INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

FOR THE

2700 EMPIRE AVENUE PROJECT

AUGUST 2016

Prepared for:

City of Brentwood Community Development Department
150 City Park Way
Brentwood, CA 94513
(925) 516-5405

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

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A Land Use Planning, Design, and Environmental Firm

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INITIAL STUDY

PROJECT TITLE

2700 Empire Avenue Project

LEAD AGENCY NAME AND ADDRESS

City of Brentwood
150 City Park Way
Brentwood, CA 94513

CONTACT PERSON AND PHONE NUMBER

Debbie Hill, Associate Planner
City of Brentwood
Community Development Department
(925) 516-5135

PROJECT SPONSOR'S NAME AND ADDRESS

Alvernaz Partners, LLC
1820 Bonanza Street, Suite 205
Walnut Creek, CA 94596
(925) 270-6213

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis which is prepared to determine the relative environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project will have a significant adverse effect on the environment, thereby triggering the need to prepare an Environmental Impact Report (EIR). It also functions as an evidentiary document containing information which supports conclusions that the project will not have a significant environmental impact or that the impacts can be mitigated to a "Less Than Significant" or "No Impact" level. If there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the lead agency shall prepare a Negative Declaration (ND). If the IS identifies potentially significant effects, but: (1) revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment, then a Mitigated Negative Declaration (MND) shall be prepared.

This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the proposed 2700 Empire Avenue Project (project) may have a significant effect upon the environment. Based upon the findings and mitigation measures contained within this report, a Mitigated Negative Declaration (MND) will be prepared.

BACKGROUND

On July 22, 2014, the City of Brentwood City Council adopted a comprehensive General Plan Update, which was last updated in 1993 (a partial update involving the Growth Management, Land Use, and Circulation Elements was completed in 2001). An Environmental Impact Report (EIR) was prepared for the General Plan Update, which addressed the potential impacts associated with full build-out of the General Plan Land Use Diagram. The 2014 Brentwood General Plan Update EIR was certified by the Brentwood City Council on July 22, 2014. The General Plan Update Land Use Map designates the project site as Residential Medium Density (R-MD). Medium Density Residential land uses are required to have a density between 5.1 and 11.0 dwelling units per gross acre (du/ac); the proposed 48 single-family residential project is consistent with this land use designation at 6.0 du/ac. In accordance with Section 15150 of the CEQA Guidelines (Section 21083.3 of the Public Resources Code), this IS will tier from the previously certified EIR (SCH# 2014022058) prepared for the Brentwood General Plan Update.

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The project site consists of approximately 8.0 acres located at 2700 Empire Avenue in the City of Brentwood. The project site is bounded by WinCo Foods and the associated parking lot to the east, vacant land and a single-family residence to the north, Empire Avenue to the west, and vacant land and three single-family residences to the south. The project site can be identified by its Assessor's Parcel Number (APN) 019-010-004. The project's location is shown in Figure 1.

EXISTING SITE USES

The project site contains one single-family home near Empire Avenue. The remainder of the site is undeveloped and highly disturbed from recent active agricultural uses. The site is vegetated with ruderal annual grassland vegetation. The on-site grasslands contain stumps and irrigation lines from the orchard that was removed, and the grasslands have been periodically mowed and disked for weed abatement. Figure 2 displays aerial views of the project site and surrounding area.

SURROUNDING LAND USES

The Brentwood General Plan designates lands adjacent to the project site as: Business Park (BP), General Commercial (GC), and R-MD to the north of the project site; GC to the east of the project site; and GC to the south of the project site. The Antioch General Plan designates the land to the west of the project site as Regional Retail within the East Lone Tree Focus Area.

Current uses within these areas include WinCo Foods, which adjoins the project site on the eastern portion, Walgreens and Best Buy to the south, and the Empire Shopping Center in Antioch to the west, opposite Empire Avenue.

GENERAL PLAN DESIGNATIONS

The project site is currently designated R-MD by the City of Brentwood General Plan Land Use Map. The R-MD designation accommodates a variety of housing product types, including duplexes, triplexes, apartments, townhouses, and small lot single-family detached homes. The permitted density range is 5.1 to 11.0 du/ac.

ZONING DESIGNATIONS

The project site is currently designated Planned Development 38 (PD-38) by Title 17 of the City of Brentwood Zoning Code, which allows for business park-type uses.

PROJECT DESCRIPTION

The proposed project would develop the 8.0-acre project site with 48 single-family residential lots (6.0 du/ac), one onsite park area, and two open space landscape/water quality lots. Typical lot sizes would range in size from approximately 3,744 square feet (sf) to 7,791 sf with an average lot size of approximately 4,112 sf. The homes would range in size from approximately 2,380 sf to 3,021 sf. The homes would be one or two stories and would include 2-car recessed garages.

The project site includes approximately 0.73 acres of park space along the northern-central portion of the project site, and another approximately 0.27-acre landscaped water quality detention area in the northeastern corner of the project site.

The project site would include a meandering sidewalk area with landscaping along Empire Avenue. Additionally, a 6-foot-tall sound wall is proposed to be located along Empire Avenue along the western portion of the project site. Additional proposed fencing includes good neighbor fence along the northern and southern portions of the project site and a privacy fence along an existing masonry wall associated with WinCo Foods to the east of the project site. The existing fencing along the eastern project boundary, located along the WinCo Foods property, would remain as part of the project. The existing fencing includes an 8-foot-tall soundwall along the northern portion of the western project site boundary and a 3- to 4-foot-tall metal fence and pedestrian gate south of the aforementioned soundwall.

Access to the project site would be provided via Empire Avenue. The proposed onsite roadways include an inner street network which has been designed to accommodate possible future residential development to the north. The proposed site plan layout is shown in Figure 3.

The proposed project would involve the construction of the necessary infrastructure to serve the proposed neighborhood. The project includes installation of 8-inch water lines, 8-inch sewer lines, and 18- and 24-inch storm drain lines within the internal street right-of-ways (ROWs) and along the site perimeter, which would connect to existing water and storm stubs located west of the project site along Empire Avenue and east of the project site near WinCo Foods. Storm drainage at the proposed park would be self-treating, and storm drainage from the remainder of the site would discharge to the retention basin in the northeastern portion of the project site.

DESIGN REVIEW

The proposed project provides three floor plans, including several variations of Farmhouse, Craftsmen, and Traditional elevational styles. In accordance with the Brentwood Zoning Ordinance, all proposed structures are subject to design review approval by the City of Brentwood Planning Commission in order to foster good design character through consideration of aesthetic and functional relationships to surrounding development.

DEVELOPMENT STANDARDS

The entire project site is zoned PD-38, which contains development standards that contemplate business park uses at the site. As part of the proposed project, updated zoning development standards would be included in a PD-38 Amendment. This amendment outlines setback criteria as well as the required plan styles, number of plans, and elevation styles, consistent with residential development.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

The City of Brentwood is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050.

This document will be used by the City of Brentwood to take the following actions:

- Adoption of the Mitigated Negative Declaration (MND) and adoption of the Mitigation Monitoring and Reporting Program (MMRP);
- Revision of the Planned Development (PD-38) zoning development standards to be consistent with residential development;
- Approval of a Tentative Subdivision Map to subdivide approximately 8.0 acres into 48 single-family detached residential lots, 1 onsite park area, and 1 open space landscape/water quality lot; and
- Design Review of the proposed residential structures.

2700 EMPIRE AVENUE
BRENTWOOD, CALIFORNIA

Figure 1: Regional Location Map

Sources: CalAtlas. Map date: April 4, 2016.

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2700 EMPIRE AVENUE
BRENTWOOD, CALIFORNIA

Figure 2: Vicinity Map

Legend

Project Location
(APN 019-010-004)

0 250 500
Feet

1:12,000

Sources: Contra Costa County GIS; CalTrans; US Census Bureau TIGER/Line Roads. Map date: April 5, 2016.

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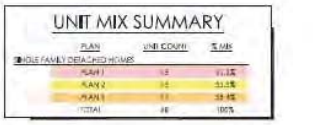
TRACT 9412

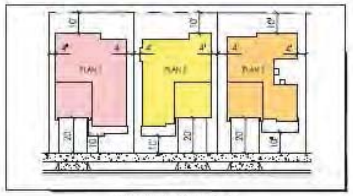
SITE PLAN

2700 EMPIRE AVENUE

BRENTWOOD, CA

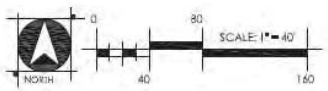
JULY 25, 2016





TYPICAL LOT SETBACKS

NOT TO SCALE



WOOD RODGERS

DEVELOPING INNOVATIVE DESIGN SOLUTIONS

4670 Willow Road, Suite 125 Tel 925.847.1556

Pleasanton, CA. 94588 Fax 925.847.1557

2700 EMPIRE AVENUE
BRENTWOOD, CALIFORNIA

Figure 3: Site Plan

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

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 because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

EVALUATION INSTRUCTIONS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances).

Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

EVALUATION OF ENVIRONMENTAL IMPACTS:

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant with Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the Project.

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ENVIRONMENTAL CHECKLIST

This section of the IS incorporates the most current Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 18 environmental topic areas.

I. AESTHETICS -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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		

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The City of Brentwood is located in the eastern valley area of Contra Costa County, immediately east of the Diablo Range, which includes Mount Diablo. The City of Brentwood has recognized views of Mount Diablo as an important visual resource to be preserved (see Policy COS 7-3 of the Conservation and Open Space Element of the Brentwood General Plan).

According to the 2014 Brentwood General Plan Update EIR and the California Scenic Highway Mapping System, administered by Caltrans, the City of Brentwood does not contain officially designated State Scenic Highways.[1] However, it should be noted that the segment of State Route 4 (SR 4) located approximately 0.4 miles to the west of the project site is listed as an Eligible State Scenic Highway, but has not yet been officially designated. The project would not damage any scenic resources, such as trees, rock outcroppings, or historic buildings, within a State Scenic Highway, and is not a highly visible feature from the SR 4 corridor, given the intervening development that exists between the project site and SR 4. Additionally, the project site is not designated as a scenic vista. The 2014 Brentwood General Plan Update EIR identifies SR 4 as a local scenic route due to the distant panoramic vistas of the Diablo Range and Mount Diablo in particular. Mount Diablo is located to the west of SR 4 and the proposed project is located to the east of SR 4, and on the northern edge of the city. As a result, the project structures would not

[1] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.1-5]. July 22, 2014.

impede views of Mount Diablo currently afforded to travelers along SR 4, or impede views of Mount Diablo from residents residing in the City of Brentwood.

The proposed project would not remove trees, rock outcroppings, and historic buildings within a state scenic highway, and is not designated as a scenic vista. Therefore, this is considered a **less than significant** impact.

Response c): Less than Significant. The development of the site would change the existing visual setting from predominately agricultural land with one residential structure to an urban area consisting of 48 single-family residential units. The proposed development would be considered compatible with other residential and commercial uses existing and planned in the immediate vicinity of the project site. In addition, the proposed project is consistent with the R-MD land use identified in the City's General Plan and General Plan Land Use Map. Implementation of the proposed project would alter the visual appearance on the project site through the removal of farmland and subsequent housing development. The proposed project is identified for urban land uses in the Brentwood General Plan. The proposed project is consistent with the overriding considerations that were adopted for the General Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR nor significantly change previously identified impacts.

The final project design would be approved by the City through its design review process. Through this process the Planning Commission would ensure the design meets the criteria set forth in Municipal Code Section 17.820.007. As a result, development of the project site would result in a **less than significant** impact with respect to substantially degrading the existing visual character or quality of the site and its surroundings.

Response d): Less than Significant with Mitigation. The project site contains one single-family residential structure. Minimal light and glare is currently emitted from the project site. The change from a predominantly vacant property to a residential development including 48 single-family residences and associated street lighting would generate new permanent sources of light and glare. The project site is adjacent to existing commercial facilities to the west and east. The residential structures located in the immediate vicinity of the site would be considered sensitive receptors, which could be adversely affected by additional sources of light and glare. However, the project would not include reflective building materials, and vehicle headlight glare would not be exacerbated given the existing level of traffic on Empire Avenue, and landscaping and fencing that would restrict project vehicle light sources. However, street and safety lighting located along project streets and within park areas may be visible from surrounding locations. Therefore, the increase in light produced by the proposed project would be considered potentially significant.

Implementation of Mitigation Measure 1 would reduce the potential impacts related to light and glare to **less than significant**.

Mitigation Measure(s)

Mitigation Measure 1*: In conjunction with development of the proposed project, the developer shall shield all onsite lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. A detailed lighting plan shall be submitted for the review and approval by the Community Development Department and the Public Works Department in conjunction with the project improvement plans. The lighting plan shall indicate the locations and design of the shielded light fixtures.*

II. AGRICULTURE AND FOREST RESOURCES: WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring 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 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				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 result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. The 8.0-acre development area was recently used for agricultural operations. When irrigated, the project site contains soils that are considered Prime Farmland soils by the California Department of Conservation, Farmland Mapping and Monitoring Program and the U.S. Department of Agriculture (USDA) Soil Conservation Service.[2] Figure 3.2-1 of the City of Brentwood General Plan EIR identifies important farmlands, as mapped by the USDA, on the project site. Additionally, the Planning Survey Report indicated that 7.92 acres of the project site is ruderal grassland.

Development of the site for urban uses and the subsequent removal of prime farmland soil for agricultural use was taken into consideration in the City of Brentwood General Plan and General Plan EIR. Buildout of the General Plan would result in the conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to urban uses. The General Plan Draft EIR found this to be a significant and unavoidable impact. In June, 2014 the Brentwood City Council adopted a Statement of Overriding Considerations for the loss of prime agricultural land resulting from adoption of the Plan and EIR, and provided mitigation measures for the agricultural land lost to development in the City of Brentwood's urbanized areas.

Additionally, Section 17.730.020 of the City of Brentwood's Agricultural Preservation Program states that, "agricultural land" requiring mitigation, includes: "*those land areas of Contra Costa*

[2] http://maps.conservation.ca.gov/ciff/ciff.html.

County specifically designated as agricultural core (AC) or agricultural lands (AL) as defined in the Contra Costa County general plan; those land areas near the city designated as agricultural conservation (AC) as defined in the Brentwood general plan; and/or other lands upon which agricultural activities, uses, operations or facilities exist or could exist that contain Class I, II, III or IV soils as defined by the United States Department of Agriculture Natural Resource Conservation Service."

The proposed project is identified for urban land uses in the Brentwood General Plan. The proposed project is consistent with the overriding considerations that were adopted for the General Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR, nor significantly change previously identified impacts; therefore, in this regard, there is no impact. However, the site currently consists of agricultural land, and contains Prime Farmland soils, when irrigated. The proposed project is therefore subject to compliance with Chapter 17.730, Agricultural Preservation Program, of the Brentwood Municipal Code. Implementation of the following mitigation measure would bring the proposed project in compliance with Chapter 17.730 of the Brentwood Municipal Code. Thus, through implementation of Mitigation Measure 2, impacts related to this environmental topic are considered **less than significant**.

Mitigation Measure(s)

Mitigation Measure 2*: The Project applicant must preserve agricultural lands by paying an in-lieu fee established by City Council resolution. The fee may be adjusted annually but may not be increased by more than ten percent during any twelve-month period.*

Response b): No Impact. The project site is not under Williamson Act contract, nor is the site zoned for agricultural use. The current land use designation for the project site is Medium Density Residential. Therefore, the project would have no impact with respect to conflicting with agricultural zoning or Williamson Act contracts. There is **no impact.**

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

Response e): Less than Significant. Individual project impacts to the loss of prime farmland are addressed through the proposed mitigation in item **a)** above. The proposed project would not be anticipated to promote off-site development of existing agricultural land because the proposed infrastructure is sized to serve only the project area. As stated previously, agricultural land to the north of the project site is expected to be developed in the future; however, the proposed project and urban land uses identified for the surrounding area are consistent with the overriding considerations that were adopted for the General Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR, nor significantly change previously identified impacts related to

agricultural resources. In addition, the project site is consistent with the type and intensity of land uses anticipated by the General Plan. Finally, the project site is not considered to be forest land. Therefore, the proposed project would result in a **less than significant** impact to the existing environment that could individually or cumulatively result in loss of farmland to non-agricultural uses or conversion of forest land to non-forest uses.

III. AIR QUALITY -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?		X		
e) Create objectionable odors affecting a substantial number of people?			X	

EXISTING SETTING

The project site is located within the boundaries of the Bay Area Air Quality Management District (BAAQMD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Francisco Bay Area Air Basin (SFBAAB) and has jurisdiction over most air quality matters within its borders.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The SFBAAB is currently designated as a nonattainment area for 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 BAAQMD, in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), prepared the 2005 Ozone Strategy, which is a roadmap depicting how the Bay Area will achieve compliance with the State one-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. Although the California Clean Air Act does not require the region to submit a plan for achieving the State PM_{10} standard, the 2005 Ozone Strategy is expected to also reduce PM_{10} emissions. In addition, to fulfill federal air quality planning requirements, the BAAQMD adopted a $PM_{2.5}$ emissions inventory for year 2010, which was submitted to the U.S. Environmental Protection Agency (USEPA) on January 14, 2013 for inclusion in the State Implementation Plan (SIP).

The current plan in place to achieve progress toward attainment of the federal ozone standards is the *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard*. The USEPA recently revoked the 1-hour federal ozone standard; however, the region

is designated nonattainment for the new 8-hour standard that replaced the older one-hour standard. Until the region either adopts an approved attainment plan or attains the standard and adopts a maintenance plan, the *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard* remains the currently applicable federally-approved plan.

The aforementioned applicable 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 ozone 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 considered to conflict with, or obstruct implementation of, an applicable air quality plan if the project would be inconsistent with the Ozone Attainment Plan's growth assumptions, in terms of population, employment, or regional growth in Vehicle Miles Traveled (VMT). The growth assumptions are based on ABAG projections that are, in turn, based on the City's General Plan**.** The proposed project site was designated for Medium Density Residential uses in the Brentwood General Plan in effect at the time ABAG projections were forecast. The proposed project is consistent with the General Plan land use designation; therefore, the project would be considered consistent with the growth assumptions of the applicable air quality plans. As a result, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans. This is a **less than significant** impact.

Responses b), c): Less than Significant. According to the CEQA Guidelines, an air quality impact may be considered significant if the proposed project's implementation would result in, or potentially result in, conditions, which violate any existing local, State or federal air quality regulations. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants designated as nonattainment in the area, the BAAQMD has established significance thresholds associated with development projects for emissions of reactive organic gases (ROG), nitrogen oxide (NO_x), PM_{10}, and $PM_{2.5}$**.** The BAAQMD's significance thresholds, expressed in pounds per day (lbs/day) for project-level and tons per year (tons/yr) for cumulative, listed in Table 1, are recommended for use in the evaluation of air quality impacts associated with proposed development projects.

Table 1: BAAQMD Thresholds of Significance

Pollutant	Construction (lbs/day)	Operational (lbs/day)	Cumulative (tons/year)
ROG	54	54	10
NOx	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10
Source: BAAQMD, CEQA Guidelines, May 2011.			

In addition, the BAAQMD identifies screening criteria for development projects, which provide a conservative indication of whether a development could result in potentially significant air quality impacts. If the screening criteria are exceeded by a project, a detailed air quality assessment of that project's air pollutant emissions would be required**.** The project is made up

of single-family residences. The screening criteria for a single-family residential development are if the development is less than or equal to the following screening level sizes:

- 325 dwelling units for operational criteria pollutants;
- 56 dwelling units for operational greenhouse gas (GHG) (addressed in Section XII); or
- 114 dwelling units for construction criteria pollutants.

Accordingly, if a single-family development is less than or equal to the screening size for operational or construction criteria pollutants, or for operational GHG, the development would not be expected to result in potentially significant air quality impacts, and a detailed air quality assessment would not be required. The proposed project screens out under all criteria.

It should be noted that the BAAQMD was challenged in Superior Court, on the basis that the BAAQMD failed to comply with CEQA when it adopted its CEQA guidelines, including thresholds of significance. The BAAQMD was ordered to set aside the thresholds and conduct CEQA review of the proposed thresholds. On August 13, 2013, the First District Court of Appeal reversed the trial court's decision striking down BAAQMD's CEQA thresholds of significance for GHG emissions. The Court of Appeal's held that CEQA does not require BAAQMD to prepare an EIR before adopting thresholds of significance to assist in the determination of whether air emissions of proposed projects might be deemed "significant." The Court of Appeal's decision provides the means by which BAAQMD may ultimately reinstate the GHG emissions thresholds, though the court's decision does not become immediately effective. It should be further noted that a petition for review has been filed; however, the court has limited its review to the following issue: 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? Ultimately, the thresholds of significance used to evaluate proposed developments are determined by the CEQA lead agency. Per CEQA Guidelines Section 15064.7, the City has elected to use the BAAQMD's thresholds and methodology for this project, as they are based on substantial evidence and remain the most up-to-date, scientifically-based method available to evaluate air quality impacts. Thus, the BAAQMD's thresholds of significance presented in Table 1, and the screening criteria, are utilized for this analysis.

Implementation of the proposed project would contribute local emissions in the area during both the construction and operation of the proposed project. As the proposed project involves the development of 48 dwelling units, the project does not exceed the screening criteria for operational or construction-related criteria pollutants resulting from a single-family residential development. As such, the proposed project would not be expected to result in potentially significant operational or construction-related air quality impacts.

As discussed previously, the proposed project does not exceed the screening criteria for operational and construction criteria air pollutants and precursors. BAAQMD's has determined that if the project meets the screening criteria, the project would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the Thresholds of Significance. Therefore, implementation of the proposed project would result in a **less-than-significant** impact to air quality from criteria air pollutant and precursor emissions.

It should be noted that the project is required to comply with all BAAQMD rules and regulations for construction, including implementation of the BAAQMD's recommended Basic Construction Mitigation Measures. The Basic Construction Mitigation Measures include, but are not limited to, watering exposed surfaces, covering all haul truck loads, removing all visible mud or dirt track-out, limiting vehicle speeds on unpaved roads, and minimizing idling time.

Response d): Less than Significant with Mitigation. Emissions of carbon monoxide (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 addition to screening criteria for criteria pollutants and GHG, BAAQMD has established screening criteria for localized CO emissions, including the following:

- Consistency with applicable congestion management programs;
- Project traffic increase traffic volumes at intersections to more than 44,000 vehicles per hour; or
- Project traffic increase traffic volumes at 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.).

As the City has elected to use the BAAQMD's thresholds and methodology for this project, the BAAQMD's screening criteria for localized CO emissions presented above are utilized for this analysis.

A General Plan Amendment is not required for the proposed project. The proposed density is consistent with the General Plan designation for the site. As such, the project would be considered consistent with the growth assumptions of the General Plan. Subsequently, the project would result in similar mobile source emissions as currently anticipated for the site. In addition, none of the affected intersections currently involve traffic volumes of 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited), and would not increase traffic volumes greater than 44,000 vehicles per hour as a result of the proposed project. Therefore, according to the BAAQMD screening criteria above, the proposed project would not be expected to result in substantial increase in levels of CO at surrounding intersections, and the project would not generate or be subjected to localized concentrations of CO in excess of applicable standards.

Toxic Air Contaminants (TACs) are also a category of environmental concern. The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommendations for siting new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. It should be noted that the project site is approximately one quarter-mile from the nearest railroad tracks; however, due to the lack of idling trains, the CARB does not consider tracks to be a significant source of TAC emissions, and the project site is not located in the vicinity of a rail yard. 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.

Children, pregnant women, the elderly, and those with existing health problems are considered more sensitive to air pollution than others. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. The proposed project includes the development of single-family residences, the occupants of which would be considered sensitive receptors. The CARB, per its Handbook, considers that any project placing sensitive receptors within 500 feet of a major roadway or freeway may have the potential to expose those receptors to DPM. Similarly, the BAAQMD recommends placement of overlay zones at least 500 feet from all freeways and high volume roadways. The nearest freeway, SR 4, is located approximately 0.4 miles to the west of the project site. Therefore, the project site is not located within 500 feet of any freeway or high volume roadway, and would not be subjected to substantial concentrations of DPM associated with roadways.

The project does not involve long-term operation of any stationary diesel engine or other major onsite stationary source of TACs. Relatively few vehicle trips associated with operations of the proposed use would be expected to be composed of diesel-fueled vehicles. Therefore, the project would not generate any substantial concentrations of TACs during operations. Construction activities have the potential to generate DPM emissions related to the number and types of equipment typically associated with construction. Off-road heavy- duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. The nearest existing single-family residences to the project site are located approximately 930 feet south of project site and over 1,200 feet east of the project site. These existing residences would be considered the nearest existing sensitive receptors to the project site and are not expected to be exposed to DPM emissions from the site during construction activities, given the distance of these residences from the project site. Additionally, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project, and only portions of the site would be disturbed at a time during buildout of the proposed project, with operation of construction equipment regulated and occurring intermittently throughout the course of a day. Thus, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be very low. Because health risks associated with exposure to DPM or any TAC are correlated with high concentrations over a long period of exposure (e.g., over a 70-year lifetime), the temporary, intermittent construction-related DPM emissions would not be expected to cause any health risks to nearby sensitive receptors. Thus, construction of the proposed project would not expose any nearby existing sensitive receptors to any short-term substantial concentrations of TACs.

The City of Brentwood was previously advised of two serious cases of Valley Fever contracted during an archeological excavation near the southern City limit boundary. Valley Fever is an infection caused by inhalation of the spores of the *Coccidioides immitis fungus*, which grows in soils and are released during earthmoving. The fungus is very prevalent in the soils of California's San Joaquin Valley**.** The ecological factors that appear to be most conducive to survival and replication of the spores are high summer temperature, mild winters, sparse rainfall, and alkaline, sandy soils. Earth moving during development of the project site could put nearby residents at a greater risk of exposure to Valley Fever; however, because fungus spores need to become airborne in order to enter the respiratory tract of humans, and landscaping, building pads, and streets associated with the development would eliminate most fugitive dust, the threat is more serious for construction workers than for nearby residents. Residents living in close proximity to the project site during construction may be at risk of being exposed to the disease due to proximity and a relatively lower immunity. As a result, measures should be taken to reduce the potential for exposure of the disease during construction to both construction workers and nearby receptors. These include measures to control dust through construction site irrigation, soil stabilizers and landscaping. Paving roads, planting grass, and other measures that reduce dust where people live, work, or engage in recreation have been shown to reduce the incidence of infection. Sufficient wetting of the soil prior to grading activities can reduce exposure to airborne spores of the fungus.

Development of the project site could potentially expose construction workers and nearby residents to fungus spores that cause Valley Fever. Grading activities associated with development have the potential to release the fungus into the air, increasing the risk of infection to the surrounding population. Implementation of the project may result in human health impacts due to exposure to fungus spores which cause Valley Fever.

In conclusion, the proposed project would not expose sensitive receptors to substantial concentrations of any TACs after mitigation. Therefore, impacts related to exposure of sensitive receptors to substantial pollutant concentrations during operation would be considered **less than significant**.

Implementation of the following mitigation measures would reduce the construction-related impact to **less than significant**.

Mitigation Measure(s)

Mitigation Measure 3*: Prior to the issuance of a grading permit, the Applicant/Developer shall prepare an Erosion Prevention and Dust Control Plan. The plan shall be followed by the project's grading contractor and submitted to the Public Works Department, which will be responsible for field verification of the plan during construction.*

The plan shall comply with the City's grading ordinance and shall include the following control measures and other measures as determined by the Public Works Department to be necessary for the proposed project:

- *Cover all trucks hauling construction and demolition debris from the site;*

- *Water all exposed or disturbed soil surfaces at least twice daily;*
- *Use watering to control dust generation during demolition of structures or break-up of pavement;*
- *Pave, apply water three time daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas;*
- *Sweep daily (with water sweepers) all paved parking areas and staging areas;*
- *Provide daily clean-up of mud and dirt carried onto paved streets from the site;*
- *Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);*
- *Limit traffic speeds on unpaved roads to 15 mph;*
- *Install sandbags or other erosion control measures to prevent silt runoff to public roadways;*
- *Replant vegetation in disturbed areas as quickly as possible;*
- *Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;*
- *Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) or construction areas;*
- *Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph;*
- *Limit the area subject to excavation, grading, and other construction activity at any one time;*
- *Unnecessary idling of construction equipment shall be avoided;*
- *Equipment engines shall be maintained in proper working condition per manufacturers' specifications;*
- *During periods of heavier air pollution (May to October), the construction period shall be lengthened to minimize the amount of equipment operating at one time;*
- *Where feasible, the construction equipment shall use cleaner fuels, add-on control devices and conversion to cleaner engines.*

Mitigation Measure 4*: To the extent feasible, construction employees shall be hired from local populations, since it is more likely that they have been previously exposed to the fungus which causes Valley Fever and are therefore immune.*

Mitigation Measure 5*: During periods of high dust in the grading phase, crews must use National Institute for Occupational Safety and Health (NIOSH) approved N95 masks or better or other more stringent measures in accordance with the California Division of Occupational Safety and Health regulations.*

Mitigation Measure 6*: The operator cab of area grading and construction equipment must be enclosed and air-conditioned.*

Response e): Less than Significant. According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations,

auto body shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The proposed project site is located around developed areas and is surrounded by existing commercial uses, public facilities, residential, and agricultural land uses (row crops) that are generally not associated with objectionable odors.

Operation of the proposed project would not generate notable odors. The proposed project is a residential development, which is compatible with the surrounding land uses. Residential land uses are not typically associated with the creation of substantial objectionable odors. Occasional mild odors may be generated during landscaping maintenance (equipment exhaust), but the project would not otherwise generate odors.

Diesel fumes from construction equipment and delivery trucks are often found to be objectionable; however, construction of the proposed project would be temporary and diesel emissions would be temporary and regulated. This is a **less than significant** impact and no mitigation is required.

IV. BIOLOGICAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. The following section is based upon the Planning Survey Report (PSR) prepared for the project site by Moore Biological Consultants (March 2016) in order to comply with and receive Permit coverage under the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (ECCC HCP/NCCP).

The property consists primarily of ruderal grasslands. Due to cultivation practices, the site contains no high quality habitat for covered and no-take plant species. In addition, none of the covered or no-take plant species were observed during the planning survey on January 15, 2016, and according to Moore Biological Consultants, none are expected to occur on the site due to the site's history of heavy disturbance. The project site is routinely mowed and/or disked for row crops, which would eliminate any special status plant species. The ruderal edges of the site

are also heavily disturbed by the associated farming practices and are highly unlikely to contain special status plant species.

Vegetation observed on the project site includes: oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), common mallow (*Malva neglecta*), morning glory (*Convolvulus arvensis*), and filaree (*Erodium* spp.).

The only trees in the site are along the west edge of the site and near the existing residence along Empire Avenue. The trees include black walnuts (*Juglans hindsii*), common fig (*Ficus carica*), fan palm (*Washingtonia filifera*), pecan (*Carya* sp.), olives (*Olea europaea*), some ornamentals, and a variety of fruit and nut trees in a small orchard area just northwest of the existing residence.

Special Status Plant Species

Surveys to assess whether the project site contains potentially suitable habitat for special-status plants, and to search for special-status plants, were undertaken by Moore Biological Consultants on January 15, 2016. The site was systematically searched by walking throughout the project site.

The planning survey revealed that the ruderal vegetation is dominated by non-native species that are periodically mowed and/or disked. None of the covered or no-take species were found during the survey, and due to its disturbed state, the site is highly unlikely to contain any of these species. Potentially occurring special-status plant species listed in the ECCC HCP/NCCP for the grassland habitat type are not expected to occur onsite because of the heavy disturbance the site has received being under intensive agricultural uses. Therefore, the project is not expected to impact any covered or no-take plants.

Special Status Wildlife Species

Based upon the onsite habitats, four covered wildlife species may occur on the project site. Each of these species is discussed below.

The project site and surroundings were surveyed for special status species on January 15, 2016 by Moore Biological Consultants staff. The following presents the results of that survey for each species triggered by cropland and ruderal land cover types.

San Joaquin Kit Fox: The project site is just within the northern tip of the historical range of San Joaquin kit fox (*Vulpes macrotis mutica*). The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) does not contain any records of this species within 0.5 miles of the project site. The site is mapped as "Suitable Low Use Habitat" as mapped by the ECCC HCP/NCCP. Therefore, the onsite grasslands were inspected for burrows or dens with evidence of kit fox occupancy (i.e., scat, tracks) or burrows or dens that meet the dimensional criteria for kit fox. Comprehensive inspection of potential den habitat was

accomplished by walking meandering transects throughout the property. No potential San Joaquin kit fox were observed.

Western Burrowing Owl: The project site is within the range of western burrowing owl (*Athene cunnicularia*). CDFW's CNDDB contains two occurrences of western burrowing owl within 0.5 miles of the site. The site was inspected for burrowing owls and ground squirrel burrows with evidence of burrowing owl occupancy (i.e., white wash, pellets, feathers). Comprehensive inspection of potential western burrowing owl habitat was accomplished by walking meandering transects throughout the property. No potential western burrowing owl or burrows with evidence of burrowing owl occupancy were observed.

Swainson's Hawk: The project site is along the extreme western edge of the range of Swainson's hawk (*Bueto swainsoni*). CDFW's CNDDB does not contain any records of this species within 0.5 miles of the project site. The only potential nest trees in the site are some of the large trees around the residence and along Empire Avenue. There are only a few potential nest trees near and visible from the site. All of the trees in and visible from the site were inspected for raptor stick nests. No raptor stick nests were observed in the onsite trees or offsite trees visible from the project site. Due to the location of the site along the extreme west edge of the Swainson's hawk nesting range, it is considered unlikely this species will nest in trees in or near the project site in the future.

Golden Eagle: The project site is within the range of golden eagles (*Aquila chysaetos*). CDFW's CNDDB does not contain any records of this species within 0.5 miles of the project site. The only potential nest trees in the site are some of the large trees around the residence and along Empire Avenue. There are also a few potential nest trees near and visible from the site. All of the trees in and visible from the site were inspected for raptor stick nests. No raptor stick nests were observed in the onsite trees or offsite trees visible from the project site. No golden eagles were observed and this species nests more often on cliffs in remote natural areas than in trees in urban settings.

None of the fully protected wildlife species listed in the HCP/NCCP have been observed or are likely to occur within the property. The site does not provide adequate nesting habitat for any of the raptors (Swainson's hawk, or golden eagle). However, if/when the site contains growing grain crops, the cropland land cover type does provide moderately suitable foraging habitat for Swainson's hawk and other migratory birds. The site contains 31 trees, some of which have the potential for migratory bird nesting habitat.

Conclusion

Due to the disturbed nature of the project site's ruderal annual grassland cover type, suitable habitat does not exist to support special-status plant species known to occur within the annual grassland cover type of East Contra Costa County. While the presence of special- status wildlife species is relatively unlikely, based upon the current land cover types found onsite, in accordance with the ECCC HCP/NCCP, wildlife species surveys are required to determine whether any special-status wildlife species are occupying the project site prior to initiating

onsite ground disturbance and vegetation removal. If the necessary preconstruction surveys are not carried out, the project could result in a potentially significant 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 U.S. Fish and Wildlife Service (USFWS), or the CDFW. The following mitigation measures would reduce the above-stated special-status wildlife impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure 7*: Prior to the issuance of grading or construction permits for the project site, the developer shall submit an ECCC HCP/NCCP application and associated fee worksheet to the City of Brentwood Community Development Department for review and approval. The developer shall pay the applicable ECCC HCP/HCCP per-acre fee in effect for Zone I in compliance with Section 16.168.070 of the Brentwood Municipal Code. The developer shall receive a Certificate of Coverage from the City of Brentwood and submit a construction monitoring report to the ECCC Habitat Conservancy for review and approval. The Certificate of Coverage will confirm the fee has been received, that other ECCC HCP/NCCP requirements have been met or will be performed, and will authorize take of covered species.*

Western Burrowing Owl

Mitigation Measure 8A: *Prior to any ground disturbance related to activities covered under the ECCC HCP/NCP, a preconstruction survey of the 8.0-acre development plan area shall be completed. The surveys shall establish the presence or absence of western burrowing owl and/or habitat features, and evaluate use by owls in accordance with CDFW survey guidelines.*

An approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995). On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500- foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1—August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1—January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted. If burrowing owls and/or burrows are identified in the survey area, Mitigation Measure 8B shall be implemented. If burrowing owls and/or suitable burrows are not discovered, then further mitigation is not necessary.

Mitigation Measure 8B: *If burrowing owls are found during the breeding season (February 1 August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults*

or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 —January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below). During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing, if occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

San Joaquin Kit Fox

Mitigation Measure 9A: *Prior to any ground disturbance related to covered activities, a CDFW/USFWS-approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys as supporting suitable breeding or denning habitat for San Joaquin kit fox. The survey will establish the presence or absence of San Joaquin kit fox and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (USFWS, 1999). Preconstruction surveys shall be conducted within 30 days of ground disturbance. On the parcel where activity is proposed, the biologist shall survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit fox and/or suitable dens. Adjacent parcels under different land ownership shall not be surveyed. The status of all dens shall be determined and mapped. Written result of preconstruction surveys shall be submitted to the USFWS within 5 working days after survey completion and before start of ground disturbance. Concurrence is not required prior to initiation of covered activities. If San Joaquin kit fox and/or suitable dens are identified in the survey area, Mitigation Measure 9B shall be implemented. If San Joaquin kit fox and/or suitable dens are not discovered, then further mitigation is not necessary.*

Mitigation Measure 9B: *If a San Joaquin kit fox den is discovered in the proposed development footprint, the den shall be monitored for 3 days by a CDFW/USFWS-approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used. Unoccupied dens shall be destroyed immediately to prevent subsequent use. If a natal or pupping den is found, the USFWS and CDFW shall be notified immediately. The den shall not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW. If kit fox activity is observed at the den during the initial monitoring period, the den shall*

be monitored for an additional 5 consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied, it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after 5 or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgement of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities).

Swainson's Hawk

Mitigation Measure 10A: *Prior to any ground disturbance related to activities covered under the ECCC HCP/NCP, which are conducted during the nesting season (March 15- September 15), a USFWS/CDFW-approved biologist shall conduct a preconstruction survey no more than 30 days prior to construction in order to establish whether occupied Swainson's hawk nests are located within 1,000 feet of the project site. If potentially occupied nest within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g. foraging) near the project site. A written summary of the survey results shall be submitted to the City of Brentwood Community Development Department. If occupied nests occur on- site or within 1,000 feet of the project site, then Mitigation Measure 10B shall be implemented. If occupied nests are not found, further mitigation is not necessary.*

Mitigation Measure 10B: *During the nesting season (March 15-September 15), covered activities within 1,000 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions, or the nature of the covered activity (e.g., steep topography, dense vegetation, and limited activities) indicate that a smaller buffer could be used, the ECCC Habitat Conservancy may coordinate with CDFW/USFWS to determine the appropriate buffer size. If young fledge prior to September 15, covered activities could proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the ECCC Habitat Conservancy for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While nest is occupied, activities outside the buffer can take place.*

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent according to the requirements of Mitigation Measure 10C.

Mitigation Measure 10C: *The loss of non-riparian Swainson's hawk nest trees shall be mitigated by the project proponent by:*

- *If feasible onsite, planting 15 saplings for every tree lost with the objective of having at least 5 mature trees established for every tree lost according to the requirements below*

AND either

1. *Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, or*
2. *The project proponent shall plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP Preserves), according to the requirements listed below.*

The following requirements shall be met for all planting options:

- *Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years shall be replaced. Success shall be reached at the end of 12 years if at least 5 trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least 3 years without irrigation.*
- *Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.*
- *Native trees suitable for this site shall be planted. When site conditions permit, a variety of native trees shall be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5 to 10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.*
- *Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.*
- *Whenever feasible and when site conditions permit, trees shall be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).*
- *Whenever feasible, plantings on the site shall occur closest to suitable foraging habitat outside the Urban Development Area (UDA).*
- *Trees planted in the HCP/NCCP preserves or other approved offsite location shall occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.*

Golden Eagle

Mitigation Measure 11A: *Prior to implementation of covered activities, a qualified biologist shall conduct a preconstruction survey to establish whether nests of golden eagles are occupied. A written summary of the survey results shall be submitted to the City of Brentwood Community Development Department. If nests are occupied, then Mitigation Measure 11B shall be implemented. If occupied nests are not found, further mitigation is not necessary.*

Mitigation Measure 11B: *Covered activities shall be prohibited within 0.5 mile of active golden eagle nests. If site-specific conditions, or the nature of the covered activity (e.g., steep topography, dense vegetation, and limited activities) indicate that a smaller buffer could be used, the ECCC Habitat Conservancy may coordinate with CDFW/USFWS to determine the appropriate buffer size. The qualified biologist, at the applicant's expense, shall also engage in construction monitoring. Construction monitoring shall focus on ensuring that ground disturbance related activities do not occur within the buffer zone established around an active nest. Construction monitoring would ensure that direct effects to golden eagles are minimized.*

Covered Migratory Birds

Mitigation Measure 12: *Prior to any ground disturbance a pre-construction survey for covered migratory birds shall be completed. This survey shall be conducted in the morning or evening hours within 30 days prior to any construction activities. The entire site, including the alder tree and surrounding vegetation, will be surveyed for birds, nests and nesting behavior. Common nesting behavior by birds includes; collecting nesting materials, bringing food items to a nest and vocalizations from young or from adults to attract a mate and to establish or defend a nesting territory. A construction-free buffer of suitable dimensions must be established around any active migratory bird nests (up to 250 feet, depending on the location and species) for the duration of the project or until it has been determined that the chicks have fledged and are independent of their parents.*

Responses b), c): Less than Significant. Riparian habitats are described as the land and vegetation that is situated along the bank of a stream or river. Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year. Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded). Vernal pools are seasonal depressional wetlands that are covered by shallow water for variable periods from winter to spring, but may be completely dry for most of the summer and fall. Vernal pools range in size from small puddles to shallow lakes and are usually found in a gently sloping plain of grassland.

According to the planning survey of the project site, the site does not contain any potentially jurisdictional Waters of the U.S. or wetlands of any type. Therefore, no Army Corps of Engineers or Regional Water Quality Control Board (RWQCB) permits would be required relating to jurisdictional waters.

There is no aquatic habitat at the site. As a result, the implementation of the proposed project would have a **less than significant** impact to any riparian habitat, seasonal wetlands, or vernal pools as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

Response d): Less than Significant. While the proposed project would result in substantial development of the project site, the site is adjacent to existing developments. The project site and the open fields to the north provide limited opportunities for native, resident, or migratory wildlife to use as a movement corridor. The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the project site. Furthermore, the field survey did not reveal any wildlife nursery sites on or adjacent to the project site.

Given that the project site provides limited habitat due to ongoing cultivation, impacts related to the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impeding the use of wildlife nursery sites are considered **less than significant**.

Responses e), f): Less than Significant. Vegetation on the project site currently consists of ruderal vegetation, trees, and cropland. According to the tree evaluation completed for the project site by Dryad, LLC in December 2015, the site contains 10 significant trees. Of these 10 significant trees, at least 6 would require removal for construction. Of these 6 significant trees requiring removal, 2 exhibit very poor structure and are not worthy of preservation, regardless of their proximity to construction. It is noted that the City of Brentwood does not have an oak tree preservation ordinance for the PD-38 zone. Therefore, removal of any on-site trees would not conflict with the provisions of a tree preservation ordinance. However, Mitigation Measure 10c includes detailed requirements for onsite tree replanting of non-riparian Swainson's Hawk nest trees.

The site is within the boundaries of the ECCC HCP/NCCP. In July 2007 the ECCC HCP/NCCP was adopted by Contra Costa County, the City of Brentwood, other member cities, the USFWS and the CDFW. The ECCC HCP/NCCP provides guidance for the mitigation of impacts to covered species. Mitigation of impacts is accomplished through the payment of a Development Fee. The Development Fee requires payment based on a cost per acre for all acres converted to non-habitat with the cost per acre based on the quality of the habitat converted. The fees are used to acquire higher value habitats in preserved areas and to fund their restoration and management. Because the City of Brentwood is a signatory to the ECCC HCP/NCCP, anticipated project impacts could be mitigated through the payment of Development Impact fees to the ECCC HCP/NCCP Conservancy. The proposed project would comply with the ECCC HCP/NCCP requirements regarding special-status species, and land conversion, and the applicant would be required to pay the associated Development Fee, to the Conservancy, per *Mitigation Measure 7.* Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, resulting in an impact that is **less than significant**.

V. CULTURAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. According to historical aerial photographs, the existing onsite residence was built around 1968. The structure does not meet the criteria for designation of a Historical Resource set forth by the Office of Historic Preservation.

The 2014 Brentwood General Plan Update EIR identifies 24 historic properties in the Brentwood Planning Area. None of the 24 properties listed are within the proposed project site.[3] Since there are no existing buildings on the project site, there is nothing on that site that could be considered a "historical resource" under Section 15064.5 in the CEQA handbook**.**

For the above-stated reasons, development of the proposed project would have a **less than significant** impact on historical resources.

Responses b), c), d): Less than Significant with Mitigation. An assessment of the potential for cultural, paleontological, or archaeological resources to be located on the project site was completed by Peak and Associates in May 2016. A record search was conducted for the project area and surrounding area through the Northwest Information Center of the California Historical Resources Information System on April 18, 2016 (NWIC file No.:15-1457, Appendix 2). There are no known sites in the project area or within a one-eighth mile radius of the project area. The project area has not been previously surveyed for cultural resources.

Peak and Associates staff completed a field survey of the 8 acres comprising the project area on April 21, 2016 with complete coverage. Ten-meter-wide transects were employed in the open field portions, and 2-5 meter transects used near dwelling or areas of heavy soil disturbance. Where necessary, the surveyor dug small holes to clear vegetation and to examine the sediments. The parcel is flat terrain covered by grasses, with various fruit and ornamental trees at the western boundary next to Empire Avenue. Evidence of recent agriculture with modern

[3] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.5-7]. July 22, 2014.

equipment is visible throughout the parcel, with drip irrigation tape, treated wooden posts, T posts, and plumbing fittings. The residential building was constructed in 1970. The field shows traces of tilling and furrows. The soil visibility is fair to good, with heavy grass obscuring some areas but rodent and mechanical disturbance revealing portions. The soil type is uniformly medium brown sandy loam with very little visible rock. No abrupt color or density changes were noted. No prehistoric or historic resources were observed within the project area.

Given that no known archaeological resources are associated with the project site, the subject parcel is considered of low archaeological sensitivity for prehistoric cultural resources. However, ground-disturbing activities may have the potential to uncover buried cultural deposits. As a result, during construction and excavation activities, unknown archaeological resources, including human bone, may be uncovered, resulting in a potentially significant impact.

Implementation of the following mitigation measures would reduce the construction-related impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure 13: *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within the area of discovery and the developer shall immediately notify the Community Development Department of the discovery. In such case, the developer shall be required, at their own expense, to 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 Community Development Department 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 area of discovery would not be allowed until the preceding work has occurred.*

Mitigation Measure 14: *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 within the immediate vicinity of the find until the identified appropriate actions have been implemented.*

VI. GEOLOGY AND SOILS -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.		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 18-1-B 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

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i), a.ii): Less than Significant with Mitigation. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and known surface expression of active faults does not exist within the site. However, the site is located within a seismically active region. According to the USGS Interactive Fault Map, the nearest active faults are the Greenville Fault and the Antioch Fault, located about 11.0 miles west and 2.3 miles west, respectively. The Greenville Fault is considered to be capable of a moment magnitude earthquake of 6.8 to 7.0.

Geologic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake could generally be classified as primary and secondary. The primary seismic hazard is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and ground lurching.

Ground Rupture

Because the property does not have known active faults crossing the site, and the site is not located within an Earthquake Fault Special Study Zone, ground rupture is unlikely at the subject property.

Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the site, similar to that which has occurred in the past. The project would be built using standard engineering and seismic safety design techniques. Building design at the project site would be completed in conformance with the recommendations of the geotechnical investigation required by Mitigation Measure 16 below, as reviewed and approved by the City of Brentwood Building Division. The structures would meet the requirements of applicable Building and Fire Codes, including the 2013 California Building Code (CBC), as adopted or updated by the City of Brentwood. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures would 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.

Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion could cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other locations in the Bay Area, but based on the site location, the offset is expected to be very minor.

Conclusion

The project site is not within an Alquist-Priolo Special Studies Zone; however, the Brentwood area is located in a seismically active zone. Active faults are located within an approximate 50-mile radius of the project site. The nearest State of California zoned, active faults are the Greenville and Antioch faults, located approximately 11.0 miles west and 2.3 miles west, respectively. Development of the proposed project in this seismically active zone could expose

people or structures to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault and/or strong seismic ground shaking. Therefore, a potentially significant impact could result. The City of Brentwood General Plan Action SA 1a requires the submission of geologic and soils reports for all new developments. The geologic risk areas that are determined from these studies shall have standards established and recommendations shall be incorporated into development. Implementation of the following mitigation measures would ensure the potential impacts are **less than significant.**

Mitigation Measure(s)

Mitigation Measure 15*: All project buildings shall be designed in conformance with the current edition of the California Building Code (CBC).*

Mitigation Measure 16: *Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that analyzes soil stability including soil expansion, and the potential for lateral spreading, subsidence, liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design.*

Mitigation Measure 17*: All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design.*

Responses a.iii), c): Less than Significant. Soil liquefaction results from loss of strength during cyclic loading, such as that which is imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands.

According The City of Brentwood General Plan Draft EIR Figure 3.6-2, the risk of liquefaction is considered Moderate at the project site. As discussed previously, the City of Brentwood General Plan Action SA 1a requires the submission of geologic and soils reports for all new developments. The geologic risk areas that are determined from these studies shall have standards established and recommendations shall be incorporated into development.

Considering the moderate risk of liquefaction at the proposed project site, potentially significant impacts relating to soil stability are present. As stated previously, Mitigation Measure 16 requires the preparation of a geotechnical evaluation of the project site. Implementation of Mitigation Measure 16 would reduce impacts to **less than significant** levels related to soil stability, and the potential result in, lateral spreading, subsidence, liquefaction or collapse.

Mitigation Measure(s)
Implement Mitigation Measure 16.

Response a, iv): Less than Significant. The proposed project site is not susceptible to landslides because the area is essentially flat. This is a **less than significant** impact.

Response b): Less than Significant with Mitigation. The project site currently consists of a single-family residence and agricultural land. According to the project site plans prepared for the proposed project, development of the proposed project would result in the creation of new impervious surface areas throughout the project site. The development of the project site would also cause ground disturbance of top soil. The ground disturbance would be limited to the areas proposed for grading and excavation, including the residential building pads and drainage, sewer, and water infrastructure improvements. After grading and excavation, and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Without implementation of appropriate Best Management Practices (BMPs) related to prevention of soil erosion during construction, development of the project would result in a potentially significant impact with respect to soil erosion.

Implementation of the following mitigation measures would ensure the impact is **less than significant**.

Mitigation Measure(s)
Mitigation Measure 18*: Prior to grading permit issuance, the applicant shall submit a final grading plan to the Director of Public Works/City Engineer for review and approval. If the grading plan differs significantly from the proposed grading illustrated on the approved project plans, plans that are consistent with the new revised grading plan shall be provided for review and approval by the Director of Public Works/City Engineer.*

Mitigation Measure 19*: Any applicant for a grading permit shall submit an erosion control plan to the Director of Public Works/City Engineer for review and approval. The plan shall identify protective measures to be taken during construction, supplemental measures to be taken during the rainy season, the sequenced timing of grading and construction, and subsequent revegetation and landscaping work to ensure water quality in creeks and tributaries in the General Plan Area is not degraded from its present level. All protective measures shall be shown on the grading plans and specify the entity responsible for completing and/or monitoring the measure and include the circumstances and/or timing for implementation.*

Mitigation Measure 20*: Grading, soil disturbance, or compaction shall not occur during periods of rain or on ground that contains freestanding water. Soil that has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limit approved by a Soils Engineer. Approval by a Soils Engineer shall be*

obtained prior to the continuance of grading operations. Confirmation of this approval shall be provided to the Public Works Department prior to commencement of grading.

Response d): Less than Significant. Expansive soils shrink/swell when subjected to moisture fluctuations, which could cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to moisture changes in expansive soils could be reduced by appropriate grading practices and using post-tensioned slab foundations or similarly stiffened foundation systems which are designed to resist the deflections associated with soil expansion. According to the City of Brentwood General Plan Draft EIR Figure 3.6-4, the project site has moderate (3%-6%) to high (6%-9%) Linear Extensibility (which directly relates to the soils shrink-swell potential). Therefore, because of the potential presence of expansive soils on the site, a **potentially significant** impact could occur. However, as mentioned previously, Mitigation Measure 16 requires a final geotechnical evaluation of the project site that analyzes soil stability including soil expansion. Implementation of Mitigation Measure 16 ensures project soils are analyzed and design recommendations are provided by a qualified geotechnical engineer to ensure the safety and welfare of future project residence. Therefore, this impact is considered **less than significant**.

Mitigation Measure(s)
Implement Mitigation Measure 16.

Response e): No Impact. The project has been designed to connect to the existing City sewer system and septic systems will not be used. Therefore, **no impact** would occur related to soils incapable of adequately supporting the use of septic tanks.

XII. GREENHOUSE GAS EMISSIONS – WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 gasses?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Implementation of the proposed project would cumulatively contribute to increases of GHG emissions that are associated with global climate change. 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). Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e/yr$).

The City of Brentwood has determined that the BAAQMD thresholds of significance are the best available option for evaluation of GHG impacts for this project and, thus, are used in this analysis.

The BAAQMD identifies screening criteria for development projects, which provide a conservative indication of whether a development could result in a potentially significant impact associated with GHG emissions. If the screening criterion for GHG is met by a project, an assessment of that project's GHG emissions would be required**.** The operational GHG screening criterion for a single-family residential development is if the development is less than or equal to 56 dwelling units. Because the proposed project consists of a total of 48 single-family residential dwelling units, a GHG assessment is not required for the proposed project.

The proposed project site was designated for Medium Density Residential uses in the Brentwood General Plan in effect at the time ABAG projections were forecast. The proposed project is consistent with the General Plan land use designation. Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts associated with the generation of GHG emissions would be considered **less than significant**.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		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 a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant with Mitigation. The following discussion addresses potential hazards associated with existing site conditions of the project site, as well as the potential use of hazardous materials during operation of the project.

A Phase I Environmental Site Assessment (Phase I Report) and Soil Quality Evaluation, dated December 16, 2014, was prepared for the project site by Cornerstone Earth Group. As part of the evaluation process Cornerstone Earth Group also reviewed previous environmental documents prepared by Basics Environmental in 2013. Cornerstone conducted a review of federal, state and local regulatory agency databases provided by Environmental Data Resources

(EDR) to evaluate the likelihood of contamination incidents at and near the site. The database sources and the search distances are in general accordance with the requirements of ASTM E 1527-13. The purpose of the records review was to obtain reasonably available information to help identify Recognized Environmental Conditions. Additionally, Cornerstone Earth Group conducted a reconnaissance of the project site on October 20, 2014. The site reconnaissance was conducted by walking representative areas of the site including the agricultural field areas, and the periphery of the onsite structure. Results of the site reconnaissance and records searches are as follows:

Site Reconnaissance

The site was observed to contain a single story residence with an attached garage in the western portion of the site, with the remainder containing former agricultural land. The former agricultural land consisted of rows of trees covering nearly the entire site.

A water supply well and an associated pressure tank were observed near the northwest corner of the residence. A septic tank was observed adjacent to the residence to the north. A tractor and a variety of miscellaneous items (tools, tires, farm equipment parts, etc.) were observed to be stored adjacent to the southern portion of the residence. No hazardous materials were observed stored in the area of the residence.

Three irrigation standpipes were observed on the western portion of the project site, near Empire Avenue. Two apparent water filtration system tanks were observed near the standpipe located near the southwest corner of the project site. Additionally, a small soil debris pile was observed near where a previous shed/shop was located, as shown in historical aerial photographs. The debris was observed to consist mainly of soil, building materials and metal debris.

Hazardous Substances and Soil Sampling

To help evaluate the general soil quality, 12 soil samples were collected on October 20, 2014 from soil borings from the upper ½ foot of soil and from the approximate depth interval of 2 to 2 ½ feet. Laboratory testing included arsenic, lead, and mercury (EPA Test Method 6010 and 7471A) and organochlorine pesticides (OCPs) (EPA Test Method 8081).

The metal concentrations detected were below their respective residential screening criteria and/or within their published background ranges. The total DDT was detected at a concentration of 1.33 milligrams per kilogram (mg/kg) in the sample collected from the upper approximately ½ foot from one soil boring. This detected concentration exceeded its California hazardous waste value (TTLC) for hazardous waste designation of 1.0 mg/kg.

Chlordane (an OCP compound) was detected at concentrations of 4.9 mg/kg and 2.1 mg/kg in the samples collected from the upper approximately ½ foot from two soil borings. These detected concentrations exceeded the residential Regional Screening Level (RSL) of 1.8 mg/kg. Additionally, the detected chlordane concentration in another soil boring sample exceeded its TTLC value of 2.5 mg/kg.

Heptachlor epoxide (an OCP compound) was detected at a concentration of 0.15 mg/kg in the sample collected from the upper approximately ½ foot of soil from another soil boring. This detected concentration exceeded its residential RSL of 0.059 mg/kg, but was below the commercial RSL of 0.25 mg/kg.

Based on these analytical results, shallow soil pesticide impacts appear to be associated with the existing onsite residential structure and in the area of the former shed. Pesticide impacts associated with termiticide spraying are typically limited to the shallow soils around buildings are commonly limited laterally to the soils adjacent to the structure. However, it is unknown if the total DDT detection within the shed area is due to the previous storage of pesticides or application around the building foundation. Therefore, additional soil sampling shall be completed throughout the project site to determine further soil contamination.

Additionally, due to the age of the onsite structure, building materials may contain asbestos or lead-based paint. Because demolition of the structure is planned, applicable OSHA regulations must be followed, and an asbestos survey shall be performed.

Mitigation measures are included below which would ensure impacts associated with the above-mentioned Recognized Environmental Conditions would not occur.

Proposed Project Uses

The proposed project has limited potential for the routine transport, use, or disposal of hazardous materials. The proposed residential uses would not involve the routine transport, use, or disposal of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Hazardous materials associated with the residential uses would consist mostly of typical household-type cleaning products and fertilizers, which would be utilized in small quantities and in accordance with label instructions.

Conclusion

Development of the proposed project would include the construction of 48 residential units and associated infrastructure. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would not involve the routine transport, use, or disposal of hazardous materials. The Phase I prepared for the project site revealed Recognized Environmental Conditions at the project site associated with contaminated soils, asbestos, and lead based paint. Implementation of the following mitigation measure would reduce the above impact to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure 21*: Prior to initiation of any ground disturbance activities, evenly distributed soil samples shall be conducted throughout the proposed project property for analysis of pesticides and heavy metals. The samples shall be submitted for laboratory analysis of pesticides and heavy metals per DTSC and EPA protocols. The results of the soil sampling shall be submitted to the City of Brentwood. If elevated levels of pesticides or heavy metals are detected*

during the laboratory analysis of the soils, a soil cleanup and remediation plan shall be prepared and implemented prior to the commencement of grading activities.

Mitigation Measure 22*: Prior to demolition activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and California Division of Occupational Safety and Health (Cal/OSHA) certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with BAAQMD Rule 2.*

Mitigation Measure 23*: If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material by a qualified Environmental Professional. If lead-based paint is found, abatement shall be completed by a qualified Lead Specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Engineer (Building Official).*

Response c): Less than Significant. Pioneer Elementary School is located approximately 0.6 miles south of the project site; however, the proposed project has limited potential for the routine transport, use, or disposal of hazardous materials as discussed above in Responses a) and b). The proposed residential uses would not involve the routine transport, use, or disposal of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Therefore, the project would have a **less than significant** impact with respect to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.

Response d): No Impact. In preparing the Phase 1 Environmental Site Assessment, and Preliminary Soil Quality Evaluation Report (2014), Cornerstone Earth Group performed a search of Federal, State, and local hazardous materials/sites databases regarding the project site and nearby properties.

The project site has not been identified in any of the hazardous databases, nor is the site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, the proposed project would have **no impact** under this criterion.

Responses e), f): No Impact. The project site is not within an airport land use plan or within two miles of an airport. The nearest airport, Delta Air Park, is a private airfield located approximately 4.1 miles northeast of the project site. Therefore, implementation of the proposed project would result in **no impact** to this environmental topic.

Response g): Less than Significant. The Brentwood General Plan currently designates the proposed project site for Medium Density Residential uses, such as those proposed for the

project. Implementation of the proposed project would not result in any substantial modifications to the existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. Therefore, the impact would be **less than significant**.

Response h): No Impact. The site is not located within an area where wildland fires occur. The site is predominately surrounded by existing development, and agricultural lands, which have a low potential for wildland fires. Therefore, **no impact** would occur.

IX. HYDROLOGY AND WATER QUALITY -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X		
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X	
h) Place within a 100-year flood hazard area 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	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), f): Less than Significant with Mitigation. During the early stages of construction activities, topsoil would be exposed due to grading and partial leveling of the site. After grading and leveling 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.

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 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 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. The City of Brentwood requires all development projects to use BMPs to treat runoff.

In summary, disturbance of the onsite soils during construction activities could result in a potentially significant impact to water quality should adequate BMPs not be incorporated during construction in accordance with SWRCB regulations.

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

Mitigation Measure(s)

Mitigation Measure 24: *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The Developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. The SWPPP shall be submitted to the Director of Public Works/City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

Response b): Less than Significant. The City provides domestic, potable water to its residents using both surface water and groundwater resources. The City has seven active groundwater wells, which provided approximately 30 percent of the potable water supplied during 2010. Brentwood is located within the Tracy Subbasin of the San Joaquin Valley Groundwater Basin. While the project would create new impervious surface areas on portions of the 18.5-acre project site, the Tracy Subbasin comprises 345,000 acres (539 square miles); therefore, recharge of the groundwater basin within which the project site is located comes from many sources over a broad geographic area.

The project site has soils with a hydrologic group of "D", which is indicative of soils having a very slow infiltration rate when thoroughly wet. Therefore, the new impervious surfaces associated with the project would not cause a substantial depletion of recharge within the Tracy Subbasin. Additionally, the proposed stormwater quality basin would provide an area for on-site groundwater recharge. Further, except for seasonal variations resulting from recharge and pumping, water levels in most of the wells of the Tracy Sub-basin have remained stable over at least the last 10 years (as of 2010)[4].

It should be noted that the City of Brentwood has adequate water supply to meet the demands of the proposed project as well as future anticipated development allowed under the Brentwood General Plan (as is explained in detail in Section XVI, Question 'd', of this IS/MND). The project itself does not include installation of any wells, but would include connections to existing City of Brentwood water infrastructure. Therefore, the project would result in a **less than significant** impact with respect to substantially depleting groundwater supplies or interfering substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

Responses c), d), e): Less than Significant with Mitigation. All municipalities within Contra Costa County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit. Known as the "C.3 Standards," new development and redevelopment projects that create or replace 10,000 or more square feet of impervious surface area must contain and treat stormwater runoff from the site. The proposed project is a C.3 regulated project and is required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures.

For the proposed project, an approximately 0.27-acre landscaped water quality detention area would be located in the northeastern corner of the project site. The project site contains two drainage management areas. Stormwater from the first drainage management area would be handled by the proposed 0.27-acre water quality detention area. Low flows will percolate through the basin before being released into the stormdrain system. The other drainage management area would channel site stormwater to the on-site park.

A long-term maintenance plan is needed to ensure that all proposed stormwater treatment BMPs function properly. Should the proposed water quality treatment faciliy not be maintained properly, a potentially significant impact could occur with respect to creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.

Implementation of the following mitigation measures would reduce the impact to a **less than significant** level. Proper operation and maintenance of the stormwater management faciliy would be the responsibility of the Homeowner's Association in perpetuity. The Homeowner's Association would be subject to an annual fee (set by the City's standard fee schedule) to offset

[4] Erler & Kalinowski, Inc. City of Tracy 2010 Urban Water Management Plan. May 2011.

the cost of inspecting the site or verifying that the stormwater management facilities are being maintained.

Mitigation Measure(s)

Mitigation Measure 25: *Prior to the completion of construction the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site the applicant shall be responsible for paying for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.*

The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the Director of Public Works/City Engineer. Typical routine maintenance consists of the following:

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*
- *Replace and amend plants and soils as necessary to insure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.*
- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events, inspect bubble-up risers for obstructions and remove if necessary.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).*

Mitigation Measure 26: *Design of the onsite drainage facilities shall meet with the approval of both the Director of Public Works/City Engineer and the Contra Costa County Flood Control and Water Conservation District prior to the issuance of grading permits.*

Mitigation Measure 27: *Contra Costa County Flood Control and Water Conservation District drainage fees for the Drainage Area shall be paid prior to issuance of grading permits to the satisfaction of the Director of Public Works/City Engineer.*

Mitigation Measure 28: *The Applicant/Developer shall ensure that the project site shall drain into a street, public drain, or approved private drain, in such a manner that un-drained depressions shall not occur. Satisfaction of this measure shall be subject to the approval of the Director of Public Works/City Engineer.*

Mitigation Measure 29: *The construction plans shall indicate roof drains emptying into a pipe leading to the project stormwater quality basin for the review and approval of the Director of Public Works/City Engineer prior to the issuance of building permits.*

Mitigation Measure 30: *The improvement plans shall indicate concentrated drainage flows not crossing sidewalks or driveways for the review and approval of the Director of Public Works/City Engineer prior to the issuance of grading permits.*

Responses g), h), i): Less than Significant. According to the June 16, 2009 FEMA Flood Insurance Rate Maps (FIRM), the project site is not located within a designated flood zone. Therefore, a **less than significant** impact would result from implementation of the proposed project with respect to placing structures within a 100- year floodplain, which would impede or redirect flood flows.

Response j): Less than Significant. Tsunamis are defined as sea waves created by undersea fault displacement. A tsunami poses little danger away from shorelines; however, when a tsunami reaches the shoreline, a high swell of water breaks and washes inland with great force. Historic records of the Bay Area used by one study indicate that nineteen tsunamis were recorded in San Francisco Bay during the period of 1868-1968. Maximum wave height recorded at the Golden Gate tide gauge (where wave heights peak) was 7.4 feet. The available data indicate a standard decrease of original wave height from the Golden Gate to about half original wave height on the shoreline near Richmond, and to nil at the head of the Carquinez Strait. As Brentwood is several miles inland from the Carquinez Strait, the project site is not exposed to flooding risks from tsunamis and adverse impacts would not result. This is a **less than significant** impact.

A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir, whose destructive capacity is not as great as that of tsunamis. Seiches are known to have occurred during earthquakes, but none have been recorded in the Bay Area. In addition, the project is not located near a closed body of water. Therefore, risks from seiches and adverse impacts would not result. This is a **less than significant** impact.

X. LAND USE AND PLANNING - Would the project:

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): No Impact. As noted in the General Plan, the City of Brentwood has planned for orderly, logical development that supports compatibility among adjacent uses. The General Plan goals seek to retain the character of existing communities and ensure that future land uses are compatible with existing uses. The 8.0-acre project site contains agricultural uses and a single-family residence. Currently, the site is surrounded by existing commercial uses, public facilities, residential, and agricultural land uses. The proposed project, which includes residential development and an open space, would not physically divide an established community due to the nature of the site, and its location on the southwest city limits. Therefore, the project would have **no impact** related to physically dividing an established community.

Response b): Less than Significant. The recently adopted Brentwood General Plan identifies the project site for Medium Density Residential land uses. The Medium Density Residential land use requires densities between 5.1 and 11.0 du/ac. The proposed project consists of the development of 48 single-family residential units on 8.0 acres, which results in approximately 6.0 du/ac, which is within the General Plan density requirements. Therefore, the proposed project is consistent with the existing General Plan land use designation. The project would require a Zoning Amendment to change the Zoning designation from supporting business park-type uses to medium density residential. However, the existing zoning designation was not adopted for the purpose of avoiding or mitigating an environmental effect, and amendments to the Zoning Code reflect the City's vision identified for the project site under the current General Plan Land Use Map. As a result, the project would have a **less than significant** impact related to conflicting with applicable land use plans, policies, regulations, or surrounding uses.

Response c): Less than Significant. The ECCC HCP/NCCP provides guidance for the mitigation of impacts to covered species. Mitigation of impacts is accomplished through payment of a Development Fee. The Development Fee requires payment based on a cost-per-acre for all acres converted to non- habitat with the cost-per-acre based on the quality of the habitat converted. The fees are used to acquire higher value habitats in preserved areas and to fund their restoration and management. Because the City of Brentwood is a signatory to the ECCC

HCP/NCCP, anticipated project impacts could be mitigated through the payment of Development Impact fees to the ECCC HCP/NCCP Conservancy. The proposed project would comply with the ECCC HCP/NCCP requirements regarding special-status species, and the applicant would be required to pay the associated Development Fee to the Conservancy, per *Mitigation Measure 7* above. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, resulting in a **less than significant** impact.

XI. MINERAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			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	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The 2014 Brentwood General Plan Update EIR does not identify significant mineral resources within the area. In addition, Figure 3.6-6 in the 2014 Brentwood General Plan Update EIR does not show an existing active oil and gas well on the project site. Therefore, the impact regarding the loss of availability of a known mineral resource that would be of value to the region would be **less than significant**.

XII. NOISE -- WOULD THE PROJECT RESULT IN:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. This section is based upon the project-specific environmental noise study prepared by Veneklasen Associates, Inc. dated December 28, 2015 (available for review at Brentwood City Hall).

Significance Criteria

The following criteria were used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in Table N-1 of the City of Brentwood General Plan. Specifically, exterior and interior noise levels of 60 dB L_{dn} and 45 dB L_{dn}, respectively, for residential uses exposed to transportation noise sources. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL, or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed, provided that available exterior noise level reduction measures have been implemented and interior

noise levels are in compliance with this table (see p. IV. 3-9 of the General Plan). Additionally, a significant noise impact would be identified if the project would expose residential receptors to stationary (non-transportation) noise sources that exceed applicable noise standards presented in Table N-2 of the City of Brentwood General Plan. Specifically, daytime and nighttime noise levels of 70 dB L_{max} and 65 dB L_{max}, respectively, for residential uses exposed to stationary (non-transportation) noise sources. Further, maximum allowable noise exposure for outdoor activities such as neighborhood playgrounds and park uses is 70 L_{dn}/CNEL.

Existing Noise Environment

The main source of noise in the area is from local traffic along Empire Avenue to the west of the project site. Additionally, heavy truck traffic associated with the WinCo Foods shopping center to the east of the site was observed as a secondary source of noise. On December 23-24, 2015, Veneklasen Associates, Inc. conducted short-term noise level measurements to quantify the existing noise environment at the project site. Two noise measurement locations were included near the project perimeter.

Future Noise Environment

The future noise environment in the project vicinity consists of traffic-related noise along Empire Avenue. The anticipated future noise levels assume a 1-DB increase over a ten year period as outlined by Caltrans.

Noise Measurements

The noise measurement locations for the project site are displayed on Figure 4. No train events from the nearby rail line were observed or measured. Noise from WinCo Foods operations was measured overnight.

Exterior Noise

Exterior noise levels in the backyards of residences at different locations across the project site were calculated. In order to simplify the presentation of the exterior noise levels, the site was separated into two locations based on the sound exposure and required noise walls. The noise zones for the project site are displayed on Figure 5.[5] Table 2 below shows the predicted exterior noise levels for the project site.

[5] Note: the project site plan shown in Figure 5 has been updated since completion of the environmental noise study (December 28, 2015). The changes to the site plan include reconfiguring the residential lots in order to increase the size of the landscaped water quality detention area in the northeastern corner of the project site

Table 2: Exterior Noise Levels at Project Site

Location	Exterior Noise Level (L_{dn}, dB)	Maximum Exterior Noise Level (L_{max}, dBA)
Zone A	60-67	75-82
Remaining Units	< 60	< 75
Source: Veneklasen Associates, Inc., 2015.		

The exterior L_{dn} in the backyard areas along Empire Avenue would be below the 65 L_{dn} standard due to the proposed 6-foot noise barrier along Empire Avenue.[6] A 6-foot noise barrier would also be required along the eastern property boundary in order to ensure the backyard areas near the WinCo Foods Shopping Center would be below the 65 L_{dn} standard.[7]

Interior Noise

Standard construction practices, consistent with the uniform building code typically provide an exterior-to-interior noise level reduction of approximately 25 dB, assuming that air conditioning is included for each unit, which allows residents to close windows for the required acoustical isolation. Therefore, as long as exterior noise levels at the building facades do not exceed 70 dB L_{dn}, the interior noise levels will typically comply with the interior noise level standard of 45 dB L_{dn}.

Table 3 below shows the predicted interior noise levels for the project site.

Table 3: Interior Noise Levels at Project Site

Location	Interior Noise Level (L_{dn}, dB)	Glazing Rating	Maximum Interior Noise Level (L_{max}, dBA)
Zone A	75-82	37	50-54
Remaining Units	≤ 75	30	≤ 54
Source: Veneklasen Associates, Inc., 2015.			

As shown in the table, the interior noise levels are expected to be over the interior noise level standard of 45 dB L_{dn}, and STC rated doors and windows necessary to meet noise reduction requirements outlined in the Noise Study would be required.

Neighborhood Park

Maximum allowable noise exposure for outdoor activities such as neighborhood playgrounds and park uses is 70 L_{dn}/CNEL. The park area would not exceed the City's applicable exterior noise level standard. Regarding the noise limits set by the General Plan for noise generated by non-transportation sources, none of the predicted noise levels in the park area would exceed the nighttime criteria.

Conclusion

Development of the proposed project could result in exposure of future residential receptors to adverse traffic noise levels along Empire Avenue and near the WinCo Food Shopping Center,

[6] Personal Communication with George Kourtis, Associate, Veneklasen Associates. June 23, 2016.
[7] *Ibid.*

which could exceed the interior/exterior noise level standards applied to new residential developments by the City of Brentwood. Therefore, existing and future traffic noise could result in a **potentially significant** noise impact at the project site.

Implementation of the following mitigation measures would ensure that future residences at the project site would not be subject to exterior and interior noise levels in excess of the City's standards, resulting in a **less than significant** impact.

Mitigation Measure(s)

Mitigation Measure 31*: Prior to occupancy of the residences at project site, the final construction shall include STC rated doors and windows necessary to meet noise reduction requirements outlined in Table 5 of the Environmental Noise Study. Tested sound-rated assemblies shall be used. Independent laboratory acoustical test reports shall be provided for review by the project design team to ensure compliance with glazing acoustical performance requirements.*

Mitigation Measure 32: *A 6-foot tall sound wall shall be constructed along Empire Avenue, as shown in Figure 6. The wall may include a combination of earthen berm and concrete masonry to achieve the overall required wall height, as measured from the Empire Avenue side of the wall.*

Mitigation Measure 33: *A 6-foot tall sound wall shall be constructed along the eastern property boundary, as shown in Figure 6. The wall may include a combination of earthen berm and concrete masonry to achieve the overall required wall height.*

Response b): Less than Significant. No major stationary sources of groundborne vibration were identified in the project area that would result in the long-term exposure of proposed onsite land uses to unacceptable levels of ground vibration. In addition, the proposed project would not involve the use of any major equipment or processes that would result in potentially significant levels of ground vibration that would exceed these standards at nearby existing land uses. However, construction activities associated with the proposed project would require the use of various tractors, trucks, and potentially jackhammers, that could result in intermittent increases in groundborne vibration levels. The use of major groundborne vibration-generating construction equipment/processes (i.e., blasting, pile driving) is not anticipated to be required for construction of the proposed project.

Groundborne vibration levels commonly associated with construction equipment are summarized in Table 4. Measurements of vibration used in this evaluation are expressed in terms of the peak particle velocity (ppv).

Based on the levels presented in Table 4, groundborne vibration generated by construction equipment would not be anticipated to exceed approximately 0.089 inches per second ppv at 25 feet. Predicted vibration levels would not be anticipated to exceed recommended criteria for structural damage and human annoyance (0.2 and 0.1 in/sec ppv, respectively) at nearby land uses. As a result, short-term groundborne vibration impacts would be considered **less than significant** and no mitigation is required**.**

Table 4: Representative Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity at 25 Feet (In/Sec)
Large Bulldozers	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozers	0.003
Source: FTA 2006, Caltrans 2004.	

Response c): Less than Significant. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

The proposed project would not directly generate increased noise beyond those activities commonly found in residential developments (i.e., lawnmowers, leaf blowers, etc.). The noise directly generated by the project would not differ from the existing ambient noises currently generated by the surrounding residential and commercial land uses.

However, the proposed project would indirectly increase ambient noise levels in the project vicinity through the introduction of additional vehicle trips to area roadways. The General Plan EIR found that future traffic noise increases along many roadways within the City at buildout are expected to cause a significant and unavoidable impact on some roadways. The proposed project would be consistent with, or below, the vehicle trips assumed for the General Plan and the assumptions used in the General Plan EIR. This impact was already accounted for in the General Plan EIR for the area within the project site that is currently designated Residential - Medium Density. Therefore, impacts related to permanent ambient noise level increases from the proposed project would be **less than significant.**

Response d): Less than Significant with Mitigation. Construction activities at the project site would result in temporary increases in noise levels that could expose adjacent residences to increased noise levels and noise nuisances. Construction activities could create temporary noise levels ranging from 85 to 90 dB at a distance of 50 feet. Because the project site is adjacent to existing residences to the north and south, this temporary increase in construction noise is considered **potentially significant**.

The following mitigation measure would place restrictions on the time of day that construction activities can occur, and includes additional techniques to reduce noise levels at the school, and nearby residences during construction activities. The implementation of the following mitigation measures would reduce this temporary impact to a **less than significant** level.

Mitigation Measure(s)
Mitigation Measure 34*: The project contractor shall ensure that construction activities shall be limited to the hours set forth in Brentwood Municipal Code Section 9.32.050, as follows:*

Outside Heavy Construction:

Monday-Friday:	*8:00 AM to 5:00 PM*
Saturday:	*9:00 AM to 4:00 PM*

Outside Carpentry Construction:

Monday-Friday	*7:00 AM to 7:00 PM*
Saturday	*9:00 AM to 5:00 PM*

Construction shall be prohibited on Sundays and City holidays. The construction activities hours shall be included in the grading plan submitted by the developer for review and approval by the Community Development Director prior to grading permit issuance.

Mitigation Measure 35: *The project contractor shall ensure that the following construction noise BMPs are met onsite during all phases of construction:*

- *All equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.*
- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *The required construction-related noise mitigation plan shall also specify that haul truck deliveries are subject to the same hours specified for construction equipment.*
- *La Paloma High School located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Responses e), f): No Impact. The project site is not located near an existing airport and is not within an existing airport land use plan. The nearest airport, Delta Air Park, is a private airfield

located approximately 4.1 miles northeast of the project site. Although aircraft-related noise could occasionally be audible at the project site, noise would be extremely minimal. Exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. Therefore, there would be **no impact**.

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2700 EMPIRE AVENUE
BRENTWOOD, CALIFORNIA

Figure 4: Noise Measurement Locations

Source: Veneklasen Associates, 2016

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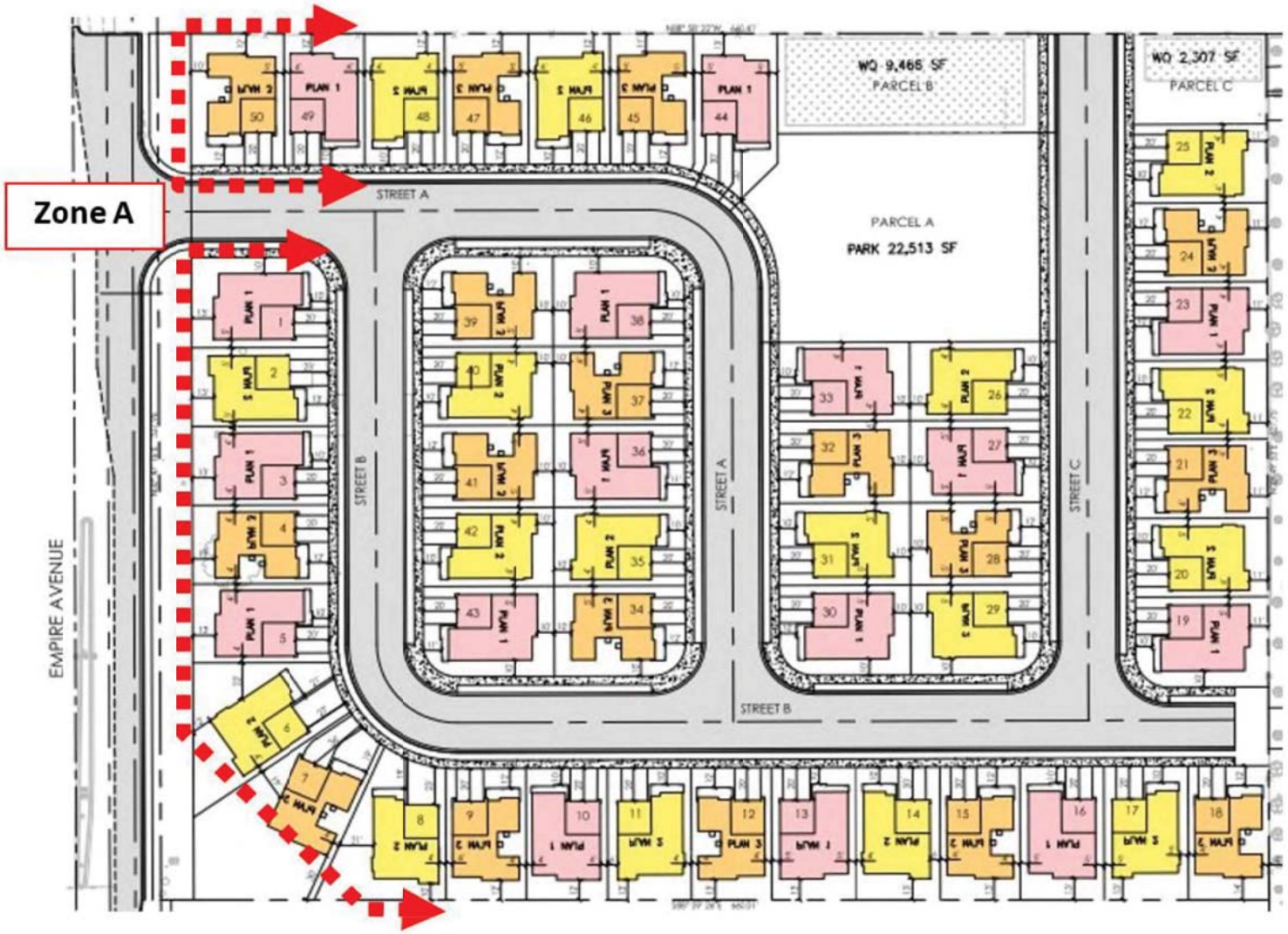

2700 EMPIRE AVENUE
BRENTWOOD, CALIFORNIA

Figure 5: Noise Zones

Source: Veneklasen Associates, 2016

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Legend

Sound Barrier Wall Location

2700 EMPIRE AVENUE
BRENTWOOD, CALIFORNIA

Figure 6: Location of Sound Barrier Walls

Source: Veneklasen Associates, 2016

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XIII. POPULATION AND HOUSING -- Would the project:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other 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	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed project would directly result in population growth in the area through the proposed construction of 48 single-family dwelling units, generating approximately 155 additional residents (based on 3.22 persons per household[8]). Resulting growth from the proposed project is consistent with the General Plan Land Use designation for the project site, and would fall within the anticipated population growth levels analyzed in the Brentwood General Plan EIR (2014). As discussed below, the utility systems (e.g., water and sewer) serving the project could accommodate the additional demands created by the project and the project includes infrastructure improvements needed to connect the project to these existing utility systems. In addition, as discussed below in Section XIV (Public Services), public service providers such as police and fire, could accommodate the additional demands for service created by the project. As a result, the impact would be **less than significant** with respect to inducing population growth because the demands resulting from said growth could be accommodated by existing utility systems and service providers.

Responses b), c): Less than Significant. One residence is located within the western portion of the project site. The residence would be demolished as part of the proposed project. However, development of the project would add 48 single-family dwelling units. Therefore, the Project would not displace substantial numbers of people or existing housing. As a result, the impact would be **less than significant** with respect to displacing people or housing because the project would result in replacement housing onsite.

[8] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.10-32]. July 22, 2014.

XIV. PUBLIC SERVICES --

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*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?		X		

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed project is located within the jurisdiction of the East Contra Costa Fire Protection District (ECCFPD). In accordance with ECCFPD efforts to reorganize due to budgetary constraints and the failure of the recent parcel tax, the district employs 34 personnel: 3 Battalion Commanders, 10 Captains, 10 Engineers, and 11 Firefighters. The District currently staffs three stations, one station in Oakley, one in Discovery Bay, and one in Brentwood.

- Station 52, at 201 John Muir Parkway, Brentwood
- Station 59, at 1685 Bixler Road, Discovery Bay
- Station 93, at 530 O'Hara Avenue, Oakley

The City of Brentwood is served primarily by Station 52. Station 52 is located approximately 2.7 miles south of the project site. Additionally, Station 93 is located approximately 2.1 miles northeast of the project site.

The Brentwood General Plan includes nine policies and four actions (Policies CSF 1-1 through 1-3, and 4-1 through 4-6, and Actions CSF 1a, and 4a-c) to ensure that fire protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the action items included in the Brentwood General Plan that are applicable to the project are:

- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities;

- Action CSF 4a: Continue to enforce the California Building Code and the California Fire Code to ensure that all construction implements fire-safe techniques, including fire resistant materials, where required;
- Action CSF 4b: As part of the City's existing development review process for new projects, the City would continue to refer applications to the ECCFPD for determination of the project's potential impacts on fire protection services. Requirements would be added as conditions of project approval, if appropriate.

The project would comply with these General Plan actions. For example, the City of Brentwood collects development impact fees that support the construction of new fire facilities in the amount of approximately $700 per new single-family residence. The City also has Community Facilities Districts (special tax revenue) that can be used for a variety of services, and which are currently being allocated primarily towards public protection and safety services. These funds amount to approximately $760 per year per home and could be used to fund new facilities, maintain existing facilities and equipment, and pay for salaries and benefits. In addition to providing additional revenue for fire facilities, the project would be required to comply with all ECCFPD standard conditions of approval related to provision of fire flow, roadway widths, etc. The project is also subject to the City of Brentwood residential life safety sprinkler requirements set forth in Section 15.64.010 of the Municipal Code.

The 2014 Brentwood General Plan Update EIR concluded implementation of the General Plan would result in a less than significant impact related to the provision of public services throughout the City.[9] The project is consistent with the General Plan designation for the site; therefore, the additional demand for fire protection services resulting from the proposed project has already been evaluated in the General Plan EIR. Given the project's compliance with the relevant General Plan policies and actions related to fire service, the impact from the proposed project, consistent with the General Plan EIR determination, would be **less than significant** regarding the need for the construction of new fire protection facilities which could cause significant environmental impacts.

Response b): Less than Significant. The City of Brentwood Police Department would provide police protection services to the project site. Currently, the Brentwood Police Department provides law enforcement and police protection services throughout the City. Established in 1948, the Brentwood Police Department is a full service law enforcement agency that is charged with the enforcement of local, State, and Federal laws, and with providing 24-hour protection of the lives and property of the public. The Police Department functions both as an instrument of public service and as a tool for the distribution of information, guidance, and direction.

The Brentwood Police Department services an area of approximately 14 square miles. As of February 2016, the Department had 65 sworn police officers and another 21 civilian support

[9] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.12-23]. July 22, 2014

staff. In addition to the permanent staff, the Department had approximately 20 volunteers who are citizens of the community and assist with day to day operations.

The Department is located at 9100 Brentwood Boulevard, approximately 4.1 miles southeast of the project site.

The Brentwood General Plan includes eight policies and five actions (Policies CSF 1-1 through 1-3, and 3-1 through 3-5; and Actions CSF 1a and 3a-d) to ensure that police protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the policies and actions items included in the Brentwood General Plan that are applicable to the project are:

- Policy CSF 3-4: Emphasize the use of physical site planning as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas, and other public spaces should be designed with maximum feasible visual and aural exposure to community residents.
- Policy CSF 3-5: Promote coordination between land use planning and urban design through consultation and coordination with the Police Department during the review of new development applications.
- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities;
- Action CSF 3c: As part of the development review process, consult with the police department in order to ensure that the project design facilitates adequate police staffing and that the project addresses its impacts on police services.

The project applicant will be required by the City to comply with these policies and actions. Therefore, consistent with the General Plan EIR conclusion related to governmental facility impacts resulting from General Plan build-out, the project would have a **less than significant** impact regarding the need for the construction of new police protection facilities which could cause significant environmental impacts.

Response c): Less than Significant with Mitigation. The project site is located within the Liberty Union High School District and the Brentwood Union School District (BUSD). Liberty Union High School District (LUHSD) includes three comprehensive high schools: Liberty High, Freedom High, and Heritage High. In addition, the District includes one continuation high school, La Paloma, and one alternative high school, Independence High School. According to the LUHSD, all three comprehensive high school sites were built with a 2,200 student capacity; this capacity is currently being exceeded at all three high schools and facility needs are being met with portables.[10] The LUHSD student generation factors for grades 9-12 are 0.2074 for single-family detached units. With 48 single-family units, the project is expected to generate

[10] As cited in the Bella Fiore IS/MND, dated August 2014 (pg. 86): Debra Fogarty, Chief Business Officer, Liberty Union High School District, email communication, November 12, 2013.

approximately 10 new high school students. Available capacity does not exist to accommodate these additional students.

The BUSD consists of eight elementary schools and three middle schools. In 2015 the District had a K-6th grade enrollment of 6,479 with K-6th capacity of 6,800 in 2013. The District's 2015 7-8th grade enrollment is 2,083 with a 7-8th grade capacity of 1,940 in 2013.[11] Therefore, the District has excess capacity for another 321 K-6th grade students, but is over capacity for grades 7-8th by approximately 143 students. Utilizing the District's current Student Generation Rates, the 48 units proposed for the project would introduce approximately 19 new K-6th students (48 * 0.402) to the District and 7 new 7-8th grade students (48 * 0.118). Available capacity exists to accommodate K-6th students anticipated from the project, but not the new 7-8th grade students.

The applicant is required to pay school impact fees. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act…involving …the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

Because the LUHSD is already over capacity; and the BUSD is over capacity for grades 7-8, adding students to the districts may result in further overcrowding and compromising programs. Therefore, the project would have a potentially significant impact regarding the need for the construction of new school facilities which could cause significant environmental impacts.

Consistent with State law, implementation of the following mitigation measure would reduce the impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure 36: *Prior to building permit issuance for any residential development, the developer shall submit to the Community Development Department written proof from the Liberty Union High School District and the Brentwood Union School District that appropriate school mitigation fees have been paid.*

Response d): Less than Significant with Mitigation. The proposed project includes the construction of 48 residences. Applying the Brentwood standard of 3.22 residents per dwelling unit, the proposed project would create housing for approximately 155 additional residents. The Brentwood General Plan calls for 5 acres of park per 1,000 residents. The proposed project would thus require approximately 0.775 acres of park space for these additional residents. However, the proposed project only includes approximately 0.73 acres of active park area, less than the amount called for in the General Plan. Therefore, the project could result in a **potentially significant** impact.

[11] Jack Schreder & Associates. School Facility Needs Analysis for Brentwood Union School District. July 23, 2013

Implementation of the following mitigation measure would ensure that the City requirements are satisfied, resulting in a **less than significant** impact.

Mitigation Measure(s)

Mitigation Measure 37: *Prior to the recordation of final map(s), the project applicant shall pay the required park in-lieu fees as determined by the Parks and Recreation Department and the Community Development Department.*

XV. RECREATION --

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			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	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. As explained above in Question **d)** of the Public Services section, the proposed project does not include sufficient park land acreage for the 48 residential units. As a result, in-lieu fee payments would be required to meet the City's park land requirements. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

Mitigation Measure(s)

Implement Mitigation Measure 37.

XVI. TRANSPORTATION/TRAFFIC -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			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 feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The proposed project is consistent with future development levels planned in Brentwood, which have been included in the regional Traffic Models developed by the Contra Costa Transportation Authority and Contra Costa County. The Applicant/Developer of this project would be required to contribute to the construction of planned regional and local facilities. Development levels generated by the proposed project would be consistent with the levels identified in the General Plan and analyzed in the General Plan EIR.

The Applicant/Developer will also pay applicable thoroughfare facility fees (plus any annual increase) in effect at the time of building permit issuance and shall participate in the City's Capital Improvement Financing Plan (CIFP) to finance necessary roadway infrastructure to the satisfaction of the Public Works Director/City Engineer and Community Development Director.

The Applicant/Developer shall also construct roadway improvements to the proposed site access point along Empire Avenue, and the future access roads in the northeast portion of the project site and to WinCo Foods to the east to the satisfaction of the Director of Public Works/City Engineer prior to building permit issuance.

The Circulation Element of the City of Brentwood General Plan Update provides a detailed description of Goals, Policies, and Actions that the City will undertake in order to ensure adequate LOS standards. The Brentwood General Plan identifies planned area major transportation improvements for Empire Avenue. These include: Empire Avenue Extension North (Phase II) (CIP); and Empire Avenue Extension South (Phase III) (CIP).

Additionally, Empire Avenue (a major project access point) is designated as a Major Arterial in the City of Brentwood General Plan Update. Brentwood Boulevard and other City roads would be adequately maintained to the extent to prevent such an exceedance of LOS standards or otherwise prevent an increase in traffic which is substantial in relation to the existing traffic capacity. Therefore, the project would cause a **less than significant** impact to the City's existing street system.

Response c): No impact. The proposed project would not require any changes to existing regional air traffic activity and the nearest airport, Delta Air Park, is a private airfield.

Responses d), e): **Less than Significant.** Access to the project site would be provided via Empire Avenue, with potential future pedestrian access to WinCo Foods to the east and to the potential future residential development to the north. The proposed onsite roadways would include a looped street that would connect Empire Avenue to WinCo Foods with an emergency vehicle access gate. The proposed site plan is shown in Figure 3. The proposed site access points would facilitate access by emergency vehicles via multiple points of entry into the project site. Parking for the project would be provided by off-street garages and driveways for each residence, and additional on street parking options available for emergency vehicles. The site access, onsite circulation, and parking is adequate. Therefore, the impact is **less than significant.**

Response f): No Impact. The project would have no impact on any existing plans or policies related to alternative transportation. The project site would include a meandering sidewalk area with landscaping along Empire Avenue. Additionally, the proposed project includes ample space for bicycle parking and storage within the 2-car recessed garages, and provides connections to the proposed bicycle lanes and sidewalks in the project area along Empire Avenue. Project implementation would assist the City in providing connections and access to alternative transportation in the project area. There is **no impact**.

XVII. UTILITIES AND SERVICE SYSTEMS -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 projects projected demand in addition to the providers existing commitments?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), and e): Less than Significant. The following discussion addresses available wastewater treatment plant (WWTP) capacity and wastewater infrastructure to serve the project site.

Wastewater Treatment Plant Capacity

The existing WWTP is located on approximately 70 acres of land owned by the City on the north side of Sunset Road and east of Brentwood Blvd. The WWTP is designed to have sufficient capacity to handle all wastewater flows at build-out per the General Plan. The WWTP has a current treatment capacity of 5 million gallons per day (mgd) with an average dry weather flow (ADWF) of 3.4 mgd in 2012.

The current WWTP system is designed to expand to 10 mgd in 2.5 mgd increments and the City collects development impact fees from new development to fund future expansion efforts.

Phase I of the WWTP expansion was completed in 1998-2002, to bring the treatment plant to current levels. Preliminary planning of the Phase II expansion of the WWTP has been completed. Final design is currently underway and construction would follow after that. Phase II would expand capacity to 7.5 or 10.0 mgd by adding oxidation ditches, secondary clarifiers, filters, and related appurtenances.

Buildout of the proposed project would result in the construction of 48 dwelling units generating approximately 155 additional residents (based on 3.22 persons per household). The 2014 Brentwood General Plan Update EIR uses a wastewater generation factor of 85 gallons per day per person of residential development. Therefore, the total wastewater flow from the project site would be about 0.013 mgd. Therefore, the current capacity of the WWTP would be sufficient to handle the wastewater flow from the proposed project. In addition, the proposed project is required to pay sewer impact fees which would contribute towards the cost of future upgrades, when needed. As a result, the proposed project would not have adverse impacts to wastewater treatment capacity.

Wastewater Infrastructure

The wastewater generated by the project would be collected by an internal sewer system, which would connect to the existing sewer conveyance lines along Empire Avenue in the western portion of the project site and along the eastern portion of the project site near WinCo Foods.

Conclusion

Because the project applicant would pay City sewer impact fees, and adequate long-term wastewater treatment capacity is available to serve full build-out of the project, a **less than significant impact** would occur related to requiring or resulting in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Response c): Less than Significant. As discussed in Questions 'c-e' of Section IX, Hydrology and Water Quality, of this IS/MND, storm drains would be installed along the proposed project internal ROWs, which would route stormwater to the bio-detention areas in the onsite open space/water quality lots. Project runoff would then filter into detentions area then ultimately through the City's stormwater infrastructure during peak flows**.** The expansion of these water drainage facilities could cause a potentially significant effect. However, the implementation of the mitigation measures listed below would reduce impacts to **less than significant**.

Mitigation Measure(s)

Implement Mitigation Measures 25, 26, 27, 28, 29, and 30.

Response d): Less than Significant. The following discussion addresses available water supply infrastructure to serve the project site.

Water Supply System

The City of Brentwood has prepared an Urban Water Management Plan (UWMP) that predicts the water supply available to the City of Brentwood in normal, single-dry, and multiple-dry years out to 2035. The total supply available in 2035 during all scenarios (normal, single-dry, and multiple-dry) well exceeds the projected demand. The future demand projections included in the UWMP are based upon General Plan land uses**.** The proposed project's use is consistent with the General Plan; therefore, the proposed project's future water demand was considered in the UWMP. As a result, with respect to the availability of sufficient water supplies to serve the project, the impact from the proposed project would be **less than significant**.

Water Supply Infrastructure

The project would involve the construction of the necessary water infrastructure to serve the proposed neighborhoods. The project includes installation of 8-inch water lines within the internal street ROWs which would connect to the existing mains along Empire Avenue and near WinCo Foods.

Conclusion

Because adequate long-term water supply is available to serve full buildout of the proposed project and the project includes the extension of adjacent water line infrastructure, the project's impact to water supply would be **less than significant**.

Responses f) and g): Less than Significant. The City's Solid Waste Division, a division of the Public Works Department, provides municipal solid waste collection and transfer services for residential and commercial use within the City of Brentwood. The solid waste from Brentwood is disposed of at Keller Canyon County landfill. Keller Canyon Landfill covers 2,600 acres of land; 244 acres are permitted for disposal. The site currently handles 2,500 tons of waste per day, although the permit allows up to 3,500 tons of waste per day to be managed at the facility. As of September 2008, the remaining capacity of the landfill's disposal area is estimated at 60-64 million cubic yards, and the estimated closing date for the landfill is 2050[12]. Because the 2014 Brentwood General Plan Update EIR determined that solid waste capacity is adequate to serve the demand resulting from General Plan build-out and the proposed project's use is consistent with the General Plan designation for the project site; the project's impact to solid waste would be less than significant. This is a **less than significant** impact.

12 City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.14-45]. July 22, 2014.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*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 the potential to achieve short-term, to the disadvantage of long-term, environmental goals?			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	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. Although relatively unlikely, based upon the current land cover types found onsite, special- status wildlife species and/or federally- or state-protected birds not covered under the ECCC HCP/NCCP could be occupying the site. 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. 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**.**

Response b): Less than Significant. Development that converts rural areas to urban/suburban uses may be regarded as achieving short-term goals to the disadvantage of long-term environmental goals. However, the inevitable impacts resulting from population and economic growth are mitigated by long-range planning to establish policies, programs, and measures for the efficient and economical use of resources. Long-term environmental goals, both broad and specific, have been addressed previously in the 2014 Brentwood General Plan Update, adopted on July 22, 2014. As discussed throughout this IS/MND, the proposed project would comply with all relevant goals set forth in the General Plan. Therefore, the impact is **less than significant**.

Response c): Less than Significant. The proposed project in conjunction with other development within the City of Brentwood could incrementally contribute to cumulative impacts in the area. However, mitigation measures for all potentially significant project-level impacts identified for the proposed project in this IS/MND have been included that would reduce impacts to less than-significant levels**.** As such, the project's incremental contribution towards cumulative impacts would not be considered significant. In addition, all future discretionary development projects in the area would be required to undergo the same environmental analysis and mitigate any potential impacts, as necessary. Therefore, the proposed project would not have any impacts that would be cumulatively considerable, and impacts would be **less than significant**.

Response d): Less than Significant. The proposed project site is located within areas of existing and planned development and is consistent with the land use designation 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 activities, the project could result in potential impacts related to soil erosion and surface water quality impacts, 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**.

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