



NOTICE OF EXEMPTION

PROJECT TITLE:

420 Acacia Avenue Residential Project

PROJECT LOCATION:

420 Acacia Avenue, Palo Alto, CA 94306 (Assessor Parcel Number 132-37-075)

PROJECT DESCRIPTION:

The proposed project would involve the construction of 16 townhomes in four separate buildings on a 0.8-acre site that is currently developed with a surface parking lot. Two of the 16 units would be below market rate and would be designated as affordable housing.

NAME OF PUBLIC AGENCY APPROVING THE PROJECT:

City of Palo Alto

NAME OF PERSON OR GROUP CARRYING OUT PROJECT:

Acacia Camino Investors LLC, contact: Joshua Vrotsos
385 Woodview Avenue Suite 100
Morgan Hill, CA 95037

EXEMPT STATUS

- Ministerial (Sec. 21080(b)(1); 15268)
- Declared Emergency (Sec. 21080(b)(3); 15269(a))
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c))
- Categorical Exemption: CEQA Guidelines Section 15332
- Statutory Exemptions.

REASONS WHY PROJECT IS EXEMPT:

The project is consistent with the City's Comprehensive Plan and Zoning Ordinance and is within city limits on a project site less than 5 acres surrounded by urban uses. The project site has no value as habitat for endangered, rare, or threatened species and the project would not result in significant effects related to traffic, noise, air quality or water quality. The site can be served by required utilities and public services. No exceptions to the applicability of a categorical exemption as specified in CEQA Guidelines Section 15300.2(a) through (f) would apply to the project.

A link to further documentation to support the findings for the Class 32 Categorical Exemption can be found here:

<https://www.cityofpaloalto.org/Departments/Planning-Development-Services/Current-Planning/Projects/420-Acacia-Avenue>

PROJECT PLANNER:

Claire Raybould, AICP, Senior Planner
Planning and Development Services
(650) 329-2116

IF FILED BY APPLICANT:

1. Attach certified document of exemption finding.
2. Declare if a Notice of Exemption has been filed by the public agency approving the project

Yes
 N/A

DocuSigned by:
Claire Raybould
2721A1A8AE4C4AA...

Senior Planner
Title

12/20/23
Date

Signature (Public Agency)



420 Acacia Avenue Residential Project

Class 32 Categorical Exemption Report

prepared by

City of Palo Alto

Planning & Development Services Department

250 Hamilton Avenue

Palo Alto, California 94301

Contact: Claire Raybould, AICP, Senior Planner

prepared with the assistance of

Rincon Consultants, Inc.

449 15th Street, Suite 303

Oakland, California 94612

September 2023



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

Table of Contents

| | | |
|-----|--|----|
| 1 | Introduction | 1 |
| 2 | Project Description | 2 |
| 2.1 | Project Location and Setting | 2 |
| 2.2 | Project Characteristics | 2 |
| 3 | Consistency Analysis | 9 |
| 3.1 | Criterion (a) | 9 |
| 3.2 | Criterion (b) | 10 |
| 3.3 | Criterion (c) | 10 |
| 3.4 | Criterion (d) | 11 |
| 3.5 | Criterion (e) | 25 |
| 4 | Exceptions to the Exemption | 26 |
| 4.1 | Cumulative Impacts Criterion | 26 |
| 4.2 | Significant Effects due to Unusual Circumstances Criterion | 27 |
| 4.3 | Scenic Highways Criterion | 28 |
| 4.4 | Hazardous Waste Sites Criterion | 28 |
| 4.5 | Historic Resources Criterion | 29 |
| 5 | Summary | 30 |
| 6 | References | 31 |

Tables

| | | |
|----------|--|----|
| Table 1 | Project Characteristics | 7 |
| Table 2 | Project Operation Trip Generation | 11 |
| Table 3 | VMT Analysis – Baseline Compared to the Project | 12 |
| Table 4 | Bicycle Facilities Summary in Project Vicinity | 14 |
| Table 5 | Short-Term Noise Level Measurement Results | 16 |
| Table 6 | Long-Term Noise Measurement Results | 16 |
| Table 7 | Estimated Noise Levels during Grading Construction Phase | 18 |
| Table 8 | Predicted Increases in Traffic Noise Levels | 20 |
| Table 9 | Groundborne Vibration Architectural Damage Criteria | 20 |
| Table 10 | Groundborne Vibration Levels | 20 |
| Table 11 | Air Quality Thresholds of Significance | 22 |
| Table 12 | Cumulative Projects List | 26 |

Figures

| | | |
|----------|--|----|
| Figure 1 | Regional Location | 3 |
| Figure 2 | Project Site Location | 4 |
| Figure 3 | Proposed Site Plan | 5 |
| Figure 4 | Proposed Site Plan and Site Zoning Designations..... | 6 |
| Figure 5 | Noise Measurement Locations | 17 |

Appendices

| | |
|------------|-------------------------------|
| Appendix A | Local Transportation Analysis |
| Appendix B | Supporting Noise Data |

1 Introduction

This report serves as the technical documentation of an environmental analysis performed by Rincon Consultants, Inc. for the 420 Acacia Avenue Residential Project (“proposed project”) in the City of Palo Alto. The intent of the analysis is to document whether the project is eligible for a Class 32 Categorical Exemption (CE). The report provides an introduction, project description, and evaluation of the project’s consistency with the requirements for a Class 32 CE. The report concludes that the project is eligible for a Class 32 CE.

The *CEQA Guidelines* Section 15332 states that a CE is allowed when:

- a. The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
- b. The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- c. The project site has no value as habitat for endangered, rare, or threatened species.
- d. Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- e. The site can be adequately served by all required utilities and public services.

Additionally, *CEQA Guidelines* Section 15300.2 outlines exceptions to the applicability of a CE, including cumulative impacts, significant effects due to unusual circumstances, scenic highways, hazardous waste sites, and historical resources. A full listing of these exceptions and an assessment of their applicability to the proposed project is provided in this report.

Rincon Consultants, Inc. evaluated the project’s consistency with the above requirements, including its potential impacts in the areas of biological resources, traffic, noise, air quality, greenhouse gas emissions (GHG), and water quality, as well as the exceptions to the applicability of a CE, to confirm the project’s eligibility for the Class 32 CE.

Review by the City has confirmed that criteria “a,” “b,” and “e” can be met for the proposed project. Therefore, supporting analysis focuses on criteria “c” and “d.”

2 Project Description

2.1 Project Location and Setting

The project site encompasses one parcel (Assessor Parcel Number 132-37-075) of approximately 0.8 acres (35,573 gross square feet) located at 420 Acacia Avenue in Palo Alto. The project site is bounded by Acacia Avenue to the south, residential development to the north (along Olive Avenue), and surface parking lots to the northeast and southwest. The surface parking lot to the southwest is part of a future development site at 3001 El Camino Real that was approved for a 129-unit affordable multi-family residential project. A proposed project on the surface parking lot to the northeast would include a new one-story (two level) parking garage that would continue to exit through the existing shared access easement on the subject parcel. The project site is generally flat and has 37 mature trees on site and one street tree directly adjacent to the site on the Acacia Avenue sidewalk right-of way.

Figure 1 shows the regional location of the project site and Figure 2 shows the project site in its immediate context, as well as the location of the future residential development project at 3001 El Camino Real.

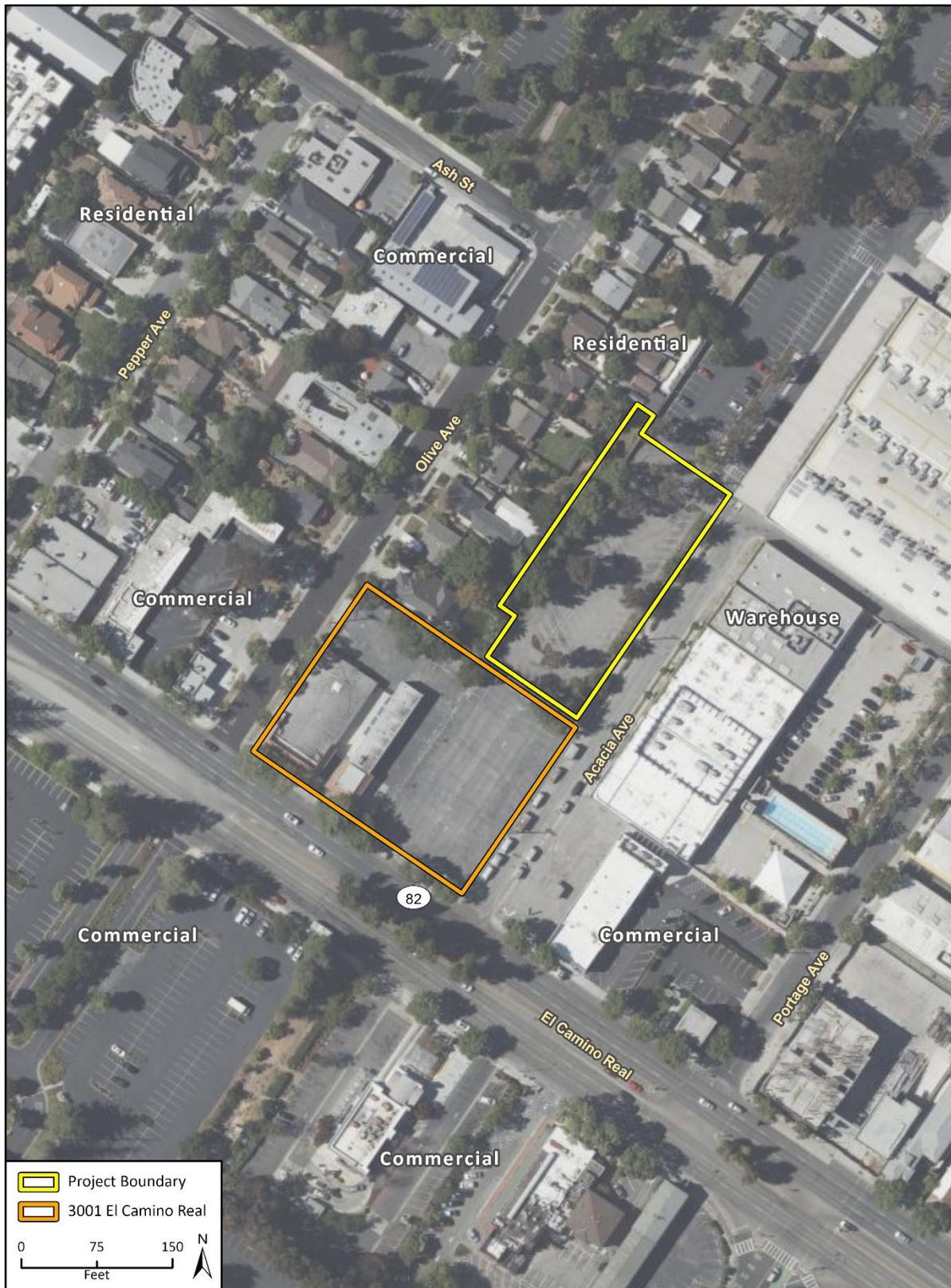
2.2 Project Characteristics

The proposed project would involve the construction of 16 townhomes in four separate buildings. The proposed site plan is shown on Figure 3. Each building would include two- and three-bedroom residential units. The units along the northwestern portion of the project site adjacent to the existing single-family buildings would be two stories to allow for transition to the existing neighborhood, while the units on the southeastern portion of the project site would be three stories with roof decks.

The project site has split zoning and Comprehensive Plan land use designations. The majority of the site (approximately 0.7 acres) is zoned RM-30 and has a Comprehensive Plan land use designation of Multiple-Family Residential; an approximately 0.1-acre portion of the site along the northwestern boundary is zoned R-1 and has a Comprehensive Plan land use designation of Single Family Residential. As shown on Figure 4, the residential buildings would be located only on the portion of the site zoned RM-30 and designated Multiple-Family Residential and the portion of the site zoned as R-1 and designated Single-Family Residential would include a trash enclosure and trellis.

Two of the 16 units would be offered at below market rate prices, making the project eligible for a density bonus pursuant to the State Density Bonus Law and the Palo Alto Municipal Code (PAMC) Chapter 18.15. The applicant has requested waivers, in accordance with these regulations, to allow for increased site coverage, floor area ratio, front setback, height, street width, and minimum first floor height. With these waivers the project would exceed the 40 percent site coverage requirement for development in the RM-30 District by 9 percent; exceed the floor-to-area ratio (FAR) limit of 0.6:1 for the RM-30 district by proposing a FAR of 1.1:1; include a reduced front yard setback from 20 feet to 9 foot, six inches; and exceed the 35-foot height requirement with a proposed height of 44 feet, 2 inches. The project would also provide a first-floor height of 2 feet where 2 feet, eight inches is required.

Figure 2 Project Site Location



Imagery provided by Microsoft Bing and its licensors © 2023.

23-14537-EP5
Fig 2 Project Location

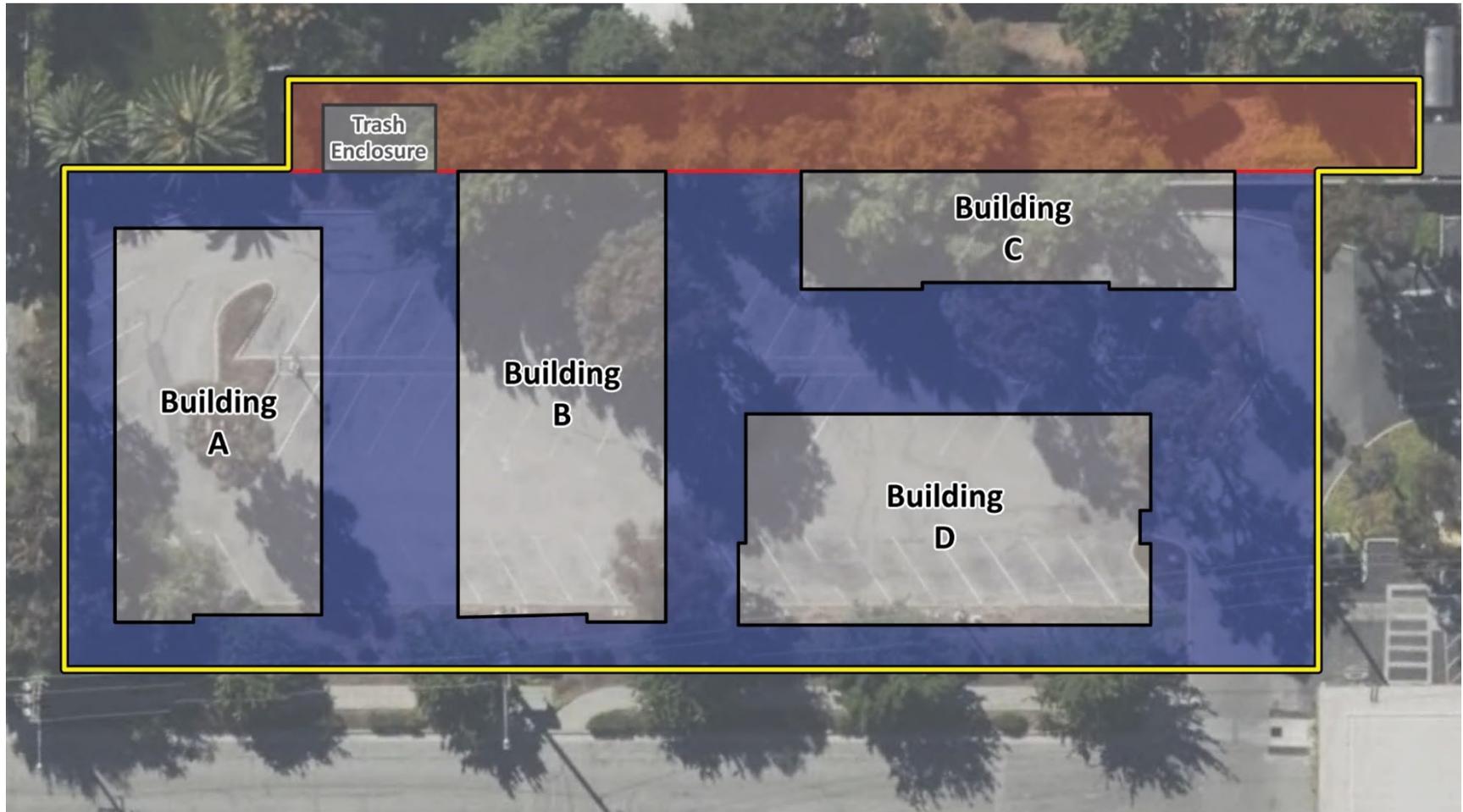
Figure 3 Proposed Site Plan



THIS PLAN IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, TO CONVEY DESIGN CONCEPTS AND INTENT.
 FOR DETAILED SITE PLAN INCLUDING DIMENSIONS, REFER TO SHEET C-3.
 FOR DETAILED LANDSCAPE PLAN, REFER TO T-4, L-1.0, L-1.1, L-1.3, L-2.0, L-3.0, L-3.1
 * DENOTE BMR UNITS. ACCESSIBLE UNITS ARE PROVIDED PER CBC CHAPTER 11A.

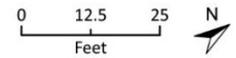
urce: Dahlin Group Architecture

Figure 4 Proposed Site Plan and Site Zoning Designations



R-1 Area: 4,958 SF RM-30 Area: 30,615 SF Total Site Area: 35,573 SF Planned Buildings

Source: Dahlin Group Architecture, 5/12/23, Rincon Consultants, Inc., 8/16/23.



The project applicant has also requested a waiver to be exempt from the 32-foot-wide street requirement to conserve space for development. The proposed private streets on the project site would be 20 feet wide. Lastly, the applicant has also requested waivers from the objective standards included in Chapter 18.24 of the PAMC, including waivers for ground floor residential unit floor height and having less than 60 percent landscaped area in the front yard setback. The project would comply with all other development standards required in the RM-30 zone.

Table 1 shows the characteristics of the proposed project.

Table 1 Project Characteristics

| Project Characteristics | |
|---------------------------------|---|
| Address | 420 Acacia Avenue |
| Assessor's Parcel Numbers | 132-37-075 |
| Gross/Net Lot Area ¹ | 35,573 sf/28,064 sf |
| Lot Coverage | 15,591 SF |
| Floor Area ¹ | RM-1: 479 SF RM-30: 33,354 FR Total: 33,833 SF |
| Height | Maximum: 42 feet 4 stories above grade |
| Residential Units | Total: 16 units |
| Vehicle Parking | Residential: 32 spaces |
| Bicycle Parking | 32 long-term bicycle spaces and 2 short-term bicycle spaces |

¹ The total gross floor area is calculated pursuant to Palo Alto Municipal Code §18.04.030. "Gross floor area" means the total area of all floors of a building measured to the outside surfaces of exterior walls. Net lot area is the area of a lot measured horizontally between bounding lot lines, but excluding any portion of a flag lot providing access to a street and lying between a front lot line and the street, and excluding any portion of a lot within the lines of any natural watercourse, river, stream, creek, waterway, channel, or flood control or drainage easement and excluding any portion of a lot within a public or private street right-of-way whether acquired in fee, easement, or otherwise.

SF = square feet

Landscaping and Open Space

The project site currently has 37 mature trees on site including: one aristocrat callery pear (*Pyrus calleryana*), 12 silver dollar gum trees (*Eucalyptus polyanthemos*), one Tree of Heaven (*Ailanthus altissima*), nine Aleppo pine trees (*Pinus halepensis*), five Valley Oak trees (*Quercus lobata*), four Coast redwoods (*Sequoia sempervirens*), two Canary Island palms (*Phoenix canariensis*), one Siberian elm (*Ulmus pumila*), one Monterey pine (*Pinus radiata*), and one weeping bottlebrush (*Callistemon viminalis*). One street tree, a trident maple (*Acer buergerianum*), is located adjacent to the site on the Acacia Avenue right-of-way. The proposed project would include the removal of 30 trees including 29 on-site trees and the adjacent street tree. Sixteen of the trees to be removed are trees regulated under the City's Tree Protection Ordinance, including the street tree and 15 trees that are protected due to their trunks being 15 inches in diameter or greater. Eight trees would remain on site. The proposed project would include planting of 38 new trees on site, for a total of 46 trees.

The project would include 1,715 square feet of private open space in the form of four yards, two for Building C, and one each for Building A and B (avoiding rooftop open space where buildings face single-family residential uses). The project would also include 4,386 square feet of private open

space in the form of private roof decks on three out of four of the buildings: A, B, and D. There would be 2,546 square feet of common open space in the center of the project site. Pursuant to PAMC Section 18.13.040(E)(2), the project must have 150 square feet of minimum usable open space per unit, including 75 square feet of minimum common usable open space per unit and 50 square feet of minimum private usable open space per unit. The project would exceed these requirements. Proposed facilities in the common open space include a patio with a gas grill,¹ picnic tables, and benches.

Site Access, Parking, and Circulation

Vehicle access to the project site would be provided via two driveways along Acacia Avenue. The two driveways would be 20 feet wide and would provide direct access to the residential units. As discussed above under Section 2.2 *Project Characteristics*, the project would require a waiver for these alleys, as the development standards require 32-foot-wide private access roads in the RM-30 zone.

The project would include 32 parking spaces in two car garages attached to each unit. Pedestrian access would be provided along internal pathways between each building. 32 long-term and two short-term bicycle parking spaces would also be provided. The 32 long-term bicycle parking spaces would be inside the garages attached to each unit on the project site.

Utilities and Stormwater Management

City of Palo Alto Utilities (CPAU) provides electricity, natural gas, water, wastewater, and fiber optics services to the city. The City is currently contracted with GreenWaste of Palo Alto for collection of garbage, recycling and composting services. Utility lines for the proposed project would be connected to existing infrastructure under Acacia Avenue.

The proposed project would include the construction of a total of 1,067 square feet of bioretention areas in seven different locations along the northwestern, southern, and southeastern boundaries of the project site.

Construction

Project construction would occur over approximately 18 months. Grading would involve an estimated 1,600 cubic yards (CY) of excavated soil, 800 CY of which would be used as fill on site. Assuming 16 CY per truck trip, this would involve approximately 50 round-trip truck trips to haul unused material off site. The maximum depth of excavation on the project site would be six feet. No demolition would occur since the project site does not contain structures.

¹ The gas grill would not involve any natural gas connections but would be fueled by a propane tank.

3 Consistency Analysis

3.1 Criterion (a)

The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

The parcel at 420 Acacia Avenue (APN132-37-075) is zoned R-1 and RM-30. The site has a Comprehensive Plan land use designation of Multi-Family Residential and Neighborhood Commercial.

Consistent with the zoning and Comprehensive Plan land use designations for the site, the residential development would only be located on the areas of the site zoned as RM-30 and with a Comprehensive Plan designation of Multi-Family Residential. There would be a trash enclosure and trellis located on the portion of the site zoned as RM-1 and designated Single Family Residential. The accessory structures comply with the requirements for detached accessory structures in a required setback in accordance with Chapter 18.12 (R-1) development standards. The project includes waivers in accordance with state density bonus allowances. Therefore, the project has been designed to be consistent with the allowed uses for the site's zoning and Comprehensive Plan designations.

The City of Palo Alto has determined that the proposed project is consistent with the applicable 2030 Comprehensive Plan designations and policies as well as with applicable zoning designations and regulations. Applicable 2030 Comprehensive Plan policies include:

Goal L-2 Promote an enhanced sense of “community” with development designed to foster public life, meet citywide needs and embrace the principles of sustainability.

Policy L-2.3 As a key component of a diverse, inclusive community, allow and encourage a mix of housing types and sizes integrated into neighborhoods and designed for greater affordability, particularly smaller housing types, such as studios, co-housing, cottages, clustered housing, accessory dwelling units and senior housing.

Policy L-2.4 Use a variety of strategies to stimulate housing, near retail, employment, and transit, in a way that connects to and enhances existing neighborhoods.

Policy L-2.5 Support the creation of affordable housing units for middle to lower income level earners, such as City and school district employees, as feasible.

Policy L-2.11 Encourage new development and redevelopment to incorporate greenery and natural features such as green rooftops, pocket parks, plazas and rain gardens.

Goal L-3 Safe, attractive residential neighborhoods, each with its own distinct character and within walking distance of shopping, services, schools, and/or other public gathering places.

Policy L-3.1 Ensure that new or remodeled structures are compatible with the neighborhood and adjacent structures.

Policy L-3.4 Ensure that new multi-family buildings, entries and outdoor spaces are designed and arranged so that each development has a clear relationship to a public street.

Goal L-4 Inviting pedestrian scale centers that offer a variety of retail and commercial services and provide focal points and community gathering places for the city's residential neighborhoods and employment districts.

Policy L-4.15 Recognize El Camino Real as both a local serving and regional serving corridor, defined by a mix of commercial uses and housing.

As described above in the Project Description, the project would comply with zoning ordinance requirements set forth in the PAMC related to building height, FAR, site coverage, front setback, street width, and accessory use location with the inclusion of density bonus requests pursuant to state law.

Therefore, the project would be consistent with the site's Comprehensive Plan land use designations, Comprehensive Plan policies, zoning designations, and zoning regulations. The project would meet the requirements of *criterion (a)*.

3.2 Criterion (b)

The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.

The project is located on an approximately 0.8-acre site within a developed urban neighborhood in the City of Palo Alto. It is immediately surrounded by urban uses on all sides. The project would be consistent with *criterion (b)*.

3.3 Criterion (c)

The project site has no value as habitat for endangered, rare, or threatened species.

The project site is located within a developed urban area that lacks suitable habitat for sensitive animal or plant species. The project site itself is currently a paved parking lot without structures, is surrounded on all sides by development, and does not contain suitable habitat for sensitive species.

The proposed project would include the removal of 30 trees, 29 of which are on the project site and one of which is a "street tree" located on the sidewalk right-of-way along the project frontage. Since the trees are located in areas of high human activity and presence and isolated from forestlands, water bodies, and other foraging habitat, they do not provide structure or habitat for substantial numbers of special status birds.

The "street tree" that would be removed is regulated under the City's Tree Protection Ordinance and therefore to regulations under PAMC Section 8.04.020. Additionally, the project would involve

removal of fifteen protected mature trees which are trees that measure 15 inches or more in diameter. The project would be required to comply with applicable tree protection guidelines and a permit would be required for the removal. Removal of trees requires compliance with PAMC Section 8.10. The project complies with the canopy replacement requirement by providing 38 trees on site and along the project frontage as well as providing for the remaining 71 trees through an in-lieu payment estimated at \$46,150.

In addition, a search of the U.S. Fish and Wildlife Services (USFWS) National Wetlands Inventory for the project site and surrounding area for the occurrences of wetlands concluded that there are no wetlands on or adjacent to the project site (USFWS 2021). According to the USFWS, the project site also has no critical habitat for special status species. The project site has no value as habitat for endangered, rare, or threatened species, and the project would meet the requirements under *criterion (c)*. (USFWS 2023).

3.4 Criterion (d)

Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

The following discussion provides an analysis of the project’s potential effects with respect to traffic, noise, air quality, and water quality.

A. Traffic

This analysis is based primarily on a *Local Transportation Analysis* prepared by W-Trans for the project in September 2023. This report is included in Appendix A.

Project Trip Generation

Vehicle trip generation rates were based on estimates from Trip Generation Manual, 11th Edition (Institute of Transportation Engineers [ITE] 2021), which are based on a compilation of empirical trip generation surveys at locations throughout the country to forecast the number of trips that would be generated by the project. The average trip rates for “Single Family Attached Housing” (Land Use #215) were applied to the proposed project. As shown in Table 2, the project is expected to generate a gross total of 115 daily trips, 8 morning (a.m.) peak hour trips, and 9 afternoon (p.m.) peak hour trips from the proposed residential use. Since the project site is currently a parking lot which does not generate trips itself, the project is estimated to result in an increase of 115 daily trips, 8 morning (a.m.) peak hour trips, and 9 afternoon (p.m.) peak hour trips in comparison to existing conditions.

Table 2 Project Operation Trip Generation

| Land Use | ITE Code | Size | Daily Trips | A.M. Peak Hour Trips | | | P.M. Peak Hour Trips | | |
|--------------------------------|----------|-------|-------------|----------------------|-----|-------|----------------------|-----|-------|
| | | | | In | Out | Total | In | Out | Total |
| Proposed Land Use | | | | | | | | | |
| Single Family Attached Housing | 215 | 16 du | 115 | 3 | 5 | 8 | 5 | 4 | 9 |

du = Dwelling Unit

All rates are from Institute of Transportation Engineers, *Trip Generation Manual, 11th Edition, 2021*. Average rates used.

Source: W-Trans 2023 (Appendix A)

Vehicle Miles Traveled (VMT)

The City of Palo Alto has adopted thresholds of significance related to VMT in 2020 pursuant to Senate Bill (SB) 743 and the Governor’s Office of Planning and Research (OPR) guidelines. The Palo Alto VMT criteria indicates that residential projects located in areas where the baseline VMT is 15 percent or higher below the existing county average VMT per resident would be considered as a low-VMT area and therefore presumed to have a less than significant VMT impact.

According to the Santa Clara Countywide VMT Evaluation Tool (Version 2), the countywide VMT per capita is 13.33 miles. Using the Palo Alto VMT criteria, a project generating a VMT of 11.33 miles per capita (15 percent or higher below existing county average) would have a less than significant impact on VMT.

Table 3 shows the project VMT rate as calculated by W-trans compared to the baseline and significance threshold. As shown in Table 3 table, the project would result in a VMT rate of 5.64 per capita, which is below the significance threshold of 11.33 miles per capita. The project’s low VMT is due to the project’s location in proximity to transit services, since the project would be well served by the Santa Clara Valley Transportation Authority (VTA), Dumbarton Express, Stanford Transportation Shuttles, and Caltrain at the California Avenue Caltrain Station approximately two miles from the project site. Impacts related to VMT would be less than significant.

Table 3 VMT Analysis – Baseline Compared to the Project

| VMT Metric | Baseline Countywide VMT Rate | Significance Threshold (15% below countywide average) | Project VMT Rate | Significance |
|--------------------------|------------------------------|---|------------------|-----------------------|
| Household VMT per Capita | 13.33 | 11.33 | 5.64 | Less than Significant |

Source: W-Trans 2023 (Appendix A)

Site Access and Circulation

Access to the site was evaluated by W-Trans based on the proposed site plan to determine the adequacy of the project driveways with regard to sight distance and emergency vehicle access.

Sight Distance

Providing adequate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to see vehicles, pedestrians and bicyclists when exiting a driveway.

Sight distance requirements vary depending on the roadway speeds. The recommended sight distances for driveway approaches are based on stopping sight distance and use the approach travel speed as the basis for determining the recommended sight distance. According to the California Department of Transportation’s (Caltrans), based on the posted speed limit on Acacia Avenue of 25 miles per hour, the minimum stopping sight distance required is 150 feet. Thus, a driver exiting the project site must be able to see at least 150 feet on Acacia Avenue to stop and avoid a collision. The Local Transportation Analysis (Appendix A) concluded that with the trimming of vegetation near the project’s driveways to a height of less than three feet and the trimming of trees so nothing hangs below a height of seven feet from the roadway surface, impacts to sight distance would be less than significant. PAMC Section 18.54.050 requires the trimming of vegetation near the project’s driveways to a height of no more than three feet above driveway grade, and no more than three

feet above parking lot grade in parking lots. With required adherence to PAMC Section 18.54.050, impacts to sight distance would be less than significant.

Emergency Vehicle Access

According to the Local Transportation Analysis (Appendix A), vehicle access would be provided with the internal parking lot via a network of 20- to 32.5-foot-wide drive aisles. These aisles would be sufficient width to accommodate two-way traffic operations from circulating vehicles, as well as parking maneuvers to/from covered parking spaces. In addition, all buildouts would be accessible by fire apparatus since each exterior wall is within 150 feet of Acacia Avenue, thereby satisfying the conditions specified by the California Fire Code Section 503.1.1. Further, because roadway users must yield the right-of-way to emergency vehicles when using their sirens and lights, the added project-generated traffic would not impact access or response times for emergency vehicles.

Impacts to emergency vehicle access and circulation within the site would be less than significant.

Truck Access and Circulation

According to PAMC Section 18.52.040, multi-family residential uses are not required to provide a loading space. Therefore, the project is not required to provide an on-site loading space. Truck access to the project site would be provided through the driveway on Acacia Avenue.

Bicycle Parking

Pursuant to the City's bicycle parking standards (PAMC Section 18.52.040, Table 1), the project is required to provide one bicycle parking space per residential unit (all long-term), and one guest bicycle parking space per 10 residential units (all short-term). Therefore, the PAMC requires a minimum of 16 long-term bicycle parking spaces and two short-term spaces to be provided at the project site. The project would include 32 long-term bicycle parking spaces in garages and two short-term spaces within the outdoor courtyard. The project's bicycle parking would exceed the City's standards.

Pedestrian, Bicycle, and Transit Analysis

The Comprehensive Plan *Transportation Element* contains the following applicable goals and policies to encourage the use of non-automobile transportation modes, including walking and bicycling, to achieve Palo Alto's mobility goals.

Goal T-1 **Create a sustainable transportation system, complemented by a mix of land uses, that emphasizes walking, bicycling, use of public transportation and other methods to reduce GHG emissions and the use of single-occupancy motor vehicles.**

Policy T-1.16 Promote personal transportation vehicles as an alternative to cars (e.g., bicycles, skateboards, roller blades) to get to work, school, shopping, recreational facilities and transit stops.

Policy T-1.17 Require new office, commercial and multi-family residential developments to provide improvements that improve bicycle and pedestrian connectivity as called for in the 2012 Palo Alto Bicycle + Pedestrian Transportation Plan.

Pedestrian Facilities

Pedestrians would access the site via the existing sidewalks along the project site. Internal pedestrian circulation within the site would be provided via a network of sidewalks and curb ramps. Pedestrian facilities would be required to be built to satisfy City of Palo Alto Public Works Department standards pursuant to PAMC Section 18.54.050 and new guidelines in PAMC Chapter 18.24 (City of Palo Alto 2021).

Bicycle Facilities

According to the City of Palo Alto Bicycle and Pedestrian Transportation Plan (City of Palo Alto 2012), bikeways are classified into four categories:

- **Class I Bikeways/Multi-Use Paths:** A completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lanes:** A striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Routes:** Signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Bicycle Boulevards:** Bicycle boulevards are signed, shared roadways with especially low motor vehicle volumes such that motorists passing bicyclists can use the full width of the roadway. Bicycle boulevards prioritize convenient and safe bicycle travel through traffic calming strategies, wayfinding, and other measures.

Table 4 summarizes bicycle facilities in the project vicinity which are currently existing and planned as described in the City of Palo Alto Bicycle and Pedestrian Transportation Plan. As shown in Table 4, Class II bike lanes exist on Page Mill Road and Hansen Way.

Table 4 Bicycle Facilities Summary in Project Vicinity

| Bicycle Facility | Type | Length (miles) | Begin Point | End Point |
|-------------------|-----------|----------------|----------------|------------------|
| Existing | | | | |
| Page Mill Road | Class II | 2.9 | El Camino Real | Berry Hill Court |
| Hansen Way | Class II | 0.5 | El Camino Real | Page Mill Road |
| Planned | | | | |
| Page Mill Road | Class I | 0.5 | Hanover Street | El Camino Real |
| Portage Road | Class II | 0.3 | El Camino Real | Park Boulevard |
| El Camino Real | Class II | 1.2 | Page Mill Road | Maybell Avenue |
| Oregon Expressway | Class III | 2.0 | El Camino Real | W Bayshore Road |

See Appendix A for transportation analysis

Source: City of Palo Alto 2012

The proposed project would be adequately served by existing and planned bicycle facilities. Further, the project would not interrupt or otherwise impact existing or planned bicycle facilities.

Transit Services

Transit services are provided by the Santa Clara Valley Transportation Authority (VTA), Dumbarton Express, Stanford Transportation Shuttles, and Caltrain at the California Avenue Caltrain Station approximately two miles from the project site. The nearest VTA bus routes are Route 22, 89, Rapid 522, Express 101, Express 103, and Express 04, all of which are within a 0.5-mile walk of the project site; the nearest bus stop for the Dumbarton Express Route DB1 is located approximately 0.2 miles from the project site at the intersection of El Camino Real and Page Mill Road; and the nearest Stanford Transportation Shuttles shuttle stops are located approximately 0.3 miles away from the project site at the intersection of El Camino Real and Page Mill Road. According to the Local Transportation Analysis, if 20 percent of peak hour trips were made by transit, there would be two additional transit riders during each peak hour. Since the additional riders would be spread out over multiple buses and times, the volume of riders generated from the project would be unlikely to exceed the carrying capacity of existing transit services near the project site.

Conclusion

Compliance with standard City requirements would ensure that impacts related to traffic remain less than significant. VMT per capita from the project would be below the Palo Alto VMT significance criteria resulting in less than significant VMT impacts. Based on a review of the project site plan, there would be no substantial issues regarding site access along Acacia Avenue and no issues are expected to arise regarding on-site circulation or emergency access. Furthermore, the proposed project would not have an adverse effect on the existing transit, pedestrian, or bicycle facilities in the area. Therefore, the project would meet the requirements for Traffic under *criterion (d)*.

B. Noise

Existing Ambient Noise Levels

The most common source of noise in the project site vicinity is vehicular traffic from El Camino Real. To characterize ambient noise levels in the project vicinity, two short-term (15 minute) and one long-term (24 hour) noise level measurements were conducted on November 14 and November 15, 2022. The approximate noise measurement locations are shown in Figure 5. Short-term noise measurement (ST)-1 was conducted approximately 175 feet west of the intersection of El Camino Real and Acacia Avenue. ST-2 was conducted Approximately 115 feet north of the intersection of El Camino Real and Olive Avenue. Long-term noise measurement (LT)-1 was conducted along the project southern property line of 461 Olive Avenue.

Table 5 and Table 6 summarize the results of the short-term and long-term noise measurements.

Table 5 Short-Term Noise Level Measurement Results

| Measurement Location | Measurement Location | Sample Times | Approximate Distance to Primary Noise Source | L _{eq} (dBA) | L _{min} (dBA) | L _{max} (dBA) |
|----------------------|---|------------------|--|-----------------------|------------------------|------------------------|
| ST 1 | Approximately 175 feet west of the intersection of El Camino Real and Acacia Avenue, adjacent to El Camino Real | 9:11 – 9:26 a.m. | Approximately 50 feet to El Camino Real centerline | 72 | 50 | 85 |
| ST 2 | Approximately 115 feet north of the intersection of El Camino Real and Olive Avenue, adjacent to Olive Avenue | 9:28 – 9:43 a.m. | Approximately 25 feet to Olive Avenue centerline and approximately 195 feet to El Camino Real centerline | 58 | 43 | 71 |

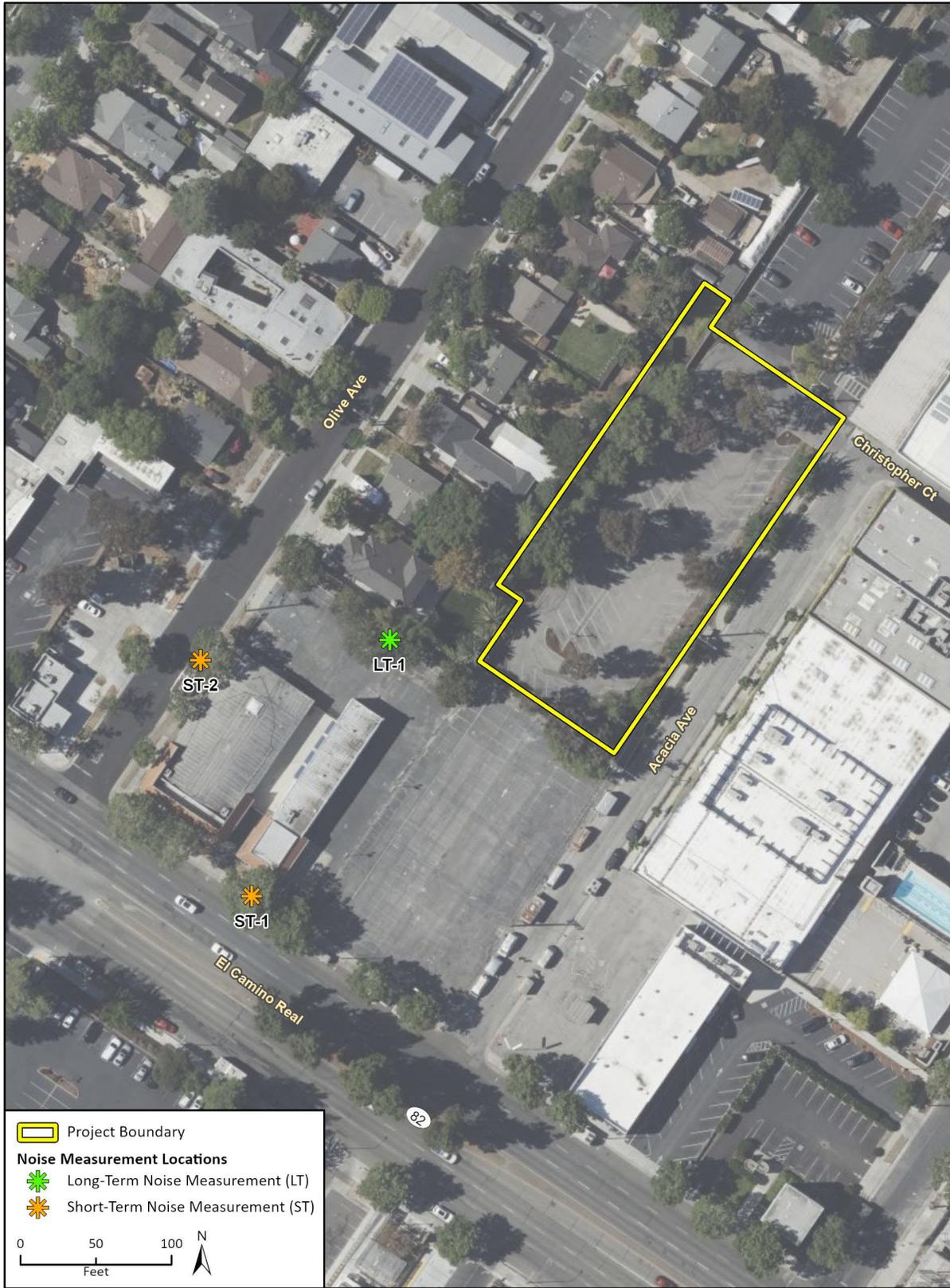
dBA = A-weighted decibels; L_{eq} = equivalent noise level; L_{min} = minimum noise level, L_{max} = maximum noise level
 Detailed sound level measurement data are included in Appendix B.

Table 6 Long-Term Noise Measurement Results

| Sample Time | dBA L _{eq} | Sample Time | dBA L _{eq} |
|---|---------------------|-------------|---------------------|
| 24-hour Measurement – November 14-15, 2022 | | | |
| 8:59 a.m. | 58 | 9:59 p.m. | 53 |
| 9:59 a.m. | 59 | 10:59 p.m. | 52 |
| 10:59 a.m. | 56 | 11:59 p.m. | 54 |
| 11:59 a.m. | 58 | 12:59 p.m. | 52 |
| 12:59 p.m. | 58 | 1:59 a.m. | 46 |
| 1:59 p.m. | 58 | 2:59 a.m. | 46 |
| 2:59 p.m. | 58 | 3:59 a.m. | 49 |
| 3:59 p.m. | 59 | 4:59 a.m. | 51 |
| 4:59 p.m. | 58 | 5:59 a.m. | 55 |
| 5:59 p.m. | 58 | 6:59 a.m. | 57 |
| 6:59 p.m. | 57 | 7:59 a.m. | 61 |
| 7:59 p.m. | 57 | 8:59 a.m. | 60 |
| 24-hour Noise Level (CNEL) | | | 61 |

dBA = A-weighted decibels; L_{eq} = equivalent noise level; CNEL = community equivalent noise level
 See Figure 5 for Approximate Noise Measurement Locations; see Appendix B for full measurement details.

Figure 5 Noise Measurement Locations



Imagery provided by Microsoft Bing and its licensors © 2023.

23-14537 EPS
Fig X Noise Measurement Locations

Construction Noise

Construction of the project would generate temporary noise that would be audible at the single-family residences adjacent to the northwest of project site. Noise associated with construction is a function of the type of construction equipment, the location and sensitivity of nearby land uses, and the timing and duration of the construction activities. Based on construction details provided by the applicant, it is estimated that the construction period would involve approximately 10 days for demolition, 30 days for site preparation, 21 days for grading, 15 months for building construction, 20 days for paving, and 30 days for architectural coating. While all phases of construction would generate noise, the building construction phase would represent the longest period of noise-generating activity. According to the project applicant, pile drivers would not be used in building construction.

Construction noise was estimated using the Federal Highway Administration’s Roadway Construction Noise Model (RCNM) (see Appendix B). Noise was modeled based on the list of anticipated equipment list for each phase of construction and the distances to nearby sensitive receivers. For a conservative approach, it was assumed that all construction equipment per phase would be operating simultaneously and would combine as a collective noise source. Table 7 shows the results of construction noise modeling from the center of the site from construction equipment to the closest property line at the single-family residences northwest of the project site at a distance of approximately 50 feet.

Table 7 Estimated Noise Levels during Grading Construction Phase

| Construction Phase | L _{max} dBA | |
|-----------------------|--|--|
| | RCNM Reference Noise Level ¹ 50 feet | Single-Family Residences to the Northwest 50 feet |
| Demolition | 90 | 90 |
| Site Preparation | 84 | 84 |
| Grading | 85 | 85 |
| Building Construction | 81 | 81 |
| Paving | 90 | 90 |
| Architectural Coating | 78 | 78 |

¹ RCNM reference noise levels are noise levels generated during each construction phase measured from a point 50 feet from the location of the construction phase. These reference noise levels can then be used to calculate noise levels from the construction phase at a distance greater than 50 feet from the construction phase.

Source: Roadway Construction Noise Model (RCNM). See Appendix B for modeling outputs.

As shown in Table 7, construction noise could be as high as 90 dBA L_{max} during demolition and paving. Construction noise levels would be below the City’s standard of 110 dBA L_{max} at any point outside the property line during allowable construction hours (PAMC Section 9.10.060). Therefore, impacts related to construction noise would be less than significant.

Operational Noise

Stationary Sources

The primary on-site operational noise source from the project would be from HVAC units that are anticipated to be on the rooftop of the proposed residential buildings. Rooftop HVAC units would be located as close as approximately 30 feet from the residential property line to the northwest of the project site. Typical HVAC equipment generates noise levels ranging up to 72 dBA at a distance of 3 feet. At a distance of 30 feet, noise levels from HVAC noise would attenuate to approximately 52 dBA. The PAMC contains standards for stationary noise sources. Section 9.10.030 provides standards for operational stationary noise sources, allowing no more than 6 dBA above the local ambient at residential uses; therefore, an increase of 6 dBA or more would result in a significant impact. Based on noise measurements taken at the project site shown on Table 6, the local ambient noise level is 61 dBA CNEL. Conservatively assuming that HVAC equipment could run up to 24 hours a day, this would result in a CNEL noise level of 59 dBA CNEL, which would not exceed the ambient of 61 dBA CNEL. Therefore, noise generated by HVAC equipment would not produce a noise level more than 6 dBA above the local ambient noise level, and this impact would be less than significant.

In addition to mechanical equipment, the project would generate noise from people gathering on roof decks. The main noise source associated with the use of the proposed roof decks would be speech from conversations. Typically, a conversation between two people using a normal voice (not raised) at a distance of three feet is 60 dBA (Engineering ToolBox 2005). No amplified sound is proposed at any of the terraces, and speech from conversations would quickly dissipate and would not interfere with surrounding outdoor activities and noise-sensitive uses. At a distance of 30 feet, noise from conversations would attenuate to approximately 40 dBA, which would be below the existing ambient. This impact would be less than significant.

Off-Site Traffic Noise

Because the City of Palo Alto does not have recommended thresholds of significance for traffic noise increases, the following thresholds of significance, similar to those recommended by the Federal Aviation Administration, are used to assess traffic noise impacts at sensitive receptor locations:

- Greater than 1.5 dBA CNEL increase for ambient noise environments of 65 dBA CNEL and higher.
- Greater than 3 dBA CNEL increase for ambient noise environments of 60 to 64 dBA CNEL.
- Greater than 5 dBA CNEL increase for ambient noise environments of less than 60 dBA CNEL.

The proposed project would generate traffic noise from vehicles traveling to and from the project site. The proposed project would generate an estimated increase of 115 daily trips (W-Trans 2023a).

The project would not make substantial alterations to roadway alignments or substantially change the vehicle classifications mix on local roadways. Therefore, the primary factor affecting off-site noise levels would be increased traffic volumes. Table 8 summarizes the estimated traffic noise increase based on average daily traffic (ADT) volumes provided by W-Trans (W-Trans 2023b). The ambient noise level along El Camino Real is 70 dBA CNEL or higher (City of Palo Alto 2017). Therefore, a significant impact would occur if traffic noise increases the existing noise environment greater than 1.5 dBA CNEL for ambient noise environments of 65 dBA CNEL and higher. As shown in Table 8, the maximum increase in traffic noise would be less than 0.1 dBA CNEL along El Camino Real and would not exceed the 1.5 dBA CNEL threshold. Therefore, traffic noise impacts would be less than significant.

Table 8 Predicted Increases in Traffic Noise Levels

| Roadway Segment | Average Daily Trips (ADT) | | Noise Level Increase (dBA CNEL) | Significant Impact? |
|--------------------------------------|---------------------------|-----------------------|---------------------------------|---------------------|
| | Existing | Existing Plus Project | | |
| El Camino Real - North of Hansen Way | 29,020 | 29,135 | <0.1 | No |

Note: The estimated traffic noise increase is based on the following formula: $10 \times \text{LOG}(\text{future traffic volume} / \text{existing traffic volume})$.
 Source: W-Trans 2023a and b.

Construction Vibration

To determine potential impacts from construction vibration, this analysis is based on vibration limits contained in the 2018 Federal Transit Administration’s (FTA) *Transit Noise and Vibration Impact Assessment Manual*, which are shown in Table 9.

Table 9 Groundborne Vibration Architectural Damage Criteria

| Building Category | PPV (in/sec) |
|---|--------------|
| I. Reinforced concrete, steel, or timber (no plaster) | 0.5 |
| II. Engineered concrete and masonry (no plaster) | 0.3 |
| III. Non-engineered timber and masonry buildings | 0.2 |
| IV. Buildings extremely susceptible to vibration damage | 0.12 |

in/sec = inches per second; PPV = peak particle velocity
 Source: FTA 2018

Based on FTA recommendations, limiting vibration levels to below 0.2 inches per second peak particle velocity (in/sec PPV) at residential structures would prevent structural damage regardless of building construction type (FTA 2018).

Project construction would not involve activities typically associated with excessive groundborne vibration such as pile driving or blasting. As shown in Table 10, the greatest anticipated source of vibration during general project construction activities would be from a vibratory roller, which may be used within 40 feet of the nearest residential structure during construction. A vibratory roller creates a vibration level of approximately 0.210 in/sec PPV at a distance of 25 feet. At the distance of 40 feet, vibration levels would attenuate to 0.104 in/sec PPV, which is lower than the FTA threshold of 0.2 in/sec PPV. Therefore, temporary vibration impacts associated with construction would be less than significant. In addition, the project does not include any substantial vibration sources associated with operation, such as railroad or subway lines. Thus, operational vibration impacts would be less than significant.

Table 10 Groundborne Vibration Levels

| Equipment | Approximate Vibration Level (in/sec PPV) at 40 feet |
|------------------|---|
| Vibratory Roller | 0.104 |
| Large Bulldozer | 0.044 |
| Loaded Truck | 0.038 |
| Small Bulldozer | 0.001 |

Source: FTA 2018; Appendix B

Conclusion

Construction noise would generate noise levels of up to 90 dBA L_{max} at the nearest residences, which would not exceed the City's threshold of 110 dBA L_{max} . Construction noise would be temporary with the highest levels occurring for only a short duration (10 days for grading and 20 days for paving). Construction noise impacts would be less than significant. In addition, construction would be limited to hours allowed by the City's Municipal Code, which are 8:00 a.m. to 8:00 p.m., Monday through Friday, 9:00 a.m. to 8:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. Therefore, construction would occur outside normal sleep hours. Vibration from construction equipment would not exceed the FTA threshold of 0.2 in/sec PPV at the nearest off-site residential structures, and impacts would be less than significant.

The project would introduce sources of operational noise to the site, including mechanical equipment (e.g., HVAC). Assuming that the units were to run for an entire 24-hour period, operational noise at the closest residential property line to the northwest would be up to of 59 dBA CNEL, which would not produce a noise level more than 6 dBA above the local ambient noise level of 61 dBA CNEL. Therefore, impacts would be less than significant.

Project traffic would increase traffic noise by less than 0.1 dBA CNEL over existing conditions on El Camino Real. Therefore, the project would not cause a traffic noise increase of more than 1.5 dBA CNEL, and traffic noise impacts would be less than significant. The project would meet the requirements for Noise under *criterion (d)*.

C. Air Quality

A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of the ozone standard by releasing emissions that equal or exceed the established long term quantitative thresholds for pollutants or causes an exceedance of a state or federal ambient air quality standard for any criteria pollutant. Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere. Primary criteria pollutants include reactive organic gases (ROG), nitric oxides (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), and particulate matter (PM_{10} and $PM_{2.5}$). PM_{10} is particulate matter measuring no more than 10 microns in diameter, while $PM_{2.5}$ is fine particulate matter measuring no more than 2.5 microns in diameter. The project site is located within the San Francisco Bay Area Basin and falls under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). In April 2022, the BAAQMD Board of Directors adopted updated thresholds of significance to assist in the review of projects under CEQA.

Thresholds of Significance and Screening Criteria

This air quality analysis conforms to the methodologies recommended by BAAQMD's *CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (BAAQMD 2022). Table 11 shows the significance thresholds that have been recommended by BAAQMD for project operations and construction in the San Francisco Bay Area Air Basin.

Table 11 Air Quality Thresholds of Significance

| Pollutant/ Precursor | Construction-Related Thresholds | | Operation-Related Thresholds | |
|-------------------------|---|-----------------------------------|--------------------------------------|--|
| | Average Daily Emissions (pounds per day) | Maximum Annual Emissions (tpy) | Average Daily Emissions (lbs/day) | |
| ROG | 54 | 10 | 54 | |
| NO _x | 54 | 10 | 54 | |
| PM ₁₀ | 82 (exhaust) | 15 | 82 | |
| PM _{2.5} | 54 (exhaust) | 10 | 54 | |

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

Source: BAAQMD 2022, Table 3-1

According to BAAQMD’s screening criteria, construction of a project would result in less than significant impacts related to criteria air pollutants if:

- The project size is at or below the applicable screening level size shown in Table 4-1.
- All best management practices (see Table 5-2 in Chapter 5, “Project-Level Air Quality Impacts”) are included in the project design and implemented during construction.
- Construction-related activities would not overlap with operational activities.
- Construction-related activities would not include:
 - demolition,
 - simultaneous occurrence of two or more construction phases (e.g., paving and building construction would occur simultaneously),
 - extensive site preparation (e.g., grading, cut and fill, or earth movement),
 - extensive material transport (e.g., soil import and export requiring a considerable amount of haul truck activity), or
 - stationary sources (e.g., backup generators) subject to Air District rules and regulations.

If a project includes any of the screening criteria above, then the lead agency would need to perform a detailed assessment of the project’s criteria air pollutant and precursor emissions.

Additionally, operation of a project would result in less than significant impacts related to criteria air pollutants if:

- The project size is at or below the applicable operational screening level size shown in Table 4-1.
- Operational activities would not include stationary engines (e.g., backup generators) and industrial sources subject to Air District rules and regulations.
- Operational activities would not overlap with construction-related activities.

Construction Emissions

The proposed project would include the construction of 16 townhome units which would be below the BAAQMD’s construction screening criteria of 416 units. Since the project site is currently developed as surface parking and does not contain structures, the proposed project would not include demolition. The project would include 1,600 CY of excavated soil, of which 800 CY would be

used as fill and 800 CY would be exported. Thus, construction-related activities would not include extensive site preparation or extensive material transport. The proposed project would not include simultaneous occurrence of two or more construction phases and would not include stationary sources. In addition, pursuant to Policy N-5.5 of the Palo Alto 2030 Comprehensive Plan (City of Palo Alto 2017), the project must also comply with the Basic Best Management Practices for Construction-Related Fugitive Dust Emissions from the BAAQMD CEQA Guidelines (BAAQMD 2022):

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

The proposed project would satisfy BAAQMD's construction screening criteria and construction-related impacts would be less than significant.

Operational Emissions

The proposed project would involve the construction of 16 townhome units which would be well below the BAAQMD's operational screening criteria of 637 units. Operational activities would not include stationary engines or industrial sources and would not overlap with construction-related activities. Therefore, the proposed project would satisfy BAAQMD's operational screening criteria and operational-related impacts would be less than significant.

CO Emissions

According to BAAQMD, a project would have less than significant CO impacts if project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. As discussed above under Section 3.4B, *Noise*, the El Camino Real and Acacia Avenue intersection has a daily volume of 29,020 (W-Trans 2023b). As discussed in Section 3.4A, *Traffic*, the project would produce an estimated net increase of 115 daily trips, which would increase daily volume to 29,135. The hourly volume would be much less, thus, the project would not exceed the BAAQMD screening threshold of 44,000 vehicles per hour at the intersection of Acacia Avenue and El Camino Real. Impacts to CO emissions would be less than significant.

Conclusion

The proposed project would not result in significant air quality impacts or require analysis for CO hotspots based on BAAQMD criteria. Therefore, the project would meet the requirements for Air Quality under *criterion (d)*.

E. Water Quality

The project site is currently developed with surface parking and as discussed above under Section 3.3, there are no wetlands on or near the project site (USFWS 2021). As a result, construction of the proposed project would not alter the course of a pond or creek or other stream or river. The project site is connected to an existing stormwater drainage system managed and maintained by the city of Palo Alto.

Pursuant to PAMC Chapter 16.11, the project is considered a “significant redevelopment project” because it would result in the replacement of 10,000 square feet or more of impervious surface. Significant redevelopment projects must treat, either through capture, flow-through filtration, or a combination of capture and flow-through filtration, the volume of stormwater specified in the PAMC. Currently the project site is almost entirely covered in impervious paving. The project would replace impervious surfaces with new imperious paving, landscaping, and buildings. Under the proposed project, impervious surfaces would increase by 4,452 square feet when compared to existing conditions. Nonetheless, the proposed project would include 9,098 square feet of pervious surfaces in the form of landscaped areas which would reduce surface runoff and pollutants. Further, the project would include a total of seven bioretention areas dispersed throughout the project site. These bioretention areas would capture and filter runoff before entering the storm drain system, thereby removing pollutants and reducing the rate and volume of stormwater flow. Stormwater leaving the project site would enter the City’s existing stormwater conveyance system via storm drains on site. Impervious surface that would result from the construction of the proposed project would not create or contribute runoff that would exceed the capacity of the existing stormwater conveyance infrastructure or otherwise result in flooding on or near the project site. In addition, the project would be required to adhere to all Bay Area Municipal Regional Stormwater Permit requirements and comply with specifications regarding installation and maintenance for C.3 features as described in the Santa Clara Valley Urban Runoff Pollution Prevention Program C.3 Handbook. The project has also been designed to maintain the historic drainage pattern in the area with respect to neighboring residents on Olive Avenue. Specifically, some of these neighboring residents’ properties drain toward the project site. The project has been designed to ensure that changes would maintain this drainage pattern and would not result in increased flood risk for these neighboring residences.

Because the project would not substantially increase stormwater runoff and would comply with City requirements to control and filter runoff, development of the proposed project would not degrade the quality of stormwater runoff from the site. Impacts related to water quality would be less than significant.

Conclusion

The proposed project would not introduce new surface water discharges, would not substantially increase runoff volumes, result in substantial erosion or siltation, or result in flooding on- or off-site. Additionally, the project would not alter the existing drainage pattern of the site. Therefore, the project would meet the requirements for Hydrology and Water Quality under *criterion (d)*.

3.5 Criterion (e)

The site can be adequately served by all required utilities and public services.

The project would be located in an existing urban area served by existing public utilities and services. The proposed project is relatively small with only 16 units and would not result in a substantial increase in demand for services or utilities. The City of Palo Alto provides water, sewer, and solid waste collection services (through GreenWaste of Palo Alto) to neighboring residences and commercial buildings. The existing utility infrastructure would provide these services to the proposed project. Other services, including gas and electricity, would also be provided to the site by existing service providers.

Conclusion

The proposed project involves infill development on a project site in an urban area that is already served by existing utilities and public services. As discussed under criterion (a), the project is within the allowed density for the site and is consistent with the 2030 Comprehensive Plan land use designation for the site. The project would not change the site's use or increase the intensity of use such that existing utility and public service providers would not be able to serve the project site. Therefore, the project would meet the requirements for Utilities and Service Systems under *criterion (e)*.

4 Exceptions to the Exemption

CEQA Guidelines Section 15300.2 outlines exceptions to the applicability of a Categorical Exemption, including cumulative impacts, significant effects due to unusual circumstances, scenic highways, hazardous waste sites, and historical resources. These exceptions are discussed below. As shown, none of the exceptions would apply.

4.1 Cumulative Impacts Criterion

CEQA Guidelines Section 15300.2 states that “all exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.” Table 12 includes a list of cumulative projects within a 500-foot-radius of the project site.

Table 12 Cumulative Projects List

| Project Location | Land Use | Size | Status | Distance to Project Site |
|-------------------------------------|-------------|---|--------------------|---------------------------------------|
| 3001 El Camino Real | Residential | 129 units | Review Complete | Adjacent to southwest of project site |
| 3200 Park Boulevard/ 340 Portage | Mixed-Use | 74 new townhome units, new parking garage, conversion of automotive use to R&D; 3.25 acres of land dedicated for future park and affordable housing | Under review | Adjacent to northeast of project site |
| 3225 El Camino Real | Mixed-Use | 29,970 sf; 8 units | Under Construction | 360 feet to the southeast |
| 3150 El Camino Real | Residential | 380 units | Under Review | 370 feet to the southeast |

sf = square feet

Source: City of Palo Alto 2023. Cumulative project details were sourced from buildingeye, a citizen-facing mapping interface provided by the City of Palo Alto and available online at <https://paloalto.buildingeye.com/planning> and verified with City planning staff. Excludes single-family homes and duplexes.

As discussed in Section 3.3, Criterion (C) above, the project would not affect sensitive biological resources and therefore would not result in a cumulative impact related to biological resources. As discussed in Sections 3.4, Criterion (D), subsections A and C above, VMT and air quality analyses already take into account cumulative impacts and these impacts were found to be less than significant. As discussed in Section 3.4, Criterion (D), subsection E and Section 3.5, Criterion (E), the proposed project would not contribute pollutants such that water quality would be impacted and would be served by available utilities and public services. Therefore, impacts related to these issue areas were found to be less than significant and the project would not result in a cumulatively considerable contribution to potential cumulative impacts.

The project would involve temporary noise and vibration during construction; however, these effects are localized and would cease upon cessation of construction activities. Therefore, the project would not result in a cumulatively considerable contribution to a cumulative noise increase. Construction noise impacts may overlap for the proposed project and the projects listed below. However, construction noise impacts are temporary. Overall, the project would not result in significant cumulative impacts. Therefore, this exception does not apply to the proposed project.

4.2 Significant Effects due to Unusual Circumstances Criterion

CEQA Guidelines Section 15300.2 states that “a categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.” As discussed under Section 2.1, *Project Location and Setting* above, the project site is currently developed with surface parking. The project site is generally flat and does not possess characteristics which would qualify as unusual circumstances under *CEQA Guidelines* Section 15300.2.

The project site is located within the California-Olive-Emerson groundwater plume, similar to many parcels within this area of the City. Based on a soil investigation of the site, the site may include soil contamination from a historic train track that traversed the site (lead), naturally occurring arsenic in the soil, and volatile organic compounds within groundwater generated from an off-site source. CEQA does not require analysis of impacts of the environment on the project site; therefore, impacts on future tenants at the site is not discussed in this report; however, the City evaluates this issue as part of the planning entitlement process. Specifically, for any project within the plume, applicants are required to coordinate with one of three oversight agencies (the Regional Water Quality Control Board, County Department of Environmental Health, or Department of Toxic Substances Control) to prepare and obtain approval of a site management plan. This plan ensures that the project will meet the state screening level requirements, based on the proposed use, for any contaminants found on the site.

Although any Volatile Organic Compounds released during construction activities dissipate quickly and would not affect the surrounding environment, construction workers participating in active earthmoving work could come into contact with VOCs. The construction contractor and their employees are required to comply with OSHA standards during construction; compliance with existing regulation, e.g. the use of personal protective equipment, would ensure that workers are protected during construction. The construction contractor would also be required to comply with state requirements with respect to classification of soils prior to disposal so that any contaminated soil, if found, is disposed of properly. The contractor would also be required to test pumped groundwater (if pumping occurs) and obtain permits from the RWQCB for disposal of any contaminated groundwater. Compliance with these standard regulations would not preclude the project from being eligible for using the CEQA Categorical exemption.

There are no known unusual circumstances at the project site or related to project operations that would result in a reasonable possibility of significant effects to the environment. This exception would not apply to the project.

4.3 Scenic Highways Criterion

CEQA Guidelines Section 15300.2 states that a categorical exemption “shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway.” There are no designated State Scenic Highways in the vicinity of the project site. The closest scenic highway is I-280 located approximately 2.7 miles southwest of the project site, which has been recognized as eligible for designation as a State Scenic Highway (Caltrans 2018). Due to distance and intervening structures, the project site is not visible from I-280. The project would not damage scenic resources within a highway officially designated as a state scenic highway. This exception would not apply to the project.

4.4 Hazardous Waste Sites Criterion

CEQA Guidelines Section 15300.2 states that a categorical exemption “shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.” A search of the EnviroStor environmental database, the California Department of Toxic Substances Control Hazardous Waste and Substances Sites (Cortese) List, and the GeoTracker Database (SWRCB 2023) was conducted in July 2023 (DTSC 2023). The records review indicated that this project site is listed as an active cleanup site in the GeoTracker Database. The RWQCB identifies sites with leaking underground storage tanks listed on the GeoTracker database to be on the Cortese list pursuant to Section 65962.5. There are no leaking underground storage tanks at the site; the site is not a hazardous materials release site on a list compiled pursuant to Section 65962.5 of the Government Code. The site is located on the GeoTracker database through a voluntary Site Cleanup Program that the applicant applied for as part of the proposed project. The voluntary program, which would be required as a condition of approval for any decision on the project, provides agency oversight on the recommended remediation or control measures to ensure the safety of future occupants for the proposed residential use. This is a voluntary agreement, not a Cleanup and Abatement Order. For this site, the program would determine if lead or arsenic cleanup is warranted for a residential use and to provide oversight of the control measures that will be implemented to protect future residents from volatile organic compounds (VOCs) generated by an off-site-source. Standard conditions of approval would be included as part of any decision and in accordance with the City’s Comprehensive Plan to ensure the safety of future tenants. Specifically, Policy S-3.3 states “Support public health by requiring as part of development review, property owners and private entities to disclose the presence of contaminated soil or groundwater, identify potential health impacts, prevent vapor intrusion and remediate contamination.” The City’s standard condition relates to impacts of the environment on the project rather than impacts of the project on the environment. Therefore, this would not require further evaluation in compliance with CEQA (*CBIA v. BAAQMD*).

Because the project site is not listed as a hazardous waste materials release site on a list compiled pursuant to Section 65962.5, this exception would not apply to the project. Compliance with Policy S-3.3 of the 2030 Comprehensive Plan, as reinforced in the standard COAs, will ensure that the remediation and controls are implemented at the project site to appropriate regulatory standards for the future users, which addresses impacts of the environment on the project and is considered separately from CEQA.

4.5 Historic Resources Criterion

CEQA Guidelines Section 15300.2 states that a categorical exemption “shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.” There are no structures on the project site. There would be no impact to historical resources and this exception does not apply to the project.

Although the project would not result in a substantial adverse change in the significance of a historical resource, the applicant has proposed to follow standard best management practices in the unanticipated event that a buried archeological resource is uncovered during construction. Specifically, the applicant has proposed that if a potential archeological resource is uncovered during construction all work within 100 feet of the discovery would cease until the discovery is evaluated by a Qualified Archaeologist who meets the Secretary of the Interior’s Professional Qualifications Standards for Archaeology. If the find is determined to be an archeological resource, the Qualified Archeologist would recommend appropriate treatment, such as avoidance and preservation in place or creation of an Archaeological Resources Data Recovery and Treatment Plan, depending on the nature of the discovery. If the discovery is Native American in nature, coordination with the appropriate Native American tribe, based on the nature of the discovery, would occur.

5 Summary

Based on this analysis, the proposed 420 Acacia Avenue Project meets all criteria for a Class 32 Categorical Exemption pursuant to *CEQA Guidelines* Section 15332. Further, none of the exceptions to the Categorical Exemption listed in *CEQA Guidelines* Section 15300.2 apply to the proposed project.

6 References

- Bay Area Air Quality Management District (BAAQMD). 2022. BAAQMD's CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?la=en (Accessed July 2023)
- California Department of Transportation (Caltrans). 2018. California State Scenic Highway System Map. <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca> (Accessed July 2023)
- Crocker, Malcolm J. (Editor). 2007. *Handbook of Noise and Vibration Control Book*, ISBN: 978-0-471-39599-7, Wiley-VCH, October
- Department of Toxic Substances Control. 2023. EnviroStor. <https://www.envirostor.dtsc.ca.gov/public/map/> (Accessed July 2023)
- Engineering ToolBox, 2005, Voice Level at Distance. https://www.engineeringtoolbox.com/voice-level-d_938.html, accessed August 17, 2023. (Accessed July 2023)
- Federal Highway Administration (FHWA). 2006. *FHWA Highway Construction Noise Handbook*. (FHWAHEP-06-015; DOT-VNTSC-FHWA-06-02). https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook00.cfm (accessed August 2023).
- Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment*. November. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. (Accessed August 2023).
- Palo Alto, City of. 2001. Tree Technical Manual. https://www.cityofpaloalto.org/files/assets/public/public-works/tree-section/ufmp/tree-technical-manual/cover-corecombined_cpa_ttm-2016-final-copy.pdf (Accessed July 2023)
- _____. 2012. City of Palo Alto Bicycle and Pedestrian Transportation Plan. https://www.cityofpaloalto.org/files/assets/public/transportation/projects/bicycle-pedestrian-transportation-plan_adopted-july-2012.pdf (Accessed July 2023))
- _____. 2017. City of Palo Alto 2030 Comprehensive Plan. https://www.cityofpaloalto.org/files/assets/public/planning-amp-development-services/3.-comprehensive-plan/comprehensive-plan/full-comp-plan-2030_with-june21-amendments.pdf (Accessed July 2023)
- _____. 2021. Chapter 18.24 Objective Design Standards. <https://www.cityofpaloalto.org/files/ec3efc13-f612-4225-9037-e4d1b29daae9/Palo-Alto-18.24-Objective-Design-Standards-03-11-21-Clean.pdf>
- State Water Resources Control Board. 2023. Geotracker Database. <https://geotracker.waterboards.ca.gov/> (Accessed July 2023).

U.S. Fish and Wildlife Services (USFWS). 2021. National Wetlands Inventory.
<https://www.fws.gov/wetlands/data/mapper.html> (Accessed July 2023)

_____. 2023. Critical Habitat Portal. <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>
(Accessed July 2023)

W-Trans. 2023a. Local Transportation Analysis for 420 Acacia Avenue.

W-Trans. 2023b. Local Transportation Analysis for the 3001 El Camino Real Project.

Appendix A

Local Transportation Analysis



September 26, 2023

Ms. Nichole Yee
Rincon Consultants, Inc.
449 15th Street, Suite 150
Oakland, California 94612

Local Transportation Analysis for 420 Acacia Avenue

Dear Ms. Yee;

As requested, W-Trans has prepared a Local Transportation Analysis for the proposed residential development to be located at 420 Acacia Avenue in the City of Palo Alto. The purpose of this letter is to document the project’s potential to influence local transportation operations. Consistent with Senate Bill (SB) 743, the project’s transportation impacts were analyzed using Vehicle Miles Traveled (VMT). According to the City of Palo Alto’s Local Transportation Analysis policy, a Level of Service operational analysis is not required since this project would generate fewer than 50 net-new a.m. or p.m. peak hour trips. Similarly, a detailed operational analysis is not required per the policies outlined in the Santa Clara Valley Transportation Agency’s *Transportation Impact Analysis Guidelines* since fewer than 100 new a.m. or p.m. peak hour trips would be generated by the project.

Project Description

The project site is located at 420 Acacia Avenue in the City of Palo Alto and the project includes the demolition of an at-grade parking lot to make way for the construction of four three-story buildings containing 16 townhomes. A total of 32 parking spaces would be provided comprised of two covered spaces at each dwelling unit. Storage for bicycles would be provided via 16 long-term indoor bicycle parking spaces and two outdoor short-term spaces.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021, based on the “Single Family Attached Housing” (Land Use #215) rates as this land use most closely matches the proposed project. Trip credits for the existing land use (a parking lot) are not included since this type of land use does not independently generate any trips. The project is not anticipated to generate any internal capture trips, pass-by trip credits or any other trip reductions. As shown in Table 1 the project is expected to generate 115 new trips per day, including 8 trips during the a.m. peak hour and 9 during the p.m. peak hour.

Table 1 – Trip Generation Summary

| Land Use | Units | Daily | | AM Peak Hour | | | | PM Peak Hour | | | |
|--------------------------------|-------|-------|-------|--------------|-------|----|-----|--------------|-------|----|-----|
| | | Rate | Trips | Rate | Trips | In | Out | Rate | Trips | In | Out |
| Single Family Attached Housing | 16 du | 7.20 | 115 | 0.48 | 8 | 3 | 5 | 0.57 | 9 | 5 | 4 |

Note: du = dwelling unit

Alternative Modes

Pedestrian Facilities

Given the proximity of the site to surrounding residential and retail uses, as well as the California Avenue Caltrain Station, it is reasonable to assume that some residents would choose to walk to destinations near the site and use the existing sidewalk network. Sidewalk connectivity is continuous throughout the surrounding neighborhood. The project does not include any changes to the existing pedestrian network.

Project Summary – Internal pedestrian access within the site would be provided via a network of sidewalks and curb ramps. All pedestrian facilities would need to be built to satisfy current City of Palo Alto Public Works Department standards.

Finding – Pedestrian facilities serving the project site are adequate.

Bicycle Network

The *City of Palo Alto Bicycle & Pedestrian Transportation Plan, 2012*, classifies bikeways into four categories:

- **Class I Bikeways/Multi-Use Paths** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bikeways** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bikeways** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Bicycle Boulevards** – Bicycle boulevards are signed, shared roadways with especially low motor vehicle volumes such that motorists passing bicyclists can use the full width of the roadway. Bicycle boulevards prioritize convenient and safe bicycle travel through traffic calming strategies, wayfinding, and other measures.

In the immediate project area, Class II bikeways exist west of El Camino Real on both Hansen Way and Page Mill Road. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. Table 2 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *City of Palo Alto Bicycle & Pedestrian Transportation Plan, 2012*.

| Table 2 – Bicycle Facility Summary | | | | |
|---|-------------|-----------------------|--------------------|------------------|
| Status Facility | Type | Length (miles) | Begin Point | End Point |
| Existing | | | | |
| <i>Page Mill Rd</i> | II | 2.9 | El Camino Real | Berry Hill Ct |
| <i>Hansen Wy</i> | II | 0.5 | El Camino Real | Page Mill Rd |
| Planned | | | | |
| <i>Page Mill Rd</i> | I | 0.5 | Hanover St | El Camino Real |
| <i>Portage Rd</i> | II | 0.3 | El Camino Real | Park Blvd |
| <i>El Camino Real</i> | II | 1.2 | Page Mill Rd | Maybell Ave |
| <i>Oregon Expy</i> | III | 2.0 | El Camino Real | W Bayshore Rd |

Source: *City of Palo Alto Bicycle & Pedestrian Transportation Plan, Alta Planning & Design, 2012*

Existing bicycle facilities, including the bicycle lanes on Hansen Way and Page Mill Road, together with shared use of minor streets provide adequate access for bicyclists within the vicinity of the project site.

Finding – Existing, proposed, and planned bicycle facilities serving the project site would be adequate.

Transit Facilities

Development sites which are located within a half-mile (2,640-foot) walk of a transit stop are generally considered to be adequately served by transit.

Santa Clara Valley Transportation Authority (VTA)

The Santa Clara Valley Transportation Authority (VTA) provides fixed route bus service and light-rail train service in Santa Clara County. Two bicycles can be carried on most VTA buses. Bike rack space is on a first-come, first-served basis. Additional bicycles are allowed on VTA buses at the discretion of the driver.

Within a half-mile walk of the project site there are bus stops for Routes 22, 89, Rapid 522, Express 101, Express 102, Express 103, and Express 104. The combined service areas of these routes provide access between the project site and a variety of destinations such as the Palo Alto Transit Center, Palo Alto VA Hospital, Stanford Research Park, Santa Clara University, Winchester Light Rail Station, Santa Teresa Light Rail Station, Downtown San Jose, and Eastridge Transit Center. Bus service for these routes is generally available daily during typical travel times, with some available 24 hours, at 15- to 30-minute headways.

Dial-a-ride, also known as paratransit or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. VTA Paratransit is designed to serve the needs of individuals with disabilities within Palo Alto and Santa Clara County.

Dumbarton Express

The Dumbarton Express service is provided through a consortium of AC Transit, Bay Area Rapid Transit (BART), Union City Transit, Caltrain, SamTrans and the VTA. This service is provided on weekdays as an express bus service across the Dumbarton Bridge, connecting Palo Alto and Menlo Park with Union City, Fremont, and Newark. Route DB1 provides service from the Union City BART Station to the Stanford research park and operates from 5:10 a.m. to 8:30 p.m. with headways ranging from 25 minutes to approximately one hour depending on the time of day. The nearest bus stop for Route DB1 is located approximately 0.2 miles away from the project site at the intersection of El Camino Real/Page Mill Road. Weekend service is not provided on Route DB1.

Stanford Transportation Shuttles

Stanford Transportation provides Research Park and Shopping Express shuttles. The Research Park shuttle provides rides from the Palo Alto Transit Center to the Research Park during the morning commute period and back to the Palo Alto Transit Center during the evening commute. Shuttles are typically available at 15- to 30-minute headways between 7:00 a.m. to 10:00 a.m. in the morning and 3:20 p.m. to 7:00 pm in the evening. The Shopping Express shuttle runs between the Palo Alto Transit Center, Stanford campus, and the San Antonio Shopping Center. This route runs Friday to Sunday with one-hour headways between 3:00 p.m. and 10:00 p.m. The nearest shuttle stops for these services are located approximately 0.3 miles away from the proposed project site at the intersection of El Camino Real/Page Mill Road.

Caltrain

Caltrain is the commuter rail line serving the San Francisco Peninsula. It connects Palo Alto with San Francisco to the north and San Jose and Gilroy to the south. The California Avenue Caltrain Station is located at 101 California Avenue which is approximately two miles from the project site. Both bicycle racks and lockers are provided at the train station. Bicycle racks are available on a first-come, first-served basis, while lockers must be reserved. Weekday train service is provided at this station with both northbound and southbound trains on approximately 30-minute to one-hour headways from roughly 5:00 a.m. to 11:40 p.m.

On-Demand Transportation Services

On-demand private vehicle services (e.g., taxi, Uber, Lyft, etc.) are available in Palo Alto 24 hours a day. These vehicles can be used for trips both locally and to farther destinations.

Project Summary – If 20 percent of peak hour trips were made by transit, there would be two additional transit riders during each peak hour, spread out over multiple buses and times. The volume of riders expected to be generated by the project would therefore be unlikely to exceed the carrying capacity of the existing transit services near the project site, especially when spread over several buses and times.

Finding – The project site is adequately served by transit since existing transit stops are less than one-half mile away.

Significance Finding – The proposed project would not conflict with any plans or policies related to pedestrian, bicycle and transit facilities or travel and these modes would be adequately served by existing facilities and routes. The project’s impact on such modes would therefore be less-than-significant.

Vehicle Miles Traveled (VMT) Analysis

Guidance provided by both the California Governor’s Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018, and the City of Palo Alto VMT Transportation Analysis Methodology Under CEQA (Dated June 15, 2020), were used. Guidance provided in these documents recommends the use of screening thresholds to quickly identify when a project can be expected to result in a less-than-significant impact without conducting a detailed study. (See CEQA Guidelines, 15036(c)(3)(C), 15128, and Appendix G.) The Palo Alto VMT Criteria indicates that residential projects located in areas where the baseline VMT is 15 or more percent below the existing county average per resident could be considered to be in low-VMT areas and therefore presumed to have a less-than-significant VMT impact.

According to the Santa Clara Countywide VMT Evaluation Tool (Version 2), the countywide VMT per capita is 13.33 miles. Based on the Palo Alto VMT Criteria, a project generating a VMT that is 15 percent or more below this value, or 11.33 miles per capita or less, would have a less-than-significant VMT impact. The evaluation tool estimates that this project would have a VMT rate of 5.64 miles per capita. Because this per capita VMT rate is below the significance threshold of 11.33 miles, the project would be considered to have a less-than-significant VMT impact. A summary of the VMT findings is provided in Table 3. A copy of the Santa Clara Countywide Evaluation Tool screening results output is enclosed.

Table 3 – Vehicle Miles Traveled Analysis Summary

| VMT Metric | Baseline VMT Rate | Significance Threshold | Project VMT Rate | Resulting Significance |
|--|-------------------|------------------------|------------------|------------------------|
| Household VMT per Capita (Countywide Baseline) | 13.33 | 11.33 | 5.64 | Less Than Significant |

Note: VMT Rate is measured in VMT/Capita, or the number of daily miles driven per resident

Significance Finding – The project would be expected to have a less-than-significant transportation impact on vehicle miles traveled.

Site Circulation and Access

Vehicular Site Access

The proposed project would include the continued use of the existing driveway at the eastern terminus of Acacia Avenue as well as the construction of a new driveway approximately 180 feet west of the existing driveway. Both driveways would provide full access, as shown in the enclosed site plan. The addition of the new driveway requires the elimination of one or two on-street parking spaces along Acacia Avenue. Site access to Park Boulevard is also provided through the adjoining property to the east via a network of shared aisleways.

Sight Distance

At driveways, a substantially clear line of sight should be maintained between the driver of a vehicle waiting to enter the street and the driver of an approaching vehicle. Sight distances along Acacia Avenue at each of the project driveways were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances for driveway approaches are based on stopping sight distance and use the approach travel speed as the basis for determining the recommended sight distance. Based on the posted speed limit of 25 mph, the minimum stopping sight distance required on Acacia Avenue is 150 feet. A review in the field shows that sight distances at both proposed project driveway locations would exceed 150 feet in every direction, so are adequate.

To maintain the sight distance at the proposed driveway, it is suggested that, in accordance with the Federal Highway Administration's guide on *Vegetation Control for Safety*, 2008, any vegetation near the project's driveways should be trimmed to an appropriate height of three feet or less and trees should be trimmed so that nothing hangs below a height of seven feet from the surface of the roadway. This provides a gap in vegetation for drivers to observe oncoming traffic and safely maneuver from a driveway. Additionally, it is recommended that on-street parking be restricted for 20 feet on either side of the project driveways on Acacia Avenue, which is consistent with guidance from the American Association of State Highway and Transportation Officials' *A Policy on Geometric Design of Highways and Streets* and the National Association of City Transportation Officials' *Urban Street Design*.

For a motorist traveling eastbound on Acacia Avenue intending to turn left into either proposed project driveway, the stopping sight distance looking east along Acacia Avenue is also greater than 150 feet, providing adequate visibility to allow a following driver to observe and react to a vehicle that may stop in the roadway before making a left turn into the driveway.

Finding – Adequate sight distance is available at the existing and proposed project driveway locations to accommodate all turns entering and exiting the site.

Recommendations – To achieve a minimum sight distance of 150 feet at each driveway access point, it is recommended that on-street parking be restricted for 20 feet on either side of each driveway. Also, it is recommended that existing or planned vegetation along the project frontage on Acacia Avenue be trimmed and maintained to ensure continued adequate visibility.

Significance Finding – With implementation of a landscaping management program, the proposed project would have a less-than-significant impact on safety as it would not introduce any new hazards.

Emergency Vehicle Access

The project's driveways and internal parking lot circulation network would need to be designed to meet current City standards and so can be expected to accommodate the access requirements for passenger vehicles. Vehicle access would be provided within the internal parking lot via a network of 20- to 32.5-foot-wide drive aisles. These aisles would have sufficient width to accommodate two-way traffic operations for circulating vehicles, as well as parking maneuvers to/from covered (garage) parking spaces.

All buildings are accessible by fire apparatus since each exterior wall is within 150 feet of Acacia Avenue thereby satisfying the conditions specified by the *California Fire Code (CFC), Section 503.1.1* which states "Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45,720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility."

It is noted that the Palo Alto Fire Department has sole responsibility for determining the suitability of the project site for adequate fire apparatus vehicle access.

Since all roadway users must yield the right-of-way to emergency vehicles when using their sirens and lights, the added project-generated traffic would not impact access or response times for emergency vehicles.

Significance Finding – The project would result in a less-than-significant impact regarding adequacy of emergency response since emergency vehicles are able to access the site from the public street and all roadway users must yield to emergency vehicles when using their lights and sirens.

Parking Facilities

The project was analyzed to determine whether the proposed parking supply would be sufficient to satisfy City Code requirements. The project site as proposed would provide a total of 32 parking spaces comprised of two covered spaces at each dwelling unit.

The City of Palo Alto parking supply requirements stipulate that 32 spaces are required for this project. This requirement is based on the *City of Palo Alto Municipal Code, Chapter 18.52.040; Off-Street Parking, Loading and Bicycle Facility* which states that two spaces are required for each dwelling unit for single-family residential developments and at least one space per unit must be covered.

The proposed parking supply of 32 spaces is equal to the number of required spaces by the City Code.

Finding – The number of parking spaces provided by the project would satisfy the City's parking Code requirement.

Bicycle Storage

The *Palo Alto Municipal Code (Chapter 18.52.040 – Off-Street Parking, Loading and Bicycle Facility Requirements)* states that one long-term bicycle space shall be provided for every unit and one short-term space for every ten units for multi-family residential developments. Thus, the City Code requires a minimum of 16 long-term bicycle parking spaces and two short-term spaces to be provided at the project site. The proposed project would provide 34 bicycle parking spaces comprised of 32 long-term spaces in garages and two short-term spaces within the outdoor courtyard.

Finding – The proposed supply of 34 bicycle parking spaces is more than the required amount of 18.

Conclusions and Recommendations

- The proposed project would generate an average of 115 net-new daily trips, including 8 new trips during the a.m. peak hour and 9 new trips during the p.m. peak hour.
- Pedestrian, bicycle, and transit facilities would be adequate to serve the project as proposed based on the comprehensive network of pedestrian, bicycle and transit facilities that exist within the study area. The project would not conflict with any plans or policies for these modes, resulting in a less-than-significant impact.
- The proposed project would have a less-than-significant transportation impact on vehicle miles traveled.
- Adequate sight lines are available at the existing and proposed project driveway locations. To maintain adequate sight lines, vegetation along the project frontage on Acacia Avenue should be trimmed and maintained to ensure that all landscaping lies below three feet in height of above seven feet. With a maintenance program implemented the project would not introduce any hazards and its impact would be less than significant.

- Emergency access and circulation would function acceptably, and traffic from the proposed development would be expected to have a less-than-significant impact on emergency response times.
- The proposed parking supply of 32 spaces is equal to the minimum City requirement.
- The 34 proposed bicycle parking spaces would be more than enough to meet the City's requirement for bicycle storage facilities.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,


Kenneth Jeong, PE
Senior Traffic Engineer


Mark Spencer, PE
Senior Principal



MES/kbj/PAL025.L1

Enclosure: VMT Output Report, Site Plan

Project Details

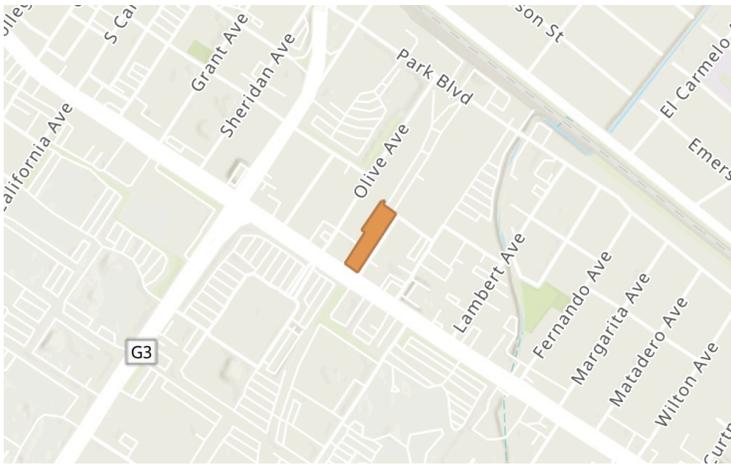
Timestamp of Analysis May 25, 2023, 02:32:08 PM

Project Name 420 Acacia Avenue

Project Description The proposed project includes sixteen (16) townhomes arranged in four (4) buildings.

Project Location Map

| | | |
|---------------|----------|-----|
| Jurisdiction: | APN | TAZ |
| Palo Alto | 13238072 | 517 |



Analysis Details

| | |
|----------------------|------------------------------------|
| Data Version | VTA Countywide Model December 2019 |
| Analysis Methodology | TAZ |
| Baseline Year | 2023 |

Project Land Use

Residential:

Single Family DU: 16

Multifamily DU:

Total DUs: 16

Non-Residential:

Office KSF:

Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income: 0 %

Very Low Income: 0 %

Low Income: 0 %

Parking:

Motor Vehicle Parking: 32

Bicycle Parking: 16

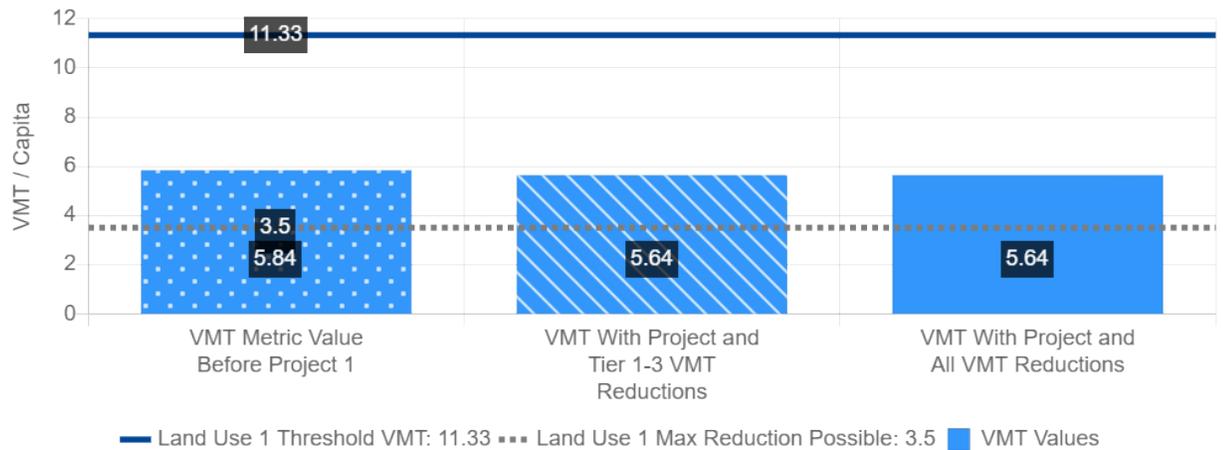
Proximity to Transit Screening

Inside a transit priority area? Yes (Pass)

Residential Vehicle Miles Traveled (VMT) Screening Results

| | |
|---|---------------------------|
| Land Use Type 1: | Residential |
| VMT Metric 1: | Home-based VMT per Capita |
| VMT Baseline Description 1: | County Average |
| VMT Baseline Value 1: | 13.33 |
| VMT Threshold Description 1 / Threshold Value 1: | -15% / 11.33 |
| Land Use 1 has been Pre-Screened by the Local Jurisdiction: | N/A |

| | Without Project | With Project & Tier 1-3 VMT Reductions | With Project & All VMT Reductions |
|---|-----------------|--|-----------------------------------|
| Project Generated Vehicle Miles Traveled (VMT) Rate | 5.84 | 5.64 | 5.64 |
| Low VMT Screening Analysis | Yes (Pass) | Yes (Pass) | Yes (Pass) |



Tier 1 Project Characteristics

PC01 Increase Residential Density

| | |
|-----------------------------------|-------|
| Existing Residential Density: | 9.9 |
| With Project Residential Density: | 10.73 |

PC02 Increase Residential Diversity

| | |
|---|------|
| Existing Residential Diversity Index: | 0.61 |
| With Project Residential Diversity Index: | 0.61 |

PC03 Affordable Housing

PC04 Increase Employment Density

| | |
|----------------------------------|-------|
| Existing Employment Density: | 41.21 |
| With Project Employment Density: | 41.21 |



THIS PLAN IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, TO CONVEY DESIGN CONCEPTS AND INTENT.
 FOR DETAILED SITE PLAN INCLUDING DIMENSIONS, REFER TO SHEET C-3.
 FOR DETAILED LANDSCAPE PLAN, REFER TO T-4, L-1.0, L-1.1, L-1.3, L-2.0, L-3.0, L-3.1
 * DENOTE BMR UNITS. ACCESSIBLE UNITS ARE PROVIDED PER CBC CHAPTER 11A.

ILLUSTRATIVE PLAN

ACACIA AVENUE LOT 2 | ACACIA CAMINO INVESTORS LLC

DAHLIN GROUP ARCHITECTURE | PLANNING

WWW.DAHLINGROUP.COM

297.088 | 12 MAY 2023



DAHLIN GROUP
 5865 Owens Drive
 Pleasanton, California 94588
 925-251-7200

Appendix B

Supporting Noise Data

Noise Measurement Data

LT-1

Freq Weight : A
 Time Weight : SLOW
 Level Range : 30-90
 Max dB : 87.7 - 2022/11/14 16:28:24
 Level Range : 30-90
 SEL : 119.3
 Leq : 56.9

| No. s | Date Time | (dB) | | | | |
|-------|---------------------|------|------|------|------|------|
| 1 | 2022/11/14 08:59:58 | 53.7 | 45.5 | 62.7 | 52.0 | 54.1 |
| 6 | 2022/11/14 09:19:58 | 60.6 | 58.4 | 55.7 | 50.6 | 56.2 |
| 11 | 2022/11/14 09:39:58 | 59.8 | 59.2 | 62.5 | 56.3 | 61.2 |
| 16 | 2022/11/14 09:59:58 | 63.0 | 52.2 | 56.1 | 60.5 | 61.5 |
| 21 | 2022/11/14 10:19:58 | 56.8 | 59.6 | 63.1 | 58.0 | 57.9 |
| 26 | 2022/11/14 10:39:58 | 57.3 | 55.7 | 53.5 | 51.9 | 57.4 |
| 31 | 2022/11/14 10:59:58 | 54.9 | 51.4 | 59.4 | 59.8 | 45.7 |
| 36 | 2022/11/14 11:19:58 | 56.0 | 60.4 | 53.4 | 49.0 | 54.3 |
| 41 | 2022/11/14 11:39:58 | 52.6 | 48.3 | 51.7 | 60.6 | 52.6 |
| 46 | 2022/11/14 11:59:58 | 54.6 | 62.1 | 57.1 | 59.6 | 59.0 |
| 51 | 2022/11/14 12:19:58 | 62.0 | 61.2 | 59.5 | 51.9 | 54.2 |
| 56 | 2022/11/14 12:39:58 | 54.0 | 55.5 | 58.5 | 55.5 | 51.3 |
| 61 | 2022/11/14 12:59:58 | 65.1 | 60.0 | 52.5 | 59.0 | 60.7 |
| 66 | 2022/11/14 13:19:58 | 59.3 | 56.7 | 57.4 | 56.3 | 49.4 |
| 71 | 2022/11/14 13:39:58 | 53.3 | 43.5 | 47.8 | 60.2 | 54.2 |
| 76 | 2022/11/14 13:59:58 | 54.8 | 43.1 | 47.9 | 61.4 | 48.2 |
| 81 | 2022/11/14 14:19:58 | 47.7 | 58.0 | 55.9 | 61.0 | 59.3 |
| 86 | 2022/11/14 14:39:58 | 58.1 | 61.7 | 52.9 | 61.8 | 60.1 |
| 91 | 2022/11/14 14:59:58 | 45.1 | 53.1 | 53.5 | 54.7 | 45.5 |
| 96 | 2022/11/14 15:19:58 | 59.3 | 54.2 | 60.6 | 59.2 | 60.3 |
| 101 | 2022/11/14 15:39:58 | 57.4 | 59.7 | 58.8 | 58.1 | 62.3 |
| 106 | 2022/11/14 15:59:58 | 57.1 | 54.4 | 52.9 | 57.8 | 57.6 |
| 111 | 2022/11/14 16:19:58 | 67.9 | 57.1 | 56.1 | 59.6 | 55.4 |
| 116 | 2022/11/14 16:39:58 | 57.1 | 49.5 | 55.6 | 50.9 | 54.7 |
| 121 | 2022/11/14 16:59:58 | 62.6 | 58.9 | 53.8 | 57.6 | 55.4 |
| 126 | 2022/11/14 17:19:58 | 58.9 | 53.3 | 59.2 | 57.2 | 55.2 |
| 131 | 2022/11/14 17:39:58 | 59.5 | 51.9 | 60.4 | 50.9 | 58.6 |
| 136 | 2022/11/14 17:59:58 | 59.3 | 49.7 | 56.1 | 54.1 | 52.4 |
| 141 | 2022/11/14 18:19:58 | 53.8 | 57.6 | 57.7 | 58.2 | 56.4 |
| 146 | 2022/11/14 18:39:58 | 64.0 | 60.2 | 55.8 | 57.0 | 59.1 |
| 151 | 2022/11/14 18:59:58 | 58.0 | 57.2 | 62.0 | 54.5 | 45.2 |
| 156 | 2022/11/14 19:19:58 | 53.4 | 47.2 | 55.8 | 56.8 | 58.8 |
| 161 | 2022/11/14 19:39:58 | 51.5 | 53.8 | 57.9 | 55.3 | 59.2 |
| 166 | 2022/11/14 19:59:58 | 60.7 | 52.3 | 60.1 | 61.3 | 50.2 |
| 171 | 2022/11/14 20:19:58 | 55.5 | 48.7 | 50.5 | 57.3 | 58.4 |
| 176 | 2022/11/14 20:39:58 | 44.5 | 50.4 | 58.7 | 54.4 | 55.9 |
| 181 | 2022/11/14 20:59:58 | 43.4 | 60.1 | 51.9 | 51.4 | 45.5 |
| 186 | 2022/11/14 21:19:58 | 47.6 | 50.3 | 50.4 | 47.6 | 57.5 |
| 191 | 2022/11/14 21:39:58 | 52.0 | 51.0 | 45.4 | 52.8 | 53.6 |
| 196 | 2022/11/14 21:59:58 | 59.2 | 50.4 | 44.9 | 48.5 | 45.5 |
| 201 | 2022/11/14 22:19:58 | 53.7 | 55.3 | 48.4 | 46.3 | 44.6 |
| 206 | 2022/11/14 22:39:58 | 47.6 | 48.2 | 43.9 | 49.6 | 54.5 |
| 211 | 2022/11/14 22:59:58 | 55.5 | 42.1 | 52.2 | 48.6 | 55.5 |
| 216 | 2022/11/14 23:19:58 | 48.2 | 46.1 | 42.1 | 42.4 | 61.7 |
| 221 | 2022/11/14 23:39:58 | 53.6 | 47.2 | 41.6 | 57.9 | 42.8 |
| 226 | 2022/11/14 23:59:58 | 49.4 | 55.9 | 42.6 | 43.3 | 42.6 |
| 231 | 2022/11/15 00:19:58 | 54.2 | 44.6 | 52.6 | 61.5 | 46.7 |
| 236 | 2022/11/15 00:39:58 | 41.7 | 41.0 | 42.6 | 44.4 | 42.4 |
| 241 | 2022/11/15 00:59:58 | 41.9 | 42.7 | 42.8 | 41.9 | 51.6 |
| 246 | 2022/11/15 01:19:58 | 40.7 | 41.1 | 46.6 | 50.7 | 43.3 |
| 251 | 2022/11/15 01:39:58 | 43.1 | 45.2 | 50.6 | 41.6 | 43.5 |
| 256 | 2022/11/15 01:59:58 | 47.5 | 41.9 | 41.3 | 41.4 | 41.5 |
| 261 | 2022/11/15 02:19:58 | 42.9 | 44.2 | 55.9 | 41.5 | 42.2 |
| 266 | 2022/11/15 02:39:58 | 41.9 | 43.8 | 41.6 | 41.3 | 42.2 |
| 271 | 2022/11/15 02:59:58 | 47.3 | 45.1 | 56.2 | 45.5 | 44.5 |
| 276 | 2022/11/15 03:19:58 | 53.0 | 46.7 | 47.3 | 43.1 | 43.7 |
| 281 | 2022/11/15 03:39:58 | 49.0 | 44.5 | 42.2 | 43.0 | 43.0 |
| 286 | 2022/11/15 03:59:58 | 44.0 | 45.1 | 50.4 | 44.2 | 44.9 |
| 291 | 2022/11/15 04:19:58 | 44.8 | 45.5 | 48.7 | 43.5 | 45.4 |
| 296 | 2022/11/15 04:39:58 | 57.0 | 47.4 | 51.2 | 56.1 | 55.9 |
| 301 | 2022/11/15 04:59:58 | 49.7 | 53.9 | 47.6 | 49.1 | 48.8 |
| 306 | 2022/11/15 05:19:58 | 49.6 | 55.9 | 58.7 | 56.0 | 61.0 |
| 311 | 2022/11/15 05:39:58 | 49.7 | 58.8 | 49.3 | 53.1 | 55.0 |
| 316 | 2022/11/15 05:59:58 | 49.4 | 50.2 | 60.8 | 53.2 | 54.8 |
| 321 | 2022/11/15 06:19:58 | 56.0 | 49.7 | 59.8 | 58.0 | 58.3 |
| 326 | 2022/11/15 06:39:58 | 57.5 | 51.8 | 56.4 | 59.4 | 57.8 |
| 331 | 2022/11/15 06:59:58 | 60.8 | 54.4 | 59.8 | 60.6 | 60.6 |
| 336 | 2022/11/15 07:19:58 | 60.8 | 54.1 | 57.3 | 65.2 | 63.9 |
| 341 | 2022/11/15 07:39:58 | 62.7 | 55.8 | 60.3 | 57.4 | 59.8 |
| 346 | 2022/11/15 07:59:58 | 58.0 | 62.8 | 58.3 | 57.3 | 58.1 |
| 351 | 2022/11/15 08:19:58 | 60.3 | 56.4 | 59.4 | 62.1 | 61.8 |
| 356 | 2022/11/15 08:39:58 | 63.6 | 56.5 | 60.1 | 61.3 | 61.5 |

Roadway Construction Noise Model (RCNM) Outputs

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/11/2023
 Case Description: Building Construction

**** Receptor #1 ****

| Description | Land Use | Baselines (dBA) | | |
|-----------------------|-------------|-----------------|---------|-------|
| | | Daytime | Evening | Night |
| Building Construction | Residential | 65.0 | 55.0 | 50.0 |

| Description | Impact Device | Usage (%) | Equipment | | | |
|------------------|---------------|-----------|-----------------|-------------------|--------------------------|---------------------------|
| | | | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Backhoe | No | 40 | | 77.6 | 50.0 | 0.0 |
| Drum Mixer | No | 50 | | 80.0 | 50.0 | 0.0 |
| Man Lift | No | 20 | | 74.7 | 50.0 | 0.0 |
| Front End Loader | No | 40 | | 79.1 | 50.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 50.0 | 0.0 |
| Pumps | No | 50 | | 80.9 | 50.0 | 0.0 |
| Man Lift | No | 20 | | 74.7 | 50.0 | 0.0 |

Results

| | | Noise Limit Exceedance (dBA) | | Noise Limits (dBA) | | | | | | |
|------------------|-----|------------------------------|---------|--------------------|-------|-----------|-------|---------|-----|------|
| | | | | Calculated (dBA) | | Day Night | | Evening | | |
| Night | | Day | Evening | Day | Night | Day | Night | Evening | | |
| Equipment | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax |
| Backhoe | N/A | N/A | N/A | 77.6 | 73.6 | N/A | N/A | N/A | N/A | N/A |
| Drum Mixer | N/A | N/A | N/A | 80.0 | 77.0 | N/A | N/A | N/A | N/A | N/A |
| Man Lift | N/A | N/A | N/A | 74.7 | 67.7 | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | N/A | N/A | N/A | 79.1 | 75.1 | N/A | N/A | N/A | N/A | N/A |

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/11/2023
 Case Description: Demoliton

**** Receptor #1 ****

| Description | Land Use | Baselines (dBA) | | |
|-------------|-------------|-----------------|---------|-------|
| | | Daytime | Evening | Night |
| Demoliton | Residential | 65.0 | 55.0 | 50.0 |

| Description | Impact Device | Usage (%) | Equipment | | | |
|------------------|---------------|-----------|-----------------|-------------------|--------------------------|---------------------------|
| | | | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Backhoe | No | 40 | | 77.6 | 50.0 | 0.0 |
| Concrete Saw | No | 20 | | 89.6 | 50.0 | 0.0 |
| Tractor | No | 40 | 84.0 | | 50.0 | 0.0 |
| Dozer | No | 40 | | 81.7 | 50.0 | 0.0 |
| Front End Loader | No | 40 | | 79.1 | 50.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 50.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 50.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 50.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 50.0 | 0.0 |
| Tractor | No | 40 | 84.0 | | 50.0 | 0.0 |

Results

| Night | Equipment | Day | Calculated (dBA) | | Day | | Evening | | Lmax |
|-------|--------------|------|------------------|---------|------|-------|---------|-----|------|
| | | | Leq | Evening | Day | Night | Lmax | Leq | |
| | Leq | Lmax | Leq | Lmax | Lmax | Leq | Lmax | Leq | Lmax |
| | Backhoe | N/A | N/A | 77.6 | 73.6 | N/A | N/A | N/A | N/A |
| | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Concrete Saw | N/A | N/A | 89.6 | 82.6 | N/A | N/A | N/A | N/A |
| | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Tractor | N/A | N/A | 84.0 | 80.0 | N/A | N/A | N/A | N/A |

| | | | | | | | | | |
|-----|-----|--------------|-------------|-------------|------------|------------|-----|-----|-----|
| N/A | N/A | Total N/A | 89.6 N/A | 84.4 N/A | N/A N/A | N/A N/A | N/A | N/A | N/A |
|-----|-----|--------------|-------------|-------------|------------|------------|-----|-----|-----|

