Verna Way Residential Subdivision Project
Initial Environmental Study/
Mitigated Negative Declaration
ENV-01-16

City of Clayton
Community Development Department
6000 Heritage Trail
Clayton, California 94517
(925) 673-7300

June 2016

TABLE OF CONTENTS

INTRODUCTION 1
I. PROJECT / APPLICANT INFORMATION 2
II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 3
III. DETERMINATION 3
IV. BACKGROUND 4
V. PROJECT DESCRIPTION 4
VI. LIST OF MITIGATION MEASURES 11
VII. EVALUATION OF ENVIRONMENTAL IMPACTS 15
1. AESTHETICS. 15
2. AGRICULTURE RESOURCES. 18
3. AIR QUALITY. 21
4. GREENHOUSE GAS EMISSIONS 31
5. BIOLOGICAL RESOURCES 33
6. CULTURAL RESOURCES 39
7. GEOLOGY AND SOILS 43
8. HAZARDS AND HAZARDOUS MATERIALS 47
9. HYDROLOGY 55
10. LAND USE 62
11. MINERAL RESOURCES 64
12. NOISE 65
13. POPULATION AND HOUSING 71
14. PUBLIC SERVICES 73
16. RECREATION 76
15. TRANSPORTATION/CIRCULATION 77
17. UTILITIES AND SERVICE SYSTEMS 81
18. MANDATORY FINDINGS OF SIGNIFICANCE 85
VII. STAFF AND SOURCES 87

Tables

Table 1: BAAQMD Thresholds of Significance 23
Table 2: Maximum Unmitigated Construction Emissions (lbs/day) 24
Table 3: Maximum Unmitigated Operational Emissions 25
Table 4: Integrated Management Practices Sizing 60
Table 5: Vibration Source Levels for Construction Equipment 68
Table 6: Proposed Project Student Generation 74
Table 7: Weekday Project Trip Generation Rates and Estimates 78

Figures

Figure 1: Regional Location Map 5
Figure 2: Project Location Map 6
Figure 3: Tentative Subdivision Map 9
Figure 4: Tree Preservation Plan 10
Figure 5: **S**tormwater Control Plan Exhibit 57

INTRODUCTION

The City of Clayton, in concert with its environmental consultant for the project, prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental impacts of the Verna Way Residential Subdivision Project (proposed project). The proposed project site is located on 2.46 acres of land within the City of Clayton at 5718 Verna Way and 5675 Pine Hollow Road. The parcels are identified as Assessor's Parcel Numbers (APNs) 120-043-037 and 120-043-038. In addition to this IS/MND, consideration of the following discretionary actions by the City is required for the proposed project:

- Tentative Subdivision Map for subdivision of the site into six single-family lots;
- Variance allowing for reduced lot widths;
- Tree Removal Permit; and
- Site Plan Review Permit.

This IS/MND identifies potentially significant environmental impacts for the following environmental areas:

- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials; and
- Noise.

The environmental analysis determined that measures are available to mitigate potential adverse impacts to insignificant levels. As a result, this document serves as a MND, pursuant to Public Resources Code Sections 21064.5 and 21080(c) and Article 6 of the California Environmental Quality Act (CEQA) Guidelines.

In accordance with the requirements of CEQA Guidelines Section 15071, this IS/MND describes the proposed project, identifies, analyzes, and evaluates the potential significant environmental impacts that may result from the proposed project, and identifies measures to mitigate adverse environmental impacts. With the mitigation measures identified in this document, the project would not have a significant impact on the environment.

All the technical reports and modeling results prepared for the project analysis are available upon request at the City of Clayton City Hall, located at 6000 Heritage Trail, Clayton, California, 94517.

I. PROJECT / APPLICANT INFORMATION

1.	Project Title:	Verna Way Residential Subdivision
2.	Lead Agency Name and Address:	City of Clayton Community Development Department 6000 Heritage Trail Clayton, CA 94517
3.	Contact Person and Phone Number:	Milan J. Sikela, Jr. Assistant Planner City of Clayton (925) 673-7300
4.	Project Location:	5718 Verna Way and 5675 Pine Hollow Road Clayton, CA 94517
5.	Assessor Parcel Numbers:	120-043-037 and 120-043-038
6.	Project Sponsor/Applicant:	Branagh Development 100 School Street Danville, CA 94526 (925) 743-9500
7.	Existing General Plan Designation:	Single-Family Low-Density Residential (LD)
8.	Existing Zoning Designation:	Single-Family Residential (R-15)

9. Project Description Summary:

The proposed project is located on two parcels totaling 2.46 acres in the City of Clayton, between Verna Way to the north and Pine Hollow Road to the south. The portion of the site located along Pine Hollow Road includes two vacant single-family residences, as well as several detached accessory structures, while the portion of the site bordering Verna Way to the north is a former orchard characterized by orchard trees and annual grasses. The proposed project involves the demolition of existing structures and subsequent construction of six single-family residences. The project entitlements include a Tentative Subdivision Map, Variance, and Tree Removal Permit. The proposed development would be consistent with the site's current General Plan land use and zoning designations of Single-Family Low Density Residential and Single-Family Residential, respectively.

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

III. DETERMINATION

On the basis of this initial evaluation:

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

X 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 since the Project proponent has made revisions in the Project and has agreed to the mitigation measures listed in "Section V. List of Mitigation Measures". I further find that the mitigation measures and the information in this study constitute a MITIGATED NEGATIVE DECLARATION in accordance with Section 15071 of the State CEQA Guidelines.

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

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

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

Signature Date

_____ _____

Milan J. Sikela, Jr.
Assistant Planner

IV. BACKGROUND

This Initial Environmental Study/Mitigated Negative Declaration (IS/MND) provides an environmental analysis pursuant to CEQA for the Verna Way Residential Subdivision Project (proposed project). The applicant has submitted the respective project applications to the City of Clayton. This IS/MND contains an analysis of the environmental effects of the proposed project. This IS/MND relies on site-specific studies prepared for the project, as well as the City of Clayton General Plan in the determination of impacts.

V. PROJECT DESCRIPTION

A description of the project location and setting, the components of the project, and project entitlements is provided below.

Project Location and Setting

The proposed project site is in the City of Clayton, located on the east side of Gibson Lane between Verna Way to the north, Pine Hollow Road to the south, El Camino Drive to the west, and Atchinson Stage Road to the east (see Figure 1 and Figure 2). Currently, the southern portion of the site includes two existing vacant single-family residences and several detached outbuilding structures. The northern portion of the site consists of a former orchard and annual grasses.

Surrounding Land Uses

Surrounding land uses include residential housing, as well as a community center, pool, and playground. The portion of Pine Hollow Road bordering the proposed project site serves as the boundary between the City of Clayton and the City of Concord Planning areas. Because the site is north of this boundary, the site is within the jurisdiction of the City of Clayton. Although jurisdiction over the surrounding area is split between the two cities, the land uses remain predominantly single-family residential in both cities.

General Plan Designations:

North – Single-Family Low Density Residential
South – Low Density Residential (City of Concord)
East – Single-Family Low Density Residential
West – Single-Family Low Density Residential

Zoning Designations:

North – Single-Family Residential (R-15 and R-20)
South – Planned District (City of Concord)
East – Single-Family Residential (R-12)
West – Single-Family Residential (R-12 and R-15)

Figure 1
Regional Location Map

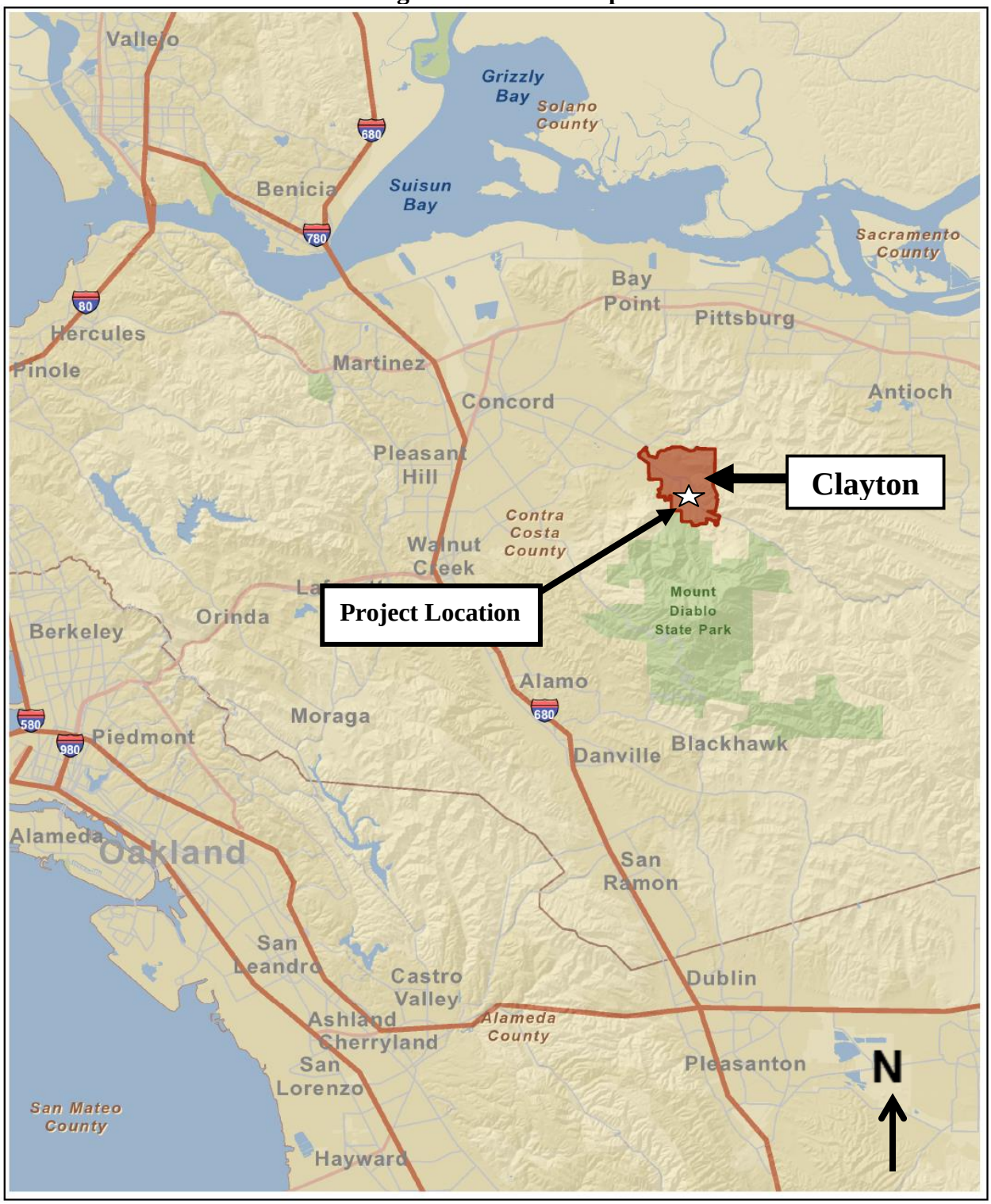


Figure 2
Project Location Map

Project Components

Two single family-residences and several outbuildings that exist on the southern portion of the site would be demolished as part of the proposed project. Further, remnant orchard trees on the northern portion of the site, as well as some of the ornamental and native trees scattered throughout the site would be removed. Upon completion of demolition and site preparation, six single-family homes would be constructed on the six proposed lots.

Tentative Subdivision Map (MAP-01-15)

The applicant has submitted a Tentative Subdivision Map application to the City to subdivide the 2.46-acre property into six single-family lots, ranging in size from 15,469 gross square feet to 20,348 gross square feet (see Figure 3 for the Tentative Subdivision Map).

Vehicle Access

Vehicular access to the project site would be provided from both Verna Way and Pine Hollow Road. Lots 1 and 2 have private driveways with direct access to Verna Way. Lots 3 and 4 would share a private driveway off of Verna Way, which would terminate in a hammerhead and serve as a fire truck turnaround within the project site. Lots 5 and 6 would be accessed via new driveways from Pine Hollow Road. Curb, gutter, and sidewalk improvements for Verna Way and Pine Hollow Road would be required for the project. The private roadway to the west of the project site, Gibson Lane, would not provide access to the proposed project site, and use of Gibson Lane would not be modified as a result of the proposed project.

Water, Sewer, and Stormwater Infrastructure

Water would be provided to the proposed project by the Contra Costa Water District (CCWD). Water lines are currently located in both Verna Way and Pine Hollow Road. Lots 1-4 would be served by an extension of the water line in Verna Way; and Lots 5 and 6 would be served by the water line in Pine Hollow Road.

For sewer service, an eight-inch sewer line located in Verna Way would be extended southerly through the center of the project site to provide sewer service to each residential lot.

For storm drainage, each residential lot would contain a small bioretention facility that would treat and infiltrate stormwater on the project site in accordance with C.3 stormwater requirements. Each bioretention area would have two sump holes penetrating to approximately 15 feet below the bottom of each basin to allow water movement to a pervious soil layer, as verified by geotechnical borings. Overflow from heavy storms would be discharged to existing Verna Way curb and gutter stormwater infrastructure.

Variance (VAR-02-14)

The proposed project requires the approval of a variance to allow a reduction in the standard lot width for the R-15 zoning district. The City of Clayton Municipal Code, Section 17.16.030, sets minimum requirements for lot widths within areas zoned Single-Family Residential (R-15) at 100 feet. The proposed project would require a variance to allow reduced lot widths for all lots. All six lots, however, meet the minimum overall square footage requirement of 15,000 square feet.

Tree Removal Permit (DP-01-15)

The proposed project requires the approval of a Tree Removal Permit by the City for the removal of on-site trees within the proposed development site. In compliance with the City of Clayton Municipal Code, Chapter 15.70, an arborist report was prepared for the site. According to the report, 105 of the existing 141 site trees would be removed as part of the proposed project and the remaining 36 trees would be retained. A Tree Preservation Plan depicting the trees to be removed, as well as the tree protection zones for the retained trees, was included in the arborist report (see Figure 4, Tree Preservation Plan).

Project Entitlements

The proposed project requires consideration for approval of the following discretionary actions by the City:

- IS/MND and Mitigation Monitoring and Reporting Program (MMRP);
- Tentative Subdivision Map (TSM) for the subdivision of the site into six (6) single-family lots;
- Variance allowing for reduced lot widths;
- Tree Removal Permit; and
- Site Plan Review Permit

Although the project applicant has not yet submitted an application for a Site Plan Review Permit, this IS/MND evaluates the "standards of review" for Site Plan Review Permits in Section 17.44.040 of the City's Municipal Code to the extent possible given the project information submitted to date.

Figure 3
Tentative Subdivision Map

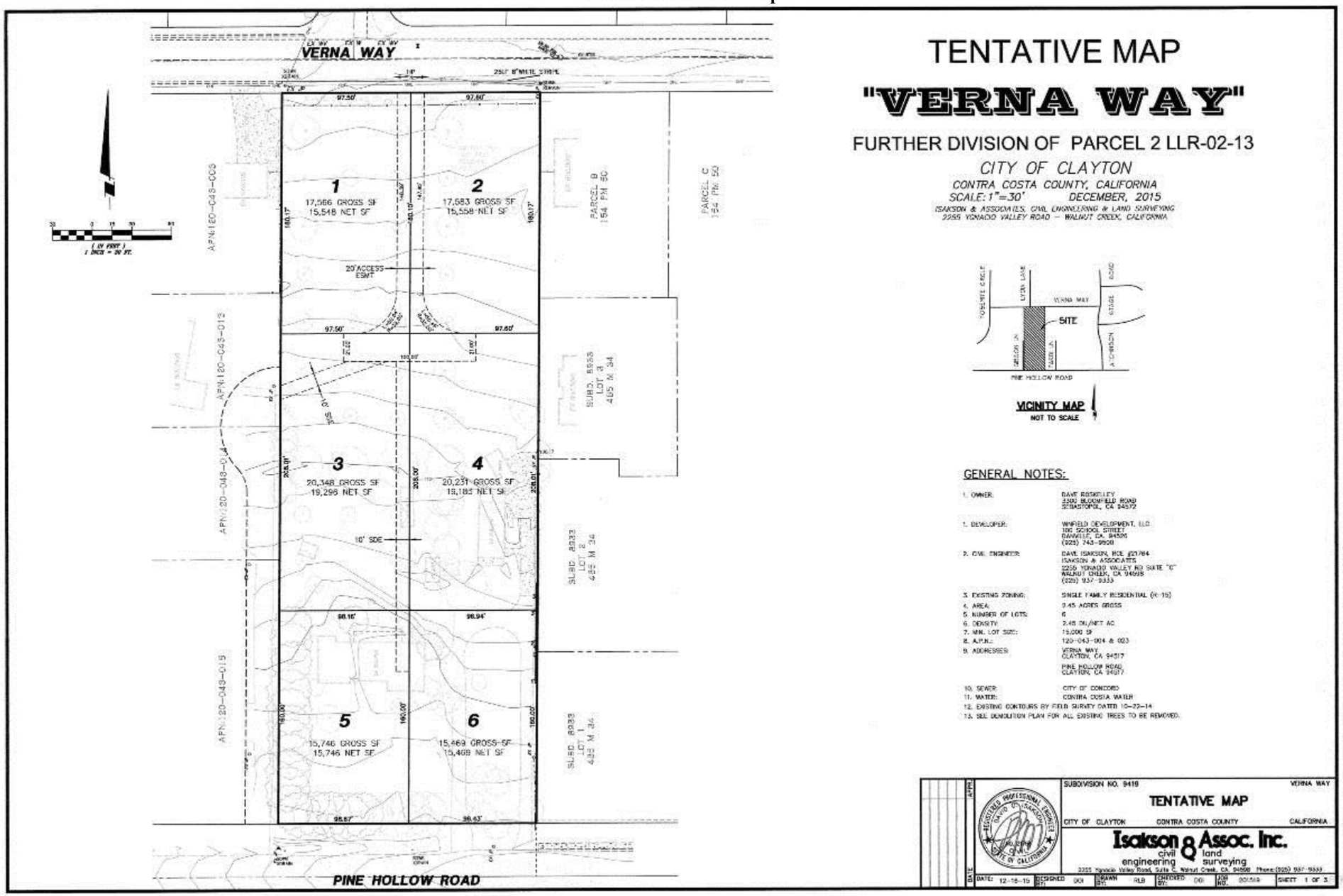
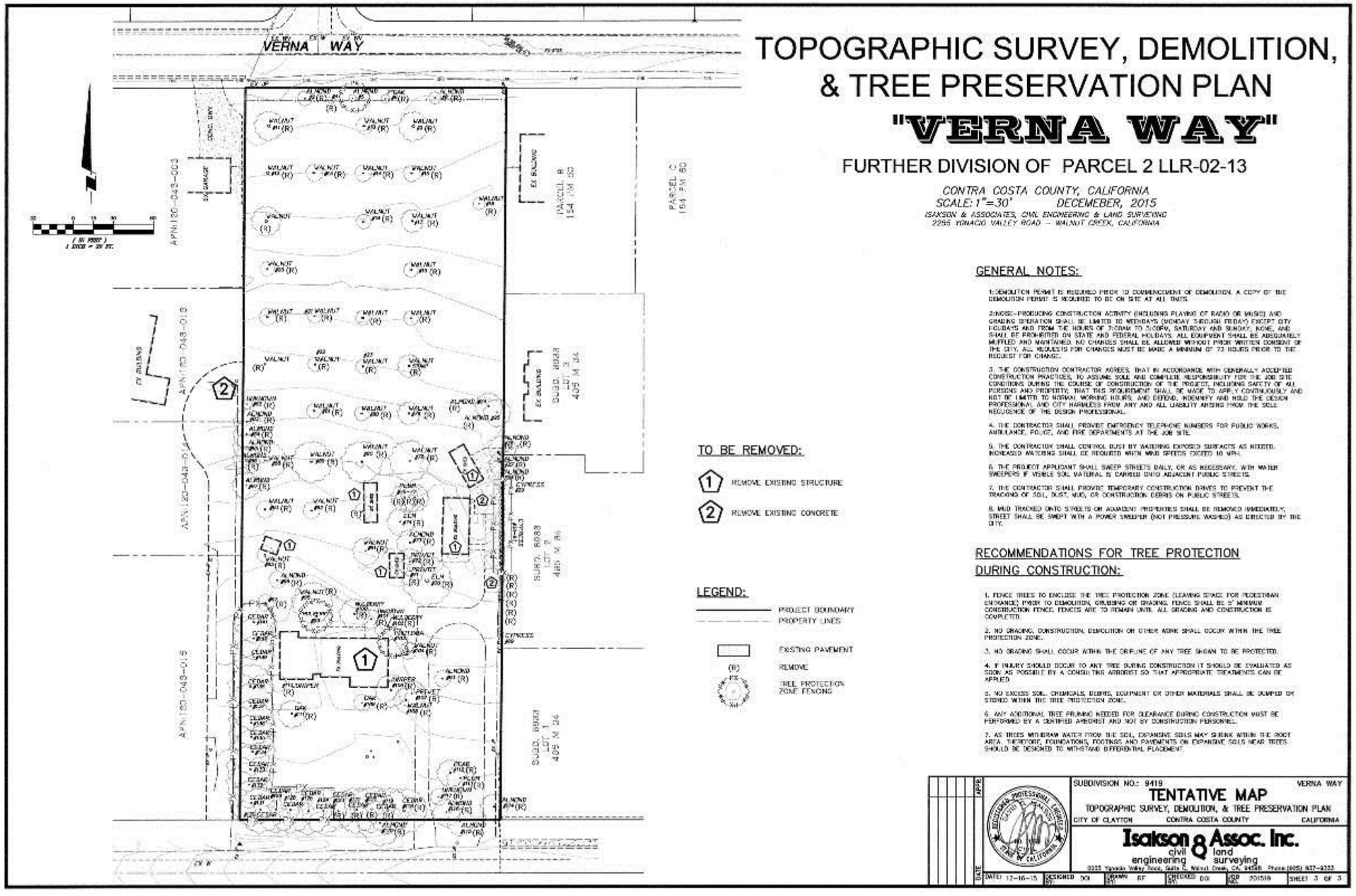


Figure 4
Tree Preservation Plan



VI. LIST OF MITIGATION MEASURES

Biological Resources

Mitigation Measure 1. *Removal of trees shall occur between September 1st and January 31st, outside the bird nesting season, to the extent feasible. If tree removal must occur during the avian breeding season (February 1st to August 31st), a qualified biologist shall conduct a survey for nesting birds of all trees and shrubs within 75 feet of the entire project site 14 days prior to the commencement of construction, and submit the findings of the survey to the Community Development Director. If nesting passerines are identified during the survey within 75 feet of the project site, a 75-foot buffer around the nest tree shall be fenced with orange construction fencing. If the nest tree is located off the project site, then the buffer shall be demarcated as per above. The size of the buffer may be altered if a qualified biologist conducts behavioral observations and determines the nesting passerines are well acclimated to disturbance. If acclimation has occurred, the biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting passerines. Construction or earth-moving activity shall not occur within the established buffer until a qualified biologist has determined that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, which typically occurs by July 15th. However, the date may be earlier or later, and would have to be determined by a qualified biologist. If a qualified biologist is not hired to watch the nesting passerines, then the buffers shall be maintained in place through the month of August and work within the buffer may commence September 1st.*

Mitigation Measure 2. *Prior to issuance of a grading permit, in accordance with the City's Tree Protection Ordinance, the applicant shall submit to the Community Development Department a Tree Replacement Plan identifying the protected trees that will be removed during project construction. Based upon the current tentative map, the arborist report indicates that 32 protected trees are proposed for removal, only three of which are rated by the Arborist Report as being in good health (Trees #6, 109, and 111). Protected trees rated as being in poor, fair, good, or very good health shall be replaced at the ratios specified in City of Clayton Municipal Code Section 15.70.040. The Tree Replacement Plan shall be submitted for review and approval by the Planning Commission.*

Mitigation Measure 3. *The following construction policies and guidelines for tree preservation and protection put forth by the City of Clayton shall be followed during project implementation:*

- *The applicant shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the tree trunk and dripline of all on- and off-site trees subject to City of Clayton Municipal Code Section 15.70.020.*
- *A protective fence shall be installed around all trees subject to the tree protection plan. The protective fence shall be installed prior to commencement of any construction activity and shall remain in place for the duration of construction.*

- *Grading, excavation, deposition of fill, erosion, compaction, and other construction-related activities shall not be permitted within the dripline or at locations which may damage the root system of trees subject to the tree protection plan, unless such activities are specifically allowed by the tree protection plan. Tree wells may be used if specifically allowed by the tree protection plan.*
- *Oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials shall not be allowed within the dripline of trees subject to the tree protection plan.*

Cultural Resources

Mitigation Measure 4. *Prior to the issuance of a grading permit, the grading plan shall include a requirement (via notation) indicating that if cultural resources, or human remains, are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project applicant, shall retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.*

Mitigation Measure 5. *Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist at the applicant's expense, until the preceding actions have been implemented.*

Geology & Soils

Mitigation Measure 6 *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with "filter fabric";*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*

- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

Hazards and Hazardous Materials

Mitigation Measure 7. *Prior to issuance of a demolition permit for any on-site structures, the Developer shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Community Development Director an asbestos and lead survey. If Asbestos Containing Materials (ACMs) or lead-containing materials are not discovered during the survey, further mitigation related to ACMs or lead containing materials will not be required. If ACMs and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 CCR 1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the City and the Contra Costa County Department of Conservation and Development for review and approval. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.*

Mitigation Measure 8. *Prior to issuance of a grading permit, the applicant shall hire an Environmental Consultant to perform a Phase II Environmental Site Assessment (ESA) in order to determine whether pesticides are persistent in on-site soils. The soil analytical results shall be documented in the Phase II ESA report and submitted to the City Community Development Department. If the Phase II ESA determines that the on-site soils have not been impacted, further mitigation is not required.*

If the Phase II ESA determines that on-site soils have been impacted, and contaminants are identified in excess of the California Human Health Screening Levels (CHHSLs) for residential land uses, the contaminated areas shall be remediated such that the resultant concentrations are below the CHHSLs for residential land uses. The Phase II ESA shall specify measures for the remediation of the soils, including proper removal and disposal procedures. The relative efficacy of potential removal technologies is dependent on subsurface conditions, including soil lithology, groundwater depth, and contaminant type/extent. Accordingly, several remediation options may be considered. For soil contamination, potential removal technologies could include, but would not necessarily be limited to, the following:

- *Excavation and off-haul – Impacted soils are excavated until the excavation base and sidewalls do not exhibit impact above a specific screening level or cleanup goal. The excavated soils are transported and disposed of at an appropriate landfill facility.*

- *Bioremediation - Nutrients, oxygen, and biological cofactors are introduced to the soil (either in-place or post-excavation in a treatment area) to stimulate natural biological breakdown of the contaminants.*
- *Bioaugmentation – Similar to bioremediation, except that bioaugmentation involves the introduction of engineered microorganisms to the soil to degrade the contaminants.*
- *Soil vapor extraction (SVE) - Soil gas is extracted from the subsurface under vacuum and brought to the surface, where it is treated.*

The project applicant shall comply with all recommendations of the Phase II ESA for the review and approval by the Contra Costa County Environmental Health Department and the City of Clayton.

Mitigation Measure 9. *Prior to issuance of a building/grading permits, the existing septic tanks shall be abandoned in consultation with the Contra Costa County Environmental Health Department. Proof of abandonment shall be provided to the City Community Development Department and City Engineer.*

Mitigation Measure 10. *Prior to any ground disturbance activities within 50 feet of the well, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Contra Costa County Health Services Department, and properly abandon the on-site well, pursuant to review and approval by the City Engineer and the Contra Costa County Environmental Health Department.*

Noise

Mitigation Measure 11. *During grading and construction, the project contractor shall ensure that the following measures are implemented, consistent with the recommendations in the Environmental Noise and Vibration Analysis:*

- *Grading and construction activities shall be limited to the daytime hours between 7:00 a.m. to 5:00 p.m. Monday through Friday, as specified in Section 15.01.101 of the Clayton Municipal Code. Any such work beyond said hours and days is strictly prohibited unless previously specifically authorized in writing by the City Engineer or designee or by project conditions of approval;*
- *The distances between on-site construction and demolition staging areas and the nearest surrounding residences shall be maximized to the extent possible; and*
- *All construction and demolition equipment that utilizes internal combustion engines shall be fitted with manufacturer's mufflers or equivalent.*

VII. EVALUATION OF ENVIRONMENTAL IMPACTS

1. AESTHETICS.

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

a. Would the project have a substantial adverse effect on a scenic vista?..... Less-Than-Significant Impact

Discussion (a.)

The City of Clayton is located at the base of the north slope of Mount Diablo. The City of Clayton General Plan identifies the protection of scenic resources as a core concern for future development and planning. Impacts to the views of open spaces or vistas would diminish the rural character of the City, and should be avoided. However, the City's General Plan does not contain any policies that specifically address scenic vistas, nor does the General Plan define or identify any specific scenic vistas. Examples of typical scenic vistas would include views of Mount Diablo or the surrounding foothills, ridgelines, or valleys. The proposed project would impact such a scenic vista if the project substantially blocked or altered an available view.

The proposed project site is located in the bottom of a valley in central Clayton, and is therefore not located on a ridgeline, hillside or in an open space where project construction would block or alter the view of scenic vistas. The proposed project site contains existing vacant residential development and declining orchard trees, and the site is surrounded by existing residential urban development. Due to the relatively dense vegetation on-site in the form of orchard trees and rows of mature ornamental trees along the property's southern boundary, scenic vistas of Mount Diablo beyond the project site are largely obstructed from nearby public vantage points (e.g., motorists and pedestrians along Verna Way). Consequently, the proposed project would not alter or block a scenic vista.

Additionally, the proposed project would be consistent with what has been anticipated for the site by the City per the General Plan land use and zoning designations of Single-Family Low-Density Residential and Single-Family Residential, respectively. Therefore, the project would

not have a substantial adverse effect on a scenic vista, resulting in a ***less-than-significant*** 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? ..... Less-Than-Significant Impact

Discussion (b.)

According to the California Scenic Highway Mapping System, two highways in Contra Costa County are officially-designated State scenic highway corridors: Interstate 680 (I-680), from the Alameda County line to the junction with State Route (SR) 24; and SR 24 from the east portal of the Caldecott tunnel to I-680 near Walnut Creek.[1] Neither of the aforementioned corridors provides views of Clayton or the immediate surrounding areas. Accordingly, the proposed project would not affect any scenic resources associated with State-designated scenic highways and the project would result in a ***less-than-significant*** impact.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings? ..... Less-Than-Significant Impact

Discussion (c.)

The southern portion of the proposed project site currently contains two vacant, single-family residences and several outbuildings, while the northern portion contains the remnants of a former orchard. The visual character of the existing buildings is of low quality, as all of the buildings are currently vacant and many are in various states of disrepair. According to the Arborist Report prepared for the project site, the orchard trees on the northern portion of the site are in decline, with many specimens suffering from dieback or having sparse canopies. Although many of the specimens found to be in decline would be removed as part of the proposed project, a number of healthy specimens would be retained on-site. Any live specimens removed as part of the project would be replaced in conformance with the City's Tree Protection Ordinance (Section 15.70.040 of the City's Municipal Code).

The surrounding area is predominantly single-family residential development to the north, east, and west, with a community center, pool, and playground to the south. The proposed project would essentially serve as infill development and would be consistent with the residential character of the neighborhood. Prior to the development of the proposed single-family residences, the proposed project would be subject to the City's Site Plan Review Permit process, as outlined in Chapter 17.44 of the City of Clayton Municipal Code. During the Site Plan Review Permit process, the City would ensure that the design of the proposed

[1] California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed April 2016.

project would be compatible with the City of Clayton's character and would not impose significant negative impacts on neighboring property owners or occupants.

Therefore, the proposed project would result in a ***less-than-significant*** impact related to the substantial degradation of the existing visual character or quality of the site and its surroundings.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ..... Less-Than-Significant Impact

Discussion (d.)

The site currently contains two vacant residential buildings and several detached outbuildings. By replacing both the vacant residences with six inhabited residences, the proposed project would result in new sources of light and glare where minimal sources currently exist. The single-family residences located to the north, east, and west of the site would be considered sensitive to any increases in light and glare emanating from the project site. The project would be required to comply with the City of Clayton Municipal Code Section 8.09, which prohibits the installation or maintenance of outdoor light fixtures that would cause an undue annoyance to persons on neighboring parcels in residential zoning districts. Compliance with Section 8.09 would ensure that the new residences would be designed such that lighting would be directed away from the nearby residences. Thus, the proposed project would not be expected to create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and would result in a ***less-than-significant*** impact.

2. AGRICULTURE RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	☐	☐	X	☐
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
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))?	☐	☐	☐	X
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	X
e.	Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	☐	X	☐

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use? ..... Less-Than-Significant Impact

Discussion (a.)

The State of California Department of Conservation prepared the *Contra Costa County Important Farmland 2012* map in accordance with the Farmland Mapping and Monitoring program.[2] The map delineates areas of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, as well as Urban and Built-Up Land. The map designates the proposed project site as Urban and Built-Up Land. Therefore, the proposed project site is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and the proposed project would not convert such Farmland to non-agricultural uses. As a result, the proposed project would have a ***less-than-significant*** impact with respect to converting Farmland to non-agricultural uses.

[2] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Contra Costa County Important Farmland 2012.* Published April 2014

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? ..... No Impact

Discussion (b.)

The project site is not under a Williamson Act contract, nor is the site zoned for agricultural use. The current General Plan land use and zoning designations for the site are Single-Family Low-Density Residential and Single-Family Residential R-15, respectively. Therefore, the project would have ***no impact*** related to conflict with existing agricultural zoning or Williamson Act contracts.

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))? ..... No Impact

d. Result in the loss of forest land or conversion of forest land to non-forest use? ..... No Impact

Discussion (c. and d.)

The project site is not considered forest land (as defined in Public Resources Code Section 12220[g]) or timberland (as defined by Public Resources Code Section 4526), and the site is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use? ..... Less-Than-Significant Impact

Discussion (e.)

While the project site is the location of a former orchard, the property is no longer utilized as such. The Arborist Report prepared for the proposed project indicates that all of the existing orchard trees are in poor to fair condition and either mature or overly mature, making them unsuitable for future agricultural use. Moreover, resumption of agricultural operations on the proposed project site could result in potentially adverse impacts to the surrounding residences due to dust and noise.

In addition, the project site is not bordered by any active agricultural lands, such that development of the project site with residential uses could render farming on nearby lands infeasible due to compatibility issues.

As a result, the project would have a ***less-than-significant*** impact with respect to changes in the existing environment which could individually or cumulatively result in loss of Farmland to non-agricultural use.

3. AIR QUALITY.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	X	☐
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	X	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	X	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	X	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	X	☐

a. Would the project conflict with or obstruct implementation of the applicable air quality plan? ..... Less-Than-Significant Impact

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? ..... Less-Than-Significant Impact

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? ..... Less-Than-Significant Impact

Discussion (a., b., and c.)

The City of Clayton is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), who regulates air quality in the San Francisco Bay Area. The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State particulate matter 10 microns in diameter (PM_{10}) standards. The SFBAAB is designated attainment or unclassified for all other ambient air quality standards (AAQS). It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (EPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the

BAAQMD submits a redesignation request and a maintenance plan to the EPA, and the EPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions via regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the EPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2010 Clean Air Plan (CAP), adopted on September 15, 2010. The 2010 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2010 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures (TCMs) to be implemented in the region to attain the State and federal standards within the SFBAAB. The plans are based on population and employment projections provided by local governments, usually developed as part of the General Plan update process. The proposed project would be consistent with the General Plan land use designation and zoning designation for the site. Accordingly, the population projections used in development of the plans would have generally included buildout of the proposed project.

Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10}, and $PM_{2.5}$, expressed in

pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1.[3] Thus, by exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2010.

The proposed project would involve the demolition of existing on-site structures and construction of six new residences. The proposed improvements and change in operations would not be expected to generate construction or operational emissions that would substantially contribute to the region's air quality issues or obstruct implementation of the BAAQMD's air quality planning efforts. In order to verify the aforementioned expectations, a comparison of the proposed project's estimated emissions to the BAAQMD thresholds of significance has been conducted.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2013.2.2 – a statewide

[3] It should be noted that the BAAQMD resolutions adopting and revising the 2010 significance thresholds were set aside by the Alameda County Superior Court on March 5, 2012. The Alameda Superior Court did not determine whether the thresholds were valid on the merits, but found that the adoption of the thresholds was a project under CEQA, necessitating environmental review. The BAAQMD appealed the Alameda County Superior Court's decision. The Court of Appeal of the State of California, First Appellate District, reversed the trial court's decision. The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review confined to the questions of under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users (receptors) of a proposed project? On review, the Supreme Court rejected BAAQMD's argument that CEQA requires an analysis of the environment's impact on a project in every instance. Rather, the Court held that CEQA review should be "limited to those impacts on a project's users or residents that arise from the project's effects on the environment." Ultimately, the Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's opinion. The California Supreme Court did not review the underlying question whether adoption of the thresholds is a project under CEQA, and no court has indicated that the thresholds lack evidentiary support. BAAQMD continues to provide direction on recommended analysis methodologies, but have withdrawn the recommended quantitative significance thresholds for the time being. The May 2012 BAAQMD CEQA Air Quality Guidelines state that lead agencies may reference the Air District's 1999 Thresholds of Significance available on the Air District's website. Lead agencies may also reference the Air District's CEQA Thresholds Options and Justification Report developed by staff in 2009. The CEQA Thresholds Options and Justification Report, available on the District's website, outlines substantial evidence supporting a variety of thresholds of significance. The air quality and GHG analysis in this IS/MND uses the previously-adopted 2010 thresholds of significance to determine the potential impacts of the proposed project, as the thresholds are supported by substantial evidence.

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

- Construction assumed to commence in late 2016 or early 2017 and occur over an approximately one-year period;
- Demolition of approximately 5,750 square feet of existing on-site structures would be necessary;
- An average daily trip rate of 9.52 was assumed, based on the Transportation/Circulation section of this IS/MND; and
- Compliance with the current California Building Energy Efficiency Standards Code.

The proposed project's estimated emissions associated with construction, operations, and cumulative conditions are presented and discussed in further detail below.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Project Construction Emissions	5.22	30.87	8.22	4.92
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod, April 2016.

In addition, all projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

As such, the proposed project would implement the BAAQMD's Basic Construction Mitigation Measures listed above, to the extent that the measures are feasible for the proposed project's construction activities. Compliance with the aforementioned measures would help to further minimize any construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, the proposed project would not be considered to result in a significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance.

Table 3
Maximum Unmitigated Operational Emissions

	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Average Daily Emissions (lbs/day)				
Project Operational Emissions	12.43	0.65	2.28	2.08
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**
Maximum Annual Emissions (tons/year)				
Project Operational Emissions	0.13	0.09	0.06	0.02
Thresholds of Significance	10	10	15	10
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod, April 2016

Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to result in a significant air quality impact during operations.

Cumulative Emissions

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

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2010 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, impacts would be considered ***less-than-significant***.

d. Would the project expose sensitive receptors to substantial pollutant concentrations? ..... Less-Than-Significant Impact

Discussion (d.)

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The proposed project would involve the creation of new housing and, thus, would be considered a sensitive receptor. The nearest existing sensitive receptors to the site would be the single-family residences surrounding the site and the community center across from Pine Hollow Road to the south.

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

Localized CO Emissions

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

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

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

According to the Contra Costa Transportation Authority (CCTA) Congestion Management Plan (CMP), any land development application generating less than 100 peak hour trips is not

required to prepare a study of its traffic impacts on the CMP network.[4] As discussed in further detail in the Transportation/Circulation section of this IS/MND, the proposed project would result in 57 new daily vehicle trips, with five new AM and six new PM peak hour vehicle trips.

The main roadways in the project vicinity would be Pine Hollow Road, Lydia Lane, Clayton Road, Atchinson Stage Road, El Camino Drive, and Mitchell Canyon Road. The most heavily traveled of the aforementioned roadways is Clayton Road, which is a four-lane roadway capable of handling approximately 4,000 vehicles per hour. According to an Environmental Impact Report prepared for another project located in the City of Clayton, the Clayton Road/Mitchell Canyon Road intersection would have an associated maximum peak hour traffic volume of nearly 2,300 vehicles under cumulative conditions.[5] All other roadways and intersections in the project vicinity would involve fewer traffic volumes. The proposed project's increase of a maximum of six new peak hour trips, even under cumulative conditions, would not increase traffic volumes at nearby intersections to more than the hourly traffic volumes set forth in the BAAQMD's localized CO screening criteria. Therefore, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations. As the project site is located in a predominantly residential area, land uses involving heavy or constant diesel vehicle traffic or the operation of stationary diesel engines are not located in the vicinity of the project site. Similarly, sources identified in the CARB Handbook as major sources of TACs, such as distribution centers, rail yards, dry cleaners, or gas dispensing facilities, are not located in the vicinity of

[4] Contra Costa Transportation Authority. 2011 Contra Costa Congestion Management Program [page 62]. Adopted November 16, 2011.
[5] LSA Associates, Inc. *Clayton Community Church Project EIR*. May 2011.

the project site. Accordingly, the future on-site sensitive receptors would not be exposed to substantial pollutant concentrations associated with any existing nearby uses.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project, particularly so for the proposed project, as the construction activities would likely occur over an approximately one-year period (based on CalEEMod). All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources.

According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere and is reduced by 70 percent at a distance of approximately 500 feet. In addition, per the City of Clayton Municipal Code Section 15.01.101, construction activities would be limited to daytime hours only.

Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time.

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

Conclusion

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

e. Would the project create objectionable odors affecting a substantial number of people? ..... Less-Than-Significant Impact

Discussion (e.)

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Although less common, diesel fumes associated with substantial diesel-fueled equipment and heavy-duty trucks, such as from construction activities, freeway traffic, or distribution centers, could be found to be objectionable. The proposed project activities could cause diesel fumes, which could be considered objectionable, during the temporary construction period. Although diesel fumes from construction equipment are often found to be objectionable, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Clayton Municipal Code Section 15.01.101, and would likely only occur over portions of the improvement area at a time. In addition, all construction equipment and operation thereof would be regulated per the statewide In-Use Off-Road Diesel Vehicle Regulation. Construction equipment would also be required to comply with applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Considering the short-term nature of construction activities and the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

Residential land uses are not typically associated with the creation of substantial objectionable odors. As a result, the proposed project operations would not create any objectionable odors that would affect a substantial number of people.

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

4. GREENHOUSE GAS EMISSIONS

Issues	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?	□	□	X	□
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	X	□

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ..... Less-Than-Significant Impact

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

Discussion (a. and b.)

Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of the BAAQMD. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100

$MTCO_2e$/yr or 4.6 $MTCO_2e$/yr per service populations (population + employees). BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. The BAAQMD thresholds of significance are used for the analysis within this IS/MND, as the thresholds of significance are supported by substantial evidence.

The proposed project's GHG emissions were quantified using CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. According to the CalEEMod results, the proposed project would result in operational GHG emissions of 70.58 $MTCO_2e$/yr, which is well below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted a threshold of significance for construction-related GHG emissions. However, even if the proposed project's total construction GHG emissions of 309.43 $MTCO_2e$/yr are included with the annual operational GHG emissions, the resultant total GHG emissions of 380.01 $MTCO_2e$/yr would still be well below the 1,100 $MTCO_2e$/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to GHG emissions.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less-than-significant***.

5. BIOLOGICAL RESOURCES

Issues		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 Game or U.S. Fish and Wildlife Service?	□	X	□	□
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	□	X	□	□
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marshes or vernal pools) through direct removal, filling, hydrological interruption, or other means?	□	□	X	□
d.	Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	□	□	X	□
e.	Conflict with any local policies or ordinances protecting biological resources, including trees?	□	X	□	□
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	□	□	X	□

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 Game or U.S. Fish and Wildlife Service? ..... Less-Than-Significant With Mitigation Incorporated

d. Would the project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? ..... Less-Than-Significant With Mitigation Incorporated

Discussion (a. and d.)

The following discussion is based on the Planning Survey Report (PSR) prepared for the proposed project site by LSA Associates, Inc. The PSR included a biotic survey of the site conducted by California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) approved biologist, John Kunna, on December 1, 2015. Located in the City of Clayton, the project site is within the East Contra Costa County Habitat Conservation Plan (ECCCHCP). According to the ECCCHCP, the land cover type for the project site is Orchard. Orchard land cover is among the "Any" category in Table 2a of the PSR, for which surveys are required to determine presence of suitable habitat for Townsend's big-eared bat, Swainson's hawk, and golden eagle.

As part of the PSR, the proposed project site was inspected for evidence of use by Townsend's big-eared bats, Swainson's hawks, and golden eagles. Habitat that could be used by Townsend's big-eared bats, Swainson's hawks, and golden eagles includes large trees, rock formations with caves, mines, and abandoned buildings outside urban areas. Trees inspected during the PSR were identified as being of insufficient size to provide habitat to Swainson's hawks and golden eagles, and are therefore not considered potential habitat. During the PSR, all on-site buildings and trees were inspected for signs of use by Townsend's big-eared bats: signs of use were not identified. Additionally, buildings and trees on the property lack large cavities or exfoliating bark that could potentially provide roosting sites for bats. Because signs of use were not present on the project site, and the proposed project site is surrounded on all sides by urban development, the site was determined to be unsuitable for the species and potential habitat does not exist on the project site.

As part of the PSR, the project site was also surveyed for the potential to provide habitat to burrowing owls. Active ground squirrel burrows are present on the proposed project site, but LSA did not identify any sign that burrowing owls were using the burrows. Due to the parcel's small size and the shrubs and trees in the area, the PSR concludes that the project site does not provide suitable habitat for burrowing owl.

With respect to special-status plant species, according to Table 2b of the PSR, the project site lacks suitable land cover types for covered and no-take plant species. The land cover is entirely composed of mowed turf, ornamental plantings, and an abandoned non-irrigated orchard. Because suitable land cover types are not found on-site for covered and no-take plants, plant surveys are not required.

The site has been historically disturbed by residential and agricultural use, and is surrounded on all sides by existing development. Because of the developed nature of the site's surroundings and the history of site disturbance, the site would be considered of relatively low value to wildlife. Active nest sites were not found during the site visit, but the PSR noted that various species of passerines could utilize the site for nesting. Despite the disturbed nature of the proposed project site, there is still the possibility that migratory birds protected by the Migratory Bird Treaty Act (MBTA) could nest on the property. Without implementation of a preconstruction survey, and if necessary, protection measures, the

project could cause substantial adverse effects through habitat modification to migratory birds, resulting in a ***potentially significant*** impact.

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

Mitigation Measure 1. *Removal of trees shall occur between September 1st and January 31st, outside the bird nesting season, to the extent feasible. If tree removal must occur during the avian breeding season (February 1st to August 31st), a qualified biologist shall conduct a survey for nesting birds of all trees and shrubs within 75 feet of the entire project site 14 days prior to the commencement of construction, and submit the findings of the survey to the Community Development Department. If nesting passerines are identified during the survey within 75 feet of the project site, a 75-foot buffer around the nest tree shall be fenced with orange construction fencing. If the nest tree is located off the project site, then the buffer shall be demarcated as per above. The size of the buffer may be altered if a qualified biologist conducts behavioral observations and determines the nesting passerines are well acclimated to disturbance. If acclimation has occurred, the biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting passerines. Construction or earth-moving activity shall not occur within the established buffer until a qualified biologist has determined that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, which typically occurs by July 15th. However, the date may be earlier or later, and would have to be determined by a qualified biologist. If a qualified biologist is not hired to watch the nesting passerines, then the buffers shall be maintained in place through the month of August and work within the buffer may commence September 1st.*

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, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service? ..... Less-Than-Significant Impact

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marshes or vernal pools) through direct removal, filling, hydrological interruption, or other means? ..... Less-Than-Significant Impact

Discussion (b. and c.)

The site is located in a developed area with residential developments surrounding the site on all sides. Wetland, riparian, or other sensitive natural communities do not exist on the proposed project site. Therefore, physical changes to the site would not involve filling, removal, degradation, or hydrological interruption of federally protected wetlands, riparian habitats, or sensitive communities. Given the absence of wetlands, riparian areas, or sensitive natural communities on-site, the project would not have a substantial adverse effect on any riparian habitat, or other sensitive natural community or in federally protected wetlands. Consequently, a ***less-than-significant*** impact related to such natural resources would occur.

e. Would the project conflict with any local policies or ordinances protecting biological resources, including trees? .... Less-Than-Significant Impact with Mitigation Incorporated

Discussion (e.)

An Arborist Report was prepared by Traverso Tree Service for the project site to inventory all on-site trees and make recommendations regarding tree preservation and removal based on tree health, structural condition, and location. The site currently has 141 trees, 36 of which would be preserved. The trees that would be preserved were judged by the arborist to be in good health and moderately mature. The 105 trees not indicated for preservation will be removed. Of the trees to be removed, 32 are considered "Protected" under the City's Tree Protection Ordinance. Sections 15.70.035.A and C of the City Municipal Code provides conditions under which Tree Removal Permits would be granted. Sections 15.70.035.A and C indicate that health or obstruction of construction activities are appropriate reasons to remove trees. Most of the trees slated for removal were determined to be either overly mature, having lived more than 80 percent of their expected life, needing to be removed to allow construction, or in fair or poor health as made evident by the condition of their canopies and amount of dieback. Per the Arborist Report, three protected trees identified as being in good condition (Trees #6, 109 and 111) are slated for removal. Removal of protected trees would result in a ***potentially significant*** impact related to ordinances protecting biological resources.

Mitigation Measure(s)

The following mitigation measures would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 2. *Prior to issuance of a grading permit, in accordance with the City's Tree Protection Ordinance, the applicant shall submit to the Community Development Department a Tree Replacement Plan identifying the protected trees that will be removed during project construction. Based upon the current tentative map, the arborist report indicated that 32 protected trees are proposed for removal, only three of which are rated by the Arborist Report as being in good health (Trees #6, 109, and 111). Protected trees rated as being in poor, fair, or good health shall be replaced at the ratios specified in City of Clayton Municipal Code Section 15.70.040_ The Tree Replacement Plan shall be submitted for review and approval by the Community Development Director prior to issuance of a grading permit.*

Mitigation Measure 3. *The following construction policies and guidelines for tree preservation and protection put forth by the City of Clayton shall be followed during project implementation:*

- *The applicant shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the tree trunk and dripline of all on- and off-site trees subject to City of Clayton Municipal Code Section 15.70.020.*
- *A protective fence shall be installed around all trees subject to the tree protection plan. The protective fence shall be installed prior to commencement of any construction activity and shall remain in place for the duration of construction.*
- *Grading, excavation, deposition of fill, erosion, compaction, and other construction-related activities shall not be permitted within the dripline or at locations which may damage the root system of trees subject to the tree protection plan, unless such activities are specifically allowed by the tree protection plan. Tree wells may be used if specifically allowed by the tree protection plan.*
- *Oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials shall not be allowed within the dripline of trees subject to the tree protection plan.*

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan? ..... Less-Than-Significant-Impact

Discussion (f.)

The ECCCHCP was prepared in 2007 and the City of Clayton became a signatory in January 2008. The ECCCHCP is intended to provide a coordinated, regional approach to special-status species conservation and development regulation. A total of 28 species are covered under the ECCCHCP, including California red-legged frog, California tiger salamander, Alameda whipsnake, San Joaquin kit fox, vernal pool tadpole shrimp, and burrowing owl, among others. The ECCCHCP provides streamlined permits from the USFW and CDFWS for covered species for new urban development projects and a variety of public infrastructure projects.

Development fees within the ECCCHCP area are assessed based on fee zones and land cover types. The proposed project site is designated as the Orchard land use type within fee Zone III. The PSR completed by LSA Associates, Inc. for the proposed project calculated the fees required for the project based on the acreage of the project site and ECCCHCP fee zone. The project applicant will be required to pay the development fee per the City of Clayton Municipal Code, Chapter 16.55, prior to the issuance of building permits. Because the proposed project would pay the development fee, the project would comply with the ECCCHCP. Therefore, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and a ***less-than-significant*** impact would result from the proposed project.

6. CULTURAL RESOURCES

Issues		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 as defined in Section 15064.5?	□	□	X	□
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	□	X	□	□
c.	Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	□	X	□	□
d.	Disturb any human remains, including those interred outside of formal cemeteries.	□	X	□	□
e.	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	□	□	X	□

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? ..... Less-Than-Significant Impact

Discussion (a.)

A Cultural Resources Survey was conducted for the project site by Tom Origer & Associates.[6] As part of the Cultural Resources Survey, Origer & Associates requested a records search at the Northwest Information Center (NWIC). The NWIC search found that previous studies have not been conducted for the proposed project site, but three cultural resource studies within 0.25 miles from the project site were conducted in the past. Cultural resources were not found during those studies.

The project site currently contains an abandoned orchard, two vacant single-family residences, and outbuildings. The first building on-site was constructed in the early 1950s. The Office of Historic Preservation has determined that structures older than 45 years should be considered potentially important historical resources and considered for designation as historic properties. Historic Properties are properties that are included in the National Register of Historic Places (NRHP) or that meet the criteria for the National Register. The residences and outbuildings are not currently designated in the National Register nor are the structures identified in the City of Clayton General Plan as being Historic Buildings. The eligibility criteria to be considered for registration on the NRHP include the structures' contribution to broad patterns of history or a structures' association with the lives of significant historical persons. Other NRHP criteria include whether the structures embody a distinctive style, the work of a master, or possess high artistic value, and if the site has yielded or may be likely to yield important prehistorical or historical information. The

[6] Tom Origer & Associates. *A Cultural Resources Survey for the Verna Way Residential Subdivision Project, Clayton, Contra Costa County, California*. April 26, 2016.

Cultural Resources Survey did not indicate that the existing buildings are associated with significant historical persons and the Cultural Resources Survey did not find evidence that the structures contributed to any historical patterns. Additionally, the structures were not determined to embody a particular style or possess high artistic value, and the site has not yielded any information important to the prehistory or history of the area.

The site was also investigated for the presence of historic period indicators. Historic period site indicators generally include, but are not limited to, the following: surficial fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). No such indicators were discovered during the visual inspection of the site as part of the Cultural Resources Survey. Thus, it is unlikely that any historic indicators are present on the project site.

Based on Origer & Associates' research, the existing buildings are not eligible for inclusion on the California or National Register. Therefore, the project would have a ***less-than-significant*** impact with respect to causing a substantial adverse change in the significance of a historical resource.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? ... Less-Than-Significant With Mitigation Incorporated

c. Directly or indirectly destroy a unique paleontological resource on site or unique geologic features? ..... Less-Than-Significant With Mitigation Incorporated

d. Disturb any human remains, including those interred outside of formal cemeteries..... ..... Less-Than-Significant With Mitigation Incorporated

Discussion (b., c., and d.)

A field survey was completed by Origer & Associates on April 14, 2016. The survey area was examined intensively by walking in a zigzag pattern within corridors about 10-15 meters wide. Visibility was good to poor, with vegetation the chief hindrance. A hoe was used to clear small patches, as needed, so that the ground could be inspected. Ground squirrel burrows and backdirt allowed viewing of subsurface soils in the orchard area. The field survey did not find archaeological resources.

In addition to the field survey, as discussed earlier in this section, an NWIC search was completed. The search did not indicate the presence of archaeological resources on the site. Furthermore, a Sacred Lands File search, performed by the Native American Heritage Commission (NAHC), was completed and returned negative results for any sacred lands or known burial sites in the project area.

However, the Cultural Resources Survey found that the geology of the soil consists of alluvial deposits from prehistoric period associated with the first arrival and occupation of California by humans (10,000 years ago – present). Tom Origer & Associates categorized the site as having moderate sensitivity for buried sites. Based on the distribution of cultural resources and their environmental setting, it was anticipated that prehistoric archaeological sites could be found within the study area. Prehistoric archaeological site indicators expected to be found in the region include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements such as slabs and handstones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire affected stones. Archaeological site indicators such as those listed above were not detected on-site during the intensive field survey.

However, given the fact that archaeological sites have been found elsewhere within the City of Clayton, the possibility exists that buried archaeological deposits could be present on-site, and accidental discovery could occur during construction of the project. Therefore, the proposed project could have a ***potentially significant*** impact to archaeological resources.

Mitigation Measure(s)

The following mitigation measures would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 4. *Prior to the issuance of a grading permit, the grading plan shall include a requirement (via notation) indicating that if cultural resources, or human remains, are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project applicant, shall retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.*

Mitigation Measure 5. *Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify*

the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist at the applicant's expense, until the preceding actions have been implemented.

e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074? ..... Less-Than-Significant Impact

Discussion(e.)

Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. In compliance with AB 52 consultation requirements, the Ione Band of Miwok Indians were notified of the project. The Ione Band of Miwok Indians did not request consultation within the required 30-day time period or shortly thereafter. In the absence of information supplied by the tribe, the City relied on other sources of information to determine whether the project could cause a substantial adverse change in the significance of a tribal cultural resource.

A Sacred Lands File search, performed by the NAHC for the immediate project area, failed to indicate the presence of Native American cultural resources in the project area. Additionally, a search of the California Historical Resources Information System (CHRIS) was completed at the Northwest Information Center at the request of Tom Origer & Associates. As discussed earlier in this section, the CHRIS search did not identify any cultural resources on the site. Given the negative results of the NAHC sacred lands file search, the CHRIS search, and the field survey, as well as the City's compliance with AB 52, the project would result in a ***less-than-significant*** impact to tribal cultural resources.

7. GEOLOGY AND SOILS

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault?	□	□	X	□
ii. Strong seismic ground shaking?	□	□	X	□
iii. Seismic-related ground failure, including liquefaction?	□	□	X	□
iv. Landslides?	□	□	X	□
b. Result in substantial soil erosion or the loss of topsoil?	□	X	□	□
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	□	□	X	□
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?	□	□	X	□
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	□	□	□	X

a-i. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? ..... Less-Than-Significant Impact

a-ii. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?..... Less-Than-Significant Impact

Discussion (a-i., and a-ii.)

The following discussion relies on information from a Geotechnical Investigation performed for the proposed project site by Friar Associates, Inc. in October of 2015.

According to the Geotechnical Investigation, the project site is located within the seismically active San Francisco Bay region but outside of any of the Alquist-Priolo Earthquake Fault Zones. The closest known fault to the site is the Type B Greenville fault 1.2 miles away. Another type B fault, the Concord-Green Valley fault is 3.3 miles away. Active faults are not known to cross the project site, and the risk of earthquake-induced ground rupture is remote. If a major earthquake were to occur with an epicenter location close to the proposed project site, ground shaking at the site could be severe, as it would for other properties in the area. All structures proposed for the project would be designed in accordance with the adopted edition of the California Building Code (CBC) requirements in place at the time of construction. Structures built according to the seismic design provisions of current building codes should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some nonstructural damage; and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.

Given the above discussion, the proposed project would not expose people or structures to substantial adverse effects including the risk of loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map, or strong seismic ground shaking. Therefore, the proposed project would have a ***less-than-significant*** impact.

aiii-iv. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, liquefaction and landslides? ..... Less-Than-Significant Impact

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ..... Less-Than-Significant Impact

Discussion (aiii-iv. and c.)

The Geotechnical Investigation analyzed the likelihood of liquefaction of on-site soils. Soil liquefaction results from loss of strength during cyclic loading, commonly as a result of earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly-graded fine sands below the groundwater table. Empirical evidence indicates that loose silty sands are also potentially liquefiable. When seismic ground shaking occurs, the soil is subjected to cyclic shear stresses that can cause excess hydrostatic pressures to develop. Based on the soils identified on the project site by the Geotechnical Investigation, even under severe ground shaking conditions, the soils on the proposed project site would be unlikely to liquefy or collapse. Lateral spreading is a failure within weak soils, typically due to liquefaction, which causes a soil mass to move along a free face, such as an open channel, or

down a gentle slope. As such, low risk of liquefaction reduces the risk posed by lateral spreading. Because of the soil types present on-site, liquefaction, subsidence, or collapse is not expected to impact the proposed project

The ground surface on the project site is essentially level. Significant slopes that would create a danger of landslide on- or off-site do not exist at the site and, as a result, the proposed project would not create a danger of landslide.

Therefore, the proposed project would not expose people or structures to substantial adverse effects including risk of loss, injury, or death involving landslides and would not be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, potentially resulting in landslides, lateral spreading, subsidence, liquefaction or collapse. Consequently, a ***less-than-significant*** impact would result.

b. Would the project result in substantial soil erosion or the loss of topsoil? .. Less-Than-Significant With Mitigation Incorporated

Discussion (b.)

Construction of the proposed project would involve the disturbance and relocation of topsoils. After grading and leveling, but prior to the overlaying of the ground surface with structures, the earth surfaces would be susceptible to erosion from wind and water. During the grading and excavation phases of construction, appropriate measures consistent with the Clayton Stormwater Management Ordinance and other applicable regulations (e.g., C.3 standards) would be required to be implemented in order to control erosion on the site and minimize the impacts related to loss of topsoil. See Section 9, Hydrology and Water Quality, of this IS/MND for further discussion regarding the relationship of erosion to water quality. Because the proposed project could result in soil erosion or the loss of topsoil associated with grading and excavation of the project site during construction, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

The following mitigation measure would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 6. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*

- *The temporary lining (during construction activities) of drop inlets with "filter fabric";*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property? ..... Less-Than-Significant Impact

Discussion (d.)

Expansive soils change in volume with changes in moisture. They can shrink or swell and cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. The near surface soil encountered at the project site consists of reddish brown to tan sandy clay that is moist and firm. Soil testing conducted as part of the Geotechnical Investigation determined the near surface soils to be non-plastic to low plastic clay. The clay graded into gravely very stiff to hard clay with depths extending to the maximum depth explored as part of the Geotechnical Investigation. Due to the low plasticity of the on-site soils, the soils would not be considered expansive. Additionally, groundwater was not encountered in any of the exploratory holes during the Geotechnical Investigation's subsurface soil exploration. Therefore, a ***less-than-significant*** impact would result related to expansive soil.

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? ..... No Impact

Discussion (e.)

The proposed residences would be connected to the City of Clayton's sewer system and would not require the installation or use of septic tanks. Therefore, the proposed project would have ***no impact*** regarding having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

8. HAZARDS AND HAZARDOUS MATERIALS

Issues		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?	☐	X	☐	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	X	☐	☐
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	X	☐
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	X
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?	☐	☐	☐	X
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	X	☐
h.	Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	X	☐

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

..... Less-Than-Significant With Mitigation Incorporated

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment? ..... Less-Than-Significant With Mitigation Incorporated

Discussion (a. and b.)

The proposed project would consist of operations associated with residential uses, which would not involve the routine transport, use, or disposal of hazardous materials. Thus, during operations, the proposed project would not create any hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

A Phase I Environmental Site Assessment (ESA) was prepared for the proposed project by AEI Consultants to determine potentially hazardous conditions at the site. The proposed project site currently contains two single-family residences and several outbuildings, all of which are currently vacant. The ESA determined that agricultural development at the site began no later than 1939 and residential use of the site began in the early 1950s, with construction of one of the existing single-family residences and multiple sheds. Agricultural uses of the site included development of an orchard. The ESA noted that such past agricultural activities could have included the uses of pesticides or other agricultural chemicals that could remain in site soils.

Regulatory Database Records Review

According to the records search performed as part of the Phase I ESA, which included a review of federal, State, tribal, and local databases of hazardous materials, violations, or discharge on the property were not found. In addition, documented soil or groundwater contamination associated with abutting properties was not found. Approximately 25 gallons of paints and 20 gallons of fuel were found on the property during the site inspection for the ESA; the quantities found were consistent with amounts expected for property maintenance and leaks were not detected. Neither the paints nor the fuel are expected to be a significant environmental concern for the proposed project site.

Wells and Septic Systems

The previous developments on the property were serviced by a water supply well and septic systems. Although the well may still contain water, the project site has been connected to water systems for the past 40 years. The well is capped by a secured well cover; however, the ESA recommends that the well be properly decommissioned as part of the proposed project. An on-site septic system, consisting of two gravel filled cesspits and a leach line, was used for domestic waste. The proposed project would be required to properly abandon the existing

septic system and the site would then be connected to the City of Clayton sewer infrastructure on Verna Way.

Asbestos-Containing Building Material

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be "fibrous" and, through processing, can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. They are also long, thin and flexible, so they can even be woven into cloth. Because of these qualities, asbestos was considered an ideal product and has been used in thousands of consumer, industrial, maritime, automotive, scientific and building products. However, later discoveries found that, when inhaled, the material caused serious illness.

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as "presumed asbestos-containing material" unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Because the existing structures were build prior to 1980, the potential exists that asbestos-containing materials were used in constructing the residential structures and outbuildings on-site. Asbestos-containing materials can include but are not limited to: plaster, ceiling tiles, thermal systems insulation, floor tiles, vinyl sheet flooring, adhesives, and roofing materials.

Lead-Based Paint

Lead Based Paint (LBP) is defined as any paint, varnish, stain, or other applied coating that has ≥1 mg/cm2 (5,000 μg/g or 5,000 ppm) of lead by federal guidelines. Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death.

In buildings constructed after 1978, it is unlikely that LBP is present. Structures built prior to 1978 and especially prior to the 1960s should be expected to contain LBP. The existing structures on the property were constructed before the phase-out of LBPs in the 1970s. Therefore, the potential exists that LBPs were used in the on-site residential and outbuildings built prior to 1978.

Findings

Consequently, the proposed project could create a significant hazard to the public or the environment through the upset of hazardous materials or through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials to the environment resulting in a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would ensure that the above impacts are reduced to a *less-than-significant* level.

Mitigation Measure 7. *Prior to issuance of a demolition permit for any on-site structures, the Developer shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Community Development Director an asbestos and lead survey. If ACMs or lead-containing materials are not discovered during the survey, further mitigation related to ACMs or lead containing materials will not be required. If ACMs and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 CCR 1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the City and the Contra Costa County Department of Conservation and Development for review and approval. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.*

Mitigation Measure 8. *Prior to issuance of a grading permit, the applicant shall hire an Environmental Consultant to perform a Phase II Environmental Site Assessment (ESA) in order to determine whether pesticides are persistent in on-site soils. The soil analytical results shall be documented in the Phase II ESA report and submitted to the City Community Development Department. If the Phase II ESA determines that the on-site soils have not been impacted, further mitigation is not required.*

If the Phase II ESA determines that on-site soils have been impacted, and contaminants are identified in excess of the

California Human Health Screening Levels [CHHSLs] for residential land uses, the contaminated areas shall be remediated such that the resultant concentrations are below the CHHSLs for residential land uses. The Phase II ESA shall specify measures for the remediation of the soils, including proper removal and disposal procedures. The relative efficacy of potential removal technologies is dependent on subsurface conditions, including soil lithology, groundwater depth, and contaminant type/extent. Accordingly, several remediation options may be considered. For soil contamination, potential removal technologies could include, but would not necessarily be limited to, the following:

- *Excavation and off-haul – Impacted soils are excavated until the excavation base and sidewalls do not exhibit impact above a specific screening level or cleanup goal. The excavated soils are transported and disposed of at an appropriate landfill facility.*
- *Bioremediation - Nutrients, oxygen, and biological cofactors are introduced to the soil (either in-place or post-excavation in a treatment area) to stimulate natural biological breakdown of the contaminants.*
- *Bioaugmentation – Similar to bioremediation, except that bioaugmentation involves the introduction of engineered microorganisms to the soil to degrade the contaminants.*
- *Soil vapor extraction (SVE) - Soil gas is extracted from the subsurface under vacuum and brought to the surface, where it is treated.*

The project applicant shall comply with all recommendations of the Phase II ESA for the review and approval by the Contra Costa County Environmental Health Department and the City of Clayton.

Mitigation Measure 9. *Prior to issuance of a building/grading permits, the existing septic tanks shall be abandoned in consultation with the Contra Costa County Environmental Health Department. Proof of abandonment shall be provided to the City Community Development Department and City Engineer.*

Mitigation Measure 10. *Prior to any ground disturbance activities within 50 feet of the well, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Contra Costa*

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

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ..... Less-Than-Significant Impact

Discussion (c.)

The nearest existing or proposed school facility is Pine Hollow Middle School, which is located approximately 0.3 miles west of the project site. Therefore, the proposed project would result in a ***less-than-significant*** impact associated with emitting hazardous emissions or handling of hazardous materials within one-quarter mile of an existing or proposed school.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ..... No Impact

Discussion (d.)

According to a regulatory agency records review performed as part of the Phase I ESA prepared for the project site, the site is not located on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, resulting in ***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? ..... No Impact

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? ..... No Impact

Discussion (e. and f.)

The nearest airport to the proposed project is the Buchanan Field Airport located northwest of the City of Concord in unincorporated Contra Costa County, which is over six miles from the project site. Therefore, the proposed project site is not located within an airport land use

plan or within two miles of a public airport. The proposed project site is not within the vicinity of a private airstrip, and the project would not result in a safety hazard for people residing or working in the project area. Therefore, the proposed project would result in ***no impact***.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ..... Less-Than-Significant Impact

Discussion (g.)

The City of Clayton has an adopted Emergency Operations Plan, dated January 2012, which identifies the City's emergency planning, organizational, and response policies and procedures. The Emergency Operations Plan addresses how the City would respond to extraordinary events or disasters, including departmental Standard Operating Procedures. The primary exit routes out of the City to the north are Clayton Road and Concord Boulevard. To the east, the primary exit route out of the City is Marsh Creek Road. To the south, the primary exit route is Pine Hollow Road.

Modifications to the City's emergency exit routes would not occur as a result of the proposed project. In addition, construction equipment would be staged on the project site to avoid interruption of traffic along Pine Hollow Road. Thus, development of the project site would not be expected to interfere or impair any of the primary exit routes out of the City. In addition, the project would provide one emergency access point from Verna Way to lots one through four, while lots five and six would be directly accessible from Pine Hollow Road (see Figure 3). As such, adequate emergency access to the site would be provided. Therefore, the proposed project would result in a ***less-than-significant*** impact associated with impairing implementation of, or physically interfering with, an adopted emergency response plan or evacuation plan.

h. Would the project expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? ..... Less-Than-Significant Impact

Discussion (h.)

Wildfire is a serious hazard in the City of Clayton. According to the Diablo Fire Safe Council, the City of Clayton is located within a wildland urban interface (WUI). The WUI is defined as an area in which wildlands and communities are sufficiently close to each other to present a credible risk of fire spreading from one to another.[7] Fire services to the Clayton area are provided by the Contra Costa County Fire Protection District (CCCFPD), with the nearest station to the site located on Center Street, approximately one mile east of the project

[7] Diablo Fire Safe Council. *Clayton Morgan Territory Wildfire Action Plan: Public Review* Draft. January 25, 2016.

site. The risk of wildfire to the project site is reduced by the proposed project's location within an already developed area. Additionally, implementation of the proposed project would potentially reduce the risk of fire to the surrounding residences by removing on-site flammable brush and vegetation during project construction. The proposed project is required to be designed in compliance with all applicable State and local standards and recommendations for new development, such as the CCCFPD's requirements for providing a water supply system for fire protection, submitting subdivision plans for review, and providing adequate emergency and fire access. In addition, per State and local adopted Fire Code, all residential units must be equipped with internal fire sprinklers. Therefore, the likelihood is low that project would expose people or structures to the risk of loss, injury, or death involving wildland fires, and the project's impact would be ***less-than-significant***.

9. HYDROLOGY

Issues		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?	□	□	X	□
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	□	□	X	□
c.	Substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, in a manner which would result in substantial erosion or siltation on- or off-site	□	□	X	□
d.	Substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	□	□	X	□
e.	Otherwise substantially degrade water quality?	□	□	X	□
f.	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?	□	□	X	□
g.	Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	□	□	X	□
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	□	□	X	□
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	□	□	X	□
j.	Inundation by seiche, tsunami or mudflow?	□	□	□	X

a. Would the project violate any water quality standards or waste discharge requirements? ..... Less-Than-Significant Impact

e. Would the project otherwise substantially degrade water quality? ..... Less-Than-Significant Impact

Discussion (a. and e.)

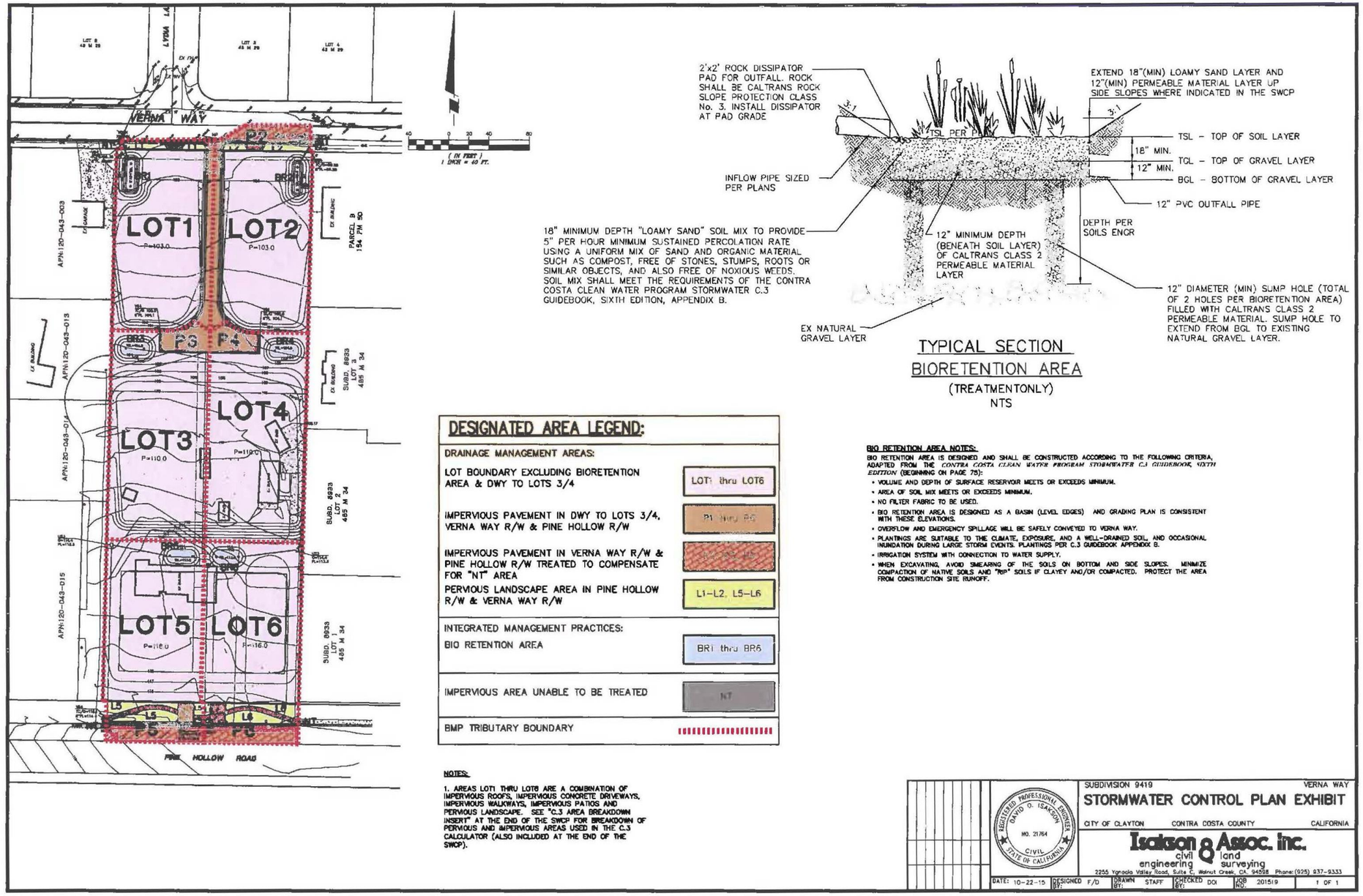
During the early stages of construction activities, topsoil would be exposed due to grading of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or

urban pollutants into stormwater runoff, which would adversely affect water quality. The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Performance Standard NDCC-13 of the City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any City construction permits. The State's General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. Thus, the City and State's regulatory requirements, which are required for the project, would fully address all construction runoff impacts.

The proposed residential uses would not involve operations typically associated with the generation or discharge of polluted water. Thus, typical operations on the project site would not violate any water quality standards or waste discharge requirements, nor degrade water quality. However, addition of the impervious surfaces on the site would result in the generation of urban runoff, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides. The San Francisco Bay Regional Water Quality Control Board (RWQCB) issued an Order requiring all municipalities within Contra Costa County (and the County itself) to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit. Known as the "C.3 Standards," new development or redevelopment projects that create or replace 10,000 square feet or more of impervious area must contain and treat stormwater runoff on the project site. The proposed project is a C.3 regulated project and is required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures.

In order to comply with C.3 Standards, the proposed project would include six bioretention areas, one for each residential lot (see Figure 5). The Stormwater Control Plan (SWCP) for the project, prepared by Isakson & Associates, states that the majority of stormwater runoff from roofs, pavement, concrete curbs, hardscape, and landscape areas would be collected and conveyed to one of the six bioretention areas located on each lot. The bioretention areas would function as soil and plant-based filtration devices that would remove pollutants through a variety of physical, biological, and chemical treatment processes. The bioretention areas would consist of vegetated surfaces, "sandy loam" soil mix, ponding areas, organic layers or mulch layers, storage layers, and sump holes connecting to an underground pervious layer that would receive the treated runoff. The runoff velocity would be reduced by being distributed evenly throughout each bioretention area's ponding areas, and by interacting with the soil medium, vegetation, and soil microbes, as the runoff passes through to the storage layer. Exfiltration of the stored water from the bioretention areas storage layer into the underground pervious layer could occur over a period of days (after significant storm events).

Figure 5
Stormwater Control Plan Exhibit



Collected runoff associated with the project site would, therefore, be directed to subsurface soil layers, rather than to City of Clayton stormwater infrastructure. Discharge to City stormwater infrastructure would occur only during heavy storms, where overflow would be collected and discharged to the Verna Way curb and gutter, which would be connected to the City's stormwater system. To ensure adequate capacity for runoff treatment, each bioretention facility would be designed to exceed the minimum area or volume requirements generated by considering post-project impervious surface area and runoff potential.[8]

Based on the SWCP for the proposed project site, the project would comply with all applicable regulations, does not involve uses associated with the generation or discharge of polluted water, and would be designed to adequately treat stormwater runoff from the site prior to discharge. As a result, the proposed project would not violate any water quality standards or waste discharge requirements, nor would the proposed project otherwise substantially degrade water quality, and a ***less-than-significant*** impact would result.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? ..... Less-Than-Significant Impact

Discussion (b.)

The Contra Costa Water District (CCWD) provides domestic water service to Clayton. The major source of CCWD water is the Sacramento River Contra Costa Water District Canal, not pumped groundwater. The construction of six new residential buildings, driveways and access roads to the project would result in a net increase in impervious surfaces; however, the surface area would not be large enough to significantly affect groundwater recharge. Additionally, the incorporation of sump holes into the bioretention facilities would allow runoff from impervious areas on-site to infiltrate the subsurface pervious soil layer, thereby allowing the continued contribution to groundwater recharge at the site. As such, the proposed project substantially would not deplete groundwater supplies or recharge at the site such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and a ***less-than-significant*** impact would result.

[8] Isakson & Associates: *Storm Water Control Plan for Verna Way Subdivision 9419 in Clayton, CA*. October 22, 2015.

c. Would the project substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, in a manner which would result in substantial erosion or siltation on- or off-site? ..... Less-Than-Significant Impact

d. Would the project substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? ..... Less-Than-Significant Impact

f. Would the project 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? ..... Less-Than-Significant Impact

Discussion (c., d., and f.)

Development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site. However, as discussed above, the project is required to comply with C.3 Standards and is proposed to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures to ensure that the rate or amount of runoff associated with the site would be equal to or less than existing levels.

As discussed above, runoff from the impervious areas of the site would be collected and conveyed to one of the six proposed bioretention areas. Each residential lot would contain one bioretention facility. The SWCP prepared for the proposed project includes calculations for the minimum treatment area and volume needed to offset increases in runoff created by the proposed impermeable surfaces. Based on the calculations, the bioretention facilities have been designed to exceed the minimum volume needed to treat and control runoff from all proposed impervious surfaces (see Table 4). Therefore, despite the proposed project's increase in impermeable surfaces, the proposed project would not result in an increase in stormwater runoff leaving the site as compared to runoff that currently occurs. The only expected runoff leaving the site would occur in the case of heavy storms, where excess runoff not captured by the on-site Integrated Management Practices (IMPs) would be discharged to the Verna Way curb and gutter system. Consequently, runoff from the site would only occur in select circumstances and the proposed project would not result in a net increase in the amount of runoff from the site. Due to the absence of a net increase in runoff, the capacity of existing stormwater drainage infrastructure would not be exceeded, and alterations to the existing City of Clayton infrastructure would not be needed.

Table 4 Integrated Management Practices Sizing		
IMP Name	**Minimum Area or Volume (sq ft)**	**Proposed Area or Volume (sq ft)**
BR1	296	349
BR2	346	371
BR3	311	355
BR4	310	355
BR5	323	378
BR6	321	378
Source: Isakson & Associates, 2015.		

In order to ensure that the proposed project's stormwater treatment facilities remain adequate, long-term maintenance would be required. To ensure the adequacy of long-term maintenance of the bioretention areas, a Stormwater Operation & Maintenance Plan (OMP) was submitted by Isakson & Associates, Inc. The OMP indicates that responsibility for upkeep of the bioretention areas would be held by the owners of the subdivided lots. Each owner would be responsible for inspecting their bioretention facility and associated infrastructure at various times of the year as set forth in the Maintenance Matrix of the OMP. All inspections and remedial actions would be logged in a Stormwater BMP Inspection and Maintenance Log.

In accordance with Clayton Municipal Code Section 13.12.050, implementation of an approved stormwater control plan and submittal of an approved stormwater control operation and maintenance plan by the applicant shall be a condition precedent to a final building inspection or the issuance of a certificate of occupancy.

In conclusion, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in erosion or siltation on- or off-site, increase the rate or amount of surface runoff, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Consequently, the proposed project would result in a ***less-than-significant*** impact.

g. Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? ..... Less-Than-Significant Impact

h. Would the project place within a 100-year floodplain structures which would impede or redirect flood flows? ..... Less-Than-Significant Impact

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?..... Less-Than-Significant Impact

Discussion (g., h., and i.)

The proposed project site is not located in a FEMA Flood Insurance Rate Map designated 100-year floodplain. In addition, dams or levees are not located upstream of the proposed project site; thus, flooding due to dam or levee failure would not occur. Because the project site is not within a 100-year floodplain, the proposed project would not place housing or structures within a 100-year floodplain or expose people or structures to risks involving flooding. Therefore, impacts would be ***less-than-significant***.

j. Would the project expose people or structures to a significant risk of loss, injury, or death involving seiche, tsunami, or mudflow? ..... No Impact

Discussion (j.)

A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or land sliding into or beneath the water body. The project site is not located near a water body that is susceptible to seiche hazard. Furthermore, due to the distance from the project site to the nearest coastline the project site would not be subject to tsunami hazards. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving seiche, tsunami, or mudflow, and ***no impact*** would occur.

10. LAND USE

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

a. Would the project physically divide an established community? ..... Less-Than-Significant Impact

Discussion (a.)

The proposed project would include the development of six single-family homes on a 2.46-acre site. The site currently contains two vacant single-family residences, several outbuildings, and a former walnut orchard, which would all be removed as part of the project. Low density residential land uses surround the project site to the east, north and west. A City of Concord community center, swimming pool, and playground are located immediately south of the project site, with residential neighborhoods further south. The proposed project is consistent with the single-family land uses surrounding the site and the current City of Clayton General Plan land use and zoning designations for the site. Rather than dividing the community, the project would serve as infill development establishing continuity with surrounding uses. Therefore, the proposed project would have a ***less-than-significant*** impact with respect to dividing an existing community.

b. Would the project conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? ..... Less-Than-Significant Impact

Discussion (b.)

The City of Clayton General Plan identifies the project site as Single-Family Low-Density Residential (LD). According to the Clayton General Plan, the LD designation permits a density range of 1.1 to 3 units per acre (du/ac) on lots that range between 12,500 and 40,000 square feet. The proposed project consists of the development of six single-family residences on 2.46 acres, which results in approximately 2.4 du/ac. In addition, the proposed lot sizes

range from 15,469 net square feet to 19,296 net square feet. Therefore, the proposed project would not conflict with the City of Clayton General Plan LD land use designation for the site.

The proposed project is consistent with the existing Single-Family Residential (R-15) zoning district for the site, with the exception of the proposed lot widths. According to Section 17.16.050 of the City of Clayton Municipal Code, the minimum lot width in the R-15 district shall be 100 feet; however, the proposed project lot widths generally range between 90 to 100 feet. Thus, the project applicant is requesting a Variance to allow the proposed reduction in lot widths. Therefore, should the City of Clayton Planning Commission approve the Variance, the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, and a ***less-than-significant*** impact would occur.

c. Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan? ..... Less-Than-Significant Impact

Discussion (c.)

As discussed in question f in Section 5, Biological Resources, of this IS/MND the proposed project site is located within the ECCCHCP boundaries. The ECCCHCP designates the project site as Orchard and within Fee Zone III. As such, the project applicant would be required to pay development fees in accordance with the City of Clayton Municipal Code, Chapter 16.55. Payment of development fees would result in the project being compliant with the ECCCHCP. Therefore, the project would not conflict with any applicable habitat conservation plan or natural communities conservation plan and would result in a ***less-than-significant*** impact.

11. MINERAL RESOURCES

Issues	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?	☐	☐	☐	X
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?	☐	☐	☐	X

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? ..... No Impact

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? ..... No Impact

Discussion (a. and b.)

According to the Contra Costa County General Plan, the most important mineral resources that are mined in the County include crushed rock near Mt. Zion at the Cemex Quarry, west of Mitchell Canyon Road (approximately 1.25 miles south of the project site), shale in the Port Costa area, and sand and sandstone deposits, mined in several other, distant locations.

Because the project site is not within the immediate vicinity of the Cemex Quarry or any of the other identified areas of important mineral deposits, the project would not interfere with existing operations or access to these deposits. Therefore, the proposed project would have ***no impact*** to mineral resources.

12. NOISE

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

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies? ..... Less-Than-Significant Impact

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? ..... Less-Than-Significant Impact

Discussion (a. and c.)

Operation of the project would result in a minor increase to traffic to the local roadway network, which would result in a slight increase in the ambient noise environment. However, as discussed in the Transportation/Circulation section of this IS/MND, the proposed project is expected to result in 57 new daily vehicle trips. The City's noise standards for outdoor and indoor spaces are set forth in Policy 2a of the Clayton General Plan, as follows: 45 Ldn for indoor noise level uses, and 60 Ldn for outdoor noise level. The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. A total of 57 new vehicle trips spread over a 24-hour period would not result in a substantial permanent

increase in ambient noise levels in the project vicinity above levels existing without the project. Furthermore, noise level increases would not be perceptible until they reach 3 dB or above, as compared to ambient noise levels.

As recently confirmed by the California Supreme Court, impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required CEQA review. (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392.) "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473.)

The impact discussion in the following paragraph is related to the effects of traffic noise onto the project's future residents, and therefore does not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the project must be analyzed. (Ballona, supra, 201 Cal.App.4th at p. 475.) Nonetheless, a qualitative analysis of this impact is provided for informational purposes.

The primary source of noise at the proposed project site is related to vehicle noise along Pine Hollow Road. Noise-sensitive outdoor spaces for the project are the residential backyards. Because the proposed residences would front onto Pine Hollow Road, the backyard areas would be shielded by the residential structures, which would be sufficient to ensure that backyard exterior noise levels are at or below the City's exterior noise level standard of 60 dB. In addition, typical construction practices and materials result in a reduction of exterior noise levels by 25-30 dB. As a result, indoor noise levels at new residences would be less than 45 dB Ldn. It should be noted that existing single-family residences that surround the project site on Pine Hollow Road are currently subject to similar noise levels, and the proposed project would develop the site in a manner consistent with the existing residences.

Therefore, the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local General Plan, nor would the project result in a permanent increase in ambient noise levels in the project vicinity, and impacts would be considered ***less-than-significant***.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ..... Less-Than-Significant Impact

Discussion (b.)

Groundborne vibration would be generated during construction of the proposed project. The project site is bordered by residential land uses to the north, east, and west. For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards; 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern; and a conservative limit

of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. All surrounding structures are assumed to be structurally sound, but damage would be a concern so the 0.2 in/sec PPV will be used as a threshold of significance for structural damage. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Therefore, activities creating vibrations exceeding 0.2 in/sec PPV would impact sensitive receptors in nearby residences.[9] Table 5 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Project construction activities, such as drilling, the use of jackhammers, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate groundborne vibration in the immediate vicinity. As shown in the table, jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Given the proposed project's residential nature, construction activities are not expected to require the use of vibratory rollers.

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

Table 5 Vibration Source Levels for Construction Equipment	
Equipment	**PPV at 25 ft (in/sec)**
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Source: Caltrans, Transportation and Construction Vibration: Guidance Manual. September 2013.	

Therefore, the maximum PPV that could occur during construction of the proposed project would be less 0.1 in/sec PPV or less, which is below the 0.2 in/sec PPV significance threshold utilized for this analysis. The nearest vibration-sensitive receptors would be the existing surrounding residential uses. Although vibration generated by construction activities associated with the proposed project could be perceptible at nearby residences, the construction-generated vibrations would not be expected to result in structural damage to the residences.

The nearest vibration-sensitive receptors would be the existing residences surrounding the project site. The primary vibration-generating activities associated with development of the proposed project would occur during demolition, grading, placement of infrastructure, and construction of foundations. Vibration generated by such construction activities at the project site could at times be perceptible at the nearby residences; however, the construction-generated vibrations would not be expected to result in architectural damage to the nearby residential structures. Furthermore, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Clayton Municipal Code Section 15.01.101, and would likely only occur over portions of the improvement area at a time.

Therefore, the project would not involve the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, resulting in a ***less-than-significant*** impact.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? ..... Less-Than-Significant With Mitigation Incorporated

Construction of the project would also result in temporarily increased noise levels from demolition, grading, and construction activities on the project site. Such noise would include mechanical equipment used to demolish the existing residences and outbuildings on the site and the removal of debris. Earthmovers, dump trucks, and similar equipment would be used to grade the site, which would also generate elevated noise levels. After grading is complete, construction noise would include delivery of construction materials, construction of

foundations, framing, roofing, and similar operations that would temporarily generate noise. Based on the Federal Highway Administration's Construction Noise Handbook, activities involved in typical construction would generate maximum noise levels up to 90 dB at a distance of 50 feet.[10] The nearest sensitive receptors to the construction noise would be the residences surrounding the project site. Construction activity would likely only occur over portions of the improvement area at a time. Because noise levels dissipate with distance from the source, noise levels received by the surrounding sensitive receptors would fluctuate depending on the distance of the noise source on the project site from the fixed location of the receptor. Although construction activities would only occur for a limited duration, project construction activities could generate noise levels that would result in temporary increases in ambient noise levels in the project vicinity. Therefore, the proposed project's impact would be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure that the above potential impact is reduced to a *less-than-significant* level.

Mitigation Measure 11. *During grading and construction, the project contractor shall ensure that the following measures are implemented, consistent with the recommendations in the Environmental Noise and Vibration Analysis:*

- *Grading and construction activities shall be limited to the daytime hours between 7:00 a.m. to 5:00 p.m. Monday through Friday, as specified in Section 15.01.101 of the Clayton Municipal Code. Any such work beyond said hours and days is strictly prohibited unless previously specifically authorized in writing by the City Engineer or designee or by project conditions of approval;*
- *The distances between on-site construction and demolition staging areas and the nearest surrounding residences shall be maximized to the extent possible; and*
- *All construction and demolition equipment that utilizes internal combustion engines shall be fitted with manufacturer's mufflers or equivalent.*

[10] Federal Highway Administration. *Highway Traffic Noise: Construction Noise Handbook*. Updated 11/30/2015

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ..... Less-Than-Significant Impact

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? ..... Less-Than-Significant Impact

Discussion (e. and f.)

The project site is not located near an existing airport and is not within an area covered by an existing airport land use plan. The nearest airport is over six miles away in unincorporated Contra Costa County northwest of the City of Concord. Aircraft-related noise, if audible at the project site, would be extremely minimal. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with air traffic and a ***less-than-significant*** impact would occur.

13. POPULATION AND HOUSING

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

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? ..... Less-Than-Significant Impact

Discussion (a.)

The proposed project involves the demolition of two vacant residential units and construction of six new residential units. The average housing unit in Clayton houses 2.73 persons per household.[11] Rounding this figure and considering that the proposed project would include the construction of six total residential units, the project would create an estimated population growth of 18 residents. The level of increase would not be considered "substantial" population growth. Furthermore, the population growth induced by the proposed project has already been anticipated for the project site given the project's consistency with the City's General Plan land use designation of LD for the site. The project would connect to existing infrastructure and would not require the extension of infrastructure. The area surrounding the project site consists of existing development and the project, is therefore, considered an infill development. Consequently, a ***less-than-significant*** impact would occur in regard to the increasing substantial population growth in an area that has not been previously anticipated for such growth.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? ..... No Impact

[11] United States Census Bureau: American Community Survey. *Households and Persons Per Household*. Accessed 4/26/2016

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? ..... No Impact

Discussion (b. and c.)

Two existing-single family homes and several outbuildings would be demolished as part of the proposed project. Following the demolition of the existing structures, six new single-family residences would be constructed. While the project would involve demolition of the existing single family homes, the on-site residences are currently vacant and their demolition would not displace any residents. Therefore, approval and implementation of the proposed project would not displace substantial numbers of existing housing units or people, necessitating the construction of replacement housing, and the project would result in ***no impact***.

14. PUBLIC SERVICES

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

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

b. Police protection? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The Contra Costa County Fire Protection District (CCCFPD) provides fire prevention, suppression, and emergency medical response for advanced and basic life support to nine cities, including Clayton, and much of the unincorporated territory in the central and western portions of Contra Costa County. The CCCFPD operates 23 stations throughout its jurisdictional area and has a staff of 262 uniformed personnel. CCCFPD Station 11, located at 6500 Center Street in the City of Clayton, is currently fully staffed. Police protection services would be provided for the project by the City of Clayton Police Department. The Police Department is located at 6000 Heritage Trail, which is approximately 0.5 miles from the proposed project site.

The proposed project would result in a minor increase (18 residents) in the City's population; thus, the increase in demand for police and fire services attributable to the project would be proportionately minor. The increased emergency services required by the six new units would not result in the need for the expansion of existing facilities or the construction of new facilities to maintain acceptable service ratios. Moreover, with respect to fire services, the City of Clayton Municipal Code Chapter 3.18 establishes development fees to off-set any potential impacts on fire services from new developments. The developer is required to pay

the fire protection fee at the time of or prior to the issuance of an occupancy permit for each dwelling unit.

Because the project would not necessitate 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 fire or police protection, a ***less-than-significant*** impact would result.

c. Schools?..... Less-Than-Significant Impact

Discussion (c.)
The City of Clayton is located within the Mt. Diablo Unified School District (MDUSD). Because the proposed project would involve the construction of residential units, the project could add students to the MDUSD. However, due to the small number of total units included in the proposed project, the projected number of K-12 students generated by the project would only be nine (see Table 6).

Table 6
Proposed Project Student Generation

Grades	Student Generation Rate - Detached Homes	Total Students Generated by Project
K-5	0.220	2
6-8	0.086	1
9-12	0.950	6

Source: Sandy Barnhart, Administrative Secretary, Research and Evaluation, September 4, 2013.

The addition of nine potential students to MDUSD would not necessitate the construction or expansion of new school facilities. In addition, Senate Bill (SB) 50 requires the payment of impact fees to avoid potential impacts to school facilities. Payment of school impact fees per SB 50 is deemed by SB 50 to be sufficient mitigation for potential impacts to schools Therefore, with the payment of school impact fees the proposed project would have a ***less-than-significant*** impact on schools in the area.

d. Parks and recreation?..... Less-Than-Significant Impact

Discussion(d.)
The proposed project site does not contain on-site parks or recreational facilities. Mount Diablo State Park is located approximately two miles south of the project site. In addition, the City owns and maintains several parks including Lydia Lane Park, as well as an extensive system of pedestrian and recreational trails throughout the community, many of which link with regional trails.

The City of Clayton Municipal Code Section 16.12 requires all new subdivisions to dedicate land, pay a fee in-lieu thereof, or both for park or recreational purposes. For projects involving 50 parcels or less, the proposed subdivision is required to pay a fee equal to the land value of the portion of the local park required to serve the needs of the residents of the proposed subdivision. The applicant's payment of in-lieu fees would result in a ***less-than-significant*** impact to parks and recreation facilities.

e. Other public facilities and services? ..... Less-Than-Significant Impact

Discussion (e.)

The proposed project would increase demands for other general governmental services, including libraries and general City maintenance services. However, these demands would be considered minimal for a six-unit residential project and since payment of user fees or taxes to the appropriate service providers is expected to offset potential impacts to such service providers, the additional demands for other governmental services would result in a ***less-than-significant*** impact.

16. RECREATION

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
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?	☐	☐	X	☐
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?	☐	☐	X	☐

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? ..... Less-Than-Significant Impact

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The proposed project would not include recreational facilities. Mount Diablo State Park is located approximately two miles south of the project site. In addition, the City owns and maintains several parks including Lydia Lane Park, as well as an extensive system of pedestrian and recreational trails throughout the community, many of which link with regional trails.

The proposed project would add six new housing units in the City of Clayton, and the relatively small amount of population growth induced by the proposed project would not be expected to lead to the substantial acceleration in the deterioration of recreational facilities nor would it require the expansion of existing recreational facilities. As discussed in the Public Services chapter of this IS/MND, payment of an in-lieu fee in accordance with the City of Clayton Municipal Code Section 16.12 would avoid any deterioration of existing recreational facilities. Because the project would not increase the use of existing parks or recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and the project would not include or require the construction or expansion of recreational facilities, a ***less-than-significant*** impact would occur.

15. TRANSPORTATION/CIRCULATION

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	□	□	X	□
b.	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	□	□	X	□
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	□	□	□	X
d.	Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	X	□
e.	Result in inadequate parking capacity?	□	□	X	□
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	□	□	X	□

a. Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? ..... Less-Than-Significant Impact

b. Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The project site is located south of Verna Way and north of Pine Hollow Road with Atchinson Stage Road to the east of the project site, the private roadway Gibson Lane immediately to the west, and El Camino Drive beyond Gibson Lane to the west. Of the six new single-family residences included as part of the proposed project, Lots 1 and 2 have private driveways with direct access to Verna Way, and Lots 3 and 4 would share a private driveway off of Verna Way. Lots 5 and 6 would have driveways directly onto Pine Hollow Road.

Weekday AM, PM, and daily trip generation forecasts were made for the project using the Single-Family Dwelling Unit (Land Use 210) rates identified in the Institute of Transportation Engineers Trip Generation Manual. As shown in Table 7, implementation of the proposed project would be expected to result in 57 new daily vehicle trips with 5 new AM and 6 new PM peak hour vehicle trips.

Table 7
Weekday Project Trip Generation Rates and Estimates

		Daily	AM Peak Hour				PM Peak Hour			
Units	**Rate**	**Trips**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
6	9.52	57	0.75	1	3	5	1.00	4	2	6

Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition 2012.

According to the Contra Costa Transportation Authority (CCTA) Congestion Management Plan (CMP), any land development application generating less than 100 peak hour trips is not required to prepare a study of its traffic impacts on the CMP network.[12] Because the proposed project would generate less than 100 peak hour trips, a traffic impact study is not required to be prepared.

Due to the low number of project-generated trips, the project would not be expected to adversely impact levels of service at nearby signalized intersections. The proposed project would be consistent with the General Plan land use and zoning designations for the site. Therefore, any impacts resulting from the increase in traffic associated with buildout of the site were already accounted for in the City's General Plan.

Given the above discussion, the proposed project would not substantially increase traffic in relation to the existing traffic load and capacity of the street, nor would the project individually or cumulatively exceed a level of service standard established by the county congestion management agency for designated roads or highways. Consequently, a ***less-than-significant*** impact would result from implementation of the proposed project.

It should be noted that the passage of Senate Bill (SB) 743 (Steinberg, 2013) will change the way that public agencies evaluate the transportation impacts of projects under CEQA. It directs the California Office of Planning and Research (OPR) to revise the CEQA Guidelines to establish "alternative metrics" for identifying transportation impacts. These changes are intended to further the Legislature's commitment to encouraging land use and transportation planning decisions and investments that reduce vehicle miles travelled and contribute to reductions in greenhouse gas emissions. The term "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project.

OPR's revised draft CEQA Guidelines, released on January 20, 2016, reflect an across-the-board elimination of congestion-based metrics as a threshold of significance in CEQA and replaces them with a new Vehicle Miles Travelled (VMT) metric. The City of Clayton notes,

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

however, that these revisions are presently in draft format only. They will not have the force of law until and unless they are adopted. Furthermore, the provisions of OPR's proposed new CEQA Guidelines Section 15064.3, *Determining the Significance of Transportation Impacts*, apply prospectively as described in CEQA Guidelines Section 15007. After two years from expected adoption date, the provisions of this new section shall apply statewide, and not just to projects located within one-half mile of major transit stops or high quality transit corridors, as will be the case initially.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? ..... No Impact

Discussion (c.)

The proposed project would not require or result in any changes to existing air traffic activity and the project site is not located in the vicinity of an airport. Therefore, ***no impact*** would occur associated with a change in air traffic patterns including either an increase in traffic levels or a change in location that would result in substantial safety risks.

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ..... Less-Than-Significant Impact

e. Would the project result in inadequate emergency access? ..... Less-Than-Significant Impact

Discussion (d. and e.)

The proposed project involves the construction of six new residences. Lots 1-4 would be accessed via Verna Way, while Lots 5 and 6 would be accessed from Pine Hollow Road. More specifically, Lots 1 and 2 have private driveways with direct access onto Verna Way and Lots 3 and 4 have a shared private driveway off of Verna Way. The proposed project would also include two to eight feet of additional paving along its Verna Way frontage.

Approximately 190 feet of Pine Hollow Road, where Pine Hollow Road abuts the project site, would also be widened by approximately 3.5 feet to accommodate vehicle access to two proposed driveways. The aforementioned access points would provide adequate emergency access to the site and all proposed units. Major modifications to the existing area roadways and circulation system would not occur as a result of the proposed project; and emergency vehicle access to the area would, therefore, remain unchanged.

A possible hazard exists when considering vehicles backing out of the proposed driveways of Lots 5 and 6 onto Pine Hollow Road. Pine Hollow Road is considered a residential collector street by the City of Clayton's General Plan Circulation Element. Pine Hollow Road is a two-

lane road where it borders the project site, but to the west of the site, past El Camino Drive, the road widens to four lanes. Many of the surrounding residences currently have driveways requiring residents to exit the property by backing directly onto Pine Hollow Road, while other residences have semi-circular driveways, thus eliminating the need for occupants to back out of their driveway. The project will be subject to the Site Plan Review Permit process, and, if determined necessary during the Site Plan Review Permit process, a semicircular driveway, or turnaround could be incorporated into the proposed residential designs, as determined by the City Engineer.

Given the above discussion, the project would not substantially increase hazards due to a design feature or incompatible use, nor would the project result in inadequate emergency access resulting in a ***less-than-significant*** impact.

f. Would the project conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)? ..... Less-Than-Significant Impact

Discussion (f.)

The project area is currently provided transit service by the Central Contra Costa Transit Authority. Bus Route 10 provides service within Clayton and in the vicinity of the project site along Clayton Road and old Marsh Creek Road, northeast of the project site. The construction of six residences would not result in the need for expanded bus service in Clayton. The proposed project would include the slight widening of Pine Hollow Road along the project site's southern border. Widening Pine Hollow Road would result in a slight widening of the existing bike lane. The project does not include any other changes to existing bicycle infrastructure, or changes that would conflict with the use of bicycles as an alternative means of transportation. Proposed project plans indicate the construction of sidewalks along Pine Hollow Road. Currently, sidewalks end at the eastern edge of the property. Constructing new sidewalks on both Pine Hollow Road and Verna Way would connect the site with the existing sidewalk system that continues for approximately 0.3 miles to Mount Diablo Elementary School. The project site is located less than a mile away from the City of Clayton's historic Main Street commercial center, also known as the Town Center. The project site's proximity to the Town Center and associated commercial services could encourage walking and biking by the future residents of the proposed project. Therefore, the proposed project would not conflict with adopted policies supporting alternative transportation resulting in a ***less-than-significant*** impact.

17. UTILITIES AND SERVICE SYSTEMS

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

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?..... Less-Than-Significant Impact

e. 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? ..... Less-Than-Significant Impact

Discussion (a. and e.)

The wastewater collection system within the City of Clayton is owned by Clayton and maintained by the City of Concord. Concord has a contract with Central Contra Costa Sanitary District (CCCSD) to treat wastewater. The CCCSD treatment plant currently treats an average of 31.8 million gallons per day (MGD).[13] The CCCSD treatment plant's permitted physical capacity is 53.8 MGD. According to the Growth Management Element of the City's

[13] Central Contra Costa Sanitary District: Protecting Public Health and the Environment. http://www.centralsan.org/index.cfm?navId=154. Accessed April 20, 2016.

General Plan, the plant's maximum capacity of 53.8 MGD is projected to accommodate buildout until the year 2040.[14,15]

The proposed project would connect to existing sewer infrastructure on both Verna Way and Pine Hollow Road. The proposed project would generate additional wastewater flows into the regional wastewater treatment plant operated by CCCSD. However, the proposed project is consistent with the General Plan land use and zoning designations for the site. As such, the project is consistent with growth assumptions used in estimating buildout of the City's General Plan and was included in the capacity projection calculations for the wastewater treatment plant.

Therefore, the proposed project would result in a ***less-than-significant*** impact to existing wastewater facilities and infrastructure.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? .....Less-Than-Significant

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? .....Less-Than-Significant

Discussion (b. and d.)

Potable water service for the project site is required and would be made available by Contra Costa Water District (CCWD) upon completion of financial arrangements and installation of all necessary water facilities to meet the requirements of residential use and fire protection, in accordance with current CCWD and CCCFPD standards. The project would connect to existing water infrastructure in both Verna Way and Pine Hollow Road.

According to the comparison of available supply with projected demands from the 2010 Urban Water Management Plan (UWMP) for the CCWD, the CCWD does not anticipate any supply deficits in normal years through 2035. In future years, multiple-year drought conditions could cause supply shortfalls; however, any potential supply shortfalls experienced during a drought would be met through a combination of a short-term conservation program or short-term water purchases. Accordingly, the CCWD's currently available and planned supplies are sufficient to meet estimated water demands during normal, single dry, and multiple dry years during the next 25 years.[16] Because the proposed

[14] City of Clayton. *City of Clayton General Plan Section XI: Growth Management Element* [page 16]. Available at: http://www.ci.clayton.ca.us/index.php?section=52. As amended February 5, 2008.

[15] Email communication with Russell B. Leavitt. Engineering Assistant III. Central Contra Costa Sanitary District. May 04, 2016.

[16] Contra Costa Water District. *Urban Water Management Plan*. June 2011.

project is consistent with the current land use and zoning designations for the site, development of the project would be considered consistent with the growth assumptions utilized to estimate the CCWD's projected water demands. Thus, the project's associated increase in water demand is accounted for in the CCWD's UWMP.

In addition, the project design would be required to adhere to State Building Code standards for water conservation, such as low-flow plumbing fixtures, as well as the City's water-conserving guidelines for landscaping, as set forth in Chapter 17.80 of the Municipal Code. Given the current capacity of CCWD and the project's compliance with the State Building Code and the City of Clayton Municipal Code, Chapter 17.80, the proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, and the project would have sufficient water supplies available to serve the project from existing resources. Therefore, the proposed project would have a ***less-than-significant*** impact related to water and wastewater facilities and water supply

c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ..... Less-Than-Significant Impact

Discussion(c.)

Development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site. However, as discussed in the Hydrology section of this IS/MND, the project would be required to comply with C.3 Standards and includes appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures. As a result, no net increase in stormwater drainage runoff from the site would be expected. In the absence of an increase in storm water drainage leaving the site, the proposed project would not require the construction of new off-site stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, resulting in a ***less-than-significant*** impact.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? ..... Less-Than-Significant Impact

g. Comply with federal, state, and local statutes and regulations related to solid waste? ..... Less-Than-Significant Impact

Discussion (f. and g.)

Solid waste from the City of Clayton is disposed of at the nearest landfill, which is the Keller Canyon Landfill, over four miles north from the site. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Keller Canyon Landfill has a

remaining capacity of 63,408,410 cubic yards out of a total permitted capacity of 75,018,280 or 85% remaining capacity.[17] According to CalRecycle, single-family residential developments have estimated solid waste generation rates ranging from 7.8 pounds per dwelling unit per day to 12.23 pounds per unit per day.[18] Utilizing the higher generation rate, the project could generate a total of approximately 73.38 pounds of solid waste per day (or 0.04 tons per day). Therefore, the landfill serving the proposed project would have adequate capacity to accommodate the project's solid waste needs. Due to the project's small relative solid waste generation and the lack of impact on the landfill's lifespan, the project is not expected to have a significant impact on solid waste services.

In addition, the City is required by AB 939 to ensure that it achieves and maintains the diversion and recycling mandates of the State. Construction of the project would comply with the construction and demolition debris recycling requirements of Chapter 15.80 of the City's Municipal Code, which requires that a waste management plan be prepared for both demolition and new construction. The waste management plan must address all materials that would not be acceptable for disposal in the sanitary landfill. Therefore, as the project is required to comply with the City's Municipal Code, and sufficient capacity exists at the Keller Canyon Landfill, implementation of the proposed project would result in a ***less-than-significant*** impact related to solid waste services.

[17] CalRecycle website; http://www.calrecycle.ca.gov/SWFacilities/Directory/07-AA-0032/; accessed May 11, 2016.
[18] California Department of Resources Recycling and Recovery (CalRecycle). Waste Characterization Residential Developments: Estimated Solid Waste Generation Rates. Available at: http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Residential.htm. Accessed April 20, 2016.

18. MANDATORY FINDINGS OF SIGNIFICANCE

Issues	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	X	☐
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)?	☐	☐	X	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	X	☐

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

Discussion (a.)

Development of the proposed project has the potential to affect nesting passerine birds, protected by the Migratory Bird Treaty Act. In addition, although unlikely, the possibility exists for subsurface excavation of the site during grading and other construction activities to unearth deposits of cultural significance. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less-than-significant levels (see Mitigation Measures 4 and 5). Therefore, the proposed project would have ***less-than-significant*** impacts related to degradation of the quality of the environment, reduction of habitat, threatened species, and/or California's history or prehistory.

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

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

Discussion (b. and c.)

The proposed project site is primarily surrounded by existing similar development and is consistent with the land use and zoning designations for the site. Due to the consistency of the proposed land use, substantial adverse effects on human beings are not anticipated with implementation of the proposed project. It should be noted that during construction and demolition activities, the project could result in potential impacts related to asbestos, lead-based paints, and noise. However, this IS/MND includes mitigation measures that would reduce any potential impacts to a less-than-significant level. In addition, the proposed project would be designed in accordance with all applicable building standards and codes to ensure adequate safety is provided for the future residents of the proposed project. Therefore, impacts related to environmental effects that could cause adverse effects on human beings would be ***less-than-significant***.

VII. STAFF AND SOURCES

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All technical reports and modeling results prepared for the project analysis are available upon request at the City of Clayton City Hall, located at 6000 Heritage Trail, Clayton California, 94517. The following documents are referenced information sources utilized for purposes of this IS/MND:

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4. California Department of Transportation, *Transportation and Construction Vibration: Guidance Manual.* September 2013.
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21. Tom Origer and Associates. *A Cultural Resources Survey for the Verna Way Residential Subdivision Clayton, Contra Costa County, California*. April 26, 2016.
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