE: AB 52 Consultation, Whitecotton Cottage Demolition Project, San Leandro, Alameda County, California

Dear Chairperson Sayers:

The County of Alameda General Services Agency (County) is preparing an Environmental Impact Report (EIR) for the Whitecotton Cottage Demolition Project. The proposed project consists of the demolition of Whitecotton cottage, a residence located in the Fairmont Medical Center Campus in San Leandro. More specifically, demolition of the structure would involve the removal of asbestos-containing materials, building components coated with lead-based paint, excavation and disposal of lead contaminated soil around the structure, and rough grading of the site. The proposed project is subject to the California Environmental Quality Act (CEQA).

On January 25, 2019, Rincon Consultants, Inc. performed a records search at the Northwest Information Center. The search determined that no Native American archaeological sites have been recorded within a 0.5-mile radius of the project site.

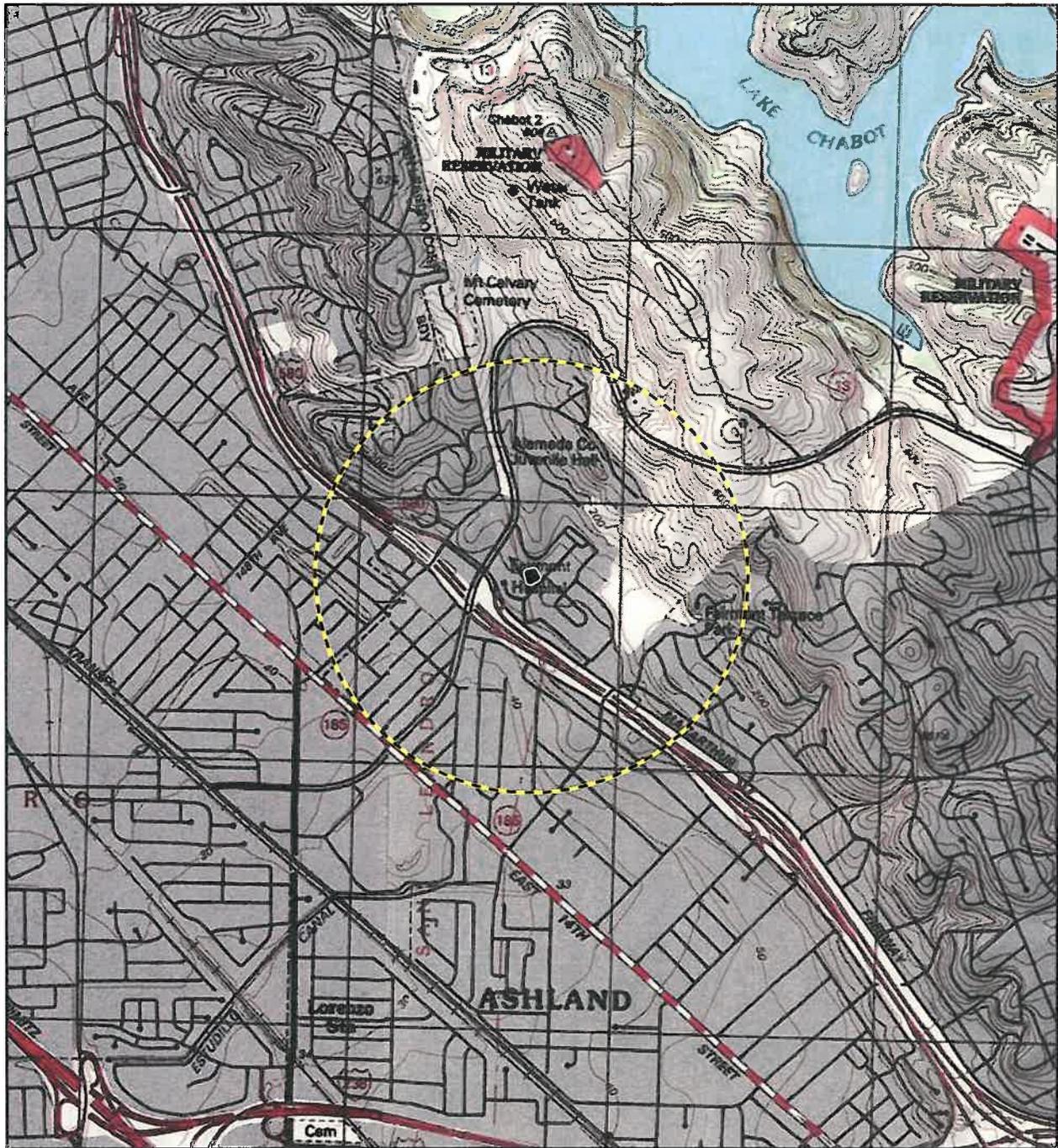
The proposed project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Indian Canyon Mutsun Band of Costanoan is important to the County's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (510) 208-9520 or via e-mail at jason.garrison@acgov.org. Thank you for your assistance.

Sincerely,

Jason B. Garrison
County of Alameda General Services Agency
Environmental Department – Capital Programs

Enclosure: Project Location Map



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-  Half-Mile Buffer
-  Area of Potential Effects



0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Records Search Map





February 6, 2019

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887-3415
Via Email: canutes@verizon.net

RE: AB 52 Consultation, Whitecotton Cottage Demolition Project, San Leandro, Alameda County, California

Dear Chairperson Perez:

The County of Alameda General Services Agency (County) is preparing an Environmental Impact Report (EIR) for the Whitecotton Cottage Demolition Project. The proposed project consists of the demolition of Whitecotton cottage, a residence located in the Fairmont Medical Center Campus in San Leandro. More specifically, demolition of the structure would involve the removal of asbestos-containing materials, building components coated with lead-based paint, excavation and disposal of lead contaminated soil around the structure, and rough grading of the site. The proposed project is subject to the California Environmental Quality Act (CEQA).

On January 25, 2019, Rincon Consultants, Inc. performed a records search at the Northwest Information Center. The search determined that no Native American archaeological sites have been recorded within a 0.5-mile radius of the project site.

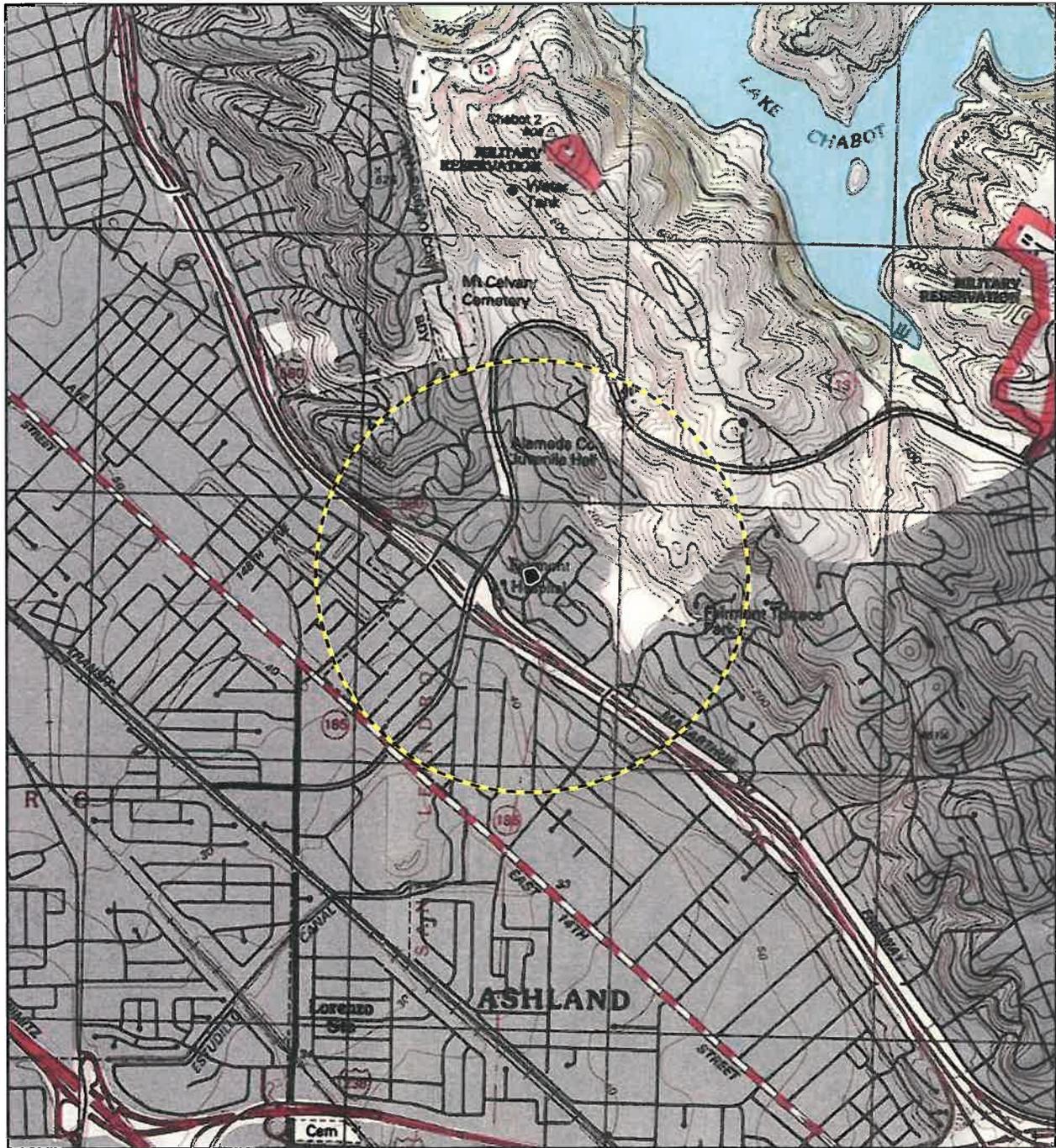
The proposed project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the North Valley Yokuts Tribe is important to the County's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (510) 208-9520 or via e-mail at jason.garrison@acgov.org. Thank you for your assistance.

Sincerely,

Jason B. Garrison
County of Alameda General Services Agency
Environmental Department – Capital Programs

Enclosure: Project Location Map



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-  Half-Mile Buffer
-  Area of Potential Effects



0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Records Search Map





February 6, 2019

Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408)464-2892
Via Email: cnijmeh@muwekma.org

RE: AB 52 Consultation, Whitecotton Cottage Demolition Project, San Leandro, Alameda County, California

Dear Chairperson Nijmeh:

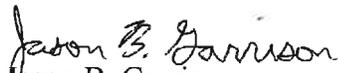
The County of Alameda General Services Agency (County) is preparing an Environmental Impact Report (EIR) for the Whitecotton Cottage Demolition Project. The proposed project consists of the demolition of Whitecotton cottage, a residence located in the Fairmont Medical Center Campus in San Leandro. More specifically, demolition of the structure would involve the removal of asbestos-containing materials, building components coated with lead-based paint, excavation and disposal of lead contaminated soil around the structure, and rough grading of the site. The proposed project is subject to the California Environmental Quality Act (CEQA).

On January 25, 2019, Rincon Consultants, Inc. performed a records search at the Northwest Information Center. The search determined that no Native American archaeological sites have been recorded within a 0.5-mile radius of the project site.

The proposed project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

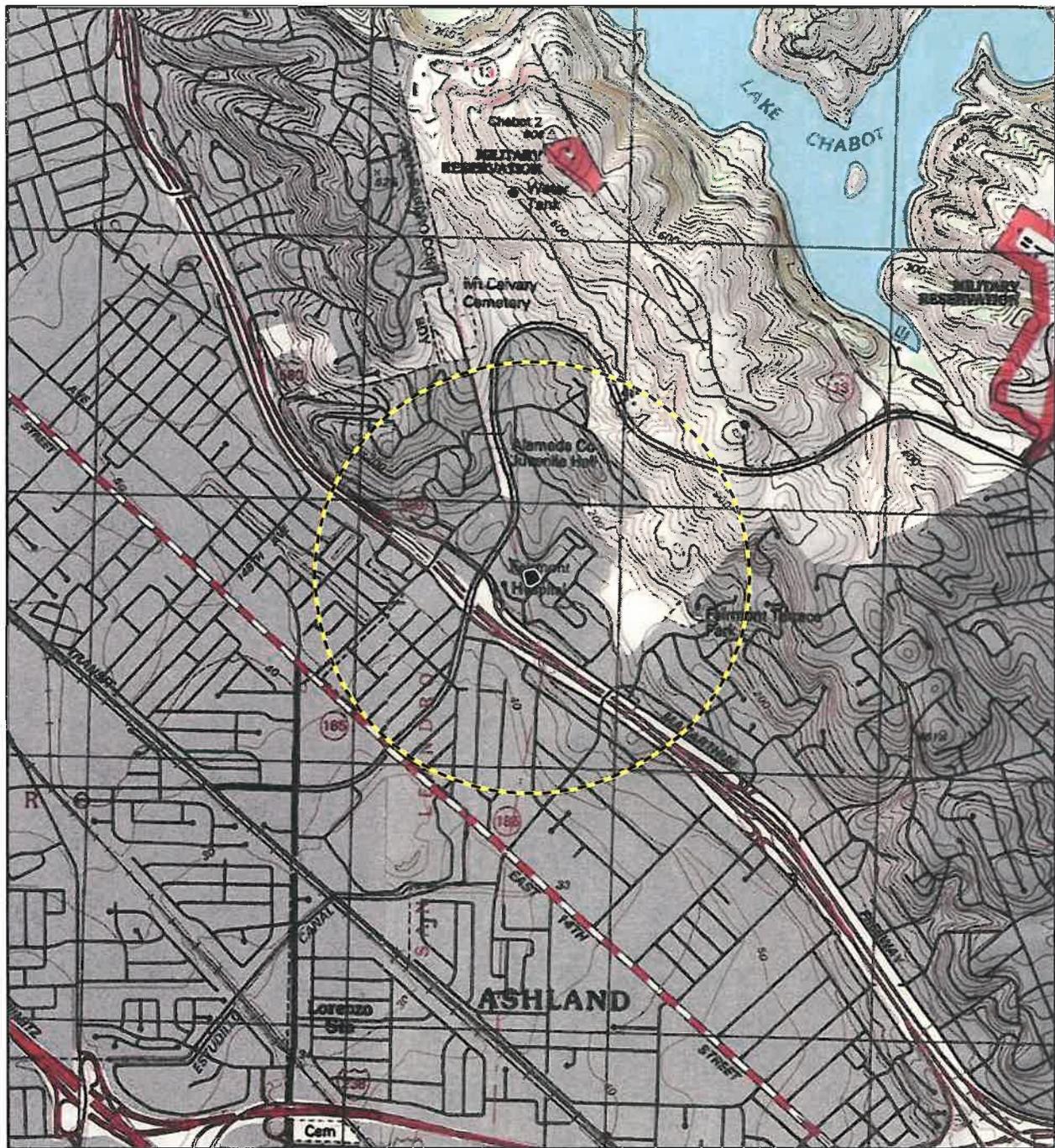
The input of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area is important to the County's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (510) 208-9520 or via e-mail at jason.garrison@acgov.org. Thank you for your assistance.

Sincerely,


Jason B. Garrison

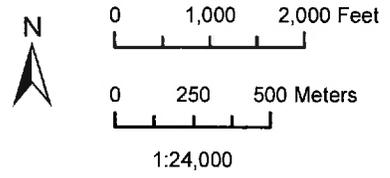
County of Alameda General Services Agency
Environmental Department – Capital Programs

Enclosure: Project Location Map



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-  Half-Mile Buffer
-  Area of Potential Effects



Records Search Map





February 6, 2019

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650) 851-7489
Via Email: amahmutsuntribal@gmail.com

RE: AB 52 Consultation, Whitecotton Cottage Demolition Project, San Leandro, Alameda County, California

Dear Chairperson Zwierlein:

The County of Alameda General Services Agency (County) is preparing an Environmental Impact Report (EIR) for the Whitecotton Cottage Demolition Project. The proposed project consists of the demolition of Whitecotton cottage, a residence located in the Fairmont Medical Center Campus in San Leandro. More specifically, demolition of the structure would involve the removal of asbestos-containing materials, building components coated with lead-based paint, excavation and disposal of lead contaminated soil around the structure, and rough grading of the site. The proposed project is subject to the California Environmental Quality Act (CEQA).

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The proposed project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Amah Mutsun Tribal Band of Mission San Juan Bautista is important to the County's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (510) 208-9520 or via e-mail at jason.garrison@acgov.org. Thank you for your assistance.

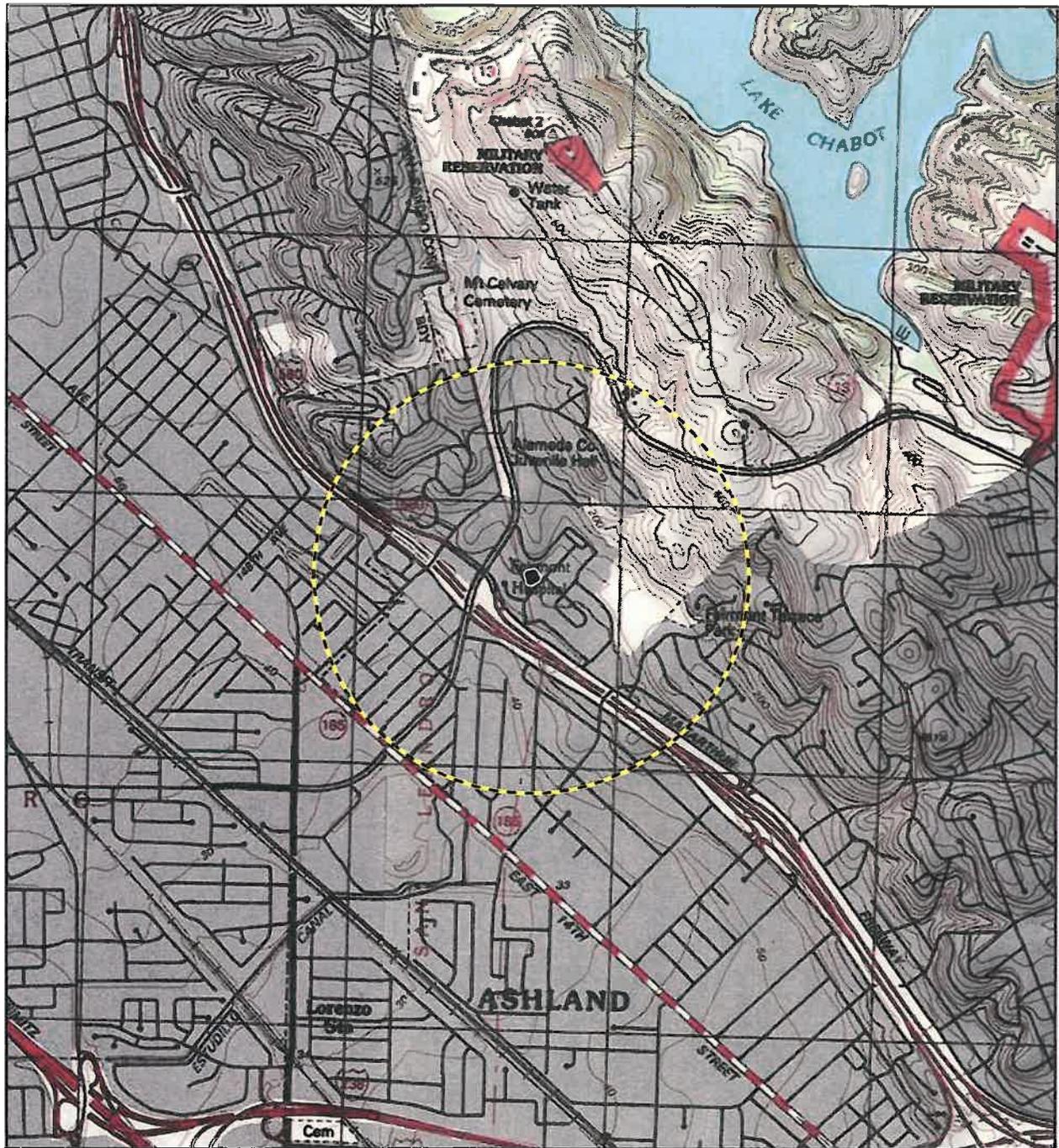
Sincerely,

Jason B. Garrison

County of Alameda General Services Agency
Environmental Department – Capital Programs

Enclosure: Project Location Map

Whitecotton Cottage Demolition Project
Cultural Resources Study



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-  Half-Mile Buffer
-  Area of Potential Effects



0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Records Search Map





February 6, 2019

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 338
Fremont, CA, 94539
Phone: (510) 882-0527
Via Email: chochenyo@AOL.com

RE: AB 52 Consultation, Whitecotton Cottage Demolition Project, San Leandro, Alameda County, California

Dear Mr. Galvan:

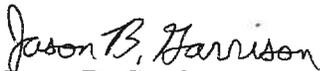
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The proposed project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

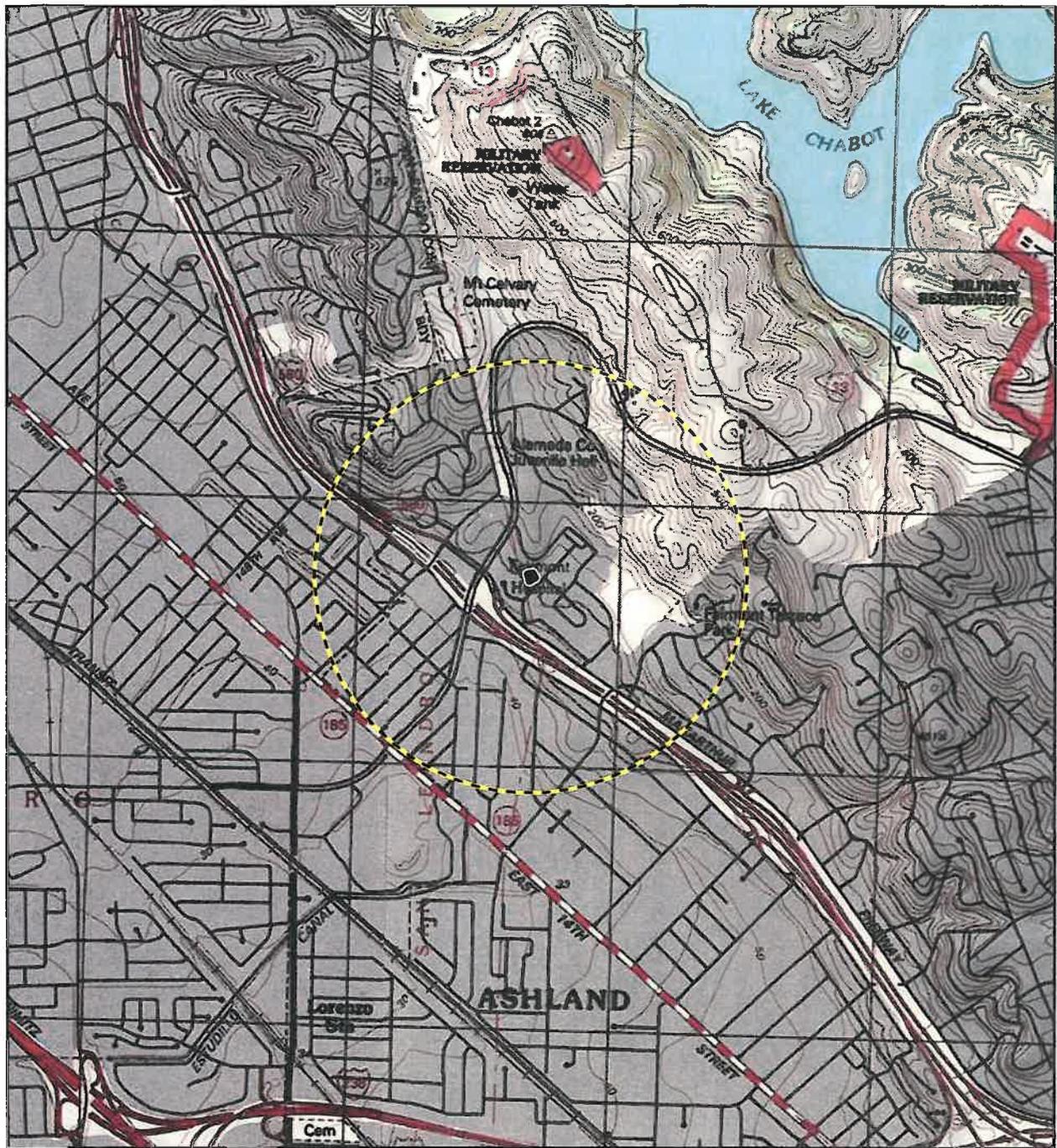
The input of the Ohlone Indian Tribe is important to the County's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (510) 208-9520 or via e-mail at jason.garrison@acgov.org. Thank you for your assistance.

Sincerely,


Jason B. Garrison

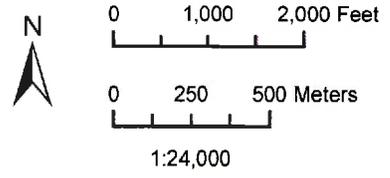
County of Alameda General Services Agency
Environmental Department – Capital Programs

Enclosure: Project Location Map



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-  Half-Mile Buffer
-  Area of Potential Effects



Records Search Map





February 6, 2019

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743-5833
Via Email: vlopez@amahmutsun.org

RE: AB 52 Consultation, Whitecotton Cottage Demolition Project, San Leandro, Alameda County, California

Dear Chairperson Lopez:

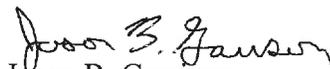
The County of Alameda General Services Agency (County) is preparing an Environmental Impact Report (EIR) for the Whitecotton Cottage Demolition Project. The proposed project consists of the demolition of Whitecotton cottage, a residence located in the Fairmont Medical Center Campus in San Leandro. More specifically, demolition of the structure would involve the removal of asbestos-containing materials, building components coated with lead-based paint, excavation and disposal of lead contaminated soil around the structure, and rough grading of the site. The proposed project is subject to the California Environmental Quality Act (CEQA).

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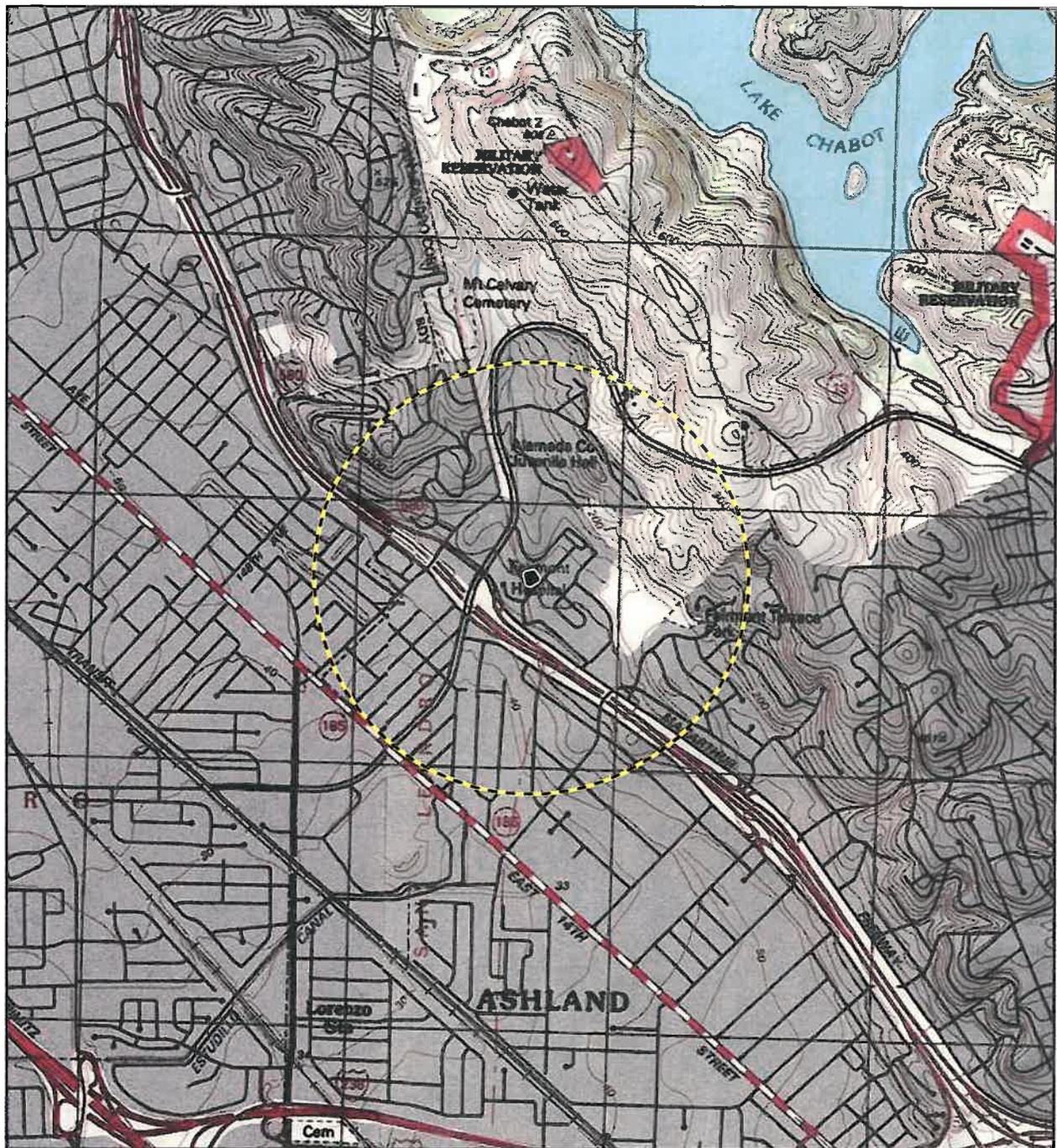
The proposed project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Amah Mutsun Tribal Band is important to the County's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact me at (510) 208-9520 or via e-mail at jason.garrison@acgov.org. Thank you for your assistance.

Sincerely,


Jason B. Garrison
County of Alameda General Services Agency
Environmental Department – Capital Programs

Enclosure: Project Location Map



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Records Search Map

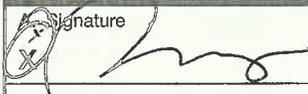


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1. Article Addressed to:
Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Rd Ste 232
Castro Valley, CA 94546

COMPLETE THIS SECTION ON DELIVERY

A. Signature  Agent Addressee

B. Received by (Printed Name) **Rhoda Ramos** C. Date of Delivery **2/11/19**

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
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4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) **7013 1710 0000 7239 6056**

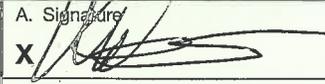
PS Form 3811, July 2013 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024

COMPLETE THIS SECTION ON DELIVERY

A. Signature  Agent Addressee

B. Received by (Printed Name) **Walter Mares** C. Date of Delivery **2/20/19**

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

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 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) **7013 1710 0000 7239 6025**

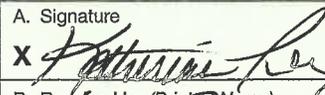
PS Form 3811, July 2013 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
North Valley Yakuts Tribe
Katherine Erolina-Perez, Chairperson
P.O. Box 717
Linden, CA 95236

COMPLETE THIS SECTION ON DELIVERY

A. Signature  Agent Addressee

B. Received by (Printed Name) **PEREZ** C. Date of Delivery **2/11/19**

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail® Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) **7013 1710 0000 7239 6063**

PS Form 3811, July 2013 Domestic Return Receipt

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY | |
|--|--|---------------------------------------|
| <ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. | A. Signature  <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee | |
| 1. Article Addressed to: Amah Mutsun Tribal Band Valentin Lopez, Chairperson P.O. Box 5272 Galt, CA 95632 | B. Received by (Printed Name) Valentin Lopez | C. Date of Delivery 2-14-19 |
| | D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No | |
| 3. Service Type <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™ <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery | | |
| 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes | | |
| 2. Article Number (Transfer from service label) 7013 1710 0000 7239 6018 | | |
| PS Form 3811, July 2013 Domestic Return Receipt | | |

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY | |
|--|---|---------------------|
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| 1. Article Addressed to: Amah Mutsun Tribal Band of Mission San Juan Bautista Irene Zwicklein, Chairperson 789 Canada Rd Woodside, CA 94062 | B. Received by (Printed Name) | C. Date of Delivery |
| | D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No | |
| 3. Service Type <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™ <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery | | |
| 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes | | |
| Article Number (Transfer from service label) 7013 1710 0000 7239 6049 | | |
| PS Form 3811, July 2013 Domestic Return Receipt | | |

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY | |
|--|--|---|
| <ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. | A. Signature X  <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee | |
| 1. Article Addressed to: The Ohlone Indian Tribe 40 Andrew Galvan P.O. Box 338 Fremont, CA 94539 | B. Received by (Printed Name) GALVAN | C. Date of Delivery 26 Feb 2019 |
| | D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No | |
| 3. Service Type <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™ <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery | | |
| 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes | | |
| 2. Article Number (Transfer from service label) 7013 1710 0000 7239 6032 | | |
| PS Form 3811, July 2013 Domestic Return Receipt | | |

7013 1710 0000 7239 6025

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| Restricted Delivery Fee (Endorsement Required) | | |
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Appendix 2

Historic and Architectural Assessment

August 27, 2018

**Superintendent's Residence/Whitecotton Cottage
Fairmont Hospital, Alameda County
Historic Resource Summary**

Introduction

As requested by the County of Alameda's General Services Administration, this report addresses historic resource issues related to the former Superintendent's Residence (aka Whitecotton Cottage) located on the campus of Alameda County's Fairmont Hospital. This evaluation has specifically been requested by the County to address the subject building's historic resource status and is based on several site visits and research, including historical research inquiries at:

- The Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS), where there are no available records for the subject property;
- The Oakland Public Library's History Room, which had a newspaper clipping folder for Fairmont Hospital with general historical information;
- The Hayward Area Historical Society (HAHS), which has a small collection of previous research records for Fairmont Hospital, including a research file folder specific to the "Fairmont Hospital – Superintendent's Residence," and which is discussed below.

Resource Summary

The former Superintendent's Residence was previously evaluated for the County and resulted, in August of 2001, in the publication of an *Historical and Architectural Assessment of the Superintendent's Residence at Fairmont Hospital* for the County of Alameda and prepared by the architectural historian Woodruff Minor (attached).

While there was evidently minimal available historical information about the building, that report pinpointed the 1903 origins of the Superintendent's Residence and indicated that it remained in use as the residence of the hospital superintendent (aka resident physician) until c1970, when it was adapted for other hospital program uses, until c2000, when it was vacated. That report also parenthetically identified the building by its common name, White Cotton Cottage.

Regarding that common name, a c1980 map of the campus was included in the 2001 report and is also presently displayed on the wall in the ground floor of the existing cafeteria building. Alongside the latter, there is a building index and which labeled the subject building the "Whitecotton Cottage." That label is evidently the accurate one, as Whitecotton is the surname of a family whose head, Dr. G. Otis Whitecotton, was medical director of the Alameda County hospitals from c1947 to c1960. While there is no specific evidence for this assertion, nor evidence that Whitecotton may have resided in this house, it may be presumed that the Whitecotton name was given to this building during or after his leadership of the County hospitals.

In summary, based on the 2001 evaluation, the subject building has been identified as an historic resource per a finding of eligibility to the California Register of Historical Resources (CR), the bases for which are twofold:

- Under CR criterion 1, the subject building is identifiably associated with historic events, specifically the original Alameda County Infirmarium and its successor, Fairmont Hospital;
- Under CR criterion 3, the subject building is identified as embodying design and construction distinction as it is “an excellent and illustrative local example of the Shingle Style.”
(from *Assessment*, p7)

Consequently, the former Superintendent’s Residence/Whitecotton Cottage is presently listed on the Alameda County Register of Historic Resources (see attached).

In addition to identifying applicable areas of significance, the previous evaluation requisitely addressed the building’s historic “integrity.” For historic resource evaluation purposes, “integrity” is a secondary measure of a given resource’s identified significance – in addition to fulfilling a given criteria of significance, the resource must also retain sufficient integrity with which to convey its importance in the present. To reiterate, in this case, the identified importance of the former Superintendent’s Residence/Whitecotton Cottage is its association to the original Alameda County Infirmarium and early Fairmont Hospital, plus its architectural distinction as an excellent example of the Shingle Style. Relative to which, the previous evaluation generally concluded that the “house and setting retain a relatively high degree of integrity” (*Assessment*, p6).

Evidently, since 2001, further and relatively substantive changes have occurred to the site, the setting and the building itself, including:

- Additional building removals and additions on the directly adjacent campus;
- Overall exterior building deterioration due to its vacancy;
- Deterioration of the surrounding landscape;
- Extensive interior dilapidation.

Such changes have resulted in the existing poor condition (i.e., overall design and material degradation and loss) of the subject building exterior and site, and of the very poor condition (i.e., extensive degradation) of its interior.

Thus, at this juncture, a re-evaluation of the integrity of the subject resource is warranted in order to confirm its current historic resource eligibility status and based on the seven “aspects of integrity” defined under the National and California registers, as follows:

- *Location* – the former Superintendent’s Residence/Whitecotton Cottage remains in its historic location, so this integrity aspect is fully intact;
- *Setting* – the former residence has an immediate and associated setting amidst its early landscape. While deteriorated and beyond its immediate setting substantially changed, the integrity of its setting is largely intact;
- *Feeling and Association* – the former residence remains associated with yet semi-isolated from the hospital, which was also an original characteristic. Though use changes and subsequent vacancy have diminished the historic feeling of this former residence as well as its residential association, both integrity aspects are partially intact.

Consequently, under these four related aspects of integrity, the former Superintendent’s Residence/Whitecotton Cottage continues to convey the significance of the identified historic events,

specifically the original Alameda County Infirmary and the early Fairmont Hospital, of which the subject building is the only (now partially) intact as well as oldest surviving building.

There are three additionally interrelated integrity aspects – *design, materials* and *workmanship* – that directly relate to the subject building's original and early design and construction. Per photos included in the 2001 evaluation (figs.2 & 4), the former residence was then in an intact state and in use. Since, the building has been vacant. Its current state is dilapidated, fenced and boarded-up. At present, it is in a diminished state with respect to the workmanship that is embodied in its original/early design and materials. As these three aspects of integrity have been substantially affected and are insufficiently intact, the extant building does not continue to convey design or construction excellence or importance. Therefore, the existing Superintendent's Residence/Whitecotton Cottage no longer appears to meet CR criterion 3.

In conclusion, a single basis for a finding of historical significance has sustained. Based on its association to historic events – both the original Alameda County Infirmary and the early Fairmont Hospital – the Superintendent's Residence/Whitecotton Cottage remains eligible for the CR, though no longer on the basis of its design and construction..

Signed:

A handwritten signature in black ink, appearing to read "Mark Hulbert", with a long horizontal flourish extending to the right.

Mark Hulbert
Preservation Architect

attached: figs.1-4; 2001 historic resource evaluation; page from Alameda County Register



Fig.1 – Superintendent's Residence/Whitecotton Cottage, Front (south), 2018



Figure 3. South Elevation, Superintendent's Residence, Fairmont Hospital.

Fig.2 – Superintendent's Residence/Whitecotton Cottage, Front (south), 2001



Fig.3 – Superintendent's Residence/Whitecotton Cottage, West side, 2018



Figure 2. West Elevation, Superintendent's Residence, Fairmont Hospital.

Fig.4 – Superintendent's Residence/Whitecotton Cottage, West side, 2001

Historical and Architectural Assessment

**Superintendent's Residence
Fairmont Hospital
San Leandro
CA**

Prepared for:

**County of Alameda
General Services Agency
Oakland, CA 94612**

By:

**Woodruff Minor
Corbett & Minor
2054 University Avenue #505
Berkeley, CA 94704**

August 31, 2001

CONTENTS

| | |
|---|---|
| Summary of Findings | 1 |
| Background | 1 |
| Historical Overview of Fairmont Hospital | 1 |
| Historical Overview of Superintendent's Residence | 4 |
| Description of Superintendent's Residence | 5 |
| Findings | 6 |
| Sources | 8 |
| Map and Photographs | |
| Figure 1: Location Map | |
| Figure 2: West elevation of residence | |
| Figure 3: South elevation of residence | |

Summary of Findings

This report provides an historical and architectural assessment of the former Superintendent's Residence ("White Cotton Cottage") on the campus of Fairmont Hospital, San Leandro, California. Owned and operated by Alameda County since 1869, the hospital was originally known as the Alameda County Infirmary. The facility has undergone several major phases of redevelopment since the early 1900s. The Superintendent's Residence, erected in 1903, is the oldest surviving building on the campus. It is also an excellent local example of the Shingle Style, a popular eclectic style of the late 19th and early 20th centuries.

Potential significance has been assessed in relation to the criteria of the California Register of Historical Resources, the standard for evaluating cultural resources under the California Environmental Quality Act (CEQA). Based on an evaluation of its historical associations and architectural qualities, the Alameda County Infirmary Superintendent's Residence appears to be eligible for listing on the California Register of Historical Resources.

Background

The report was prepared by Woodruff Minor, an architectural historian who meets the qualifications of the State Office of Historic Preservation. Michael R. Adamson served as research assistant. The property was inspected on July 16, 2001, when field notes were taken. Research was performed at the following repositories and archives: Earth Sciences and Map Library, University of California, Berkeley; Office of the Alameda County Board of Supervisors, Oakland; and the Oakland History Room and Newspaper Room, Oakland Public Library. Sources are listed at the end of the report.

Historical Overview of Fairmont Hospital

Under early California law, county governments were mandated to provide medical care for the poor (the "indigent sick") within their jurisdiction. State laws enacted in 1855 and 1860 enabled county governments to levy taxes for the purpose of establishing county infirmaries. The tax revenues could be used to buy land, erect buildings, and hire administrative and medical staff.

Following its establishment in 1853, Alameda County initially provided medical care under contract to private practitioners. In 1864, the Alameda County Board of Supervisors rented a house in Oakland to serve as a hospital, staffed by one doctor and a steward. This facility was closed in 1869, when the County's new infirmary opened on a rural site south of Oakland.

Early Development of the Alameda County Infirmary: 1869–1912

The Alameda County Infirmary, now known as Fairmont Hospital, was the first medical facility in Alameda County to be owned and operated by the county government. Acquired in 1869, the site consisted of 123.92 acres of level and sloping land at the base of the hills near the town of San Leandro. Access was provided by a county road (today's Foothill Boulevard) bordering the west edge of the property.

The first hospital building at the new site opened in 1869. Several buildings were added during the 1870s, and other facilities were erected gradually over the following three decades. By 1910, the Alameda County Infirmary consisted of a dozen or so larger buildings and many smaller structures clustered at the northwest corner of the hospital property. They included an administration building, various wards, a dining hall, laundry, shop buildings, a chapel, and staff residences, including the residence of the superintendent and resident physician. Buildings were wood-framed and many were of temporary construction. There was no coherent site plan, and the grounds were minimally landscaped.

Most of the hospital property functioned as a farm supplying milk, eggs, pork, and bacon to the infirmary (and later to other county hospitals). Barns and sheds were grouped to the east of the infirmary complex. Much of the rest of the property was given over to grazing. Because of this farming activity, the Alameda County Infirmary was commonly known as "The Farm." The farm itself remained in operation on the hospital grounds until the 1950s.

Expansion and Reconstruction: 1912–1945

The Alameda County Infirmary had long been considered inadequate due to substandard facilities and chronic overcrowding. In 1912, the Board of Supervisors agreed to hold an architectural competition for a new hospital complex to replace the existing infirmary. The supervisors retained Henry H. Meyers as consulting architect to administer the competition. First prize was awarded in 1913 to San Francisco architect Charles Peter Weeks.

The winning design called for linked groups of buildings oriented around two axes, running east–west and north–south. All buildings were to be steel-framed, with hollow-tile walls, stucco veneer, and Renaissance styling. The principal (east–west) axis, facing west to Foothill Boulevard, contained an administration building and wards for short-term acute care. The north–south axis contained men's and women's dormitory wards for long-term convalescent care. The ten dormitories (and adjoining assembly and dining halls) were grouped around a rectangular courtyard incorporating a small artificial lake (already on the site). Estimated cost of construction for the entire complex was \$1 million. In 1916, work was completed on two ward buildings and an assembly hall at the north end of the dormitory group; the rest of the proposed complex was never built.

The complex was not completed due to budgetary constraints and a new county policy calling for separate medical facilities with specialized functions rather than

one general facility. Arroyo Sanatorium (1918), near Livermore, provided long-term care for curable tuberculosis patients. Delle Valle Farm (1924), adjoining Arroyo Sanatorium, served as a treatment center for tubercular children. Highland Hospital (1926), located in East Oakland near the county's population center, functioned as a major acute-care facility. Small outpatient clinics were also opened in several of the county's cities.

Under this new plan, the Alameda County Infirmary—renamed Fairmont Hospital when Highland Hospital opened—specialized in long-term care for convalescent patients, the aged and infirm, and persons with chronic and contagious diseases. Patients treated at Highland were transferred to Fairmont for recovery. Incurable tuberculosis patients were domiciled at Fairmont rather than at Arroyo or Del Valle.

Fairmont Hospital was largely rebuilt between 1917 and 1922 to accommodate its new mission. A number of older buildings were rehabilitated and remodeled, and some were moved to new sites. More than a dozen new buildings were erected. The hospital campus was extended south. New structures included ward buildings, dormitories for nurses and employees, a cafeteria, laundry, powerhouse, corporation yard, greenhouse, and entrance gates. The last major project prior to World War II was a ward building for incurable tuberculosis patients, opened in 1931 at the south end of the campus. The grounds were extensively landscaped with trees, shrubs, lawns, and trellis-covered walkways. The architect responsible for these site improvements was Henry H. Meyers, who served as the county's consulting architect until his retirement in 1935.

Developments since World War II: 1945–present

The next major phase of development at Fairmont occurred in the decade following World War II. The hospital ceased caring for the aged and infirm during these years, concentrating instead on convalescent care and chronic rehabilitation. Based on a 1935 master plan by architect Will G. Corlett, the hospital was substantially rebuilt between 1946 and 1955. New construction during this period included three large ward buildings, an interns' building, an administration building, a cafeteria, a powerhouse and shop building, and a firehouse. Most of these structures were designed by Corlett, and most are located in the south section of the hospital campus in a landscaped setting with covered walkways. Reinforced-concrete construction and Spanish Colonial Revival styling followed the model of the 1931 tuberculosis ward.

The postwar reconstruction of Fairmont Hospital was brought to completion in the early 1960s by the addition of a rehabilitation ward and a laundry at the south end of the campus. Facilities added since the 1960s have focused on long-term mental-health care. They include the Villa Fairmont (1981), Eden Outpatient Facility (1991), and John George Psychiatric Pavilion (1992).

Historical Overview of the Superintendent's Residence

Prior to the construction of the existing building in 1903, the Superintendent of the Alameda County Infirmity (who also bore the title of Resident Physician) presumably lived elsewhere on the grounds, though no reference to an earlier residence has been found. In any case, the new residence met a long-felt need at the hospital for a permanent, detached dwelling for the superintendent. The site at the north edge of the campus, apart from the other buildings, provided a modicum of privacy that was progressively enhanced as the landscaping took hold. By the 1930s, the residence sat in a thick grove of trees, screened from the hospital proper. The elegant little house in its secluded setting would have given the superintendent a sense of retreat from the stress of a demanding job. In addition, the superintendent's family required separation from the hospital grounds, where patients with contagious diseases were housed.

The first mention of the residence in the *Minutes* of the Alameda County Board of Supervisors, who oversaw the hospital, appeared in the entry for May 4, 1903. At that meeting, "The county surveyor presented, and the Board approved and adopted, the plans and specifications for the residence of the Superintendent and Resident Physician. A contract bid notice is to be published in the Oakland Tribune, fixing the final day for acceptance of bids at May 25, 1903." Five bids were submitted, ranging from \$5,400 (E. Andersen) to \$6,100 (George C. Noll). The *Minutes* for the May 25th meeting noted: "Finding the lowest bid to be satisfactory, the Board accepted the bid of, and awarded the building contract to, E. Andersen, stipulating that all work had to be completed within ninety days from the Board's acceptance of a bond from Andersen." This occurred at the June 8th meeting, as recorded in the *Minutes*: "E. Andersen presented a contract and bond for the construction of the Superintendents' cottage. The Board approved the bond." Presumably the building was completed in September, though no further reference to the project has been found in the 1903 *Minutes*.

Little is known about the contractor, E. Andersen. There is a listing for an "Edward Andersen, carp (carpenter)" in the 1910 city directory for San Francisco. The name does not appear in city directories for Oakland, Alameda, and Berkeley. The architect of the building has not been documented. It is possible that the county surveyor (who presented the plans to the supervisors) may have been the designer, but it is not likely given the sophistication of the building. At any rate, the index to the *Minutes* of the Board of Supervisors makes no mention of a contract being awarded to an architect, nor do the contractor's magazines of the period. Oakland newspapers from June–September 1903 were scanned for some mention of the building, but no articles on the project were located.

The later history of the structure has not been fully documented. On the 1928 Sanborn map of the hospital campus, the building is identified as "Sup't's D" ("Superintendent's Dwelling"). This designation also appears on the revised 1950 Sanborn map of the campus. Site plans of Fairmont Hospital, dated 1948 and 1949, identify the building simply as "Cottage No. 1." In a 1973 site plan, it is identified as "Public Works Office." To summarize, it appears that the Superintendent's Residence served its original purpose until the 1950s, and that

had been adapted to new uses by the 1970s. The most recent tenant was a community-based organization called Humanistic Alternatives to Addiction Research and Treatment (HAART). Since 2000, the building has been vacant.

Description of the Superintendent's Residence

The building occupies a somewhat isolated site near the northwest corner of the Fairmont Hospital Campus. It is encompassed by a small grove of mature trees, both conifer and deciduous, with a variety of shrubs planted around the base of the building. Remnants of a more extensive landscaping scheme survive, such as an abandoned terrace with deteriorated brick stairs on the south side of the house. An unpaved parking area, served by a short access road, adjoins the terrace. The house is on axis with the hospital's central quad, which is situated several hundred yards to the south.

The building is a one-and-one-half story, wood-frame structure with a brick foundation and partial basement. Walls are sheathed in wood shingles. The house has a generally rectangular plan elaborated by a staggered section on the east and a prominent semi-circular bay on the west. The roof system consists of a main gable facing south and north, an east-facing subsidiary gable on the house's staggered east section, and a rounded hip on the west-facing semi-circular bay. Shed-roofed dormers extend across the east and west slopes of the main gable. The wood-sash windows (double-hung and casement) have thin surrounds and simply detailed sills. The soffited eaves are delicately trimmed with narrow wood molding and understated dentil courses.

The symmetrical south façade, facing toward the hospital complex, has a full recessed porch with shingled piers. The glass-panel double doors of the entry are flanked by tall casement windows wrapping around the porch. Trimmed with mullion borders, they were added when the porch was enclosed. Two sets of casement windows (three per set) form a balanced pair in the gable, with an attic vent above. The focus of the west façade is the centrally placed semi-circular bay. A decorative course of sawtooth and gap-tooth shingles demarcates the two levels of the bay. Three double-hung windows wrap around the lower level, and three small casement windows with diamond-pattern sash are set into a stucco band tucked under the eave. The adjoining dormers have double-hung windows, with tiny casement windows flanking the bay. A porch supported by one shingled post is recessed into the northwest corner of the house, sheltering an entry with a massive wood door. The north façade is similar to the south façade, though lacking a full porch. The east side of the house is less formally composed, with windows at both levels and a tall brick chimney.

The interior is currently accessible through the door on the northwest porch. One enters a medium-sized entry hall. A curving seat is set into the rounded bay alcove on the right. To the left is a partially enclosed opening framing the staircase. Straight ahead, through a wide opening with pocket doors, is a large living room that once extended the full width of the house. A partition to the left cuts off a fireplace with an elaborate over-scaled mantle from the rest of the

room. Offices have been partitioned off in the former porch area. A single pocket door in the entry hall, to the left of the staircase, opens into a narrow hallway adjoined by three small rooms that may have originally functioned as servants' quarters. The hallway connects with a kitchen and two bathrooms at the rear. The elaborate staircase, with two landings, winds up to a gallery-like hall that wraps around the stairwell on all four sides. The staircase has multiple newel posts and a banister with curved elements; the newel posts and railing of the hall match the staircase. The semi-circular bay alcove opens onto the hall. Two bedrooms run across the north end of the house, two bedrooms are at the south end, and two bathrooms adjoined by closets are on the east side. The interior has plaster walls, plaster cove ceilings, and extensive wood trim.

The residence combines elements of the Queen Anne and Colonial Revival styles. The semi-circular bay window with its band of decorative shingles recalls the Queen Anne predilection for applied ornament and rounded forms. The shingle skin and gables belong to that phase of the Colonial Revival sometimes called "Old Colonial," which looked back to the vernacular, late-medieval architecture of 17th century New England. (The symmetry of the front façade and the eave denticulation make muted reference to 18th century colonial architecture, which tended to be Georgian, i.e., classically derived.) Eclectic combinations of Queen Anne and "Old Colonial" elements produced the residential Shingle Style, invented in the 1880s by several leading East Coast firms. Introduced in the Bay Area around 1890, the style achieving widespread popularity by 1900, when it began to be superseded by the more rustic shingled style known as Craftsman. The Superintendent's Residence is an excellent local example of the Shingle Style.

The house and setting retain a relatively high degree of integrity. Although the landscape plan of the garden is no longer intact and the grounds are unkempt, many of the trees survive. Remarkably, the site still retains a feeling of seclusion on Fairmont's crowded campus. The only significant change to the exterior of the house is the front porch, which appears to have been enclosed at an early date (ca. 1915–25). The alteration is compatible with the original design. The interior has been altered by the application of paint to the woodwork; by the addition of partitions to the entry hall, living room, former front porch, and south bedrooms; and by the remodeling of the bathrooms and kitchen.

Findings

The Superintendent's Residence at Fairmont Hospital appears to be eligible for the California Register of Historical Resources under Criterion 1 (historical associations) and Criterion 3 (architectural quality). To be eligible for the California Register, an historical resource must be significant at the local, state, or national level, under one or more of the following four criteria:

- (1) It is associated 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;

- (2) It is associated with lives of persons important to local, California, or national history;
- (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- (4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The Superintendent's Residence appears to be eligible for the California Register under Criterion 1 because of its association with the Alameda County Infirmary and Fairmont Hospital. As the residence of the superintendent of the first county-run hospital in Alameda County, operating under a statewide mandate to provide medical care for the poor, the building "is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California. . . ." It is the only intact building on the campus associated with the Infirmary's first phase of construction. It is also the oldest surviving building on the Fairmont Hospital campus—and probably the oldest building in Alameda County associated with a county-run hospital. As such, it appears to possess historical significance on the local level.

The Superintendent's Residence appears to be eligible for the California Register under Criterion 3 because it "embodies the distinctive characteristics of a type, period, region, or method of construction. . . [and] possesses high artistic values." The residence is an excellent and illustrative local example of the Shingle Style, embodying national design trend of the period. The house also displays a high level of workmanship as well as a high degree of integrity. As a presumably rare building type—an early 20th-century superintendent's residence on a hospital campus—the structure has further importance. As such, it appears to possess architectural significance on the local level.

Over the past two decades, most of the older buildings at Fairmont Hospital have been demolished or abandoned. The reasons for this include abatement for seismic safety, structural damage from the 1989 Loma Prieta earthquake, and site clearance for new projects. Today, extent historical resources are limited to the former Superintendent's Residence (1903), the Chapel (ca. 1910), the former Nurses' Dormitory (1918), Ward Building D (1931), and a half-dozen structures (and landscape features) dating from 1949–1955. With the exception of the Superintendent's Residence and Nurses' Dormitory, these older buildings and landscape features form the central quad of the campus. The Superintendent's Residence, though located to the north of the quad, is on axis with it. Together, these ten structures—the nine buildings of the quad and the residence—may be eligible for listing on the California Register of Historical Resources as an historic district. However, to make such an assessment would require further analysis beyond the scope of this report.

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Figure 1. Map of a Portion of Fairmont Hospital, ca. 1985.
 (Superintendent's Residence circled.)

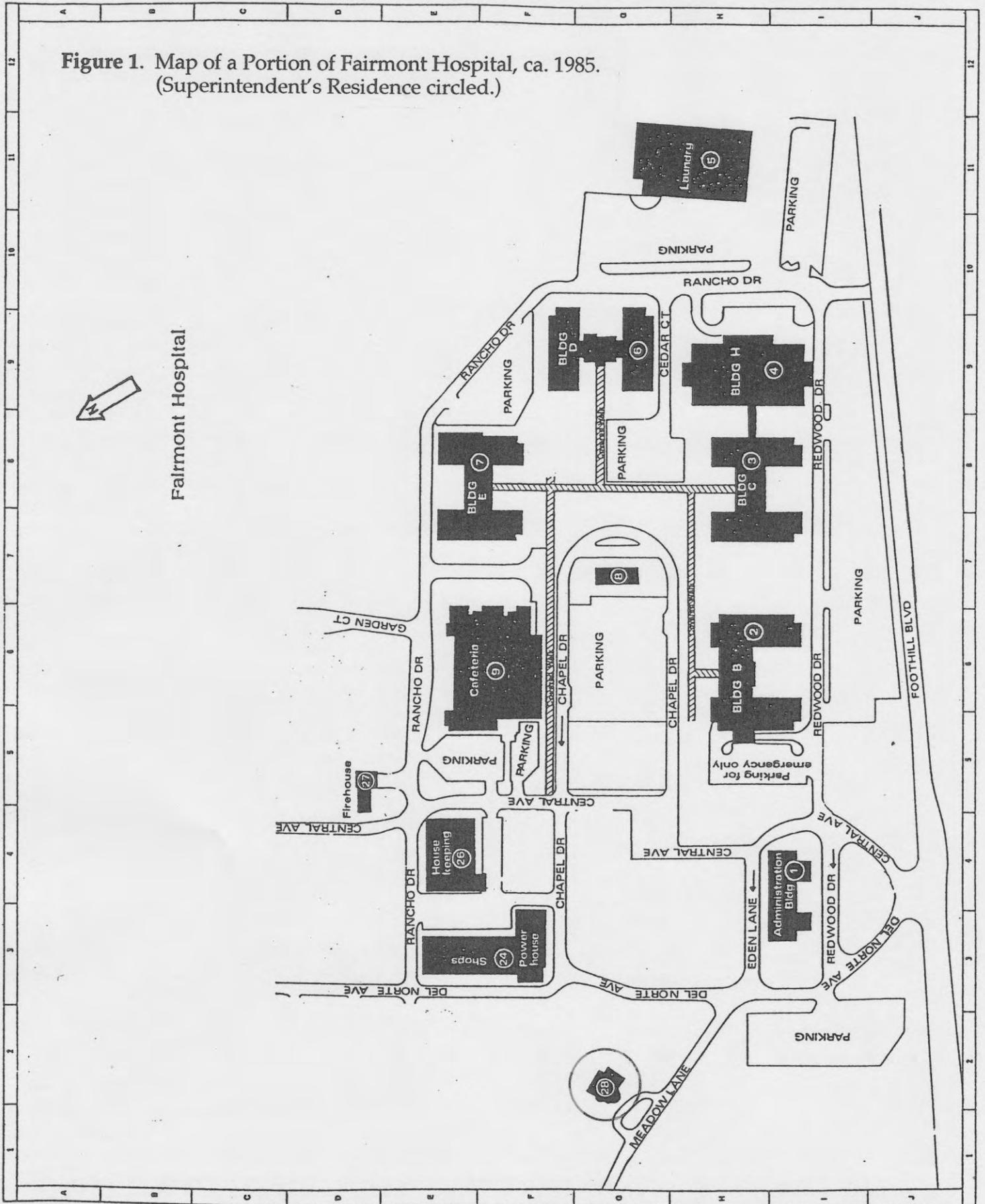




Figure 2. West Elevation, Superintendent's Residence, Fairmont Hospital.



Figure 3. South Elevation, Superintendent's Residence, Fairmont Hospital.



Fairmont Hospital

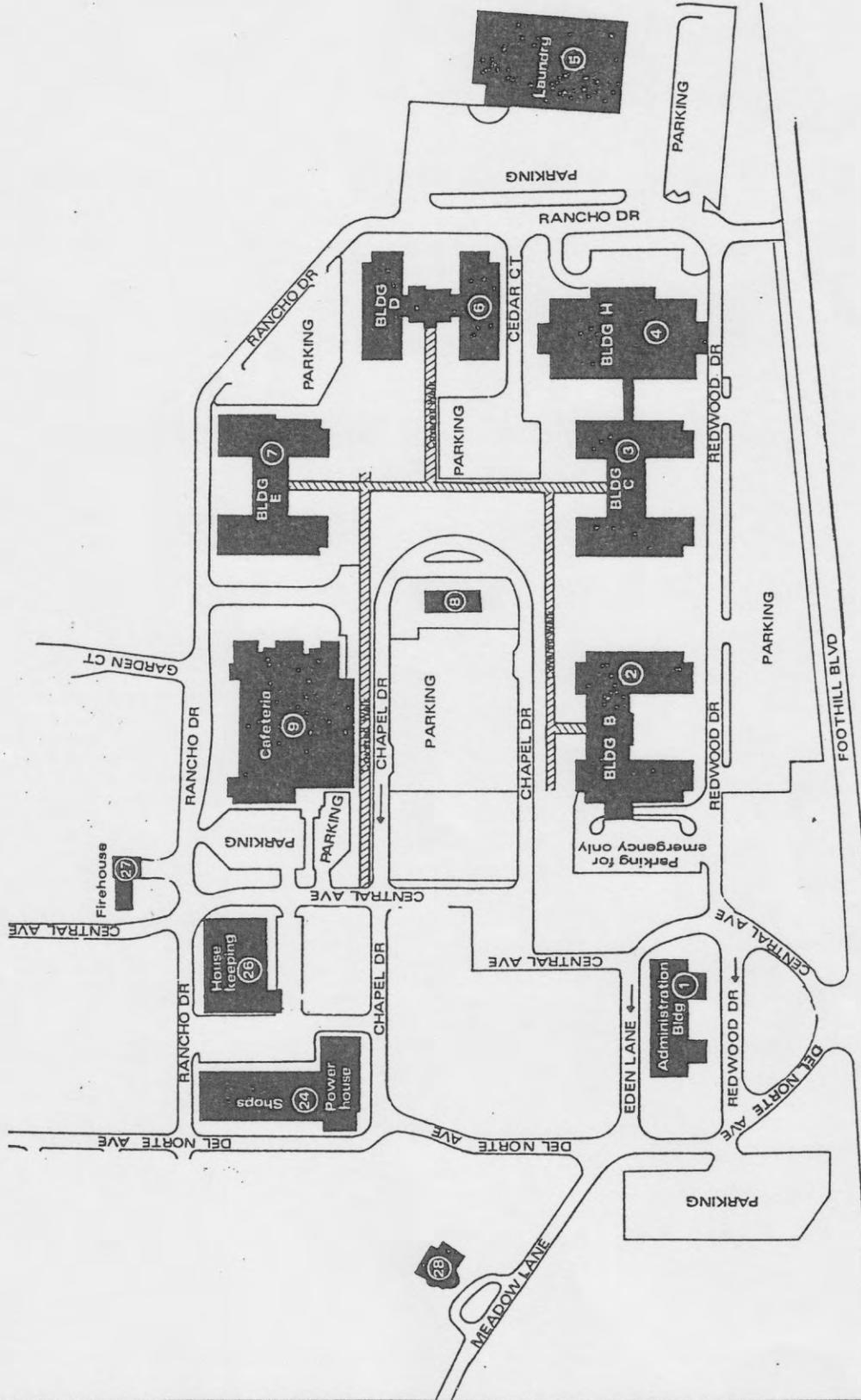


Figure 1. Map of a Portion of Fairmont Hospital, ca. 1985.
(Superintendent's Residence circled.)

Figure 2. West Elevation, Superintendent's Residence, Fairmont Hospital.

Figure 3. South Elevation, Superintendent's Residence, Fairmont Hospital.

Alameda County Landmarks & Contributing Buildings Identified in 2005-2008 Comprehensive Survey

| Address | Area | Property Type | Age | Previous Survey |
|--------------------------------------|--------------------|---|--------|--|
| 4951 Arroyo Road | East County | Spanish Colonial VA Hospital | 1925 | East Alameda Survey - likely eligible |
| 728 Bockman Road | San Lorenzo | Queen Anne Cottage | 1895 | San Lorenzo Survey - likely eligible under Criterion A |
| 782 Bockman Road | San Lorenzo | Henry Bockman House | | |
| 2495 Castro Valley Blvd | Castro Valley | Castro Valley Lumber | | |
| 2520 Castro Valley Blvd | Castro Valley | Connie's Tropical Fish | 1934 | |
| 2544 Castro Valley Blvd | Castro Valley | Formerly Crowe's Feed Shop | | |
| 2845-61 Castro Valley Blvd | Castro Valley | Chabot Theater | | |
| 22047-55 Center Street | Castro Valley | Four Square House | | |
| 14563 Cull Canyon Road | Castro Valley | Red barn, Cull's ranch | 1855 | |
| 16874 Cull Canyon Road | Castro Valley | Farmhouse and barn | | |
| 2440 Depot Road | Hayward | Mt. Eden Cemetery | 1860 | |
| 2595 Depot Road | Hayward/ Eden Area | Queen Anne - Herman Mohr House "Sea Breeze" | | |
| 22380 Eden Canyon Road | Castro Valley | Bank barn and associated barns | | |
| 10366 S. Flynn Road | East County | Period Revival farmstead | | |
| 15400 Foothill Boulevard | Fairmont | Fairmont Hospital | 1920s | |
| 15400 Foothill Boulevard | Fairmont | Queen Anne Victorian, White Cotton Cottage | | |
| 1048 Grant Avenue | San Lorenzo | Queen Anne – Heidi House | 1890 | San Lorenzo Survey - likely eligible under criteria A, B and C |
| Grove Way at Mission | Cherryland | Grove Way Bridge | c.1925 | |
| 24985 Hesperian Boulevard | Hayward | Cornelius Mohr house and farm, Classical Revival, Victorian with mansard roof, barn | | San Lorenzo Survey - likely eligible under criteria A, B and C |
| End of Hollis Canyon off Eden Canyon | Castro Valley | Eastwood House | | |
| 5922 Jensen Road | Castro Valley | Jensen farmhouse; Salt box | 1872 | |
| 16331 Kent Avenue | Ashland | Barn | 1890 | Ashland/Cherryland - possibly eligible |

Appendix 3

Air Quality and Greenhouse Gas Emissions Modeling Results

Whitecotton Cottage Demo Project - Alameda County, Annual

Whitecotton Cottage Demo Project - Alternative 2
Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------|------|----------|-------------|--------------------|------------|
| General Office Building | 3.94 | 1000sqft | 0.09 | 3,942.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|--------------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 63 |
| Climate Zone | 5 | | | Operational Year | 2023 |
| Utility Company | Pacific Gas & Electric Company | | | | |
| CO2 Intensity (lb/MW hr) | 641.35 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assume 4 weeks grading, 4 weeks rehabilitation

Grading - Assume 150 cubic yards export

Off-road Equipment - Assume no cranes

Construction Off-road Equipment Mitigation -

| Table Name | Column Name | Default Value | New Value |
|---------------------|----------------------------|---------------|-----------|
| tblGrading | MaterialExported | 0.00 | 150.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

Whitecotton Cottage Demo Project - Alameda County, Annual

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 | | | | | |
| 2020 | 0.0557 | 0.3437 | 0.3430 | 5.0000e-004 | 2.9200e-003 | 0.0220 | 0.0249 | 9.5000e-004 | 0.0203 | 0.0212 | 0.0000 | 43.9323 | 43.9323 | 0.0128 | 0.0000 | 44.2530 |
| Maximum | 0.0557 | 0.3437 | 0.3430 | 5.0000e-004 | 2.9200e-003 | 0.0220 | 0.0249 | 9.5000e-004 | 0.0203 | 0.0212 | 0.0000 | 43.9323 | 43.9323 | 0.0128 | 0.0000 | 44.2530 |

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 | | | | | |
| 2020 | 0.0557 | 0.3437 | 0.3430 | 5.0000e-004 | 2.9200e-003 | 0.0220 | 0.0249 | 9.5000e-004 | 0.0203 | 0.0212 | 0.0000 | 43.9322 | 43.9322 | 0.0128 | 0.0000 | 44.2530 |
| Maximum | 0.0557 | 0.3437 | 0.3430 | 5.0000e-004 | 2.9200e-003 | 0.0220 | 0.0249 | 9.5000e-004 | 0.0203 | 0.0212 | 0.0000 | 43.9322 | 43.9322 | 0.0128 | 0.0000 | 44.2530 |

Whitecotton Cottage Demo Project - Alameda County, Annual

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 1-1-2020 | 3-31-2020 | 0.2375 | 0.2375 |
| 2 | 4-1-2020 | 6-30-2020 | 0.1538 | 0.1538 |
| | | Highest | 0.2375 | 0.2375 |

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 | 0.0175 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Energy | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 18.3780 | 18.3780 | 7.3000e-004 | 2.1000e-004 | 18.4582 |
| Mobile | 8.1200e-003 | 0.0497 | 0.0911 | 3.7000e-004 | 0.0295 | 3.0000e-004 | 0.0298 | 7.9400e-003 | 2.8000e-004 | 8.2200e-003 | 0.0000 | 34.0602 | 34.0602 | 1.3100e-003 | 0.0000 | 34.0929 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.7430 | 0.0000 | 0.7430 | 0.0439 | 0.0000 | 1.8406 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.2222 | 1.5393 | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |
| Total | 0.0260 | 0.0534 | 0.0943 | 3.9000e-004 | 0.0295 | 5.8000e-004 | 0.0301 | 7.9400e-003 | 5.6000e-004 | 8.5000e-003 | 0.9651 | 53.9776 | 54.9427 | 0.0688 | 7.6000e-004 | 56.8903 |

Whitcotton Cottage Demo Project - Alameda County, Annual

2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|---------------|--------------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0175 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Energy | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 18.3780 | 18.3780 | 7.3000e-004 | 2.1000e-004 | 18.4582 |
| Mobile | 8.1200e-003 | 0.0497 | 0.0911 | 3.7000e-004 | 0.0295 | 3.0000e-004 | 0.0298 | 7.9400e-003 | 2.8000e-004 | 8.2200e-003 | 0.0000 | 34.0602 | 34.0602 | 1.3100e-003 | 0.0000 | 34.0929 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.7430 | 0.0000 | 0.7430 | 0.0439 | 0.0000 | 1.8406 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.2222 | 1.5393 | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |
| Total | 0.0260 | 0.0534 | 0.0943 | 3.9000e-004 | 0.0295 | 5.8000e-004 | 0.0301 | 7.9400e-003 | 5.6000e-004 | 8.5000e-003 | 0.9651 | 53.9776 | 54.9427 | 0.0688 | 7.6000e-004 | 56.8903 |

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

3.0 Construction Detail

Construction Phase

Whitecotton Cottage Demo Project - Alameda County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Site Preparation | Site Preparation | 1/1/2020 | 1/1/2020 | 5 | 1 | |
| 2 | Grading | Grading | 1/2/2020 | 1/3/2020 | 5 | 2 | |
| 3 | Building Construction | Building Construction | 1/4/2020 | 5/22/2020 | 5 | 100 | |
| 4 | Architectural Coating | Architectural Coating | 5/23/2020 | 5/29/2020 | 5 | 5 | |

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 5,913; Non-Residential Outdoor: 1,971; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 0 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Whitcotton Cottage Demo Project - Alameda County, Annual

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 19.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 19.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 4 | 1.00 | 1.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 2.7000e-004 | 0.0000 | 2.7000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.4000e-004 | 4.2200e-003 | 2.0500e-003 | 0.0000 | | 1.7000e-004 | 1.7000e-004 | | 1.5000e-004 | 1.5000e-004 | 0.0000 | 0.4280 | 0.4280 | 1.4000e-004 | 0.0000 | 0.4314 |
| Total | 3.4000e-004 | 4.2200e-003 | 2.0500e-003 | 0.0000 | 2.7000e-004 | 1.7000e-004 | 4.4000e-004 | 3.0000e-005 | 1.5000e-004 | 1.8000e-004 | 0.0000 | 0.4280 | 0.4280 | 1.4000e-004 | 0.0000 | 0.4314 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.2 Site Preparation - 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 | 1.0000e-005 | 1.0000e-005 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0176 | 0.0176 | 0.0000 | 0.0000 | 0.0176 |
| Total | 1.0000e-005 | 1.0000e-005 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0176 | 0.0176 | 0.0000 | 0.0000 | 0.0176 |

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 | | | | | 2.7000e-004 | 0.0000 | 2.7000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.4000e-004 | 4.2200e-003 | 2.0500e-003 | 0.0000 | | 1.7000e-004 | 1.7000e-004 | | 1.5000e-004 | 1.5000e-004 | 0.0000 | 0.4280 | 0.4280 | 1.4000e-004 | 0.0000 | 0.4314 |
| Total | 3.4000e-004 | 4.2200e-003 | 2.0500e-003 | 0.0000 | 2.7000e-004 | 1.7000e-004 | 4.4000e-004 | 3.0000e-005 | 1.5000e-004 | 1.8000e-004 | 0.0000 | 0.4280 | 0.4280 | 1.4000e-004 | 0.0000 | 0.4314 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.2 Site Preparation - 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 | 1.0000e-005 | 1.0000e-005 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0176 | 0.0176 | 0.0000 | 0.0000 | 0.0176 |
| Total | 1.0000e-005 | 1.0000e-005 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0176 | 0.0176 | 0.0000 | 0.0000 | 0.0176 |

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 7.6000e-004 | 0.0000 | 7.6000e-004 | 4.2000e-004 | 0.0000 | 4.2000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.7300e-003 | 0.0158 | 0.0153 | 2.0000e-005 | | 9.3000e-004 | 9.3000e-004 | | 8.9000e-004 | 8.9000e-004 | 0.0000 | 2.0815 | 2.0815 | 3.9000e-004 | 0.0000 | 2.0914 |
| Total | 1.7300e-003 | 0.0158 | 0.0153 | 2.0000e-005 | 7.6000e-004 | 9.3000e-004 | 1.6900e-003 | 4.2000e-004 | 8.9000e-004 | 1.3100e-003 | 0.0000 | 2.0815 | 2.0815 | 3.9000e-004 | 0.0000 | 2.0914 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.3 Grading - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.6000e-004 | 5.5400e-003 | 9.7000e-004 | 2.0000e-005 | 5.6000e-004 | 2.0000e-005 | 5.8000e-004 | 1.5000e-004 | 2.0000e-005 | 1.6000e-004 | 0.0000 | 1.4547 | 1.4547 | 7.0000e-005 | 0.0000 | 1.4565 |
| 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 | 1.4000e-004 | 1.0000e-004 | 1.0500e-003 | 0.0000 | 5.9000e-004 | 0.0000 | 5.9000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.2811 | 0.2811 | 1.0000e-005 | 0.0000 | 0.2813 |
| Total | 3.0000e-004 | 5.6400e-003 | 2.0200e-003 | 2.0000e-005 | 1.1500e-003 | 2.0000e-005 | 1.1700e-003 | 3.0000e-004 | 2.0000e-005 | 3.1000e-004 | 0.0000 | 1.7358 | 1.7358 | 8.0000e-005 | 0.0000 | 1.7379 |

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 | | | | | 7.6000e-004 | 0.0000 | 7.6000e-004 | 4.2000e-004 | 0.0000 | 4.2000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.7300e-003 | 0.0158 | 0.0153 | 2.0000e-005 | | 9.3000e-004 | 9.3000e-004 | | 8.9000e-004 | 8.9000e-004 | 0.0000 | 2.0815 | 2.0815 | 3.9000e-004 | 0.0000 | 2.0913 |
| Total | 1.7300e-003 | 0.0158 | 0.0153 | 2.0000e-005 | 7.6000e-004 | 9.3000e-004 | 1.6900e-003 | 4.2000e-004 | 8.9000e-004 | 1.3100e-003 | 0.0000 | 2.0815 | 2.0815 | 3.9000e-004 | 0.0000 | 2.0913 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.3 Grading - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.6000e-004 | 5.5400e-003 | 9.7000e-004 | 2.0000e-005 | 5.6000e-004 | 2.0000e-005 | 5.8000e-004 | 1.5000e-004 | 2.0000e-005 | 1.6000e-004 | 0.0000 | 1.4547 | 1.4547 | 7.0000e-005 | 0.0000 | 1.4565 |
| 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 | 1.4000e-004 | 1.0000e-004 | 1.0500e-003 | 0.0000 | 5.9000e-004 | 0.0000 | 5.9000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.2811 | 0.2811 | 1.0000e-005 | 0.0000 | 0.2813 |
| Total | 3.0000e-004 | 5.6400e-003 | 2.0200e-003 | 2.0000e-005 | 1.1500e-003 | 2.0000e-005 | 1.1700e-003 | 3.0000e-004 | 2.0000e-005 | 3.1000e-004 | 0.0000 | 1.7358 | 1.7358 | 8.0000e-005 | 0.0000 | 1.7379 |

3.4 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 | 0.0318 | 0.3078 | 0.3165 | 4.3000e-004 | | 0.0206 | 0.0206 | | 0.0189 | 0.0189 | 0.0000 | 37.3571 | 37.3571 | 0.0121 | 0.0000 | 37.6592 |
| Total | 0.0318 | 0.3078 | 0.3165 | 4.3000e-004 | | 0.0206 | 0.0206 | | 0.0189 | 0.0189 | 0.0000 | 37.3571 | 37.3571 | 0.0121 | 0.0000 | 37.6592 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.4 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 | 1.9000e-004 | 5.8800e-003 | 1.2700e-003 | 1.0000e-005 | 3.3000e-004 | 3.0000e-005 | 3.6000e-004 | 9.0000e-005 | 3.0000e-005 | 1.2000e-004 | 0.0000 | 1.3226 | 1.3226 | 8.0000e-005 | 0.0000 | 1.3245 |
| Worker | 1.7000e-004 | 1.3000e-004 | 1.3100e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3514 | 0.3514 | 1.0000e-005 | 0.0000 | 0.3517 |
| Total | 3.6000e-004 | 6.0100e-003 | 2.5800e-003 | 1.0000e-005 | 7.3000e-004 | 3.0000e-005 | 7.6000e-004 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 0.0000 | 1.6740 | 1.6740 | 9.0000e-005 | 0.0000 | 1.6761 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0318 | 0.3078 | 0.3165 | 4.3000e-004 | | 0.0206 | 0.0206 | | 0.0189 | 0.0189 | 0.0000 | 37.3571 | 37.3571 | 0.0121 | 0.0000 | 37.6591 |
| Total | 0.0318 | 0.3078 | 0.3165 | 4.3000e-004 | | 0.0206 | 0.0206 | | 0.0189 | 0.0189 | 0.0000 | 37.3571 | 37.3571 | 0.0121 | 0.0000 | 37.6591 |

Whitecotton Cottage Demo Project - Alameda County, Annual

3.4 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 | 1.9000e-004 | 5.8800e-003 | 1.2700e-003 | 1.0000e-005 | 3.3000e-004 | 3.0000e-005 | 3.6000e-004 | 9.0000e-005 | 3.0000e-005 | 1.2000e-004 | 0.0000 | 1.3226 | 1.3226 | 8.0000e-005 | 0.0000 | 1.3245 |
| Worker | 1.7000e-004 | 1.3000e-004 | 1.3100e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3514 | 0.3514 | 1.0000e-005 | 0.0000 | 0.3517 |
| Total | 3.6000e-004 | 6.0100e-003 | 2.5800e-003 | 1.0000e-005 | 7.3000e-004 | 3.0000e-005 | 7.6000e-004 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 0.0000 | 1.6740 | 1.6740 | 9.0000e-005 | 0.0000 | 1.6761 |

3.5 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 | 0.0206 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.1000e-004 | 4.2100e-003 | 4.5800e-003 | 1.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 0.6383 | 0.6383 | 5.0000e-005 | 0.0000 | 0.6396 |
| Total | 0.0212 | 4.2100e-003 | 4.5800e-003 | 1.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 0.6383 | 0.6383 | 5.0000e-005 | 0.0000 | 0.6396 |

Whitcotton Cottage Demo Project - Alameda County, Annual

3.5 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 |

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 | 0.0206 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.1000e-004 | 4.2100e-003 | 4.5800e-003 | 1.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 0.6383 | 0.6383 | 5.0000e-005 | 0.0000 | 0.6396 |
| Total | 0.0212 | 4.2100e-003 | 4.5800e-003 | 1.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 0.6383 | 0.6383 | 5.0000e-005 | 0.0000 | 0.6396 |

Whitecotton Cottage Demo Project - Alameda County, Annual

3.5 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 | 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 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Whitcotton Cottage Demo Project - Alameda County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|---------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 8.1200e-003 | 0.0497 | 0.0911 | 3.7000e-004 | 0.0295 | 3.0000e-004 | 0.0298 | 7.9400e-003 | 2.8000e-004 | 8.2200e-003 | 0.0000 | 34.0602 | 34.0602 | 1.3100e-003 | 0.0000 | 34.0929 |
| Unmitigated | 8.1200e-003 | 0.0497 | 0.0911 | 3.7000e-004 | 0.0295 | 3.0000e-004 | 0.0298 | 7.9400e-003 | 2.8000e-004 | 8.2200e-003 | 0.0000 | 34.0602 | 34.0602 | 1.3100e-003 | 0.0000 | 34.0929 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Office Building | 43.48 | 9.70 | 4.14 | 78,943 | 78,943 |
| Total | 43.48 | 9.70 | 4.14 | 78,943 | 78,943 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Office Building | 9.50 | 7.30 | 7.30 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Office Building | 0.561348 | 0.038614 | 0.190285 | 0.107199 | 0.015389 | 0.005180 | 0.024554 | 0.046236 | 0.002209 | 0.002456 | 0.005491 | 0.000334 | 0.000704 |

5.0 Energy Detail

Historical Energy Use: N

Whitcotton Cottage Demo Project - Alameda County, Annual

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 | 14.3117 | 14.3117 | 6.5000e-004 | 1.3000e-004 | 14.3678 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 14.3117 | 14.3117 | 6.5000e-004 | 1.3000e-004 | 14.3678 |
| NaturalGas Mitigated | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 4.0663 | 4.0663 | 8.0000e-005 | 7.0000e-005 | 4.0904 |
| NaturalGas Unmitigated | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 4.0663 | 4.0663 | 8.0000e-005 | 7.0000e-005 | 4.0904 |

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 76198.9 | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 4.0663 | 4.0663 | 8.0000e-005 | 7.0000e-005 | 4.0904 |
| Total | | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 4.0663 | 4.0663 | 8.0000e-005 | 7.0000e-005 | 4.0904 |

Whitecotton Cottage Demo Project - Alameda County, Annual

5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 76198.9 | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 4.0663 | 4.0663 | 8.0000e-005 | 7.0000e-005 | 4.0904 |
| Total | | 4.1000e-004 | 3.7400e-003 | 3.1400e-003 | 2.0000e-005 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 4.0663 | 4.0663 | 8.0000e-005 | 7.0000e-005 | 4.0904 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 49196.2 | 14.3117 | 6.5000e-004 | 1.3000e-004 | 14.3678 |
| Total | | 14.3117 | 6.5000e-004 | 1.3000e-004 | 14.3678 |

Whitecotton Cottage Demo Project - Alameda County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 49196.2 | 14.3117 | 6.5000e-004 | 1.3000e-004 | 14.3678 |
| Total | | 14.3117 | 6.5000e-004 | 1.3000e-004 | 14.3678 |

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 | 0.0175 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Unmitigated | 0.0175 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |

Whitecotton Cottage Demo Project - Alameda County, Annual

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 | 2.0600e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0154 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Total | 0.0175 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |

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 | 2.0600e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0154 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Total | 0.0175 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.0000e-005 | 7.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |

7.0 Water Detail

Whitecotton Cottage Demo Project - Alameda County, Annual

7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|--------|
| Category | MT/yr | | | |
| Mitigated | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |
| Unmitigated | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------------------|---------------|---------------|--------------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 0.700271 / 0.429198 | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |
| Total | | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |

Whitecotton Cottage Demo Project - Alameda County, Annual

7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------------------|---------------|---------------|--------------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 0.700271 / 0.429198 | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |
| Total | | 1.7615 | 0.0229 | 5.5000e-004 | 2.4985 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|--------|
| | MT/yr | | | |
| Mitigated | 0.7430 | 0.0439 | 0.0000 | 1.8406 |
| Unmitigated | 0.7430 | 0.0439 | 0.0000 | 1.8406 |

Whitecotton Cottage Demo Project - Alameda County, Annual

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| General Office Building | 3.66 | 0.7430 | 0.0439 | 0.0000 | 1.8406 |
| Total | | 0.7430 | 0.0439 | 0.0000 | 1.8406 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| General Office Building | 3.66 | 0.7430 | 0.0439 | 0.0000 | 1.8406 |
| Total | | 0.7430 | 0.0439 | 0.0000 | 1.8406 |

9.0 Operational Offroad

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

Whitecotton Cottage Demo Project - Alameda County, Annual

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

Whitecotton Cottage Demo Project - Alameda County, Winter

Whitecotton Cottage Demo Project - Alternative 2
Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------|------|----------|-------------|--------------------|------------|
| General Office Building | 3.94 | 1000sqft | 0.09 | 3,942.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|--------------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 63 |
| Climate Zone | 5 | | | Operational Year | 2023 |
| 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 -

Land Use -

Construction Phase - Assume 4 weeks grading, 4 weeks rehabilitation

Grading - Assume 150 cubic yards export

Off-road Equipment - Assume no cranes

Construction Off-road Equipment Mitigation -

| Table Name | Column Name | Default Value | New Value |
|---------------------|----------------------------|---------------|-----------|
| tblGrading | MaterialExported | 0.00 | 150.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

Whitecotton Cottage Demo Project - Alameda County, Winter

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 | | | | | |
| 2020 | 8.4642 | 21.4176 | 17.3457 | 0.0420 | 1.9592 | 0.9544 | 2.9137 | 0.7252 | 0.9105 | 1.6356 | 0.0000 | 4,188.192 4 | 4,188.192 4 | 0.5259 | 0.0000 | 4,201.339 7 |
| Maximum | 8.4642 | 21.4176 | 17.3457 | 0.0420 | 1.9592 | 0.9544 | 2.9137 | 0.7252 | 0.9105 | 1.6356 | 0.0000 | 4,188.192 4 | 4,188.192 4 | 0.5259 | 0.0000 | 4,201.339 7 |

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|---------------|------------------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2020 | 8.4642 | 21.4176 | 17.3457 | 0.0420 | 1.9592 | 0.9544 | 2.9137 | 0.7252 | 0.9105 | 1.6356 | 0.0000 | 4,188.192 4 | 4,188.192 4 | 0.5259 | 0.0000 | 4,201.339 7 |
| Maximum | 8.4642 | 21.4176 | 17.3457 | 0.0420 | 1.9592 | 0.9544 | 2.9137 | 0.7252 | 0.9105 | 1.6356 | 0.0000 | 4,188.192 4 | 4,188.192 4 | 0.5259 | 0.0000 | 4,201.339 7 |

Whitecotton Cottage Demo Project - Alameda County, Winter

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|--------------------|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0957 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |
| Energy | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |
| Mobile | 0.0580 | 0.3637 | 0.6910 | 2.6400e-003 | 0.2217 | 2.1900e-003 | 0.2239 | 0.0594 | 2.0500e-003 | 0.0614 | | 268.7626 | 268.7626 | 0.0108 | | 269.0317 |
| Total | 0.1559 | 0.3841 | 0.7085 | 2.7600e-003 | 0.2217 | 3.7500e-003 | 0.2254 | 0.0594 | 3.6100e-003 | 0.0630 | | 293.3239 | 293.3239 | 0.0112 | 4.5000e-004 | 293.7390 |

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 | 0.0957 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |
| Energy | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |
| Mobile | 0.0580 | 0.3637 | 0.6910 | 2.6400e-003 | 0.2217 | 2.1900e-003 | 0.2239 | 0.0594 | 2.0500e-003 | 0.0614 | | 268.7626 | 268.7626 | 0.0108 | | 269.0317 |
| Total | 0.1559 | 0.3841 | 0.7085 | 2.7600e-003 | 0.2217 | 3.7500e-003 | 0.2254 | 0.0594 | 3.6100e-003 | 0.0630 | | 293.3239 | 293.3239 | 0.0112 | 4.5000e-004 | 293.7390 |

Whitecotton Cottage Demo Project - Alameda County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 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 | Site Preparation | Site Preparation | 1/1/2020 | 1/1/2020 | 5 | 1 | |
| 2 | Grading | Grading | 1/2/2020 | 1/3/2020 | 5 | 2 | |
| 3 | Building Construction | Building Construction | 1/4/2020 | 5/22/2020 | 5 | 100 | |
| 4 | Architectural Coating | Architectural Coating | 5/23/2020 | 5/29/2020 | 5 | 5 | |

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 5,913; Non-Residential Outdoor: 1,971; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Whitecotton Cottage Demo Project - Alameda County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 0 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 19.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 19.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 4 | 1.00 | 1.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Whitecotton Cottage Demo Project - Alameda County, Winter

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6853 | 8.4307 | 4.0942 | 9.7400e-003 | | 0.3353 | 0.3353 | | 0.3085 | 0.3085 | | 943.4872 | 943.4872 | 0.3051 | | 951.1158 |
| Total | 0.6853 | 8.4307 | 4.0942 | 9.7400e-003 | 0.5303 | 0.3353 | 0.8656 | 0.0573 | 0.3085 | 0.3658 | | 943.4872 | 943.4872 | 0.3051 | | 951.1158 |

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 | 0.0191 | 0.0140 | 0.1347 | 3.9000e-004 | 0.0411 | 2.7000e-004 | 0.0414 | 0.0109 | 2.5000e-004 | 0.0112 | | 38.4354 | 38.4354 | 1.0000e-003 | | 38.4605 |
| Total | 0.0191 | 0.0140 | 0.1347 | 3.9000e-004 | 0.0411 | 2.7000e-004 | 0.0414 | 0.0109 | 2.5000e-004 | 0.0112 | | 38.4354 | 38.4354 | 1.0000e-003 | | 38.4605 |

Whitcotton Cottage Demo Project - Alameda County, Winter

3.2 Site Preparation - 2020

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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6853 | 8.4307 | 4.0942 | 9.7400e-003 | | 0.3353 | 0.3353 | | 0.3085 | 0.3085 | 0.0000 | 943.4872 | 943.4872 | 0.3051 | | 951.1158 |
| Total | 0.6853 | 8.4307 | 4.0942 | 9.7400e-003 | 0.5303 | 0.3353 | 0.8656 | 0.0573 | 0.3085 | 0.3658 | 0.0000 | 943.4872 | 943.4872 | 0.3051 | | 951.1158 |

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 | 0.0191 | 0.0140 | 0.1347 | 3.9000e-004 | 0.0411 | 2.7000e-004 | 0.0414 | 0.0109 | 2.5000e-004 | 0.0112 | | 38.4354 | 38.4354 | 1.0000e-003 | | 38.4605 |
| Total | 0.0191 | 0.0140 | 0.1347 | 3.9000e-004 | 0.0411 | 2.7000e-004 | 0.0414 | 0.0109 | 2.5000e-004 | 0.0112 | | 38.4354 | 38.4354 | 1.0000e-003 | | 38.4605 |

Whitcotton Cottage Demo Project - Alameda County, Winter

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7612 | 0.0000 | 0.7612 | 0.4151 | 0.0000 | 0.4151 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7348 | 15.7457 | 15.2451 | 0.0240 | | 0.9344 | 0.9344 | | 0.8914 | 0.8914 | | 2,294.4704 | 2,294.4704 | 0.4338 | | 2,305.3156 |
| Total | 1.7348 | 15.7457 | 15.2451 | 0.0240 | 0.7612 | 0.9344 | 1.6956 | 0.4151 | 0.8914 | 1.3064 | | 2,294.4704 | 2,294.4704 | 0.4338 | | 2,305.3156 |

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 | 0.1636 | 5.5599 | 1.0231 | 0.0149 | 0.5838 | 0.0179 | 0.6017 | 0.1529 | 0.0171 | 0.1700 | | 1,586.2386 | 1,586.2386 | 0.0841 | | 1,588.3401 |
| 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 | 0.1526 | 0.1120 | 1.0774 | 3.0900e-003 | 0.6142 | 2.1900e-003 | 0.6164 | 0.1573 | 2.0200e-003 | 0.1593 | | 307.4834 | 307.4834 | 8.0300e-003 | | 307.6840 |
| Total | 0.3163 | 5.6719 | 2.1006 | 0.0180 | 1.1980 | 0.0200 | 1.2180 | 0.3101 | 0.0191 | 0.3292 | | 1,893.7220 | 1,893.7220 | 0.0921 | | 1,896.0241 |

Whitcotton Cottage Demo Project - Alameda County, Winter

3.3 Grading - 2020

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 | | | | | 0.7612 | 0.0000 | 0.7612 | 0.4151 | 0.0000 | 0.4151 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7348 | 15.7457 | 15.2451 | 0.0240 | | 0.9344 | 0.9344 | | 0.8914 | 0.8914 | 0.0000 | 2,294.470 4 | 2,294.470 4 | 0.4338 | | 2,305.315 6 |
| Total | 1.7348 | 15.7457 | 15.2451 | 0.0240 | 0.7612 | 0.9344 | 1.6956 | 0.4151 | 0.8914 | 1.3064 | 0.0000 | 2,294.470 4 | 2,294.470 4 | 0.4338 | | 2,305.315 6 |

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 | 0.1636 | 5.5599 | 1.0231 | 0.0149 | 0.5838 | 0.0179 | 0.6017 | 0.1529 | 0.0171 | 0.1700 | | 1,586.238 6 | 1,586.238 6 | 0.0841 | | 1,588.340 1 |
| 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 | 0.1526 | 0.1120 | 1.0774 | 3.0900e-003 | 0.6142 | 2.1900e-003 | 0.6164 | 0.1573 | 2.0200e-003 | 0.1593 | | 307.4834 | 307.4834 | 8.0300e-003 | | 307.6840 |
| Total | 0.3163 | 5.6719 | 2.1006 | 0.0180 | 1.1980 | 0.0200 | 1.2180 | 0.3101 | 0.0191 | 0.3292 | | 1,893.722 0 | 1,893.722 0 | 0.0921 | | 1,896.024 1 |

Whitecotton Cottage Demo Project - Alameda County, Winter

3.4 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 | 0.6350 | 6.1566 | 6.3298 | 8.5000e-003 | | 0.4112 | 0.4112 | | 0.3783 | 0.3783 | | 823.5833 | 823.5833 | 0.2664 | | 830.2424 |
| Total | 0.6350 | 6.1566 | 6.3298 | 8.5000e-003 | | 0.4112 | 0.4112 | | 0.3783 | 0.3783 | | 823.5833 | 823.5833 | 0.2664 | | 830.2424 |

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 | 3.8700e-003 | 0.1174 | 0.0273 | 2.7000e-004 | 6.7800e-003 | 5.5000e-004 | 7.3300e-003 | 1.9500e-003 | 5.3000e-004 | 2.4800e-003 | | 28.6873 | 28.6873 | 1.7700e-003 | | 28.7315 |
| Worker | 3.8200e-003 | 2.8000e-003 | 0.0269 | 8.0000e-005 | 8.2100e-003 | 5.0000e-005 | 8.2700e-003 | 2.1800e-003 | 5.0000e-005 | 2.2300e-003 | | 7.6871 | 7.6871 | 2.0000e-004 | | 7.6921 |
| Total | 7.6900e-003 | 0.1202 | 0.0543 | 3.5000e-004 | 0.0150 | 6.0000e-004 | 0.0156 | 4.1300e-003 | 5.8000e-004 | 4.7100e-003 | | 36.3744 | 36.3744 | 1.9700e-003 | | 36.4236 |

Whitecotton Cottage Demo Project - Alameda County, Winter

3.4 Building Construction - 2020

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 | 0.6350 | 6.1566 | 6.3298 | 8.5000e-003 | | 0.4112 | 0.4112 | | 0.3783 | 0.3783 | 0.0000 | 823.5833 | 823.5833 | 0.2664 | | 830.2424 |
| Total | 0.6350 | 6.1566 | 6.3298 | 8.5000e-003 | | 0.4112 | 0.4112 | | 0.3783 | 0.3783 | 0.0000 | 823.5833 | 823.5833 | 0.2664 | | 830.2424 |

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 | 3.8700e-003 | 0.1174 | 0.0273 | 2.7000e-004 | 6.7800e-003 | 5.5000e-004 | 7.3300e-003 | 1.9500e-003 | 5.3000e-004 | 2.4800e-003 | | 28.6873 | 28.6873 | 1.7700e-003 | | 28.7315 |
| Worker | 3.8200e-003 | 2.8000e-003 | 0.0269 | 8.0000e-005 | 8.2100e-003 | 5.0000e-005 | 8.2700e-003 | 2.1800e-003 | 5.0000e-005 | 2.2300e-003 | | 7.6871 | 7.6871 | 2.0000e-004 | | 7.6921 |
| Total | 7.6900e-003 | 0.1202 | 0.0543 | 3.5000e-004 | 0.0150 | 6.0000e-004 | 0.0156 | 4.1300e-003 | 5.8000e-004 | 4.7100e-003 | | 36.3744 | 36.3744 | 1.9700e-003 | | 36.4236 |

Whitecotton Cottage Demo Project - Alameda County, Winter

3.5 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 | 8.2220 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2422 | 1.6838 | 1.8314 | 2.9700e-003 | | 0.1109 | 0.1109 | | 0.1109 | 0.1109 | | 281.4481 | 281.4481 | 0.0218 | | 281.9928 |
| Total | 8.4642 | 1.6838 | 1.8314 | 2.9700e-003 | | 0.1109 | 0.1109 | | 0.1109 | 0.1109 | | 281.4481 | 281.4481 | 0.0218 | | 281.9928 |

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 | 0.0000 | 0.0000 | 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 |

Whitecotton Cottage Demo Project - Alameda County, Winter

3.5 Architectural Coating - 2020

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 | 8.2220 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2422 | 1.6838 | 1.8314 | 2.9700e-003 | | 0.1109 | 0.1109 | | 0.1109 | 0.1109 | 0.0000 | 281.4481 | 281.4481 | 0.0218 | | 281.9928 |
| Total | 8.4642 | 1.6838 | 1.8314 | 2.9700e-003 | | 0.1109 | 0.1109 | | 0.1109 | 0.1109 | 0.0000 | 281.4481 | 281.4481 | 0.0218 | | 281.9928 |

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 | 0.0000 | 0.0000 | 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 |

4.0 Operational Detail - Mobile

Whitecotton Cottage Demo Project - Alameda County, Winter

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 | 0.0580 | 0.3637 | 0.6910 | 2.6400e-003 | 0.2217 | 2.1900e-003 | 0.2239 | 0.0594 | 2.0500e-003 | 0.0614 | | 268.7626 | 268.7626 | 0.0108 | | 269.0317 |
| Unmitigated | 0.0580 | 0.3637 | 0.6910 | 2.6400e-003 | 0.2217 | 2.1900e-003 | 0.2239 | 0.0594 | 2.0500e-003 | 0.0614 | | 268.7626 | 268.7626 | 0.0108 | | 269.0317 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Office Building | 43.48 | 9.70 | 4.14 | 78,943 | 78,943 |
| Total | 43.48 | 9.70 | 4.14 | 78,943 | 78,943 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Office Building | 9.50 | 7.30 | 7.30 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Office Building | 0.561348 | 0.038614 | 0.190285 | 0.107199 | 0.015389 | 0.005180 | 0.024554 | 0.046236 | 0.002209 | 0.002456 | 0.005491 | 0.000334 | 0.000704 |

Whitecotton Cottage Demo Project - Alameda County, Winter

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 | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |
| NaturalGas Unmitigated | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |

Whitcotton Cottage Demo Project - Alameda County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Office Building | 208.764 | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |
| Total | | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Office Building | 0.208764 | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |
| Total | | 2.2500e-003 | 0.0205 | 0.0172 | 1.2000e-004 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | | 24.5605 | 24.5605 | 4.7000e-004 | 4.5000e-004 | 24.7064 |

6.0 Area Detail

6.1 Mitigation Measures Area

Whitecotton Cottage Demo Project - Alameda County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0957 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |
| Unmitigated | 0.0957 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |

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 | 0.0113 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0844 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |
| Total | 0.0957 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |

Whitcotton Cottage Demo Project - Alameda County, Winter

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|--------------------|--------------------|---------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0113 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0844 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |
| Total | 0.0957 | 0.0000 | 4.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 8.6000e-004 | 8.6000e-004 | 0.0000 | | 9.2000e-004 |

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

Whitecotton Cottage Demo Project - Alameda County, Winter

| 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 4

Roadway Construction Noise Model (RCNM) Results

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/10/2019
 Case Description: Whitecotton - Alternative 2

---- Receptor #1 ----

| Description | Land Use | Baselines (dBA) | | |
|-------------|---------------|-----------------|---------|-------|
| | | Daytime | Evening | Night |
| | 50 Commercial | 65 | 55 | 45 |

| Description | Impact Device | Usage(%) | Equipment | | | |
|------------------|---------------|----------|-----------------|-------------------|--------------------------|---------------------------|
| | | | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Concrete Saw | No | 20 | | 89.6 | 50 | 0 |
| Dozer | No | 40 | | 81.7 | 50 | 0 |
| Backhoe | No | 40 | | 77.6 | 50 | 0 |
| Tractor | No | 40 | 84 | | 50 | 0 |
| Compressor (air) | No | 40 | | 77.7 | 50 | 0 |
| Crane | No | 16 | | 80.6 | 50 | 0 |

Results

| Equipment | Calculated (dBA) | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | | | |
|------------------|------------------|-------------|--------------------|---------|--------------|-------------|------------------------------|-----------|----------|---------|--------------|-------------|------------|-----------|
| | *Lmax | L10 | Day Lmax | Day L10 | Evening Lmax | Evening L10 | Night Lmax | Night L10 | Day Lmax | Day L10 | Evening Lmax | Evening L10 | Night Lmax | Night L10 |
| Concrete Saw | 89.6 | 85.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | 81.7 | 80.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | 77.6 | 76.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | 84 | 83 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Compressor (air) | 78.9 | 81.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crane | 78.9 | 81.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 89.6 | 89.5 | | | 0 | | 0 | | 0 | | 0 | | 0 | 0 |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| Description | Land Use | Baselines (dBA) | | |
|-------------|----------------|-----------------|---------|-------|
| | | Daytime | Evening | Night |
| | 100 Commercial | 65 | 55 | 45 |

| Description | Impact Device | Usage(%) | Equipment | | | |
|--------------|---------------|----------|-----------------|-------------------|--------------------------|---------------------------|
| | | | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Concrete Saw | No | 20 | | 89.6 | 100 | 0 |
| Dozer | No | 40 | | 81.7 | 100 | 0 |

| | | | | | | |
|------------------|----|----|----|------|-----|---|
| Backhoe | No | 40 | | 77.6 | 100 | 0 |
| Tractor | No | 40 | 84 | | 100 | 0 |
| Compressor (air) | No | 40 | | 77.7 | 100 | 0 |
| Crane | No | 16 | | 80.6 | 100 | 0 |

Results

| Equipment | Calculated (dBA) | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | | |
|------------------|------------------|------|-------------|--------------------|------|-------|------|------------------------------|---------|------|-------|------|-----|-----|
| | *Lmax | L10 | Day Lmax | Evening | | Night | | Day Lmax | Evening | | Night | | | |
| | | | | L10 | Lmax | L10 | Lmax | | L10 | Lmax | L10 | Lmax | | |
| Concrete Saw | 83.6 | 79.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | 75.6 | 74.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | 71.5 | 70.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | 78 | 77 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Compressor (air) | 72.9 | 75.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crane | 72.9 | 75.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 83.6 | 83.4 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| Description | Land Use | Baselines (dBA) | | |
|-------------|----------------|-----------------|---------|-------|
| | | Daytime | Evening | Night |
| | 300 Commercial | 65 | 55 | 45 |

| Description | Equipment Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|------------------|---------------------|----------|-----------------------|-------------------------|--------------------------------|---------------------------------|
| | | | | | | |
| Dozer | No | 40 | | 81.7 | 300 | 0 |
| Backhoe | No | 40 | | 77.6 | 300 | 0 |
| Tractor | No | 40 | 84 | | 300 | 0 |
| Compressor (air) | No | 40 | | 77.7 | 300 | 0 |
| Crane | No | 16 | | 80.6 | 300 | 0 |

Results

| Equipment | Calculated (dBA) | | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | | |
|------------------|------------------|------|-------------|--------------------|------|-------|------|------------------------------|---------|------|-------|------|-----|-----|
| | *Lmax | L10 | Day Lmax | Evening | | Night | | Day Lmax | Evening | | Night | | | |
| | | | | L10 | Lmax | L10 | Lmax | | L10 | Lmax | L10 | Lmax | | |
| Concrete Saw | 74 | 70 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dozer | 66.1 | 65.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | 62 | 61 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | 68.4 | 67.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Compressor (air) | 62.1 | 61.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crane | 65 | 60 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 74 | 73.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.