

INITIAL STUDY

Environmental Checklist and Evaluation for the County of Santa Clara

File Number:	PLN21-222	Date: 11/21/2022
Project Type:	Architecture and Site Approval and Grading Approval	APN(s): 728-38-001
Project Location / Address:	Burnett Ave, Morgan Hill, CA 95037	GP Designation: Agriculture Large Scale
Owner's Name:	Liang Dangsheng And Han Jingrong	Zoning: A-40Ac-sr-cv
Applicant's Name:	Amanda Musy-Verdel	Urban Service Area: None

Project Description

The project is an Architecture and Site Approval (ASA) and Grading Approval for the construction of a new 4,000 square foot (sq. ft.) agricultural research building with a 4,000 sq.ft. proposed future expansion. The project also proposes two 5,000 sq.ft. agricultural barns, and a 4,000 sq. ft. single-family dwelling with a 1,200 sq. ft. accessory dwelling unit (ADU), as shown on the site plan (Figure 2). The subject property size is approximately 11.2 acres with frontage on both Burnett Avenue and Vista de Lomas Avenue (See Figure 1). Driveway access to the property is proposed from Vista De Lomas Avenue at three locations. Thirty-two parking spaces are proposed. Two leach fields, one well, four water tanks (a 44,000-liter water tank for the research facility and three 5-liter water tanks for residential use), and two bioretention ponds are proposed. A row of newly planted coast redwood and deodar cedar trees is situated along the southern edge of the property adjoining Cochran Channel adjacent to Highway 101, and a row of newly planted shrubs (expected to grow 8-15 feet tall) is situated at the northern and western property edge adjoining Burnett Avenue and Vista de Lomas Avenue. A majority of the remaining land will be used for organic farming of high-value specialty vegetables and fruit trees. Grading quantities for the proposed project are 1,252 cubic yards of cut and 400 cubic yards of fill with a maximum cut depth of 2.5 feet, to establish the driveway and the two bioretention ponds.

Agricultural research to be conducted on the subject site by Apex Bait Technologies, Inc. (Apex Bait) includes development of insect baits, attractants, and traps to control insect pests in agriculture, with a specific focus on control of insect pests at organic farms (for both annual vegetables and perennial fruit crops). The research aims to prevent damage to the environment by reducing the need for harmful insecticides sprays that pollute and harm beneficial insects. The type of agricultural crops and insect pests are proposed to change over time depending on availability. Apex Bait has projected that a key focus area of research effort would be to examine what kinds of plant, flowers, and food materials are attractive to insects, with the intention to develop attractant formulations for insect pests. The second most active research area would be formulation of bait through identification of food ingredients that are highly palatable to target pests. Apex Bait would develop and test proprietary technologies on the subject property and offer licensing rights to interested parties. The expected customers for the products would be agrochemical companies interested in licensing agricultural insect bait formulas to produce more effective insecticides. Other Apex Bait research activities and services would include efficacy studies of low-toxicity insecticides such as boric acid and silica gel, insect repellents, and contract research services for agrochemical companies.

The proposed agricultural research building would comprise of laboratory and office space. A facade mounted sign is proposed on the north and east elevation of the research building. Different kinds of agricultural insects needed for research would be raised in the research building. In addition, insect pests from the vegetables and fruit trees growing on the subject property would also be studied crops, in the laboratory. Two proposed agricultural barns would be used for storage of farm equipment, harvested crops, and packaging such crops.

Hours of operation would be 8:00 am to 6:00 pm Monday through Friday. A maximum of seven employees would be present on site at any given time. No delivery of materials would take place except typical delivery service by UPS/FedEx.

Environmental Setting and Surrounding Land Uses

The subject property is in a rural area of unincorporated Santa Clara County south of San José, in an area recognized as Coyote Valley (See Figure 1 - Project Location). The site is accessed from both Burnett Avenue and Vista de Lomas Avenue and is a relatively flat farmland parcel. Surrounding parcels include a channelized creek (Cochran Channel, a tributary to Coyote Creek managed by Valley Water) and Highway 101 to the south, County-owned Coyote Creek Parkway to the west across Burnett Avenue, agricultural row crops to the east, and rural residential single-family homes to the north across Vista de Lomas Avenue.

The subject property is 11.2 acres, with a General Plan designation of Agriculture – Large Scale, and is within an Exclusive Agriculture zoning district, consisting of prime farmland soil.

Assembly Bill (AB) 948 was adopted into law on September 27, 2019, and codified at sections 35180 to 35186 of the California Public Resources Code. AB 948 recognizes Coyote Valley is a “unique landscape providing agricultural, wildlife, recreational, climate, and other natural infrastructure benefits and is a resource of statewide significance in need of restoration, conservation, and enhancement.” In addition, AB 948 requires Coyote Valley to be “acknowledged as an area of statewide significance in local planning documents developed or updated on or after January 1, 2020, affecting land use within Coyote Valley.” Coyote Valley is also recognized as a critical corridor for wildlife migrating between the Santa Cruz Mountains and the Diablo Range. Per Section 15300.2(a) of the California Environmental Quality Act (CEQA) a single-family residence may not be deemed exempt from environmental review and qualify for a Categorical Exemption if the project “may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.” As the property is located within Coyote Valley, which is recognized under AB 948 as an environmental resource that is designated, precisely mapped, and officially adopted pursuant to state law, a Categorical Exemption Section 15303, Class 3, is not applicable for the proposed residence.

The property is located within the coverage area of the Santa Clara Valley Habitat Plan and has a mapped landcover of Grain, Row-crop, Hay and Pasture, Disked / Short-term Fallowed. The property is not under a Williamson Act contract. No watercourses, creeks, serpentine soils, or rock outcrops are located on the subject property. Coyote Creek is located 1,000 feet north of the property separated by developed residential properties. The property is located within County liquefaction and State seismic liquefaction zone.

Other agencies sent a copy of this document:

Santa Clara Valley Water District, Santa Clara Valley Open Space Authority, Morgan Hill Unified School District, and Caltrans

Figure 1 – Vicinity Map



Figure 2 – Proposed Site Plan

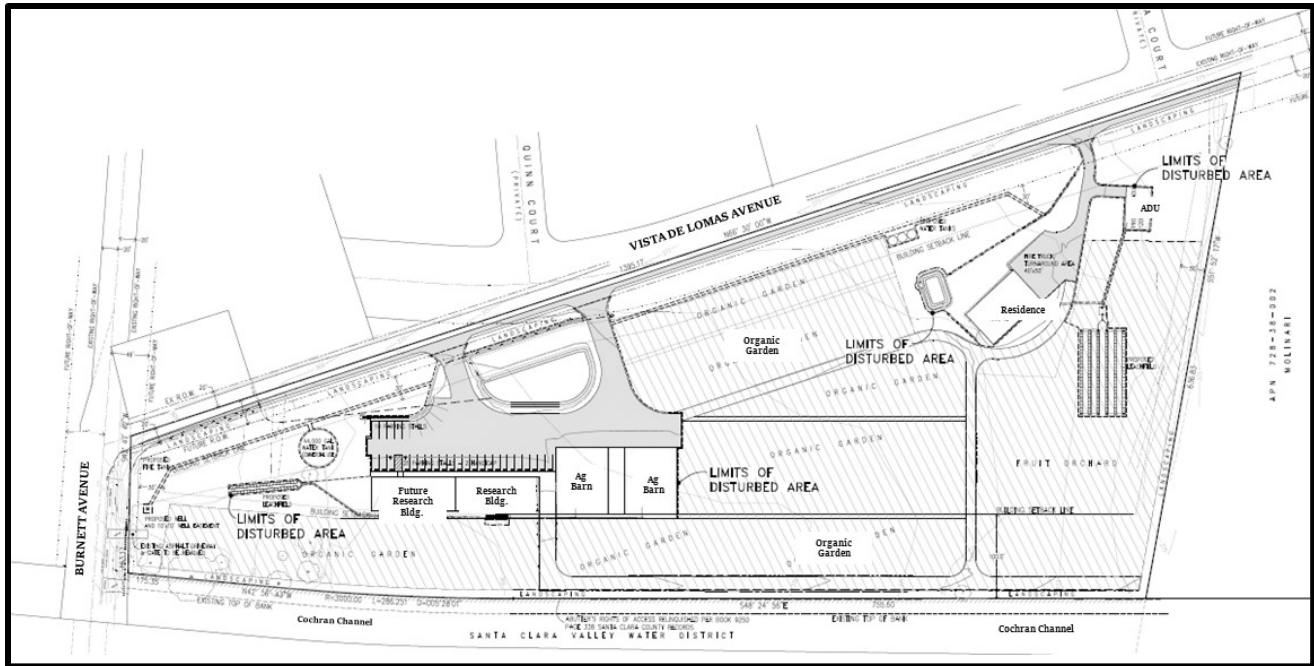
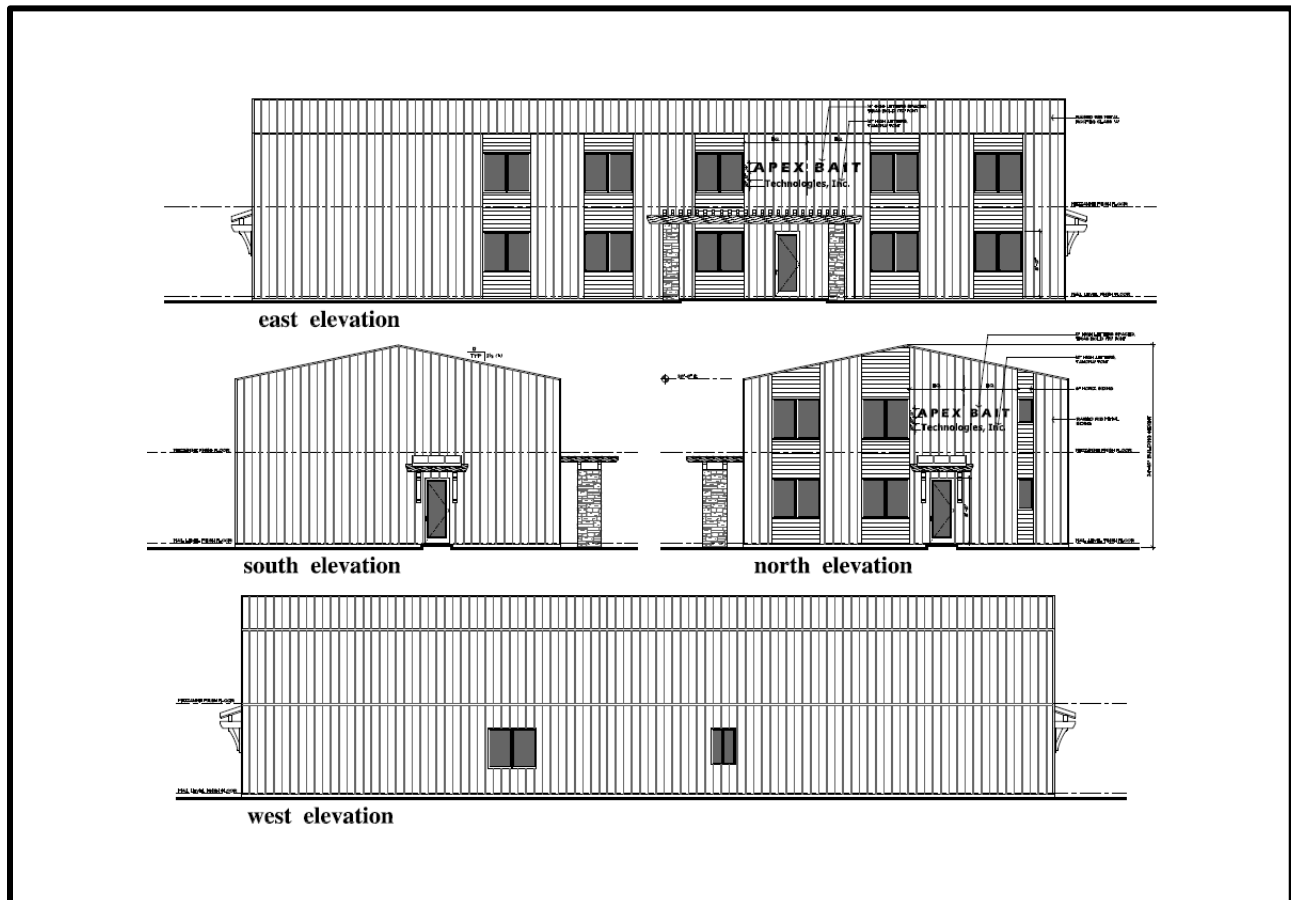


Figure 3 – Research Building Proposed Elevations



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.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The proposed project could potentially result in one or more environmental effects in the following areas:

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because 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 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.

☐ 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 the attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

Charu Ahluwalia

Signature

11.21.2022

Date

Charu Ahluwalia

Print name

For

ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

A. AESTHETICS					
	IMPACT				
Except as provided in Public Resources Code section 21099, would the project:	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	Source
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,3,4, 6,17f
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, along a designated scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 6,7 17f
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,3
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3,4

SETTING:

The site is located east of Highway 101, at the southeast corner of Burnett Avenue and Vista de Lomas Avenue, in Morgan Hill. The property is zoned A-40Ac-sr-cv for Exclusive Agriculture with a “-40Ac” Lot-size Combining District overlay, “-sr” scenic road overlay due to its proximity to Highway 101, which is designated by the County as a scenic highway, and “-cv” overlay for its location within the Coyote Valley Climate Resilience Combining District. Pursuant to County Zoning Code Section 3.30, properties within the “-sr” designation are subject to certain setback requirements to ensure protection of scenic resources as viewed from scenic roads. Within 100 feet of a scenic road, structures are required to undergo design review. Further, signs within 1,000 feet of Highway 101 are subject to size limitations.

Motorists traveling along Highway 101 have a moderate sensitivity to visual change as the project site is located along Highway 101 and the project site would be visible for a relatively short period of time as motorists drive through Highway 101. Travelers and commuters in the area also have moderate sensitivity to visual change because the workers frequent the vicinity several times per week, although time spent viewing the site would be minimal. Surrounding uses include residential homes (north and east), Coyote Creek Parkway (west), and a channelized creek, Cochran Channel, a tributary to Coyote Creek managed by Valley Water (south). Residents typically have high sensitivity to visual change given the long-term nature of their views. County General Plan policies protect aesthetic resources

such as the views from travelers and passer byers along Highway 101. Figure 4 below provides a representation of the view from Highway 101.

County General Plan Policies Related to Scenic Resources

The Resource Conservation Element of the Santa Clara County General Plan (Santa Clara County 1994b: H-40) includes the following General Plan policies that apply to the proposed project:

- Policy R-RC 100: Signs allowable under the provisions of the zoning ordinance should be harmonious with the character of the area in which they are located and should be of the highest design standards.
- Policy R-RC 101: Roads, building sites, structures and public facilities shall not be allowed to create major or lasting visible scars on the landscape.
- Policy R-PR 45: New structures should be located where they will not have a negative impact on the scenic quality of the area, and in rural areas they should generally be set back at least 100 feet from scenic roads and highways to minimize their visual impact.
- Policy R-RC 98: Hillside, ridgelines, scenic transportation corridors, major county entryways, stream environments, and other areas designated as being of special scenic significance should receive utmost consideration and protection due to their prominence, visibility, and overall contribution to the quality of life in Santa Clara County.

The property is within Coyote Valley which is part of the Coyote Valley Conservation Program (AB 948). Although AB 948 recognizes Coyote Valley as an area of statewide significance, the legislation does not expressly designate Coyote Valley as a scenic resource.

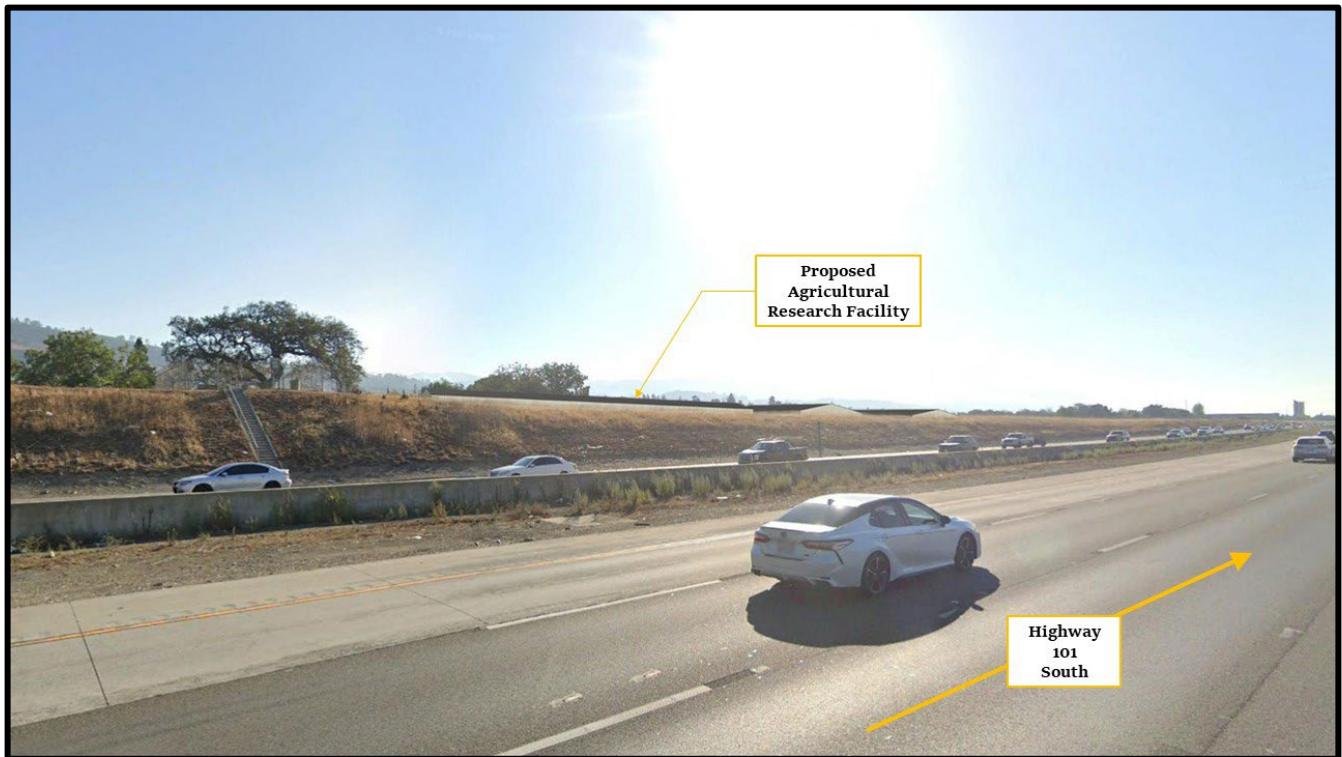
The subject property is relatively flat and contains a row of newly planted coast redwood and deodar cedar trees (expected to grow 50-100 feet tall) along the southern edge of the property adjoining Cochran Channel adjacent to Highway 101, and a row of newly planted shrubs (expected to grow 8-15 feet tall) along the northern and western property edge adjoining Burnett Avenue and Vista de Lomas Avenue. The subject property has a General Plan designation of Agriculture – Large Scale with an Exclusive Agriculture zoning designation. The property takes access from Vista de Lomas Avenue, which is a County-maintained Road.

The development includes a new 4,000 sq. ft. agricultural research building with a 4,000 sq.ft. proposed future expansion, two 5,000 sq.ft. agricultural barns, and a 4,000 sq. ft. single-family dwelling with a 1,200 sq. ft. ADU. No free-standing signs are proposed as a part of this project.

DISCUSSION:

a, b, c & d) Less than Significant Impact. Highway 101 is designated by the County as a scenic highway. No building or structure, including signs, may be located within 100 feet of the right of way of 101. As shown in the site plan (Figure 2), the proposed structures are set back 100 feet from the southern property edge. Further, the proposed structures would be minimally visible from the highway (Figure 4). Motorists along Highway 101 would not see the proposed structures on the subject site. The site is vacant and does not contain rocks, outcroppings, or historic buildings. Seven trees over 12-inch located to the southwest of the property. No tree removal is proposed with this project.

Figure-4 - Visual Simulation of Proposed Structures (View from Highway 101)



**Figure-5 - Visual Simulation of Proposed Structures
(View from corner of Burnett Avenue and Vista de Lomas Avenue)**



site is within a rural, low intensity development area. The nearest structures are residential dwellings averaging in size from 2,500 sq. ft. to 4,000 sq. ft. (on approximately 2.5-acre parcels north of the Vista de Lomas Avenue), one to two stories in massing. The residential portion of the proposed project is relatively similar in size and massing to the surrounding existing houses. As for the research facility, instead of a larger building, two 4,000 sq. ft. buildings are proposed. Further, design of the research facility building offsets its massing through architectural articulation such as vertical bands of windows proposed on the façade, as well as a lower height pergola projection at entrances constructed of material such as wood and stone, which are compatible with the rural character (Figure 3).

Landscaping has been newly planted to provide a visual screen of the proposed development from public viewpoints along Burnett Avenue and Vista de Lomas Avenue. This landscaping would not fully screen the development but is considered sufficient landscaping (rows of shrubs and trees) to the north across Vista de Lomas Avenue.

Figure–6- Landscaping along Vista de Lomas (new shrubs expected to grow 8-15 feet tall)



**Figure–7- Landscaping along Cochran Channel parallel to Highway 101
(new trees expected to grow 50-100 feet tall)**



Cumulatively, the proposed project would be larger than the other structures in the immediate vicinity, however, given the size of structures on a relatively larger property (approximately 11 acres), ample separation and appropriate location of the research and residential structures on the site plan, height of the research facility buildings maintained at 24 feet (well below the 35 feet maximum height allowance for the base district), and a continuous row of shrubs and trees planted along property edges, a potential degradation of the existing visual character is not expected.

Construction activities on the project site would occur over a span of approximately one year, and, although construction activities would change the visual character of the site by exposing soil and placing equipment and materials on site, this adverse effect would be temporary, and dust would be controlled by implementing best management practices (BMPs). Therefore, the construction phase of the project would not result in substantial adverse visual change to the project site.

Very few sources of light and glare currently exist in the vicinity of the project site. Any lighting proposed would create a new light source to an otherwise dark area. The proposed business will operate Monday through Friday between 8am and 6pm, and therefore there will be no activity during the evening. According to the County's adopted ASA guidelines, any proposed lighting shall be subdued and shall enhance the building design and landscaping. Lighting fixtures should not create glare for occupants or neighboring properties. The site is vacant and surrounded by residential properties to the north and east. Any new lighting will be visible. As a standard condition of approval, any proposed lighting will require a photometric plan, prior to building permit issuance, indicating lighting locations and details. Lighting shall include light fixtures that are shielded such that the light source is not visible from beyond the boundaries of the subject property. All lighting shall be downward directed and shall only illuminate the area intended. No outdoor lighting shall be allowed after sunset. With the implementation of the standard condition of approval, the project will not create a new light source or glare which would impact the nighttime views of the area.

MITIGATION:

- None required.

B. AGRICULTURE / FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

WOULD THE PROJECT:	IMPACT				Source
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3,23,24,26
b) Conflict with existing zoning for agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9,21a
c) Conflict with an existing Williamson Act Contract or the County's Williamson Act Ordinance (Section C13 of County Ordinance Code)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 28
e) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32
f) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

SETTING:

The subject property has a General Plan designation of Agriculture – Large Scale and is zoned A-40Ac-sr-cv. Soil on the subject property is composed of Arbuckle gravelly loam (0 to 2 percent slopes). A majority of the site is designated as *Farmland of Local Importance* in the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) database. Surrounding properties are designated as *Farmland of Local Importance*, *Prime Farmland*, *Farmland of Statewide Importance*, and *Urban and Built-Up Land*, in the FMMP database. Surrounding uses are agricultural and residential. The property is not encumbered by a Williamson Act contract and is not within a forest or timberland area. The property was historically used for agricultural cultivation but has been fallow since the 1970s.

The location of the property is in Coyote Valley, which Assembly Bill 948 acknowledged as being a resource of statewide significance due to the characteristics of its natural and agricultural lands, which have “*been subject to intense development pressure and [are] in need of restoration, conservation, and enhancement*” (California Public Resources Code Section 35182(b)). Properties in the -cv overlay district are subject to additional development standards (County Zoning Code Section 3.95.030) intended to minimize the impacts of new development and to preserve Coyote Valley as a greenbelt area intended for long-term agricultural uses and climate resilience. The proposed project complies with these standards.

DISCUSSION:

a, b, & f) Less Than Significant Impact – The subject property is 11.2 acres (488,745 sq. ft.) in size. The proposed project is for an 8,000 sq.ft. agricultural research facility, including two 5,000 sq. ft. agricultural barns, and a 4,000 sq. ft. single-family dwelling with a 1,200 sq. ft ADU. Construction of the structures and associated site improvements would result in 1.5 acres (66,899 sq. ft.) of development area, constituting approximately 13.4% of the total 11.2-acre parcel. A majority of the remaining 86.6% of the property is proposed for cultivation of high-value specialty vegetables and fruit trees.

The property consists of approximately 10 acres of soils characterized as *Farmland of Local Importance* and the remaining one acre as *Urban and Built-Up Land*, per the FMMP database. As defined by each county’s local advisory committee and Board of Supervisors, *Farmland of Local Importance* is land that is either producing or has the capability of production but does not meet the criteria to be considered Prime, Statewide, or Unique Farmland. Thus, construction of the agricultural research facility, the new residences, and associated site improvements, would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. Agricultural research and residential uses are ancillary to and considered compatible with agricultural use. The proposed project meets the required supplemental development standards of the “-cv” overlay district. Lot coverage for residential development is less than 7,500 sq. ft. and total development area with onsite agriculture is less than 2 acres.¹ The project would not involve substantial changes to the existing agricultural environment.

c, d, & e) No Impact – The property is not encumbered by a Williamson Act contract, or within a forestland/timberland area, and therefore the proposed development would not conflict with County Williamson Act Guidelines, the County’s Williamson Act Ordinance, or existing zoning for forestland or timberland areas. No trees are proposed for removal, and the property is not within a forestland area, and therefore the proposed development does not result in the loss of forest land.

MITIGATION:

- None required.

¹Per Zoning Ordinance § 3.95.030 (“-cv”) development standards, development of agricultural uses are exempt from lot coverage standard, meaning they do not count toward the lot coverage maximum per parcel provided that such development is ancillary to onsite agriculture, as specified in § 3.95.040. Agricultural uses mean agricultural employee housing or any non-residential use defined in § 2.10.040 having the parenthetical classification of “agricultural” following the title of each primary use type. Parcels with onsite agriculture have a maximum development area of two acres instead of one acre.

C. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

WOULD THE PROJECT:	IMPACT				Source
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5,29, 30
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5,29, 30
c) Expose sensitive receptors to substantial pollutant concentrations?					5,29, 30
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5, 29, 30

SETTING:

The proposed development includes an agricultural facility and a single-family residence which takes access from Vista de Lomas Avenue, a County-maintained road in the unincorporated area of Santa Clara County. Surrounding land uses immediately adjacent to the subject site are a channelized creek (Cochran Channel, a tributary to Coyote Creek managed by Valley Water) and Highway 101 to the south, County-owned Coyote Creek Parkway to the west across Burnett Avenue, agricultural row crops to the east, and single-family homes to the north across Vista de Lomas Avenue.

DISCUSSION:

a, b, c, & d) No Impact – The proposed project is located within the San Francisco Bay Area Air Quality Management District (BAAQMD), which regulates air pollutants, including those that may be generated by construction and operation of development projects. These so-called criteria pollutants include reactive organic gases, carbon monoxide, nitrogen dioxide, and particulate matter (PM). BAAQMD also regulates toxic air contaminants (fine particulate matter), long-term exposure to which is linked with respiratory conditions and increased risk of cancer. Major sources of toxic air contaminants in the Bay Area include major automobile and truck transportation corridors (e.g., freeways and expressways) and stationary sources (e.g., factories, refineries, power plants). The subject site is located along Highway 101, a major arterial that spans Santa Clara County.

The proposed project would involve construction of an agricultural research facility and a residential dwelling. Construction would generate emissions from ground disturbance and vehicle combustion. Operation would generate emissions from use of vehicles. BAAQMD has established screening level sizes for criteria air pollutants based on land use types.² If the project meets the applicable screening criteria, the project would not result in the generation of operational- and construction-related criteria air pollutants and/or precursors that exceed the thresholds of significance established by BAAQMD, which is average daily emissions (lb/day) of 54 for ROG, NO_x, and PM_{2.5}, and 82 for PM₁₀. For the

²BAAQMD 2017. CEQA Air Quality Guidelines. May 2017.

General Office Building land use, the screening size is 346,000 sq.ft. for operations and 277,000 sq. ft. for construction. The proposed 8,000 sq.ft. research building is below these thresholds.

The operational criteria pollutant screening size for evaluating air quality impacts for *Single-Family Residential* projects is 325 dwelling units, and the construction-related screening is 114 dwelling units. Emissions generated from the proposed one single-family residence is below these thresholds.

Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan or 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.

Project-related construction activities would result in short-term emissions of diesel particulate matter exhaust associated with diesel-fueled engines (diesel PM) from on-site construction equipment and on-road trucks delivering/hauling equipment and materials to/from the project area. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Given the few sensitive receptors within the project vicinity and the lack of odor-generating land uses, the operation of the project would not create objectionable odors affecting a substantial number of people. The project would not include stationary sources of toxic air contaminants (TAC) emissions or land uses associated with the heavy use of diesel vehicles during operation.

MITIGATION:

- None required.

D. BIOLOGICAL RESOURCES					
WOULD THE PROJECT:	IMPACT				Source
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significa nt 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 7, 17b, 17o, 32
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,7, 8a, 17b, 17e, 22d, 22e, 33
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 7, 17n, 33
d) Have a substantial adverse effect on oak woodland habitat as defined by Oak Woodlands Conservation Law (conversion/loss of oak woodlands) – Public Resource Code 21083.4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 31, 32
e) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,7, 17b, 17o, 32
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32
g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,4, 17i

SETTING:

The property is within the coverage area for the Santa Clara Valley Habitat Plan and has a mapped landcover of Grain/Row-Crop, Hay, and Pasture, Disked/Short-Term fallowed. No serpentine soil or landcover is mapped as occurring on the property. Cochran Channel, a tributary to Coyote Creek managed by Valley Water is located south of the existing property and the proposed project would take access from Vista de Lomas Avenue, which is a County-maintained road. The proposed development would not cross any watercourses or riparian habitat.

County of Santa Clara Tree Preservation Ordinance, Division C16 regulates tree removal on private land. This ordinance provides protection to certain trees that are 12-inches or greater in diameter. No tree removal is proposed with this project.

DISCUSSION:

a, b, c, d, e, f, & g) No Impact – The subject property is not located in any state or federally protected wetlands. The property also does not have any known wetlands and is not within any mapped Oak Woodland area and the property is currently vacant with seven trees over 12-inch located to the

southwest of the property. Additionally, the property does not contain any serpentine soils. Cochran Channel, a tributary to Coyote Creek managed by Valley Water is located south of the existing property, thus *General Plan Policy R-RC 37 and 38* are applicable. The project has been conditioned to require a 100-foot buffer from the top of bank of the existing Cochran Channel.

County General Plan Policies Related to Riparian and Freshwater Habitats

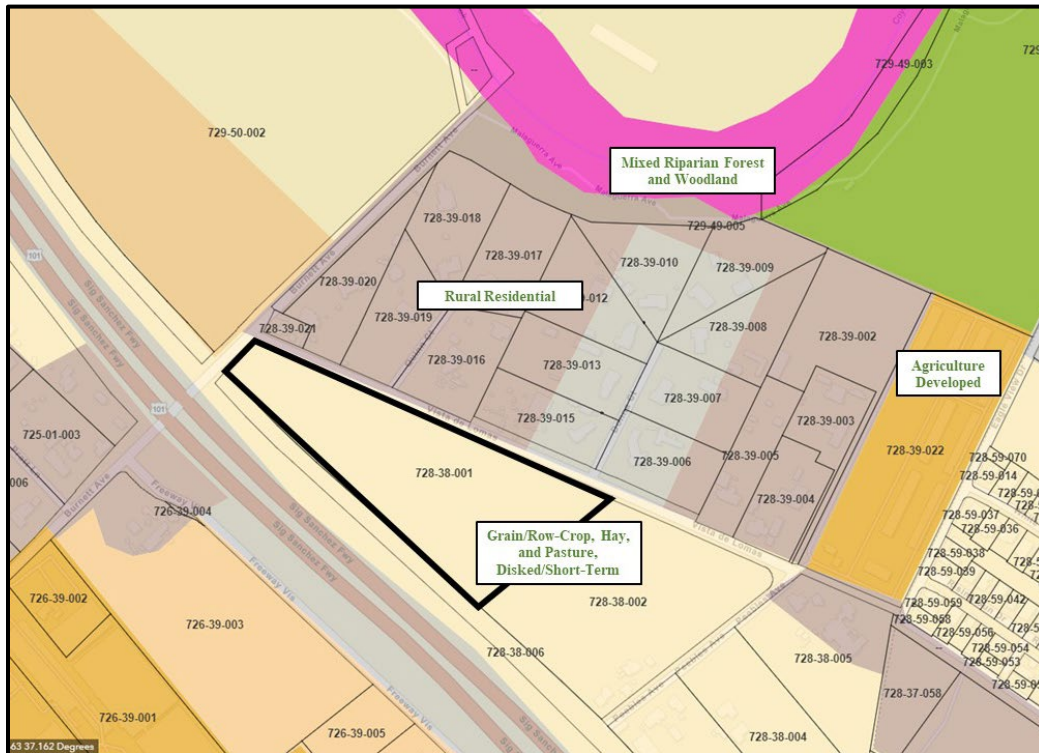
The Resource Conservation Element of the Santa Clara County General Plan (Santa Clara County 1994b: 0-24) includes the following General Plan policies that apply to the proposed project:

- Policy R-RC 37: Lands near creeks, streams, and freshwater marshes shall be considered to be in a protected buffer area, consisting of the following:
 1. 150 feet from the top bank on both sides where the creek or stream is predominantly in its natural state;
 2. 100 feet from the top bank on both sides of the waterway where the creek or stream has had major alterations; and
 3. In the case that neither (1) nor (2) are applicable, an area sufficient to protect the stream environment from adverse impacts of adjacent development, including impacts upon habitat, from sedimentation, biochemical, thermal and aesthetic impacts
- Policy R-RC 38: Within the aforementioned buffer areas, the following restrictions and requirements shall apply to public projects, residential subdivisions, and other private non-residential development:
 - a. No building, structure or parking lots are allowed, exceptions being those minor structures required as part of flood control projects.
 - b. No despoiling or polluting actions shall be allowed, including grubbing, clearing, unrestricted grazing, tree cutting, grading, or debris or organic waste disposal, except for actions such as those necessary for fire suppression, maintenance of flood control channels, or removal of dead or diseased vegetation, so long as it will not adversely impact habitat value.
 - c. Endangered plant and animal species shall be protected within the area.

The property is located within the coverage area for the Santa Clara Valley Habitat Plan (HCP), a programmatic Habitat Conservation Plan and Natural Communities Conservation Plan. The project is a covered project under the Santa Clara Valley Habitat Plan and will obtain endangered species clearance for any potential impacts to plant and wildlife species addressed by the Habitat Plan, through payment of Habitat Plan fees and adherence to conditions of approval required for Habitat Plan coverage. The property has a mapped landcover of Grain/Row-Crop, Hay, and Pasture, Disked/Short-Term, which is common for agricultural lands, and there are no sensitive natural communities on the property, as mapped by the Habitat Plan (Figure 8). The project is in conformance with HCP and will not create a conflict or impact to the habitat conservation plan.

e) Less than Significant – AB 948 recognizes Coyote Valley as an area of statewide significance and identifies that it provides a critical corridor for wildlife migrating between the Santa Cruz Mountains and the Diablo Range. The project will not have an impact on any migration corridors as it is a covered project under the HCP, which programmatically addresses impacts to migration corridors identified in the Habitat Plan area, including the requirement for projects to adhere to conditions of approval.

Figure 8: Habitat Conservation Plan Aerial Image



MITIGATION:

- None required.

E. CULTURAL RESOURCES					
WOULD THE PROJECT:	IMPACT				Source
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5 of the CEQA Guidelines, or the County's Historic Preservation Ordinance (Division C17 of County Ordinance Code) – including relocation, alterations or demolition of historic resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 16, 19, 40, 41
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 19, 40, 41
c) Disturb any human remains including, those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 19, 40, 41

SETTING:

A letter from the California Historical Resources Information System (CHRIS) dated April 21, 2022, noted no previously recorded sites within or adjacent to the project site. However, the Office of Historic Preservation determined that the project site has the possibility of containing unrecorded archaeological sites and recommended that the property be evaluated by a qualified archaeologist. Archaeological Resource Management (ARM) conducted an archival search and a surface survey of the proposed project area. The report titled “Cultural Resource Evaluation of the Proposed Project on Vista De Lomas”, dated May 31, 2022, is in Attachment A. No existing structures are proposed to be demolished as the lot is vacant.

DISCUSSION:

a, b, & c) No Impact – The development site will not cause any alteration, relocation, or demolition to historic resources pursuant to the County’s Historic Ordinance (Division C17) as the parcel is vacant. In addition, no significant cultural materials, prehistoric or historic, were noted during surface reconnaissance. Based on a review of available literature on the prehistoric and historic resources of the area, as well as a field survey, ARM determined that the potential for the discovery of cultural resources on the subject site is minute. Therefore, the proposed project will have no impact on cultural resources. In the event, however, that human skeletal remains are encountered, the applicant is required by County Ordinance No. B6-18 to immediately notify the County Coroner. Upon determination by the County Coroner that the remains are Native American, the coroner shall contact the California Native American Heritage Commission, pursuant to subdivision I of section 7050.5 of the Health and Safety Code, and the County Coordinator of Indian affairs. No further disturbance of the site may be made except as authorized by the County Coordinator of Indian Affairs in accordance with the provisions of state law and this chapter. If artifacts are found on the site a qualified archaeologist shall be contacted along with the County Planning Office. No further disturbance of the artifacts may be made except as authorized by the County Planning Office.

MITIGATION:

- None required.

F. ENERGY					
	IMPACT				
WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
a) Result in potentially significant environmental impact do to wasteful, inefficient, or unnecessary construction of energy resources during project consumption or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 5
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5

SETTING:

The proposed project includes construction of an 8,000 sq.ft. agricultural research facility, two 5,000 sq. ft. agricultural barns, a 4,000 sq. ft. single-family dwelling with a 1,200 sq. ft ADU, two leach fields, one well, four water tanks (a 44,000-liter water tank for the research facility and three 5-liter water tanks for residential use), and two bioretention ponds.

California Code of Regulations, Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. Title 24 was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings.

DISCUSSION:

a & b) Less Than Significant Impact – The new research facility and single-family residence is a relatively low-impact development. The project would increase electricity and natural gas consumption at the site relative to existing conditions. The project would be required to meet the California Code of Regulations Title 24 standards for building energy efficiency. Construction energy consumption would be temporary and would not require additional capacity or increased peak or base period demands for electricity or other forms of energy. The project would not result in wasteful, inefficient, or unnecessary consumption of energy.

MITIGATION:

- None required.

G. GEOLOGY AND SOILS					
	IMPACT				
WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
a) Directly or indirectly cause 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6, 17c, 43
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6, 17c
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6, 17c, 17n, 18b
iv) Landslides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6, 17L, 118b
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6, 14, 23, 24
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2, 3, 17c, 23, 24, 42
d) Be located on expansive soil, as defined in the report, <i>Soils of Santa Clara County</i> , creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14,23, 24,
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3,6, 23,24,
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,3,4,40,41

SETTING:

The topography of the building site is flat with an approximate slope of 2 percent (2%) towards the southwest of the property. The property is located within County liquefaction and State seismic liquefaction zone. A Geotechnical Investigation Report (Report) for the proposed project was prepared by consultant Baez Geotechnical Group (BGG) dated June 11, 2021 (Attachment B), which was reviewed and accepted by the County Geologist. A field exploration consisting of site surface

reconnaissance and subsurface exploration was conducted on November 19, 2020, and May 24, 2021, and results are presented in the Report.

DISCUSSION:

a- i, ii, & iv) No Impact – The site is not within a designated State Earthquake Fault Zones or State Seismic Hazard Zone mapped for earthquake faults by the California Geological Survey. Therefore the likelihood of surface fault rupture at the site is nil.

a(iii), b, c, d, e, & f) Less than Significant Impact. The property is located in the County's Liquefaction Hazard Area and the State liquification zone. Based on the data collected during field investigation, geotechnical engineering analysis, the Report determined that the potential for dry, sandy soils to settle due to earthquake ground motions is very low since the soils above the water table were found to be dense to very dense. Potential impacts to the project site from liquefaction induced differential ground settlement and lateral spreading were also found to be low. This assessment has been reviewed and accepted by the County Geologist.

The predominant geotechnical conditions at the site that could impact development are the presence of disturbed soil in the upper two feet from past agricultural practices, moderately expansive soils, and gravels and cobbles in the soils. The Report determined that the site is suitable for proposed future construction and site improvements provided the recommendations contained in the Report are incorporated in the project design and construction. At the time of development, the building division would review the project and verify that the aforementioned recommendations are met, prior to issuance of building permits.

Percolation tests and soil profiles have been conducted, and this data was provided and reviewed by County Department of Environmental Health (DEH). DEH staff have determined that the soils are capable of supporting a septic system which meets County requirements.

Grading for development of the property would include are 1,252 cubic yards of cut and 400 cubic yards of fill for construction of the driveway, landscaping and bioretention ponds. County Ordinance Code requires a grading permit be issued given the total grading quantity, and the grading plan will be reviewed for conformance to the County's Grading Manual and BMPs, ensuring that no over-compaction or over-covering of soil will occur. The project is subject to Santa Clara County's Policies and Standards Pertaining to Grading and Erosion Control.

MITIGATION:

- None required.

H. GREENHOUSE GAS EMISSIONS					
WOULD THE PROJECT:	IMPACT				Source
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5,29, 30
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5,29, 30

SETTING:

The proposed project includes the construction and use of the property as an agricultural research facility and a single-family residence. Given the overwhelming scope of global climate change, it is not anticipated that a single development project would have an individually discernible effect on global climate change. It is more appropriate to conclude that the greenhouse gas (GHG) emissions generated by a proposed project would combine with emissions across the state, nation, and globe to cumulatively contribute to global climate change. The primary GHG emissions associated with a development project is carbon dioxide, which is directly generated by fuel combustion (vehicle trips, use of natural gas for buildings) and indirectly generated by use of electricity.

DISCUSSION:

a & b) No Impact – The project's GHG emissions would be below the Bay Area Air Quality Management District's threshold for 2020 emission reduction target of 1,100 metric tons per year. Even when this threshold is adjusted by forty percent for 2030, consistent with state reduction targets, the project would be significantly lower than the resulting threshold of 660 metric tons per year.

The single-family residence would consume electricity; however, the amount would be minimal, and therefore would not make a cumulatively considerable contribution to the effect of GHG emissions on the environment.

As such, the project would have no impact on GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

MITIGATION:

- None required.

I. HAZARDS & HAZARDOUS MATERIALS					
WOULD THE PROJECT:	IMPACT				Source
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 3, 4, 5
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2, 3, 5
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	46
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	47
e) For a project located within an airport land use plan referral area or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or in the vicinity of a private airstrip, would the project result in a safety hazard, or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 22a
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5, 48
g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4, 17g

SETTING:

Agricultural research to be conducted on the subject site by Apex Bait Technologies, Inc. (Apex Bait) includes development of insect baits, attractants, and traps to control insect pests in agriculture, with a specific focus on control of insect pests at organic farms (for both annual vegetables and perennial fruit crops). The research aims to prevent damage to the environment by reducing the need for harmful insecticides sprays that pollute and harm beneficial insects. No production of pesticides will be done onsite. Apex Bait has projected that a key focus area of research effort would be to examine what kinds

of plant, flowers, and food materials are attractive to insects, with the intention to develop attractant formulations for insect pests. The second most active research area would be formulation of bait through identification of food ingredients that are highly palatable to target pests. Apex Bait would develop and test proprietary technologies on the subject property and offer licensing rights to interested parties. The expected customers for the products would be agrochemical companies interested in licensing agricultural insect bait formulas to produce more effective insecticides. Other Apex Bait research activities and services would include efficacy studies of low toxicity insecticides such as boric acid and silica gel, insect repellents, and contract research services for agrochemical companies.

Small amounts of hazardous materials (commonly used chemicals) will be used for the agricultural research, such as hexane, acetone, methanol, and ethanol. These chemicals would be used for dissolving attractants. The amount used would be very small, less than 500 ml in a year. The other chemicals used to be used are ethanol or isopropyl alcohol that would be purchased from grocery stores and used for washing glassware. Regarding the formulation of bait, small amounts of insecticide may be incorporated into the bait formula to gauge effectiveness of the bait. The percentage of insecticides used in the bait formula would range from 0.001%-0.5% of a typical insecticide. The amount of bait used in an experiment would be a few grams. For the efficacy studies, to compare existing insecticides with formulated products, the insecticides would be purchased from grocery or hardware stores or delivered via regular shipping.

The proposed project is not located at or adjacent to any hazardous sites. The project site is not listed on the County of Santa Clara Hazardous Waste and Substance Sites List, it is not located in the County Airport Land Use plan area and is not located but is adjacent to the Wildland Urban Interface Fire Area (WUI).

DISCUSSION:

a, b, & c) Less Than Significant Impact – The proposed project is an agricultural research facility and a single-family residence. The research facility will include a laboratory and office space, both not open to the public. Although certain commonly used chemicals would be used in the research facility for dissolving attractants and cleaning glassware, and small quantities of insecticides would be used in efficacy studies, the said hazardous materials have been reviewed by the Environmental Health Department and determined to be less than significant.

The closest school, Ann Sobrato High School is approximately 1,800 feet (or .33 miles) southwest of the subject property, separated by Highway 101. Any chemicals or cleaning agents used by the research facility will be contained within the building therefore there would be no impacts to the school. The project does not include the release of hazardous materials.

d, e, f, & g) No Impact – The project site is not located on site designated as hazardous under Section 65962.5, as verified on EnviroStor, accessed on November 11, 2022. The property is outside of the County Airport Land Use plan area and would not create excessive noise for people residing or working in the project area due to proximity to an airport.

The property is located within an agricultural area and would not change the local roadway circulation pattern, access, or otherwise physically interfere with local emergency response plans. The access to the project site is from an existing public road and through a driveway. The project is 1,000 feet south of the Wildland Urban Interface area (WUI), not within the WUI area. The development plans have been reviewed and conditionally approved by the County Fire Marshal's Office. The proposed project will not impair or physically interfere with any emergency response or evacuation plans. As such, this

project will not expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires.

MITIGATION:

- None required.

J. HYDROLOGY AND WATER QUALITY					
Would the project:	IMPACT				SOURCE
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34, 32, 36, 39
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 4, 32, 36, 39
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 17n, 36
i) Result in substantial erosion or siltation on- or off-site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 17p, 36
II) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 3, 5, 36, 21a
III) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 3, 5
IV) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 17p, 18b, 18d
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 18b, 18d
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2, 3, 4, 17p

SETTING:

The proposed development is not located within a FEMA Flood Zone. The nearest water way to the project is a drainage channel (Cochran Channel, a tributary to Coyote Creek managed by Valley Water) that runs adjacent to the southern boundary of the property. Coyote Creek is located 1000 feet north of the property separated by developed residential properties. The proposed development consists of new impervious surface of approximately 1.4 acres (60,574 sq. ft.), to accommodate footprint of the proposed structures, driveways, fire truck turnaround and parking. Water for the research facility, domestic and emergency water, is provided by an onsite well located west of the property (approximately 100 feet from the proposed leach field) and four water tanks (a 44,000-liter water tank for the research facility and three 5-liter water tanks for residential use) are proposed as part of the project.

The property is located within the area of Coyote Valley, which is recognized under AB 948 as an area of statewide significance of natural resources for many climate and natural infrastructure benefits,

including flood attenuation from improved wetlands, increased water supply from groundwater recharge, and carbon sequestration from natural and working lands.

DISCUSSION:

a, b, & c) Less than Significant Impact – The project requires an on-site wastewater treatment system (OWST) which consists of two leach fields and septic tanks. The OWST and associated improvements have been reviewed and approved by the Department of Environmental Health ensuring that the proposed OWST is designed and sized to meet all applicable water quality standards, soil requirements, and groundwater standards. The proposed project does not degrade surface or ground water quality, substantially decrease groundwater supplies, or interfere substantially with groundwater recharge. As shown in the Grading and Drainage Plan, prepared by consultant Hanna Brunetti, in order to ensure that the new development does not increase stormwater runoff from the existing site, the new asphalt driveway and roof outlets are designed to flow and drain to the two bioretention ponds. At the time of grading/building permit submittal, Land Development Engineering (LDE) Division would review the Erosion and Sediment Control Plan that outlines seasonally appropriate erosion and sediment controls during the construction period. LDE would also review site development drainage plans to ensure that development would not increase the downstream peak flow for the 10-year and 100-year storm event or cause a hazard or public nuisance. This permit process would prevent the development from causing on- or off-site erosion, increasing the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, or otherwise violating water quality standards for stormwater runoff. The project is designed in conformance with the County of Santa Clara Stormwater Management Guidance Manual and the Santa Clara Valley Urban Runoff Pollution Prevention Program.

d & e) No Impact – The project site is not located in a flood hazard, tsunami, or seiche zone. The project will not have any impact to hazardous materials or conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

MITIGATION:

- None required.

K. LAND USE					
WOULD THE PROJECT:	IMPACT				SOURCE
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2, 4
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8a, 9, 18a

SETTING:

The property is located within Coyote Valley, in the County of Santa Clara. Surrounding parcels include rural residential single-family homes to the north across Vista de Lomas Avenue, a channelized creek (Cochran Channel, a tributary to Coyote Creek managed by Valley Water) and Highway 101 to the south, County-owned Coyote Creek Parkway to the west across Burnett Avenue, and agricultural row crops to the east. The development area has a General Plan Designation of Agriculture – Large Scale with an Exclusive Agriculture zoning district.

DISCUSSION:

a) No Impact – The proposed project includes the construction and use of the property as an agricultural research facility and a single-family residence. The proposed development is over 700 feet from the nearest residence to the east and other single-family homes are located across Vista de Lomas. The project site is bound by a channelized creek and Highway 101. Due to the proposed development’s distance from existing residential development, the project does not physically divide an established community. The County’s General Plan for Agriculture – Large Scale is to support and enhance rural character, preserve agriculture and prime agricultural soils, protect and promote wise management of natural resources, avoid risks associated with the natural hazards characteristic of those areas, and protect the quality of reservoir watersheds critical to the region’s water supply. Allowable land uses within an Exclusive Agriculture designation includes very low-density residential development and agricultural research, such as the proposed project.

b) Less than Significant Impact – The proposed project will not disrupt any existing agricultural use or operation in the site area. The property was historically used for cultivation but has been fallow since the 1970s. Agricultural research and residential uses are ancillary to and considered compatible with agricultural use. Although the development is within the Coyote Valley area, it is not located within an open space preserve or conservation easement (such as Williamson Act). The proposed project meets the required supplemental development standards of the “-cv” overlay district. Lot coverage for residential development is less than 7,500 sq. ft. and total development area with onsite agriculture is less than two acres. Due to the project’s conformance with the County General Plan and Zoning policies, the project will not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Environmental effects of the proposed project are evaluated in other sections.

MITIGATION:

- None required.

L. MINERAL RESOURCES					
WOULD THE PROJECT:	IMPACT				SOURCE
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 3, 6, 44
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 3, 6, 8a

SETTING:

The project site is located within a Mineral Resource Zone (MRZ-1), which is classified as an area that has no significant mineral deposits or where it is judged that little likelihood exists for their presence. The project consists of an agricultural facility and a single-family residence and does not include utilizing the subject property for mining. No known valuable mineral resources are located on the subject property, which are delineated on a local general plan, specific plan, or other land use plan.

DISCUSSION:

a & b) No Impact – The project is located on MRZ-1, which is an area that has no significant mineral deposits or where it is judged that little likelihood exists for their presence. The project would restrict access to potential mineral resources on the project site; however, given the relatively small size of the site and the fact that it is not considered a locally important mineral resource recovery site as designated by the Santa Clara County General Plan, a substantial loss of mineral resources would not occur. Therefore, the project would not result in the loss of availability of a known mineral resource that would be of regional or statewide value.

MITIGATION:

- None required.

M. NOISE					
WOULD THE PROJECT RESULT IN:	IMPACT				SOURCE
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8a, 13, 22a, 45
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13, 45
c) For a project located within the vicinity of a private airstrip or an airport land use plan referral area or, where such a plan has not been adopted, within two miles of a public airport, public use airport, or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 5, 22a

SETTING:

The project consists of the development of a new agricultural research facility, a single-family residence and associated site improvements. Local ambient noise comes from traffic on Highway 101 and natural sounds such as birds and insects. The project is not located in an airport land use plan referral area. An Environmental Noise Assessment (Noise Report) for the proposed project was prepared by consultant Saxelby Acoustics LLC dated July 26, 2021 (Attachment B).

The County General Plan Noise Element measures noise levels in Day-Night Average Sound Level (DNL), a 24-hour time weighted average, as recommended by the Environmental Protection Agency (EPA) for community noise planning. Noise Compatibility Standards for exterior noise specify three (3) classifications of compatibility between ambient noise levels at the site and various land uses: satisfactory, cautionary, and critical. According to the Noise Element Noise Compatibility Standards for Land Use in Santa Clara County, the satisfactory exterior noise compatibility standard for residential land uses is 55 dB (decibels).

County Noise Ordinance restricts exterior noise limits, for a cumulative period not to exceed more than 30 minutes in any hour, for one- and two- family residential land uses at 45 dBA between 10:00 p.m. to 7:00 a.m., and 55 dBA between 7:00 a.m. to 10:00 p.m. In addition, specifically prohibited acts include amplified sound, such as musical instruments, radios, and loudspeakers, from 10:00 p.m. to 7:00 a.m., or construction activity during weekdays and Saturdays from 7:00 p.m. to 7:00 a.m., or at any time on Sundays or holidays.

DISCUSSION:

- a) **Less than significant impact with Mitigation Incorporated** – Construction of the proposed structures and site improvement will temporarily elevate noise levels in the immediate project area. Construction noise could have an impact on the nearest residential uses. Implementation of noise abatement measures described below will reduce potential construction impacts to a less-than-significant level.

Traffic Noise Increases at Off-Site Receptors

The Federal Interagency Committee on Noise (FICON) guidelines specify criteria to determine the significance of traffic noise impacts. In cases where existing traffic noise levels are greater than 65 dB, at the outdoor activity areas of noise-sensitive uses, a +1.5 dB increase in roadway noise levels is considered significant. According to the Noise Report prepared by Saxelby Acoustics LLC, the maximum increase in traffic noise at the nearest sensitive receptor is predicted to be 0.2 dBA. Therefore, impacts resulting from increased traffic noise would be considered less-than-significant.

Operational Noise at Sensitive Receptors

The County of Santa Clara Noise Ordinance allows the noise level standard to be raised in increments of 5 dB to encompass sound level as the ambient noise environment. As shown in Figure 9 and Table 1 below, the average daytime (7:00 a.m. to 10:00 p.m.) noise level at the residential uses north of the project site is 53 dBA and the average nighttime (10:00 p.m. to 7:00 a.m.) noise level is 54 dBA L₅₀. Therefore, the allowable noise exposure standard shall be increased to 55 dBA for both daytime and nighttime. Without additional noise control measures, the proposed project would meet Santa Clara County daytime (7 a.m. to 10 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise standards. Therefore, impacts resulting from operational noise would be considered less-than-significant.

Figure 9 – Project Noise Contours

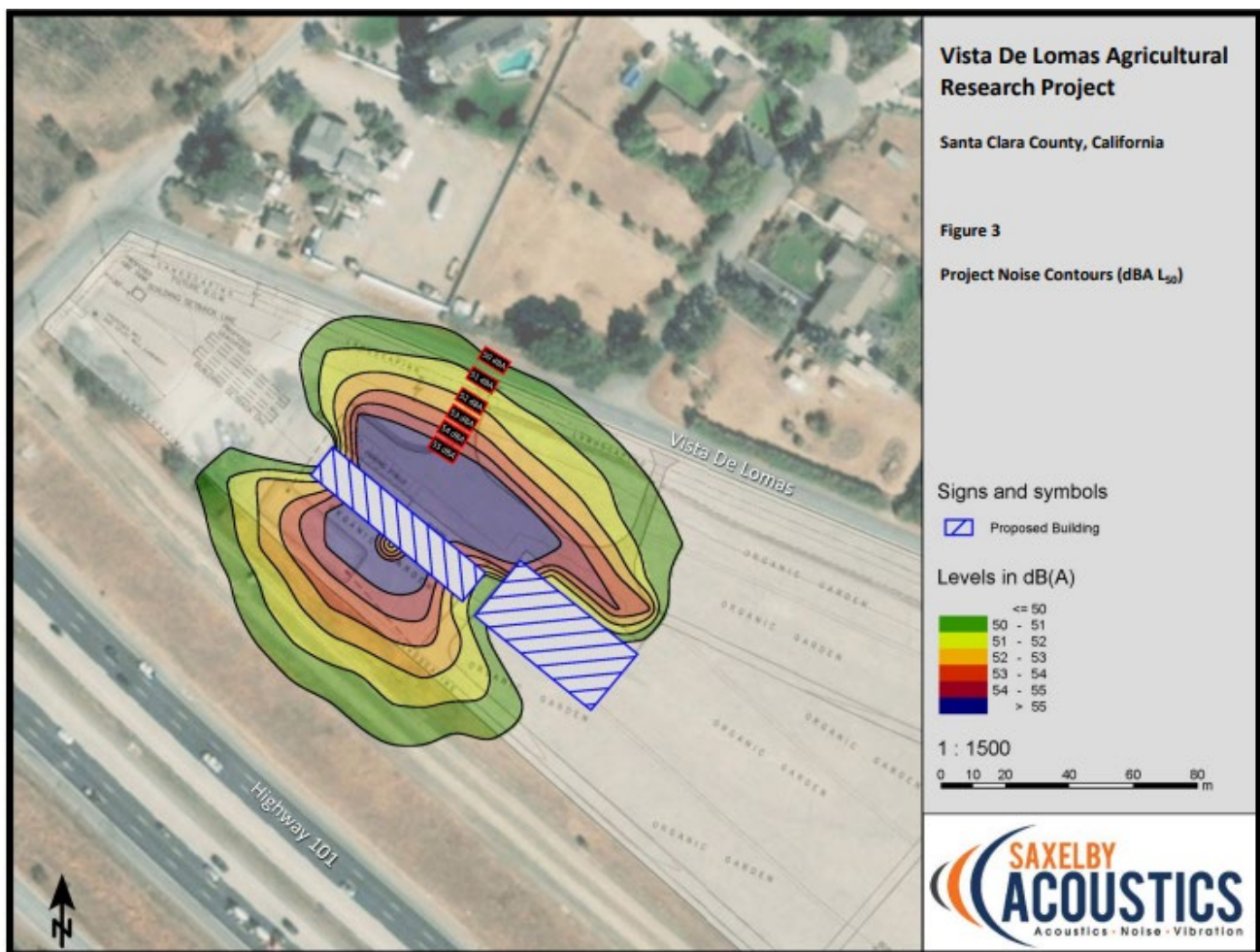


Table 1: Operational Noise Levels at Project Boundary

Descriptor	SPL at Project Boundary	Noise Standard	Meets Standard?
Daytime (Leq, dBA)	51	55	Yes
Nighttime (Leq, dBA)	48	55	Yes

Construction Noise

The noise levels created during the grading and construction of this project could create a temporary disturbance. As indicated in the Noise Report, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours.

The County of Santa Clara Ordinance Code section B11-154(6) establishes maximum noise limits for mobile construction equipment of 75 dBA between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday and 50 dBA between 7:00 p.m. and 7:00 a.m. Monday through Saturday, all day Sunday, and Holidays. The Ordinance Code also establishes maximum noise limits for stationary construction equipment of 60 dBA between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday and 50 dBA between 7:00 p.m. and 7:00 a.m. Monday through Saturday, all day Sunday, and Holidays. The nearest residential uses are located approximately 320 feet to the north, as measured from the center of the project site. At this distance, maximum construction noise levels would be in the range of 60-74 dBA at the nearest residential uses.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration and would occur during daytime hours. Although construction activities are temporary in nature and would occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered potentially significant. In order to avoid potential impacts, adherence to the mitigation measures below will reduce potential construction impacts to a less-than-significant level.

MITIGATION:

- **NOISE – MIT 1:** Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7 AM and 7 PM Monday through Saturday.
- **NOISE – MIT 2:** Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- **NOISE – MIT 3:** Motorized construction equipment shall not be left idling for more than 5 minutes, when not in use.

- **NOISE – MIT 4:** Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

b) Less than significant impact - Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural. The Noise Report data indicates that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. The proposed project includes parking lot construction which would occur at distances of approximately 100 feet from the adjacent single-family residential uses. Therefore, use of vibratory compactors within 26 feet of the adjacent residential buildings would not cause vibrations in excess of 0.2 in/sec. Therefore, this is a less-than-significant impact.

c) No impact – The property is not located within the vicinity of a private airstrip or an airport land use plan referral area or, within two miles of a public airport so there would not be an impact.

MITIGATION:

- None required.

N. POPULATION AND HOUSING					
	IMPACT				SOURCE
WOULD THE PROJECT:	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 4
b) Displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 3, 4

SETTING:

The proposed project includes the development of an agricultural facility and a single-family residence on a vacant lot. The property is bordered by the Coyote Creek Parkway to the west, a channelized creek and Highway 101 to the south, and residential uses to the north and east.

DISCUSSION:

a & b) No Impact – Development of a single-family residence and an agricultural research facility would not induce population growth or displace existing housing or people. The level of activity at the research facility with seven employees is considered nominal and will not increase demand for housing or negatively impact population in the area. Vista de Lomas Avenue and Burnett Avenue are County maintained roads that are already built. The construction of the project would not directly or indirectly require extensions of roads or other infrastructure. The property includes an on-site well and will require an on-site wastewater treatment system (OWST). There are no other adjacent or nearby parcels that would be able to access the existing on-site well (unless by consent by the owner) and create an increase in population growth. The northern and eastern portion of the parcel is surrounded by single-family residences and agricultural uses and the remaining adjacent parcel to the west is the Coyote Creek Parkway which is not available for development. As such, the project will not displace substantial numbers of existing housing or people, nor necessitate the construction of replacement housing elsewhere.

MITIGATION:

- None required.

O. PUBLIC SERVICES					
	IMPACT				SOURCE
WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) 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 following public services:					
i) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 5
ii) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 5
iii) School facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 5
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 5, 17h
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 5

SETTING:

The project is in the Local Response Area (LRA) with South Santa Clara County Fire Protection (County Fire) as first responders for fire protection. The property is not located within a high fire hazard local response area. Emergency calls would go to the Santa Clara County Sheriff's Office communications. The property has an on-site well with four water tanks for the research facility, fire protection water supply, domestic supply, and landscaping (a 44,000-liter water tank for the research facility and three 5-liter water tanks for residential use). Electric services will be provided by PG&E.

DISCUSSION:

a-i, a-ii, a-iii, a-iv, & a-v) No Impact – The proposed project includes an agricultural research facility and single-family residence. The residence and research facility (with seven employees) would have a minimal increase in the overall neighborhood population and would not significantly increase the need for additional fire or police protection to the area. Other public services, such as those provided by schools or parks, would not be significantly impacted.

MITIGATION:

- None required.

P. RECREATION					
WOULD THE PROJECT:	IMPACT				SOURCE
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 4, 5, 17h
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 4, 5

SETTING:

The site is located in the Exclusive Agriculture zoning district, adjacent to the Coyote Creek Parkway and has a developed shared trail route featured in the Countywide Trails. The Santa Clara County Countywide Trails Master Plan Update (Countywide Trails Plan), an element of the Parks and Recreation Section of the County General Plan. The Countywide Trails Plan indicates the following trail routes in the project site vicinity (Figure 10):

- Juan Bautista de Anza National Historic Trail (R1): an off-road trail for hiking, bicycling, and equestrian use, extending from the San Benito County line through Santa Clara Valley to the San Mateo County line.
- Bay Area Ridge Trail (R5): an off-road trail for hiking, bicycling, and equestrian use, that follows the ridges and mountains that circle the San Francisco Bay Area.
- Coyote Creek/Llagas Creek Sub-Regional Trail (S5): an off-road trail for hiking, bicycling, and equestrian use, following Coyote Creek and Llagas Creek from the Alameda County line to the San Benito County line.
- Willow Springs Bikeway Connector Trail (C24): an on-street bicycle route connecting Coyote Creek County Park with Chesbro Reservoir.

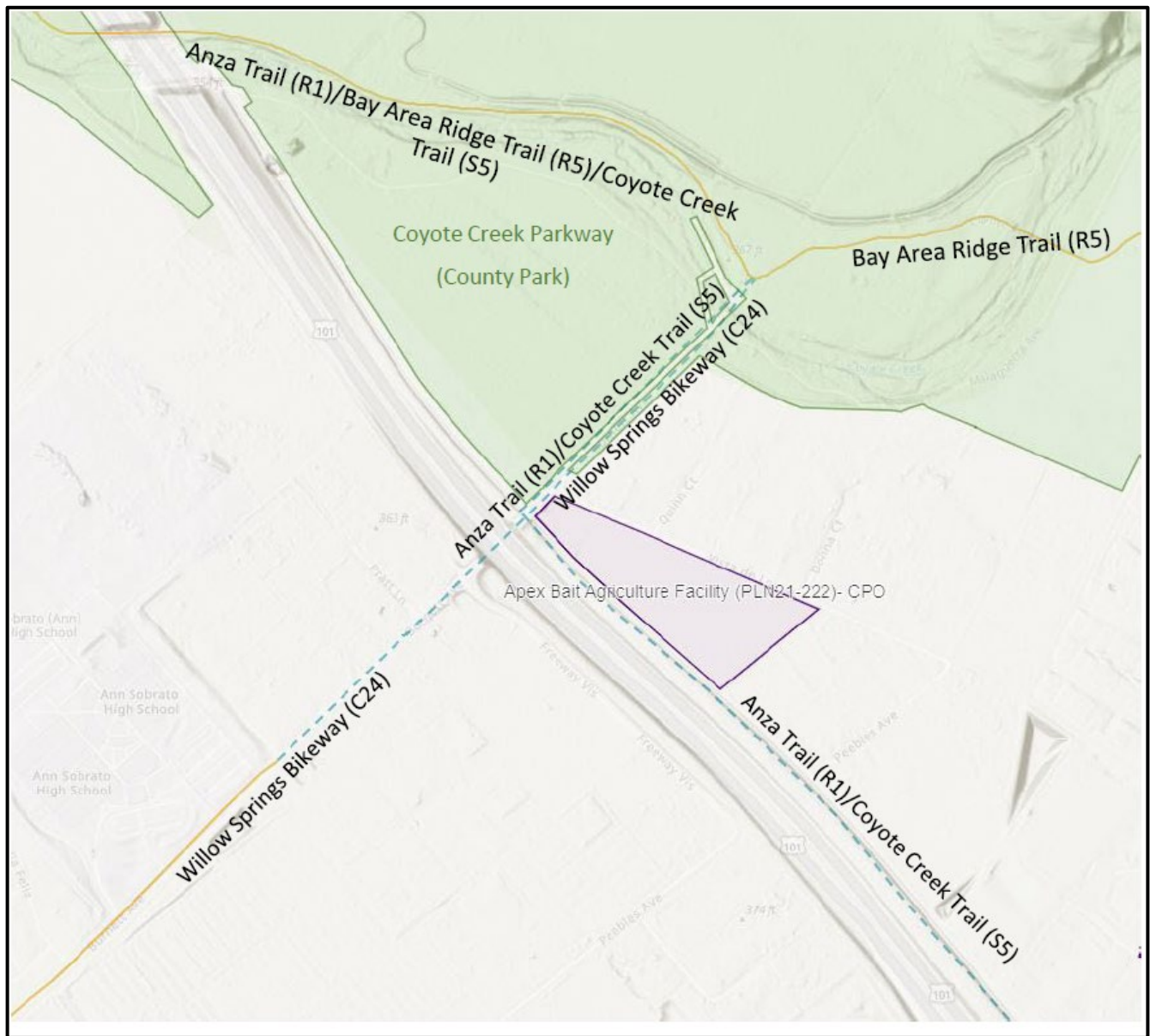
DISCUSSION:

a & b) No Impact – The proposed project is for a new agricultural research facility and single-family residence and will not result in an impact to existing parks or recreational facilities due to the minimal increase in population to the neighborhood. As such, the project would not cause a substantial physical deterioration of existing recreational facilities.

The project site is adjacent to the Coyote Creek Parkway and the aforementioned four routes in the Countywide Trails Plan. Landscaping that has been newly planted along the edges of the subject site, along Burnett Avenue and Vista de Lomas Avenue, would serve as a visual screen between the proposed development and existing trails. In addition, proposed driveway access to the property would be from Vista De Lomas Avenue and no access is proposed along Burnett Avenue (which front the Willow Springs Bikeway Connector Trail and Coyote Creek/Llagas Creek Sub-Regional Trail). The project is appropriately designed to support the trail network and minimize impacts to nearby trails and Coyote Creek Parkway.

Additionally, the proposed project does not include any recreational uses or structures, nor does the addition of a new-single family residence require an expansion to existing recreational facilities. As such, the project does not have an impact on item b listed above.

Figure 10 – Trail Routes in the Project Site Vicinity Shown on the Countywide Trails Plan



MITIGATION:

- None required.

Q. TRANSPORTATION						
WOULD THE PROJECT:		IMPACT				SOURCE
		<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 4, 5, 6, 7, 49, 52
b)	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? ₃	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6, 49, 50, 52
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 5, 6, 7, 52
d)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 5, 48, 52

SETTING:

The proposed project is for an agricultural research facility and single-family residence. Highway 101 is located along the southern edge of the subject property. The project would take driveway access from Vista De Lomas Avenue, at three locations. Vista De Lomas Avenue is a County-maintained road. Access would be utilizing a 25 ft. wide asphalt driveway for the research facility and a 12 ft. driveway for the residence.

Vehicle Miles Traveled (VMT)

Senate Bill 743 (SB 743), which became effective September 2013, initiated reforms to the CEQA Guidelines to establish new criteria for determining the significance of transportation impacts that “promote the reduction of GHG emissions, the development of multi-modal transportation networks, and a diversity of land uses.” Specifically, SB 743 directed the Governor’s Office of Planning and Research to update the CEQA Guidelines to replace automobile delay—as described solely by Level of Service or similar measures of vehicular capacity or traffic congestion—with VMT as the recommended metric for determining the significance of transportation impacts.

The Office of Planning and Research has updated the CEQA Guidelines for this purpose by adding a new section 15064.3 to the Guidelines, which became effective statewide July 1, 2020. CEQA Guidelines section 15064.3(a) defines VMT as the amount and distance of automobile travel attributable to a project. CEQA Guidelines section 15064.3, subdivision (b), establishes criteria for evaluating a project’s transportation impacts under CEQA. CEQA Guidelines § 15064.3(b)(1) states

³ The provisions of this section shall apply prospectively as described in section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide. The County of Santa Clara has elected not to be governed by the provisions of this section until they become effective statewide on July 1, 2020.

that for land use projects, VMT exceeding an applicable threshold of significance may indicate a significant impact. As noted above, a lead agency has the discretion to choose the most appropriate methodology to evaluate VMT, including whether to express the change in absolute terms, per capita, per household, or any other measure. For purposes of establishing VMT thresholds, the County has chosen to treat unincorporated areas inside USAs and unincorporated areas outside of the USAs (rural areas) as separate regions. The County has also established that the average VMT for rural unincorporated County as 32.2 VMT/capita for residential trips and 31.6 VMT/capita for employment-based trips. To meet the State's goal of a 15% reduction to the VMTs, a new project would have to be 27.4 VMT/capita (for residential trips) and 26.9 VMT/capita (for employment trips). If a project meets these numbers, or is below, then no mitigation is required. If the per Capita VMT is between the 15% reduction number and the regional average, the County will review the overall VMT being generated to determine if any mitigation would be required.

DISCUSSION:

a & b) Less Than Significant Impact The project is an agricultural research facility and a single-family residence in rural unincorporated Santa Clara County. The project would generate 21 average daily trips (ADT) for the research facility and 10 ADTs for the residence (total 31 ADT). The research facility ADT calculations were conducted by traffic consultant Jeff Waller Consulting (Attachment C). Per the County VMT methodology, a project that generates fewer than 24 average daily trips (ADT) may be assumed to cause a less-than-significant VMT impact. Total ADT for this project is above the screening threshold. However, simply exceeding the 24 ADT threshold does not necessarily mean that a project will have a significant impact.

Residential VMT

The VTA regional travel demand model computes an average VMT/capita of 32.2 for residential uses in rural areas in the unincorporated County. As per California Air Resources Board (CARB) 2017 Climate Change Scoping Plan, 15% reduction in light-duty VMT will be needed for the State to achieve its greenhouse gas reduction goals. Therefore as per capita VMT reduction threshold of 15% would be 27.4 VMT/capita for a new single-family residence in rural unincorporated County. Utilizing the VTA VMT tool [<https://vmttool.vta.org/>] the residential portion of the project would result in 29.26 VMT/capita. This is marginally above the 15% reduction threshold, however, the per capita VMT for the residential project does not exceed the existing per capita VMT for rural county, and the cumulative increase in VMT for the County resulting from this project is negligible (less than .1 % of the total unincorporated county Home-based VMT). Therefore, the impact is less than significant.

Employment VMT

Per Capita VMT for employment trips in rural County is 31.6 VMT/capita, as computed by VTA regional demand model in 2015. To meet the State's goal of a 15% reduction the VMTs for a new project would be 26.9 VMT/capita. For the agricultural research facility, utilizing the same VTA VMT tool, the agricultural research portion of the project would result in 19.85 VMT/capita. This is below the 15% reduction threshold, and therefore, the impact is less than significant.

a, c, & d) No Impact The project site is adjacent to four pedestrian and biking trails indicated on the Countywide Trails Plan (Figure 10). The project is appropriately designed to support the adjacent trail network and minimize impacts to these trails (analysis provided in the Recreation Section – P). Further, to meet the required half-street right of way width for Vista de Lomas Avenue and Burnett Avenue, the dedication of a 46-foot half street width for Vista de Lomas Avenue and Burnett Avenue is proposed.

The project was reviewed and conditionally approved by the County Fire Marshal's Office to ensure adequate fire safety access is proposed. Therefore, the project will not generate substantial new traffic, impair existing transportation facilities, or result in inadequate emergency access. Construction activities for the proposed structures would involve a small number of vehicle trips related to delivery of material and workers commuting to the site. Because the number of trips would be temporary and small in number, and road use in the vicinity is relatively light, the proposed project would not have impacts on traffic and circulation. Onsite parking for the proposed agricultural research and residential use is in conformance with the County parking requirements.

MITIGATION:

- None required.

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

SETTING:

Under an update to CEQA through state legislation known as AB 52, lead agencies must consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if requested by the tribe. Section 21084.2 of the Public Resources Code also specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. The subject property does not contain any known Tribal Cultural Resources that are eligible or listed in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

DISCUSSION:

a-i & a-ii) No Impact – The County has not received any letters from Native American tribes requesting tribal consultation per Public Resources Code, Section 21080.3.1(b) regarding the potential for a Native American tribal cultural resource located on or near the project site. Hence, there is no evidence to indicate the presence of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or of significance pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Therefore, the proposed project would not

cause a substantial adverse change in the significance of a tribal cultural resource, and no mitigation measures would be necessary.

MITIGATION:

- None required.

S. UTILITIES AND SERVICE SYSTEMS					
	IMPACT				SOURCE
WOULD THE PROJECT:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,6,70
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 6,24b
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3,6,70
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 5,6
e) Be in non-compliance with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,5, 6

SETTING:

The project site is located within PG&E's service area. The project site has no access to public water or wastewater utilities.

DISCUSSION:

a, b, c, d, & e) No Impact – The project proposes on-site wastewater treatment systems and a new on site well; and electricity would be provided by PG&E. The County Department of Environmental Health has reviewed soil and percolation tests submitted by the applicant and determined that a septic system is feasible in the areas identified for development. Stormwater would be retained on site. Therefore, no expansion of utilities would be required. Construction wastes associated with construction would be minor and would not exceed the capacity of existing solid waste disposal facilities. As a standard condition of approval for all projects within the County of Santa Clara, property owners are to provide proof of garbage service at the time of final occupancy sign-off. Garbage service in the unincorporated areas of Santa Clara County is mandatory

MITIGATION:

- None required.

T. WILDFIRE					
	IMPACT				SOURCE
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 3, 6, 44
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 2, 3, 6, 8a
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 2, 4, 5, 17h
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 3, 4, 5

SETTING:

The proposed project includes an agricultural research facility and single-family residence located on a parcel that is within an Exclusive Agriculture zoning district. The property is not located within a Wildland Urban Interface (WUI) fire protection area; however, it is in close proximity to the WUI. The area of the proposed development is flat, with a slope of approximately two percent, and the entire property is vacant.

DISCUSSION:

a, c, & d) No Impact – The project was reviewed and conditionally approved in accordance with the Santa Clara County Fire Marshal’s Office. The project includes adequate fire safety access and emergency evacuation, as such the project does not impair an adopted emergency response plan or emergency evacuation plan. The installation of a firetruck turnaround and water tanks to the proposed development site does not exacerbate fire risk that may result in temporary or ongoing impacts to the environment. Additionally, the proposed development is on a flat site and is therefore not at risk of downstream flooding or landslides, because of runoff, post-fire slope instability, or drainage changes. As such, the project imposes no impact to items a, c, and d listed above.

b) Less Than Significant Impact– The proposed project is not located within the WUI, but is in close proximity to the WUI area, and therefore, could be at risk of uncontrolled spread of a wildfire. However, due to the project’s the installation of appropriate fire safety requirements such as adequate fire, access for emergency services, wharf hydrant, adequate water tanks for fire suppression, as well as

fire sprinkler system complying with CFMO-SP6 throughout the structures, the proposed project will have a less than significant impact to exposing the project occupants to the spread of wildfire.

MITIGATION:

- None required.

U. MANDATORY FINDING OF SIGNIFICANCE					
	IMPACT				
WOULD THE PROJECT:	YES			NO	SOURCE
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 to 52
b) Have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of an individual 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 to 52
c) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1 to 52

DISCUSSION:

a) **Less Than Significant Impact with Mitigation Incorporated** – The proposed project would not have the potential to substantially reduce the habitat of any 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 of, 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.

Archival research revealed that no previously recorded sites are located within or adjacent to the project site. However, during ground disturbance there is the chance that resources may be discovered. As such the project will be required to have an on-site monitor to be present during construction activities to ensure that there would be a less than significant impact to Cultural Resources.

The noise levels created during the grading and construction of this project could create a temporary disturbance. This noise increase would be of short duration and would occur during daytime hours. Although construction activities are temporary in nature and would occur during normal daytime

working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered potentially significant. To avoid potential impacts, adherence to the mitigation measures, such as, allowance of construction activities between the daytime hours of 7 AM and 7 PM only, proper maintenance and equipping construction equipment with noise reduction padding, limits on idling time for motorized equipment, and furthest possible location of stationary equipment from noise sensitive land uses, will reduce potential construction impacts to a less-than-significant level.

b) **Less Than Significant Impact** – No past, current, or probable future projects were identified in the project vicinity that, when added to project-related impacts, would result in cumulatively considerable impacts. No cumulatively considerable impacts would occur with development of the proposed project. As discussed in the analyses provided in this Initial Study, project impacts were found to be less than significant. The incremental effects of the proposed project are not cumulatively significant when viewed in context of the past, current, and/or probable future projects. No cumulative impacts would occur.

c) **No Impact** – The proposed project includes the development of a 8,000 sq. ft. agricultural research facility, two 5,000 sq. ft. barns, and a 4,000 sq. ft. single family-dwelling with a detached 1,200 sq. ft. ADU. As described in the environmental topic sections of this Initial Study, the proposed project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

Initial Study Source List*

1. Environmental Information Form
https://www.sccgov.org/sites/dpd/DocsForms/Documents/EnvAss_Form.pdf
2. Field Inspection
3. Project Plans
4. Working knowledge of site and conditions
5. Experience with other Projects of This Size and Nature
6. County Expert Sources:
Geologist
<https://www.sccgov.org/sites/dpd/PlansOrdinances/GeoHazards/Pages/Geology.aspx>
Fire Marshal
<https://www.sccgov.org/sites/dpd/AboutUs/Fire/Pages/Fire.aspx>
Roads & Airports
<https://www.sccgov.org/sites/rda/Pages/rda.aspx>
Environmental Health
<https://www.sccgov.org/sites/deh/Pages/deh.aspx>
Land Development Engineering
<https://www.sccgov.org/sites/dpd/AboutUs/LDE/Pages/LDE.aspx>
Parks & Recreation
<https://www.sccgov.org/sites/parks/Pages/Welcome-to-Santa-Clara-County-Parks.aspx>
Zoning Administration,
Comprehensive Planning,
Architectural & Site Approval Committee
Secretary
7. Agency Sources:
Santa Clara Valley Water District
<https://www.valleywater.org/>
Santa Clara Valley Transportation Authority
<http://www.vta.org/>
Midpeninsula Regional Open Space District
<https://openspace.org/>
U.S. Fish & Wildlife Service
<https://www.fws.gov/>
CA Dept. of Fish & Game
<https://www.wildlife.ca.gov/>
Caltrans
<https://dot.ca.gov/>
U.S. Army Corps of Engineers
<https://www.usace.army.mil/>
Regional Water Quality Control Board
<https://www.waterboards.ca.gov/>
Public Works Depts. of individual cities
8. Planning Depts. of individual cities:
Santa Clara County (SCC) General Plan
<https://www.sccgov.org/sites/dpd/PlansOrdinances/GP/Pages/GP.aspx>
The South County Joint Area Plan
https://www.sccgov.org/sites/dpd/DocsForms/Documents/GP_Book_B.pdf
9. SCC Zoning Regulations (Ordinance)
<https://www.sccgov.org/sites/dpd/DocsForms/Documents/ZonOrd.pdf>
10. County Grading Ordinance
https://library.municode.com/ca/santa_clara_county/codes/code_of_ordinances?nodeId=TITCCODELAUS_DIVC12SULADE_CHIIIGRDR#TOPTITLE
11. SCC Guidelines for Architecture and Site Approval
https://www.sccgov.org/sites/dpd/DocsForms/Documents/ASA_Guidelines.pdf
12. SCC Development Guidelines for Design Review
https://www.sccgov.org/sites/dpd/DocsForms/Documents/DR_Guidelines.pdf
13. County Standards and Policies Manual (Vol. I - Land Development)
https://www.sccgov.org/sites/dpd/DocsForms/Documents/StandardsPoliciesManual_Vol1.pdf
14. Table 18-1-B of the Uniform Building Code (expansive soil regulations) [1994 version]
http://digitalassets.lib.berkeley.edu/ubc/UBC_1994_v2.pdf
15. SCC Land Use Database
16. Santa Clara County Heritage Resource (including Trees) Inventory [computer database]
17. GIS Database
 - a. SCC General Plan Land Use, and Zoning
 - b. USFWS Critical Habitat & Riparian Habitat
 - c. Geologic Hazards
 - d. Archaeological Resources
 - e. Water Resources
 - f. Viewshed and Scenic Roads
 - g. Fire Hazard
 - h. Parks, Public Open Space, and Trails
 - i. Heritage Resources - Trees
 - j. Topography, Contours, Average Slope
 - k. Soils
 - l. HCP Data (habitat models, land use coverage etc)
 - m. Air photos
 - n. USGS Topographic
 - o. Dept. of Fish & Game, Natural Diversity Data
 - p. FEMA Flood Zones
 - q. Williamson Act
 - r. Farmland monitoring program
 - s. Traffic Analysis Zones
 - t. Base Map Overlays & Textual Reports (GIS)
18. Paper Maps
 - a. SCC Zoning
 - b. Barclay's Santa Clara County Locaide Street Atlas
 - c. Color Air Photos (MPSI)
 - d. Santa Clara Valley Water District - Maps of Flood Control Facilities & Limits of 1% Flooding

Initial Study Source List*

- e. Soils Overlay Air Photos
- f. "Future Width Line" map set

19. 2019 CEQA Statute Guidelines [Current Edition]
http://resources.ca.gov/ceqa/docs/2019_CEQA_Statutes_and_Guidelines.pdf

Area Specific: San Martin, Stanford, and Other Areas

San Martin

20a. San Martin Integrated Design Guidelines
https://www.sccgov.org/sites/dpd/DocsForms/Documents/SanMartin_DesignGuidelines.pdf

20b. San Martin Water Quality Study

20c. Memorandum of Understanding (MOU) between Santa Clara County & Santa Clara Valley Water District

Stanford

21a. Stanford University General Use Permit (GUP), Community Plan (CP), Mitigation and Monitoring Reporting Program (MMRP) and Environmental Impact Report (EIR)
<https://www.sccgov.org/sites/dpd/Programs/Stanford/Pages/Docs.aspx>

21b. Stanford Protocol and Land Use Policy Agreement
<https://www.sccgov.org/sites/dpd/Programs/Stanford/Pages/Docs.aspx>

Other Areas

22a. South County Airport Comprehensive Land Use Plan and Palo Alto Airport comprehensive Land Use Plan [November 19, 2008]

22b. Los Gatos Hillsides Specific Area Plan
https://www.sccgov.org/sites/dpd/DocsForms/Documents/GP_Book_B.pdf

22c. County Lexington Basin Ordinance Relating to Sewage Disposal

22d. User Manual Guidelines & Standards for Land Uses Near Streams: A Manual of Tools, Standards and Procedures to Protect Streams and Streamside Resources in Santa Clara County by Valley Water Resources Protection Collaborative, August 2005 – Revised July 2006.
<https://www.valleywater.org/contractors/doing-business-with-the-district/permits-for-working-on-district-land-or-easement/guidelines-and-standards-for-land-use-near-streams>

22e. Guidelines and Standards for Land Use Near Streams: Streamside Review Area – Summary prepared by Santa Clara County Planning Office, September 2007.

22f. Monterey Highway Use Permit Area
https://www.sccgov.org/sites/dpd/DocsForms/Documents/SanMartin_GeneralPlanInformation.pdf

Soils

23. USDA, SCS, "Soils of Santa Clara County

24. USDA, SCS, "Soil Survey of Eastern Santa Clara County"

Agricultural Resources/Open Space

25. Right to Farm Ordinance

26. State Dept. of Conservation, "CA Agricultural Land Evaluation and Site Assessment Model"
<https://www.conservation.ca.gov/dlrp/Documents/TOC%20and%20Intro.pdf>

27. Open Space Preservation, Report of the Preservation 2020 Task Force, April 1987 [Chapter IV]

28. Williamson Act Ordinance and Guidelines (current version)
<https://www.sccgov.org/sites/dpd/Programs/WA/Pages/WA.aspx>

Air Quality

29. BAAQMD Clean Air Plan
<http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a-proposed-final-cap-vol-1-pdf.pdf?la=en>

30. BAAQMD CEQA Air Quality Guidelines (2017)-
http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

31. BAAQMD Annual Summary of Contaminant Excesses & BAAQMD, "Air Quality & Urban Development - Guidelines for Assessing Impacts of Projects & Plans" [current version]

**Biological Resources/
Water Quality & Hydrological Resources/
Utilities & Service Systems"**

32. Site-Specific Biological Report

33. Santa Clara County Tree Preservation Ordinance
https://www.sccgov.org/sites/dpd/DocsForms/Documents/Tree_Ordinance.pdf

Section C16, Santa Clara County Guide to Evaluating Oak Woodlands Impacts
https://www.sccgov.org/sites/dpd/DocsForms/Documents/Oakwoodlands_Guide.pdf

Initial Study Source List*

Santa Clara County Guidelines for Tree Protection and Preservation for Land Use Applications
https://www.sccgov.org/sites/dpd/DocsForms/Documents/Brochure_TreePreservation.pdf

- 33. Clean Water Act, Section 404
<https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404>
- 34. Santa Clara Valley Water District – GIS Data:
<https://www.valleywater.org/learning-center/watersheds-of-santa-clara-valley>
- 35. CA Regional Water Quality Control Board, Water Quality Control Plan, San Francisco Bay Region [1995]
- 36. Santa Clara Valley Water District, Private Well Water Testing Program [12-98]
- 37. SCC Nonpoint Source Pollution Control Program, Urban Runoff Management Plan [1997]
- 38. County Environmental Health / Septic Tank Sewage Disposal System - Bulletin "A"
- 39. County Environmental Health Department Tests and Reports

Archaeological Resources

- 40. Northwest Information Center, Sonoma State University
- 41. Site Specific Archaeological Reconnaissance Report

Geological Resources

- 42. **Site Specific Geologic Report**
- 43. State Department of Mines and Geology, Special Report #42
- 44. State Department of Mines and Geology, Special Report #146

Greenhouse Gas Emissions

- 45. **BAAQMD CEQA Air Quality Guidelines (2017)-**
http://www.baagmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

Hazards & Hazardous Materials

- 46. Section 21151.4 of California Public Resources Code
- 47. State Department of Toxic Substances, Hazardous Waste and Substances Sites List
- 48. County Office of Emergency Services Emergency Response Plan [1994 version]

Noise

- 49. **County Noise Ordinance**
https://www.sccgov.org/sites/cpd/programs/NP/DOcuments/NP_Noise_Ordinance.pdf

Transportation/Traffic

- 50. Official County Road Book
- 51. **Site-specific Traffic Impact Analysis Report**

Tribal Cultural Resources

- 52. Office of Planning and Research. 2017. Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA

Wildfire

- 53. Office of Planning and Research. 2020. Fire Hazard Planning Technical Advisory

***Items listed in bold are the most important sources and should be referred to during the first review of the project, when they are available. The planner should refer to the other sources for a particular environmental factor if the former indicates a potential environmental impact.**

Attachment A

**Cultural Resource Evaluation of the Proposed Project on Vista De Lomas
(dated May 31, 2022)**

CULTURAL RESOURCE EVALUATION OF
THE PROPOSED PROJECT ON VISTA DE LOMAS
(APN 728-38-001)
IN THE COUNTY OF SANTA CLARA

FOR

MR. DANGSHENG LIANG
APEX BAIT
309 LAURELWOOD ROAD UNIT 18-2
SANTA CLARA, CA 95054
C/O: MS. AMANDA MUSY-VERDEL
HANNA & BRUNETTI
NWIC# 21-1697

BY

Archaeological Resource Management
Dr. Robert Cartier, Principal Investigator
496 North Fifth Street
San Jose, CA 95112
Phone: (408) 295-1373
FAX: (408) 286-2040
Email: armcartier@netscape.net

MAY 31, 2022

ADMONITION

Certain information contained in this report is not intended for general public distribution. Portions of this report locate significant archaeological sites in the region of the project area, and indiscriminate distribution of these data could result in the desecration and destruction of invaluable cultural resources. In order to ensure the security of the critical data in this report, certain maps and passages may be deleted in copies not delivered directly into the hands of environmental personnel and qualified archaeologists.

THE PRINCIPAL INVESTIGATOR

ABSTRACT

This cultural resource evaluation was conducted for the proposed project at Vista de Lomas (APN 728-38-001) in the County of Santa Clara. Research included an archival search in the State records and a surface survey of the proposed project area. The archival research revealed that no previously recorded archaeological resources are located within the proposed project area. However, the Northwest Information Center of the California Historic Resources Information System (CHRIS) noted that the property has the potential to contain previously unrecorded archaeological resources and recommended additional study of the project area. No significant cultural materials, prehistoric or historic, were noted during surface reconnaissance. Therefore, it is concluded that the proposed project will have no impact on cultural resources. In the event, however, that prehistoric traces (human remains, artifacts, concentrations of shell/bone/rock/ash) are encountered, all construction within a fifty meter radius of the find should be stopped, the Planning Department notified, and an archaeologist retained to examine the find and make appropriate recommendations.

REQUEST FOR CULTURAL RESOURCE EVALUATION

The cultural resource evaluation was carried out to determine the presence or absence of any significant cultural resources. Cultural resource services were requested in May of 2022 in order to provide an evaluation that would investigate the possible presence of cultural materials within the proposed project area. This study meets the requirements of CEQA (California Environmental Quality Act).

QUALIFICATIONS OF ARCHAEOLOGICAL RESOURCE MANAGEMENT

Archaeological Resource Management has been specifically engaged in cultural resource management projects in central California since 1977. The firm is owned and supervised by Dr. Robert Cartier, the Principal Investigator. Dr. Cartier is certified by the Register of Professional Archaeologists (RPA) for conducting cultural resource investigations as well as other specialized work in archaeology and history. He also fulfills the standards set forth by the Secretary of the Interior for inclusion as a historian and architectural historian and is certified as such on the State of California referral lists.

LOCATION AND DESCRIPTION OF THE SUBJECT AREA

The subject property consists of approximately eleven acres of land on Vista de Lomas, APN 728-38-001 in the County of Santa Clara. On the USGS 7.5 minute quadrangle of Morgan Hill, CA, the Universal Transverse Mercator Grid (UTMG) center point of the proposed project area is 10S 6 18 940mE/41 13 689mN. The elevation is approximately 350 feet MSL. The nearest source of fresh water is Coyote Creek, which runs approximately 800 feet north of the proposed project area.

The proposed project consists of the construction of a new complex including organic gardens, research buildings, barns, and associated improvements. This will involve the necessary excavation, grading, trenching, and other earth moving activities.

METHODOLOGY

This investigation consisted of an archival search, a surface reconnaissance, and a written report of the findings with appropriate recommendations. The archival research is conducted by transferring the study location to a state archaeological office which maintains all records of archaeological investigations. This is done in order to learn if any archaeological sites or surveys have been recorded within a half mile of the subject area. Each archival search with the state is given a file number for verification. The purpose of the surface reconnaissance is to determine whether there are traces of prehistoric or historic materials within the study area. The survey is conducted by an archaeologist, who examines exposed soils for early ceramics, Native American cooking debris, and artifacts made of stone, bone, and shell. Older structures, distinctive architecture, and subsurface historic trash deposits of potentially significant antiquity are also taken into consideration. A report is written containing the archival information, record search number, survey findings, and appropriate recommendations. A copy of this evaluation is sent to the state archaeological office in compliance with state procedure.

A cultural resource is considered "significant" if it qualifies as eligible for listing in the California Register of Historic Resources (CRHR). Properties that are eligible for listing in the CRHR must meet one or more of the following criteria:

1. Association with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Association with the lives of persons important to local, California, or national history;
3. Embodying the distinctive characteristics of a type, period, region, or method of construction, or representing the work of a master, or possessing high artistic values; or
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Most Native American prehistoric sites are eligible due to their age, scientific potential, and/or burial remains.

The CRHR interprets the integrity of a cultural resource as its physical authenticity. An historic cultural resource must retain its historic character or appearance and thus be recognizable as an historic resource. Integrity is evaluated by examining the subject's location, design, setting, materials, workmanship, feeling, and association. If the subject has retained these qualities, it may be said to have integrity. It is possible that a cultural resource may not retain sufficient integrity to be listed in the National Register of Historic Places yet still be eligible for listing in the CRHR. If a cultural resource retains the potential to convey significant historical/scientific data, it may be said to retain sufficient integrity for potential listing in the CRHR.

ARCHIVAL BACKGROUND

Prior to this report, a study of the maps and records at the Northwest Information Center of the California Archaeological Site Inventory was conducted and given the file number NWIC #21-1697. This research into the records at the Northwest Information Center (NWIC), along with in-house material at Archaeological Resource Management, was done to determine if any known archaeological resources were reported in or around the subject area. Archival research revealed that no previously recorded archaeological sites are located within or immediately adjacent to the proposed project area. However, the

Northwest Information Center of the California Historic Resources Information System (CHRIS) noted that the property has the potential to contain previously unrecorded archaeological resources and recommended additional study of the project area.

SURFACE RECONNAISSANCE

A "general surface reconnaissance" was conducted by a qualified archaeologist on all visible open land surfaces in the project area. A "controlled intuitive reconnaissance" was performed in places where burrowing animals, exposed banks and inclines, and other activities had revealed subsurface stratigraphy and soil contents. The boundaries of the subject area were well established in the field by project maps, Vista de Lomas, and existing fence lines. Accessibility to the property was good; all areas were available for a walking survey. Soil visibility was also good; although small portions of the surface area were obscured by low weeds, soil exposures were present throughout. Vegetation within the proposed project area consisted of an ankle high weeds and some agricultural plantings in an oak woodland environment. Where native soils were exposed, a medium brown to tan silty loam was observed. Rock types noted included gravel and cobbles of metamorphic rock, as well as imported gravel. No significant cultural material, prehistoric or historic, were noted during surface reconnaissance.

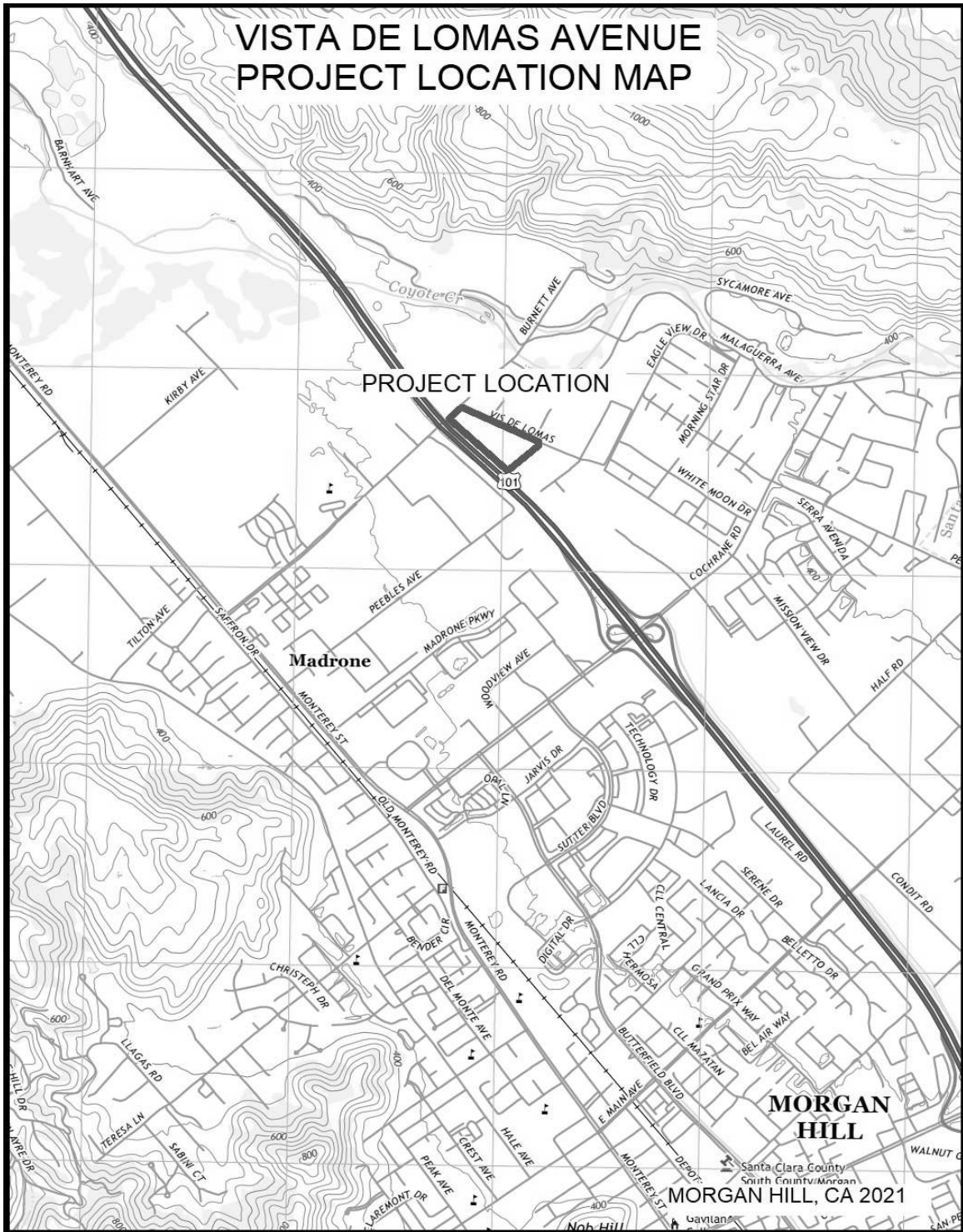
CONCLUSION AND RECOMMENDATIONS

The archival research revealed that no previously recorded archaeological resources are located within the proposed project area. However, the Northwest Information Center of the California Historic Resources Information System (CHRIS) noted that the property has the potential to contain previously unrecorded archaeological resources and recommended additional study of the project area. No significant cultural materials, prehistoric or historic, were noted during surface reconnaissance. Therefore, it is concluded that the proposed project will have no impact on cultural resources. In the event, however, that prehistoric traces (human remains, artifacts, concentrations of shell/bone/rock/ash) are encountered, all construction within a fifty meter radius of the find should be stopped, the Planning Department notified, and an archaeologist retained to examine the find and make appropriate recommendations.

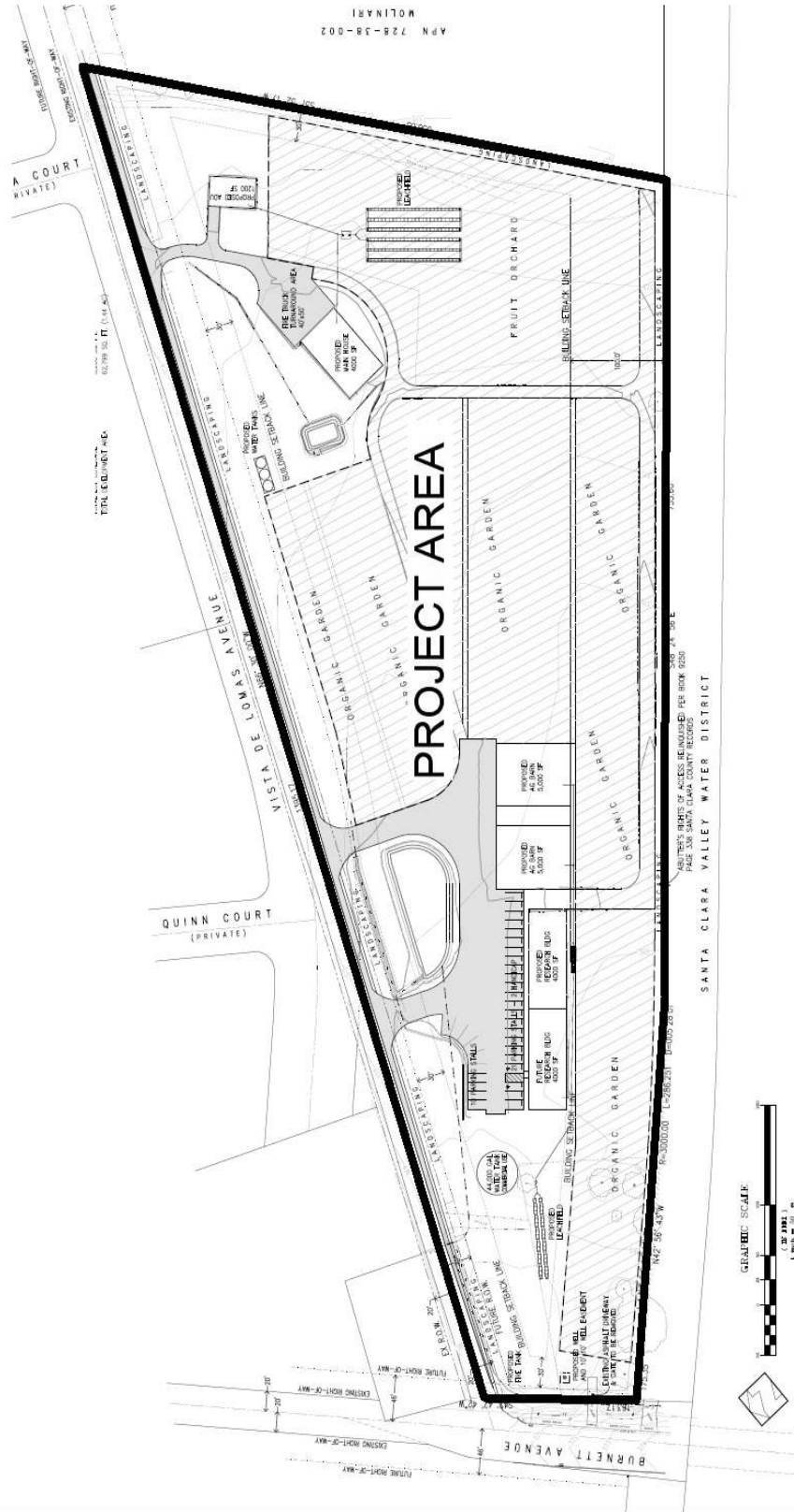
LITERATURE CITED AND CONSULTED

California Historical Resources Information System

2022 Archival search number NWIC #21-1697 on file at the Northwest Information Center, Department of Anthropology, Sonoma State University, Rohnert Park.



5



Attachment B

**Noise Report prepared by consultant Saxelby Acoustics LLC
(dated July 26, 2021)**



Environmental Noise Assessment

Vista De Lomas Agricultural Research Project

Santa Clara County, California

July 26, 2021

Project #210602

Prepared for:

Apex Bait Technologies, Inc.

309 Laurelwood Rd., Unit 18-2
Santa Clara, CA 95054

Prepared by:

Saxelby Acoustics LLC



Luke Saxelby, INCE Bd. Cert.

Principal Consultant

Board Certified, Institute of Noise Control Engineering (INCE)

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Appendices

Appendix A: Acoustical Terminology
Appendix B: Field Noise Measurement Data
Appendix C: Traffic Noise Calculations

INTRODUCTION

The Vista De Lomas Agricultural Research project provides an agricultural research facility which includes the construction of two 4,000 square foot research buildings, a barn for agricultural use for equipment, and a residential use located in Santa Clara County, California. The project site covers 10.65 acres and is located at the southeast corner of Burnett Avenue and Vista de Lomas Avenue in Morgan Hill, Santa Clara County. The project will provide a parking lot for ten employees, including one ADA stall. Surrounding land uses include residential and agricultural uses. Existing single-family residential uses are located to the north and east of the project site.

Figure 1 shows the project site plan. **Figure 2** shows an aerial photo of the project site.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

Fundamentals of Acoustics

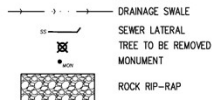
Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

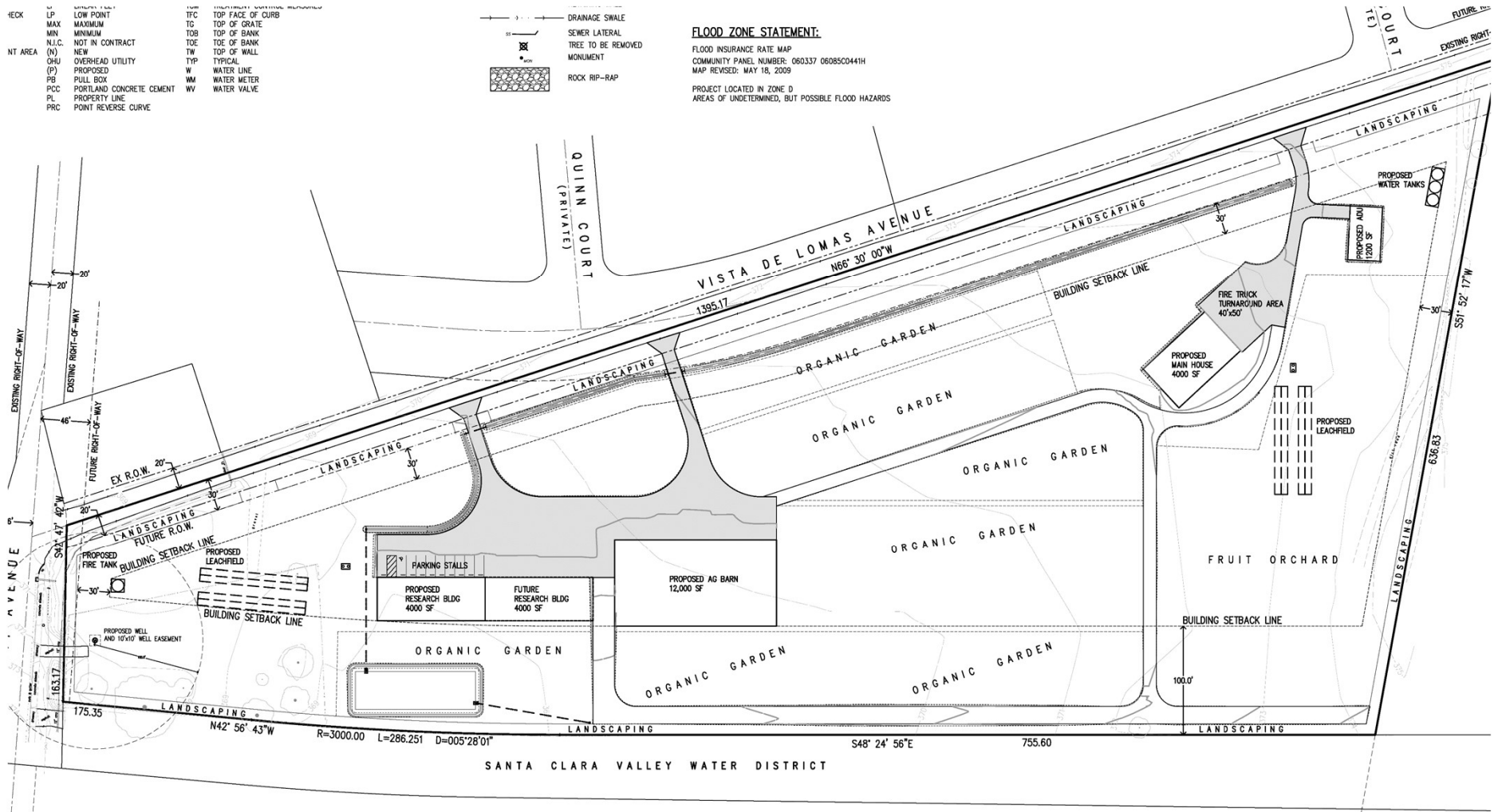
HECK	UP	LOW POINT	TFC	TOP FACE OF CURB
	MAX	MAXIMUM	TC	TOP OF GRADE
	MIN	MINIMUM	TOB	TOP OF BANK
NT AREA	(N)	NOT IN CONTRACT	TOE	TOE OF WALL
	OHU	OVERHEAD UTILITY	TYP	TYPICAL
	(P)	PROPOSED	W	WATER LINE
	PB	PULL BOX	WM	WATER METER
	PCC	PORTLAND CONCRETE CEMENT	WV	WATER VALVE
	PL	PROPERTY LINE		
	PRC	POINT REVERSE CURVE		



FLOOD ZONE STATEMENT:

FLOOD INSURANCE RATE MAP
COMMUNITY PANEL NUMBER: 060337 060850441H
MAP REVISED: MAY 18, 2009

PROJECT LOCATED IN ZONE D
AREAS OF UNDETERMINED, BUT POSSIBLE FLOOD HAZARDS



Vista De Lomas Agricultural Research Project

Santa Clara County, California

Figure 1
Project Site Plan





Vista De Lomas Agricultural Research Project

Santa Clara County, California

Figure 2

Noise Measurement Sites

Legend

-  Project Site
-  Noise Measurement - Long Term



25 m 75 m 125 m

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 07/06/2021



The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn} , and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AND FUTURE NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses located north and east of the project site.

EXISTING GENERAL AMBIENT NOISE LEVELS

The existing ambient noise environment in the project vicinity is primarily defined by traffic on Highway 101 and natural sounds such as birds and insects.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted a continuous (24-hr.) noise level measurement at two locations on the project site. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max} , represents the highest noise level measured. The average value, denoted L_{eq} , represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50} , represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a B&K Model 4230 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Site	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1	6/30/2021	62	57	53	77	56	54	71
LT-2	6/30/2021	63	56	54	68	57	55	68

Notes:

- All values shown in dBA
- Daytime hours: 7:00 a.m. to 10:00 p.m.
- Nighttime Hours: 10:00 p.m. to 7:00 a.m.
- Source: Saxelby Acoustics 2021

FUTURE TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

Off-Site Traffic Noise Impact Assessment Methodology

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors for existing and future, project and no-project conditions.

Existing and Existing Plus Project noise levels due to traffic are calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The model is based upon the Calven reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn} , it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Project trip generation volumes were provided by the project traffic engineer (Jeff Walker Consulting 2021), truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for Existing and Existing Plus Project conditions which would result from the project are provided in terms of L_{dn} .

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may not receive full shielding from noise barriers, or may be located at distances which vary from the assumed calculation distance.

Table 3 summarize the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. **Appendix C** provides the complete inputs and results of the FHWA traffic modeling.

TABLE 3: BASELINE TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors		
		Existing No Project	Existing + Project	Change
Vista de Lomas Ave	Burnett Ave to Peebles Ave	41.1	41.1	+0.0
Burnett Avenue	Vista de Lomas Ave to Freeway Vista	44.0	44.2	+0.2
Burnett Avenue	Monterey Rd to Freeway Vista	50.4	50.4	+0.0

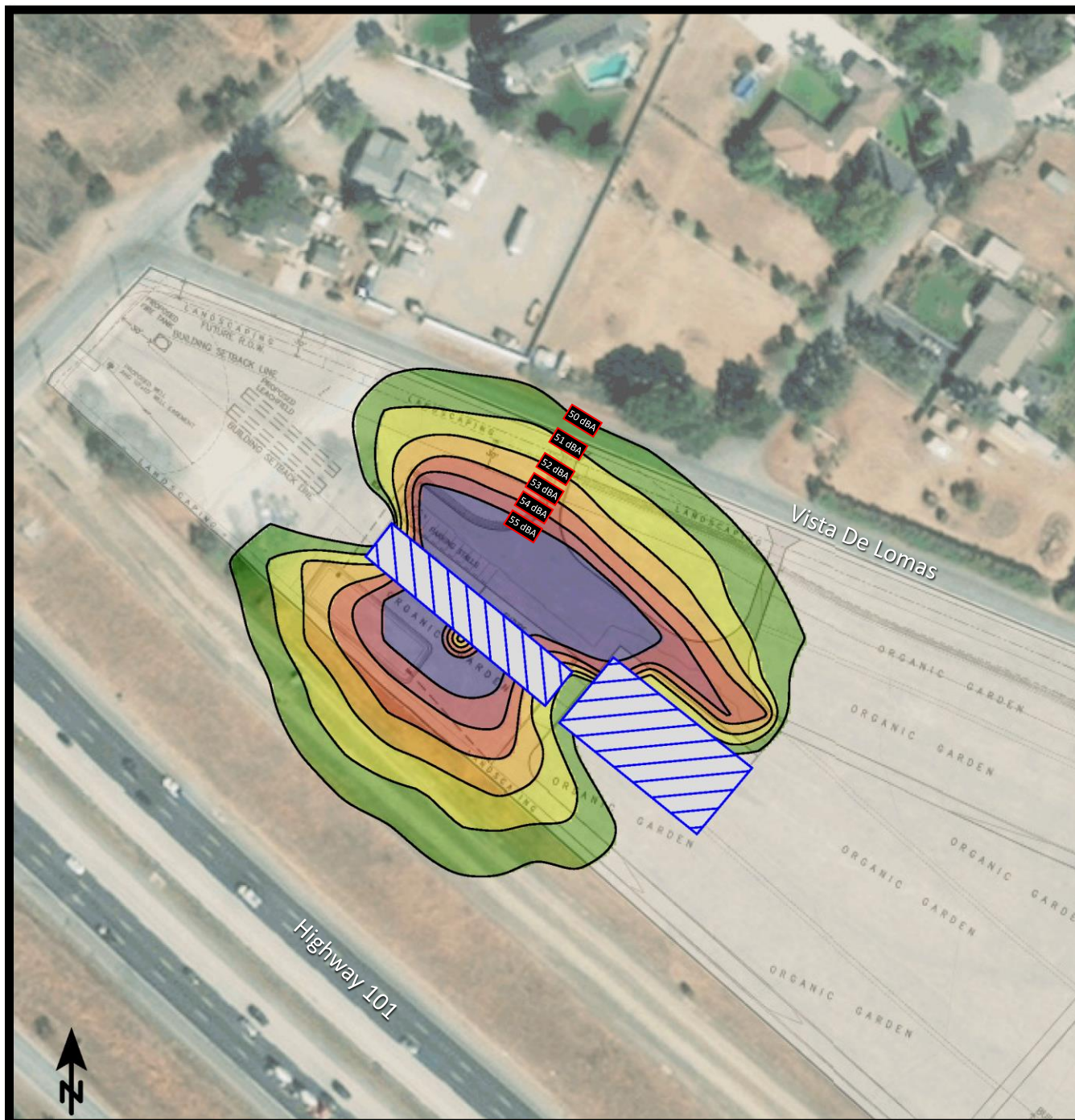
Based upon the data in **Table 3**, the proposed project is predicted to result in an increase in a maximum traffic noise level increase of 0.2 dBA.

EVALUATION OF PROJECT OPERATIONAL NOISE AT RESIDENTIAL RECEPTORS

The HVAC units servicing the research buildings and barn along with the parking lot circulation are considered to be the primary noise sources for the project. The following is a list of assumptions used for the noise modeling. The data used is based upon a combination of manufacturer's provided data and Saxelby Acoustics data from similar operations.

Rooftop HVAC Units:	Three ten-ton packaged units on each building operating continuously during the daytime, and 50% of the time at night. Manufacture's data.
Rooftop Condensing Unit:	One ten-ton air-cooled chiller packaged unit on each building operating continuously during the daytime, and 50% of the time at night. Manufacture's data.
Parking Lot:	The project is predicted to generate a new project trip generation of 5 peak hour trips. Parking lot movement for cars is predicted to generate a sound exposure level (SEL) of 71 dBA SEL at 50 feet. Additionally, is expected that a truck supply delivery or garbage collection could also occur during the peak hour@ 85 dBA SEL at 50 feet. Nighttime traffic outside of the AM or PM peak hour is estimated to be 100 trips during nighttime hours (10:00 p.m. to 7:00 a.m.). Saxelby Acoustics data.

Saxelby Acoustics used the SoundPLAN noise prediction model. Inputs to the model included rooftop equipment, parking lot circulation, existing and proposed buildings, terrain type, and locations of sensitive receptors. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors). ISO 9613 is the most commonly used method for calculating exterior noise propagation.



Vista De Lomas Agricultural Research Project

Santa Clara County, California








Figure 3

Project Noise Contours (dBA L_{50})

Signs and symbols

 Proposed Building

Levels in dB(A)

	<= 50
	50 - 51
	51 - 52
	52 - 53
	53 - 54
	54 - 55
	> 55

1 : 1500

0 10 20 40 60 80 m

CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 44**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 4: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. **Table 5** shows the typical vibration levels produced by construction equipment.

TABLE 5: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines*. Federal Transit Administration. May 2006.

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

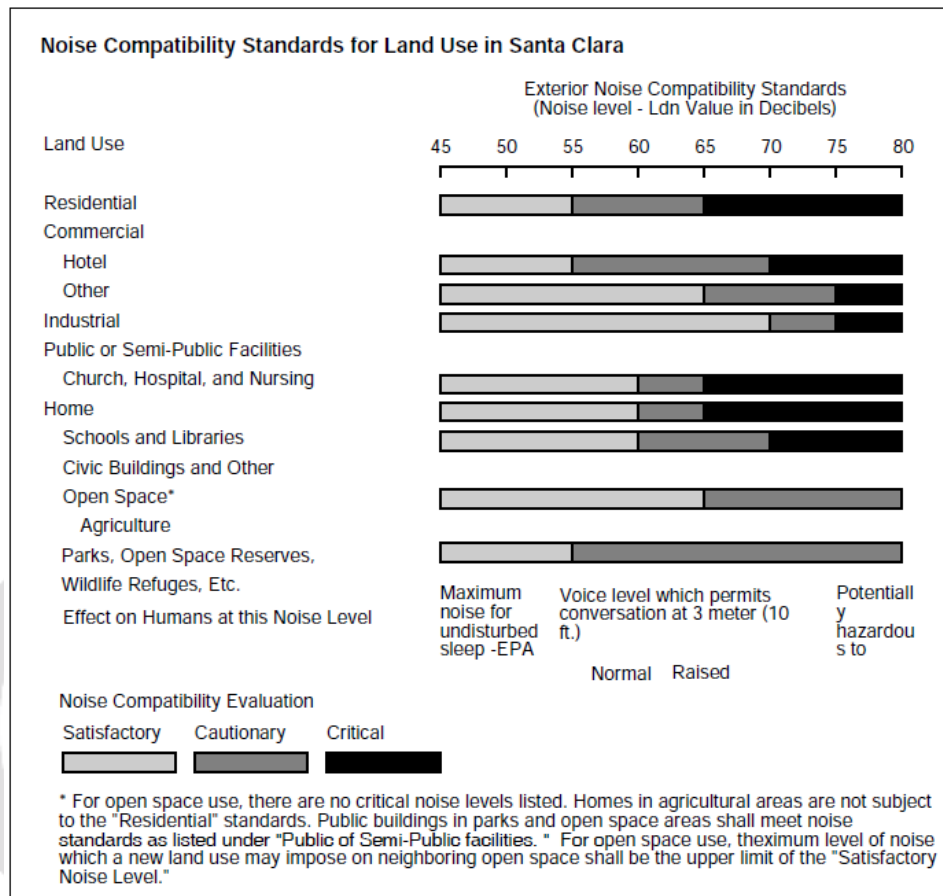
There are no state regulations related to noise that apply to the Proposed Project.

LOCAL

Santa Clara County General Plan

The Noise Element of the General Plan identifies noise and land use compatibility standards for various land uses. The land use compatibility table is reproduced in **Figure 4** below:

FIGURE 4: SANTA CLARA LAND USE COMPATIBILITY TABLE



The County's General Plan Noise Element also provides recommendations for maximum interior noise levels for various uses. These recommendations are reproduced in **Table 6** below:

TABLE 6: RECOMMENDED MAXIMUM INTERIOR NOISE LEVELS FOR INTERMITTENT NOISE

Descriptor		Use	dBA
Residential			45
Commercial	Hotel-Motel		45
	Executive Offices, Conference Rooms		55
	Staff Offices		60
	Restaurant, Markets, Retail Stores		60
	Sales, Secretarial		65
	Sports Arena, Bowling Alley, etc.		75
	Offices (same as above)		55-60
Industrial	Laboratory		60
	Machine shop, Assembly, and others		75
	Mineral Extraction		75
	Concert Hall & Legitimate Theater		30
Public Facility	Auditorium, Movie Theater & Church		45
	Hospital, Nursing Home & Firehouse		45
	School Classroom		50
	Library		50
	Other Public Buildings		55

Source: Santa Clara County General Plan

County of Santa Clara Municipal Code

The County of Santa Clara Zoning Ordinance, Section B11-152 (Table B11-152) establishes property line noise level standards for various land uses:

Sec. B11-152. - Exterior noise limits.

a) Maximum permissible sound levels by receiving land use.

- 1) The noise standards for the various receiving land use categories as presented in Table B11-152 will apply to all property within any zoning district.
- 2) No person may operate or cause to be operated any source of sound at any location within the unincorporated territory of the County or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by the person, which causes the noise level when measured on any other property either incorporated or unincorporated, to exceed:
 - a. The noise standard for that land use as specified in Table B11-152 for a cumulative period of more than 30 minutes in any hour; or
 - b. The noise standard plus five dB for a cumulative period of more than 15 minutes in any hour; or
 - c. The noise standard plus ten dB for a cumulative period of more than five minutes in any hour; or

- d. The noise standard plus 15 dB for a cumulative period of more than one minute in any hour; or
- e. The noise standard plus 20 dB or the maximum measured ambient, for any period of time.
- 3) If the measured ambient level exceeds that permissible within any of the first four noise limit categories above, the allowable noise exposure standard will be increased in five dB increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under the category will be increased to reflect the maximum ambient noise level.
- 4) If the noise measurement occurs on a property adjoining a different land use category, the noise level limit applicable to the lower land use category, plus five dB, will apply.
- 5) If for any reason the alleged offending noise source cannot be shutdown, the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the noise from the source is at least ten dB below the ambient in order that only the ambient level be measured. If the difference between the ambient and the noise source is five to ten dB, then the level of the ambient itself can be reasonably determined by subtracting a one-decibel correction to account for the contribution of the source.
- b) Correction for character of sound. In the event the alleged offensive noise contains a steady, audible tone such as a whine, screech or hum, or contains music or speech conveying informational content, the standard limits set forth in Table B11-152 will be reduced by five dB.

TABLE 7: STATIONARY NOISE SOURCE NOISE STANDARDS

Receiving Land Use Category	Time Period	Noise Level (dBA)
One and Two-Family Residential	(10:00 p.m. to 7:00 a.m.)	45
	(7:00 a.m. to 10:00 p.m.)	55
Multiple-Family Dwelling	(10:00 p.m. to 7:00 a.m.)	50
Residential Public Space	(7:00 a.m. to 10:00 p.m.)	55
Commercial	(10:00 p.m. to 7:00 a.m.)	60
	(7:00 a.m. to 10:00 p.m.)	65
Light Industrial	Any Time	70
Heavy Industrial	Any Time	75

Source: Santa Clara County Municipal Code

- a) Maximum permissible dwelling interior sound levels:
 - 1) The interior noise standards for multifamily residential dwellings as presented in Table B11-153 will apply, unless otherwise specifically indicated, within all dwellings.
 - 2) No person will operate or cause to be operated within a dwelling unit any source of sound or allow creation of any noise which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed:

- a. The noise standard as specified in Table B11-153 for a cumulative period of more than five minutes in any hour; or
 - b. The noise standard plus five dB for a cumulative period of more than one minute in any hour; or
 - c. The noise standard plus ten dB or the maximum measured ambient, for any period of time.
- 3) If the measured ambient level exceeds that permissible within any of the noise limit categories above, the allowable noise exposure standard will be increased in five-dB increments in each category as appropriate to reflect the ambient noise level.
- b) Correction for character of sound. In the event the alleged offensive noise contains a steady, audible tone such as a whine, screech or hum, or contains music or speech conveying information content, the standard limits set forth in Table B11-153 will be reduced by five dB.

TABLE 8: MAXIMUM PERMISSIBLE DWELLING INTERIOR SOUND LEVELS

Receiving Land Use Category	Time Period	Noise Level (dBA)
Multifamily dwelling	(10:00 p.m. to 7:00 a.m.)	35
	(7:00 a.m. to 10:00 p.m.)	45

Source: Santa Clara County Municipal Code

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G (Items XI [a-f]).

Would the project:

- a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Generate excessive groundborne vibration or groundborne noise levels?
- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Noise Level Increase Criteria for Long-Term Project-Related Noise Level Increases

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it “increases substantially the ambient noise levels for adjoining areas.” 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 project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions. **Table 6** is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn} .

TABLE 9: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

Ambient Noise Level Without Project, L_{dn}	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on **Table 6**, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB L_{dn} , or 3 dB or more where existing noise levels are between 60 to 65 dB L_{dn} . Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB L_{dn} . The rationale for the **Table 6** criteria is that as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 1: **WOULD THE PROJECT RESULT IN EXPOSURE OF PERSONS TO OR GENERATION OF NOISE LEVELS IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES?**

Traffic Noise Increases at Off-Site Receptors

The FICON guidelines specify criteria to determine the significance of traffic noise impacts. Where existing traffic noise levels are greater than 65 dB L_{dn} , at the outdoor activity areas of noise-sensitive uses, a +1.5 dB L_{dn} increase in roadway noise levels will be considered significant. According to Error! Reference source not found., the maximum increase in traffic noise at the nearest sensitive receptor is predicted to be 0.2 dBA.

Therefore, impacts resulting from increased traffic noise would be considered ***less-than-significant***.

Operational Noise at Sensitive Receptors

The County of Santa Clara Noise Ordinance allows the noise level standard to be raised in increments of 5 dB to encompass sound level as the ambient noise environment. As shown in Table 2, the average daytime (7:00 a.m. to 10:00 p.m.) noise level at the residential uses north of the project site is 53 dBA L_{50} and the average nighttime (10:00 p.m. to 7:00 a.m.) noise level is 54 dBA L_{50} . Therefore, the allowable noise exposure standard shall be increased to 55 dBA L_{50} for both daytime and nighttime.

Table 100 below compares the highest project-generated noise level at the property boundary with the Santa Clara County standards for stationary noise sources.

TABLE 10: OPERATIONAL NOISE LEVELS AT PROJECT BOUNDARY

Descriptor	SPL at Project Boundary	Noise Standard	Meets Standard?
Daytime (Leq, dBA)	51	55	Yes
Nighttime (Leq, dBA)	48	55	Yes

Without additional noise control measures, the proposed project would meet Santa Clara County daytime (7 a.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) noise standards as shown in **Table 10**. Therefore, impacts resulting from operational noise would be considered ***less-than-significant***.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours.

The County of Santa Clara Municipal Code section B11-154(6) establishes maximum noise limits for mobile construction equipment of 75 dBA between the hours of 7:00 a.m. and 7:00 p.m. Monday through

Saturday and 50 dBA between 7:00 p.m. and 7:00 a.m. Monday through Saturday, all day Sunday, and Holidays. The Municipal Code also establishes maximum noise limits for stationary construction equipment of 60 dBA between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday and 50 dBA between 7:00 p.m. and 7:00 a.m. Monday through Saturday, all day Sunday, and Holidays. The nearest residential uses are located approximately 320 feet to the north, as measured from the center of the project site. At this distance, maximum construction noise levels would be in the range of 60-74 dBA L_{max} at the nearest residential uses.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration and would occur during daytime hours.

Although construction activities are temporary in nature and would occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered ***potentially significant***.

Mitigation Measure

1(a) The City shall establish the following as conditions of approval for any permit that results in the use of construction equipment:

- Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7 AM and 7 PM Monday through Saturday.
- Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- When not in use, motorized construction equipment shall not be left idling for more than 5 minutes.
- Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.

Timing/Implementation: Implemented prior to approval of grading and/or building permits

Enforcement/Monitoring: County of Santa Clara Planning and Development Department

Implementation of mitigation measure 1(a) would help to reduce construction-generated noise levels. With mitigation, this impact would be considered ***less-than-significant***.

IMPACT 2: WOULD THE PROJECT GENERATE EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORNE NOISE LEVELS?

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The **Table 5** data indicate that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. The proposed project includes parking lot construction which would occur at distances of approximately 100 feet from the adjacent single-family residential uses. Therefore, use of vibratory compactors within 26 feet of the adjacent residential buildings would not cause vibrations in excess of 0.2 in/sec. Therefore, this is a **less-than-significant** impact.

IMPACT 3: FOR A PROJECT LOCATED WITHIN THE VICINITY OF A PRIVATE AIRSTRIP OR AN AIRPORT LAND USE PLAN OR, WHERE SUCH A PLAN HAS NOT BEEN ADOPTED, WITHIN TWO MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT, WOULD THE PROJECT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS?

There are no airports in the project vicinity. Therefore, this impact is not applicable to the proposed project.

REFERENCES

- American National Standards Institute. (1998). *[Standard] ANSI S1.43-1997 (R2007): Specifications for integrating-averaging sound level meters*. New York: Acoustical Society of America.
- American Standard Testing Methods, *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels, American Standard Testing Methods (ASTM) E1014-08*, 2008.
- ASTM E1014-12. *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels*. ASTM International. West Conshohocken, PA. 2012.
- ASTM E1780-12. *Standard Guide for Measuring Outdoor Sound Received from a Nearby Fixed Source*. ASTM International. West Conshohocken, PA. 2012.
- Barry, T M. (1978). *FHWA highway traffic noise prediction model* (FHWA-RD-77-108). Washington, DC: U.S. Department of transportation, Federal highway administration, Office of research, Office of environmental policy.
- California Department of Transportation (Caltrans), *Technical Noise Supplement, Traffic Noise Analysis Protocol*, September 2013.
- Egan, M. D. (1988). *Architectural acoustics*. United States of America: McGraw-Hill Book Company.
- Federal Highway Administration. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054 DOT-VNTSC-FHWA-05-01. January 2006.
- Hanson, Carl E. (Carl Elmer). (2006). *Transit noise and vibration impact assessment*. Washington, DC: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment.
- International Electrotechnical Commission. Technical committee 29: Electroacoustics. International Organization of Legal Metrology. (2013). *Electroacoustics: Sound level meters*.
- International Organization for Standardization. (1996). *Acoustic - ISO 9613-2: Attenuation of sound during propagation outdoors. Part 2: General methods of calculation*. Geneva: I.S.O.
- Miller, L. N., Bolt, Beranek, & and Newman, Inc. (1981). *Noise control for buildings and manufacturing plants*. Cambridge, MA: Bolt, Beranek and Newman, Inc.
- SoundPLAN. SoundPLAN GmbH. Backnang, Germany. <http://www.soundplan.eu/english/>

Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B: Continuous and Short-Term Ambient Noise Measurement Results



Appendix B1: Continuous Noise Monitoring Results

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Wednesday, June 30, 2021	0:00	53	62	52	48
Wednesday, June 30, 2021	1:00	52	67	50	45
Wednesday, June 30, 2021	2:00	53	71	51	47
Wednesday, June 30, 2021	3:00	54	69	53	48
Wednesday, June 30, 2021	4:00	58	73	57	53
Wednesday, June 30, 2021	5:00	59	76	58	56
Wednesday, June 30, 2021	6:00	60	80	58	56
Wednesday, June 30, 2021	7:00	59	76	57	55
Wednesday, June 30, 2021	8:00	58	82	54	52
Wednesday, June 30, 2021	9:00	57	77	54	52
Wednesday, June 30, 2021	10:00	58	77	53	51
Wednesday, June 30, 2021	11:00	56	75	53	51
Wednesday, June 30, 2021	12:00	57	75	53	51
Wednesday, June 30, 2021	13:00	55	74	52	50
Wednesday, June 30, 2021	14:00	57	76	51	48
Wednesday, June 30, 2021	15:00	55	80	49	46
Wednesday, June 30, 2021	16:00	56	77	50	47
Wednesday, June 30, 2021	17:00	58	80	52	49
Wednesday, June 30, 2021	18:00	57	78	53	51
Wednesday, June 30, 2021	19:00	57	74	55	52
Wednesday, June 30, 2021	20:00	58	74	56	54
Wednesday, June 30, 2021	21:00	56	75	55	53
Wednesday, June 30, 2021	22:00	56	72	54	51
Wednesday, June 30, 2021	23:00	54	72	52	49

Statistics	Leq	Lmax	L50	L90
Day Average	57	77	53	51
Night Average	56	71	54	50
Day Low	55	74	49	46
Day High	59	82	57	55
Night Low	52	62	50	45
Night High	60	80	58	56
Ldn	62	Day %		68
CNEL	63	Night %		32

Site: LT-1

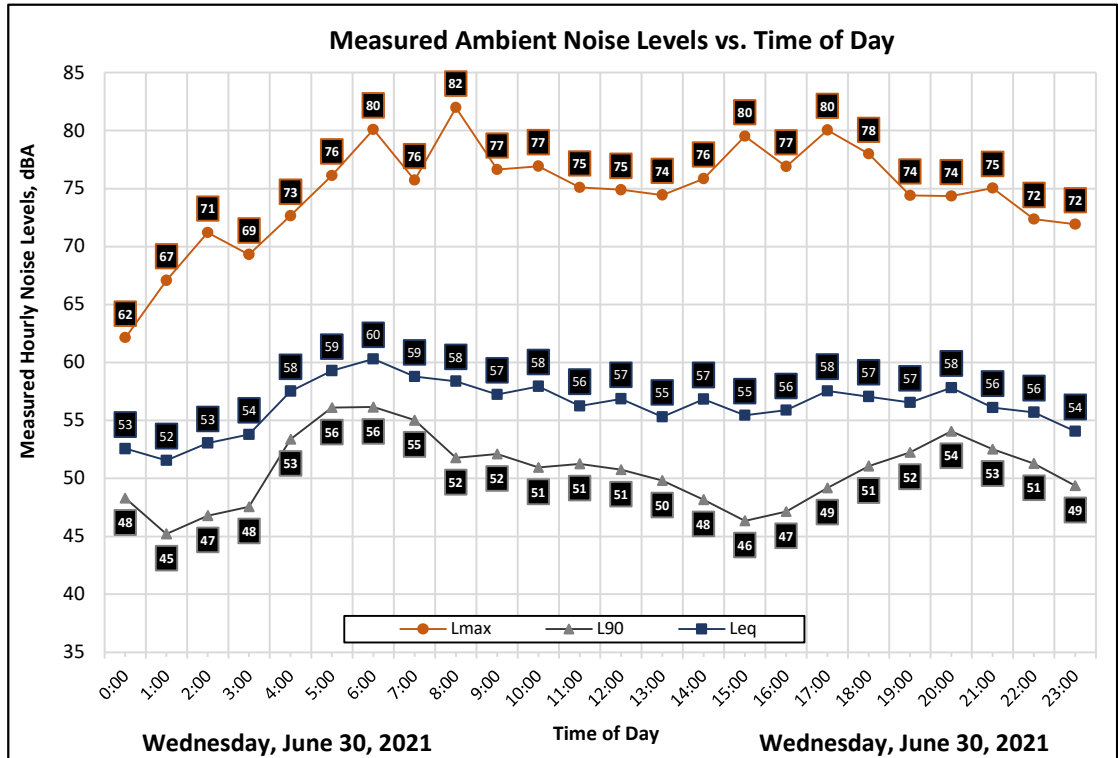
Project: Vista de Lomas Agricultural Research Project

Meter: LDL 812-2

Location: Northern Project Boundary

Calibrator: CAL200

Coordinates: 37.162742°, -121.660741°



Appendix B2: Continuous Noise Monitoring Results

Date	Time	Measured Level, dBA			
		L _{eq}	L _{max}	L ₅₀	L ₉₀
Wednesday, June 30, 2021	0:00	57	64	56	53
Wednesday, June 30, 2021	1:00	56	69	55	50
Wednesday, June 30, 2021	2:00	56	73	54	50
Wednesday, June 30, 2021	3:00	54	68	53	47
Wednesday, June 30, 2021	4:00	58	67	57	53
Wednesday, June 30, 2021	5:00	59	66	58	56
Wednesday, June 30, 2021	6:00	59	69	58	56
Wednesday, June 30, 2021	7:00	58	78	57	55
Wednesday, June 30, 2021	8:00	55	65	55	53
Wednesday, June 30, 2021	9:00	56	69	55	53
Wednesday, June 30, 2021	10:00	56	64	55	53
Wednesday, June 30, 2021	11:00	56	63	55	54
Wednesday, June 30, 2021	12:00	55	65	55	52
Wednesday, June 30, 2021	13:00	54	63	54	52
Wednesday, June 30, 2021	14:00	55	77	52	50
Wednesday, June 30, 2021	15:00	52	66	51	48
Wednesday, June 30, 2021	16:00	55	70	52	49
Wednesday, June 30, 2021	17:00	55	67	54	51
Wednesday, June 30, 2021	18:00	55	66	54	52
Wednesday, June 30, 2021	19:00	56	66	55	53
Wednesday, June 30, 2021	20:00	57	75	56	54
Wednesday, June 30, 2021	21:00	56	64	55	53
Wednesday, June 30, 2021	22:00	55	73	54	51
Wednesday, June 30, 2021	23:00	53	62	52	49

Statistics	Leq	Lmax	L50	L90
Day Average	56	68	54	52
Night Average	57	68	55	52
Day Low	52	63	51	48
Day High	58	78	57	55
Night Low	53	62	52	47
Night High	59	73	58	56
Ldn	63	Day %		58
CNEL	63	Night %		42

Site: LT-2

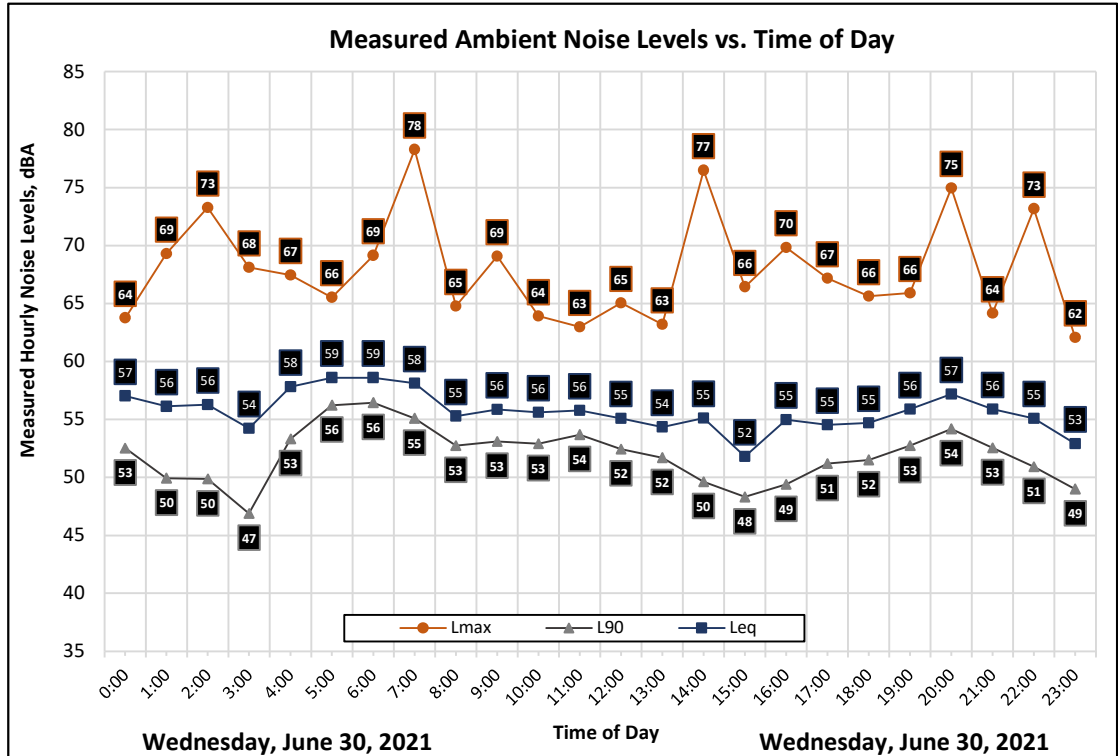
Project: Vista de Lomas Agricultural Research Project

Meter: LDL 820-1

Location: Southern Corner of Project Site

Calibrator: CAL200

Coordinates: 37.160928°, -121.658976°



Appendix C: Traffic Noise Calculation Inputs and Results



Appendix C1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model - Existing Conditions

Project #: 210602

Description: Vista de Lomas Agricultural Research Project



											Contours (ft.) - No			
											Offset		Offset	
				Day	Night	% Med.	% Hvy.			Offset	60	65	70	Level,
Segment	Roadway	Segment	ADT	%	%	Trucks	Trucks	Speed	Distance	(dB)	dBA	dBA	dBA	dBA
1	Vista De Lomas	Burnett Ave to Peebles Ave	19	68	32	2.0%	1.0%	35	40	0	2	1	0	41.1
2	Burnett Ave	Freeway Vista to Vista de Lomas	45	68	32	2.0%	1.0%	25	30	0	3	1	1	44.0
3	Burnett Ave	Monterey Rd to Freeway Vista	246	68	32	2.0%	1.0%	25	35	0	8	4	2	50.4

Appendix C2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model - Existing Plus Project Conditions

Project #: 210602

Description: Vista de Lomas Agricultural Research Project



											Contours (ft.) - No			
											Offset			
				Day	Night	% Med.	% Hvy.			Offset	60	65	70	Level,
Segment	Roadway	Segment	ADT	%	%	Trucks	Trucks	Speed	Distance	(dB)	dBA	dBA	dBA	dBA
1	Vista De Lomas	Burnett Ave to Peebles Ave	19	68	32	2.0%	1.0%	35	40	0	2	1	0	41.1
2	Burnett Ave	Freeway Vista to Vista de Lomas	47	68	32	2.0%	1.0%	25	30	0	3	1	1	44.2
3	Burnett Ave	Monterey Rd to Freeway Vista	246	68	32	2.0%	1.0%	25	35	0	8	4	2	50.4

Attachment C

**Agricultural Research Facility ADT calculations by Jeff Waller Consulting
(dated October 27, 2022)**



October 27, 2022

Amanda Musy-Verdel
Hanna-Brunetti
7651 Egleberry Street
Gilroy, CA 95020

Re: Morgan Hill Ag Research, Morgan Hill, CA – Updated VMT Evaluation

Dear Amanda,

Per your request, this letter updates the Vehicle Miles Traveled (VMT) evaluation for the Morgan Hill Ag Research project just outside Morgan Hill, in Santa Clara County, California. In the report *Morgan Hill Ag Research Traffic Impact Analysis*, Jeff Waller Consulting, September 23, 2022, it was concluded that the project generates more daily trips than the under 24-trip threshold established by Santa Clara County for exemptions of further VMT analysis. Since then, Morgan Hill Ag Research has reduced its employment to 7 employees. This letter finds that the reduced employment will meet the under 24-trip threshold. **Exhibit 1** depicts the location of the proposed facility.

A. REVISED TRIP GENERATION

The proposed Morgan Hill Ag Research project has reduced its employment from 10 staff to 7 staff. This results in a reduction in trip generation. **Exhibit 2** summarizes the change in trip generation. With only 7 employees, the project would generate 21 daily trips, with 4 trips (3 in, 1 out) in the AM peak hour, and 1 trip (0 (zero) in, 1 out) in the PM peak hour. This is 10 daily trips less than found in the *Morgan Hill Research Traffic Analysis*.

B. REVISED VMT ANALYSIS

Santa Clara County has adopted the following criteria for exemption of further VMT analysis:

- For projects in Urban Service Areas (USAs), a project that generates fewer than 110 average daily trips (ADT) generally may be assumed to cause a less-than-significant VMT impact.
- For projects outside USAs (rural areas), a project that generates fewer than 24 average daily trips (ADT) generally may be assumed to cause a less-than-significant VMT impact.

Amanda Musy-Verdel
October 27, 2022

It has already been established that the project site is outside of the City of Morgan Hill USA. Therefore, the “fewer than 24 average daily trips” is the standard for this project to be exempt from further VMT analysis. The updated project trip generation is 21 daily trips, which is less than 24 daily trips. Therefore, it is concluded that the project is eligible for the Santa Clara County VMT exemption.

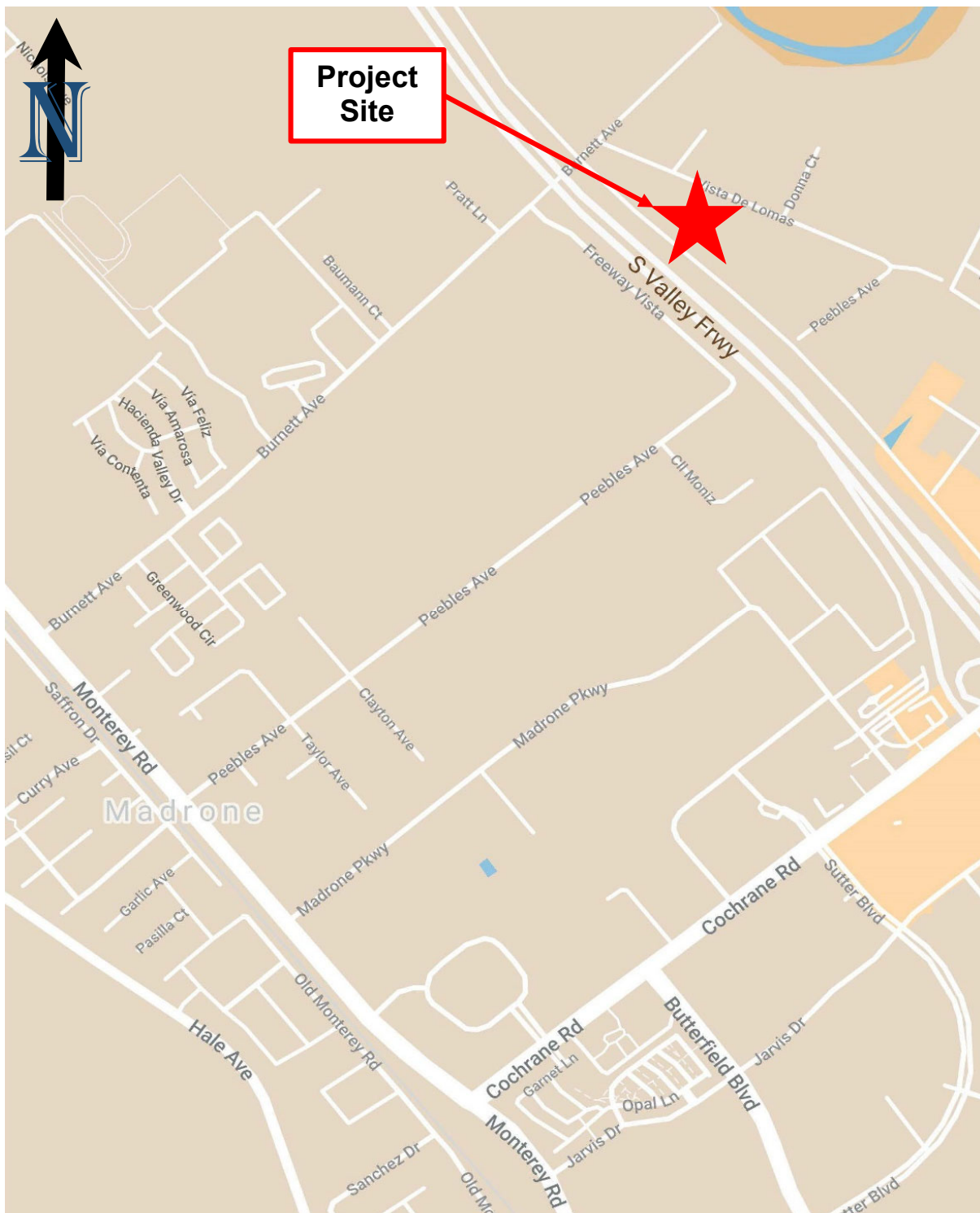
C. CONCLUSION

If you have any questions regarding the contents of this letter or need additional information, please contact me at your convenience. Thank you for the opportunity to assist you with this project.

Respectfully submitted,



Jeff Waller, TE
Owner / Senior Analyst
T: (408) 607-1454
E: jeffwallerconsulting@gmail.com



Basemap Source: Google Maps, 2021.

TRIP GENERATION RATES	ITE LAND USE CODE	DAILY TRIP RATE	AM PEAK HOUR				PM PEAK HOUR			
			PEAK HOUR RATE	% OF ADT	% IN	% OUT	PEAK HOUR RATE ²	% OF ADT	% IN	% OUT
General Light Industrial (per employee)	110	3.05	0.52	17%	83%	17%	0.20	7%	22%	78%
Previous Proposed Facility	PROJECT SIZE	DAILY TRIPS	AM PEAK HOUR				PM PEAK HOUR			
			PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT	PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT
Ag Facility	10 employees	31	5	16%	4	1	2	6%	0	2
Current Proposed Facility	PROJECT SIZE	DAILY TRIPS	AM PEAK HOUR				PM PEAK HOUR			
			PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT	PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT
Ag Facility	7 employees	21	4	19%	3	1	1	5%	0	1
Difference:		10	1		1	0	1		0	1

Notes:

1. Trip generation rates published by Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10th Edition, 2017.
2. ITE PM peak hour rate reduced by 60%, as project does not close until 6:00 PM. This is one hour later than a typical workplace.