Foothill College Tennis Courts Renovations CEQA Exemption

Foothill De Anza Community College District

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1. Introduction

Article 19 (Categorical Exemptions) of the California Environmental Quality Act (CEQA) Guidelines includes, as required by CEQA Section 21084 (List of Exempt Classes of Projects; Projects Damaging Scenic Resources), a list of classes of projects that have been determined not to have a significant effect on the environment and, as a result, are exempt from review under CEQA. This document has been prepared to demonstrate CEQA compliance as it pertains to the renovation to the tennis courts at Foothill College, including the addition of pickleball courts and lighting, referred to as the proposed project, and provides information to decision makers regarding a finding that the proposed project is exempt under CEQA.

This document describes how the proposed project qualifies for a Class 1 CEQA Exemption pursuant to CEQA Guidelines, Section 15301 (Existing Facilities), which consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. The proposed project would also qualify for a Class 14 CEQA Exemption pursuant to CEQA Guidelines, Section 15314 (Minor Addition to Schools), which consists of minor additions to existing schools within existing school grounds where the addition does not increase original student capacity by more than 25 percent or 10 classrooms, whichever is less.

In addition, this document demonstrates that none of the exceptions to categorical exemptions apply pursuant to CEQA Guidelines, Section 15300.2 (Exceptions), which are based on the following:

(a) the project is not located within a sensitive environment;

(b) there would be no cumulative impacts;

(c) there would be no significant effects on the environment due to an unusual circumstance;

(d) there would be no impacts to a scenic highway;

(e) the project site is not located on a hazardous waste site; and

(f) there would be no impacts to historical resources.

2. Project Description

Foothill De Anza Community College District (District) is proposing to resurface the existing tennis courts and add pickleball lines as well as lighting around the courts (proposed project). A detailed description of the improvements is provided in Section 2.5, *Proposed Project*.

2.1 PROJECT LOCATION

The tennis courts at Foothill College (project site) are on the eastern side of the Foothill College campus (campus). The campus is at 12345 El Monte Road in the Town of Los Altos Hills in Santa Clara County. Los Altos Hills is surrounded by open space to the west, the City of Palo Alto to the north, the City of Los Altos and the City of Mountain View to the east, and the City of Cupertino to the south, as seen in Figure 2-1, *Regional and Vicinity Map*. The town is approximately 35 miles southeast of San Francisco and 20 miles north of downtown San José, on the San Francisco Peninsula.

The project site is immediately west of Interstate 280 (I-280), along the outer perimeter of the campus. The Foothill Community College Main Gymnasium and pool is to the north, the football stadium is to the south, and the campus core is to the west of the project site. The campus is bounded by Josefa Lane and I-280 to the north, El Monte Road to the south, and Elena Road to the west. Perimeter Road runs through campus, west of the project site, and connects to El Monte Road.

2.2 EXISTING SITE CONDITIONS

The project site currently includes six tennis courts. They are available for use by students and the public every day from sunrise to sunset. The courts also occasionally host tennis tournaments and classes. The courts are currently not illuminated. There is a small parking lot southwest of the courts with 16 spaces and a larger parking lot just south of that for public use. Both the parking lots and sidewalks are currently illuminated.

The majority of the 122-acre campus is almost entirely developed with buildings, parking lots, roadways, pedestrian and bicycle facilities, athletic fields, public plazas, and landscaping. The campus is divided into zones that are reflective of the hillside location with dramatic changes in elevation. The project site is in the lower campus complex, which includes most of the athletic facilities (buildings, fields, and parking lots). Most of the campus buildings are on the upper campus. [1]

[1] Foothill-De Anza Community College District, 2021, *2021-2026 Facilities Master Plan*.

2.3 LAND USE AND ZONING DESIGNATIONS

The campus is designated as Institutional in the Los Altos Hill General Plan and is zoned as Residential-Agricultural (R-A).[2] The Division of the State Architect has jurisdiction over building development on the campus.

2.4 SURROUNDING LAND USES

As shown on Figure 2-2, *Aerial View of the Project Site and Surroundings,* the project site is surrounded by other campus buildings and I-280. The closest residences are across I-280, 0.2 miles to the east. Most of Los Altos Hills consists of low-density, large-lot residential neighborhoods. The campus is surrounded by these residential land uses and across I-280 is an area designated as Open Space Preserve.[3] Additionally, the campus is two miles south of downtown Los Altos.

2.5 PROPOSED PROJECT

The District proposes resurfacing the existing tennis courts and adding pickleball lines. Lighting would also be added to the courts. The size of the courts area would not change. The proposed project does not include changes to student enrollment; however, it would increase available capacity at the courts with the addition of pickleball courts and lighting.

2.5.1 Resurfacing and Restriping

As part of a regular life-cycle replacement, the six existing tennis courts need to be resurfaced. This would include filling in the existing cracks, redoing the asphalt where needed, and resurfacing all the courts. The resurfacing would require minimal grading and the upgraded courts would utilize the existing drainage connections. The existing tennis striping would be reapplied to the courts. At four of the existing tennis courts, pickleball lines would also be added. Since pickleball courts require less space, there would be two courts available per tennis court, and four pickleball courts included on the northeastern tennis court. This would provide 10 pickleball courts in addition to the existing 6 tennis courts and would allow either sport to be played on the courts. The end design would be very similar to what the courts currently look like with the addition of the pickleball lines and nets.

2.5.2 Lighting Upgrades

As part of the proposed project, the District proposes adding lights to the courts. This would include a 22-foot lighting pole at each corner of each court, for a total of 24 lights. The lighting poles on the outside of the outer courts would have a single fixture at the end of the pole angled towards the court. The same type of poles would be used with twin fixtures mounted and facing each direction to illuminate the inner courts.

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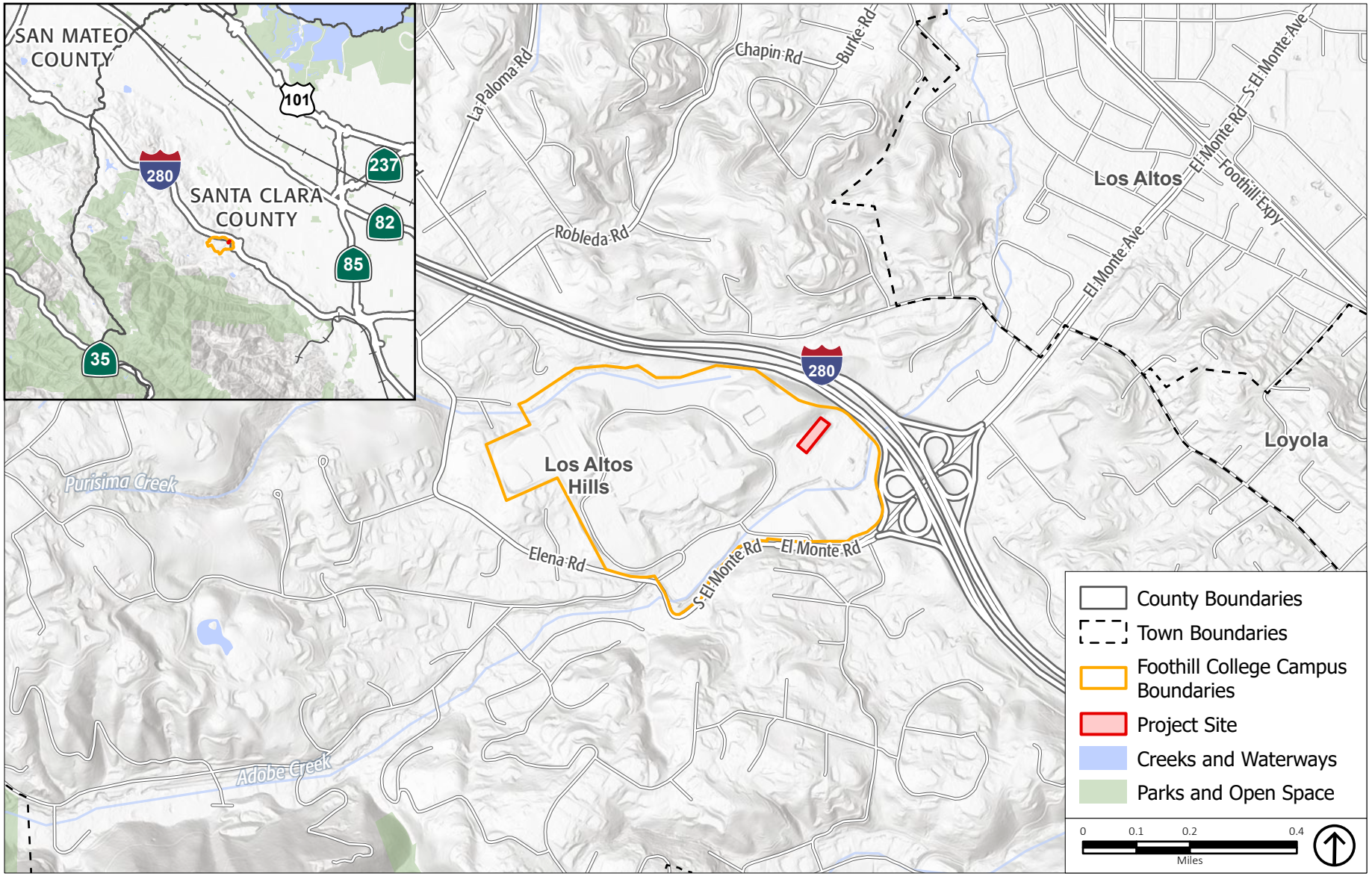
[2] Los Altos Hills, May 2008, *General Plan, Land Use Element,* accessed on May 29, 2024.

[3] Los Altos Hills, May 2008, *General Plan, Land Use Element,* accessed on May 29, 2024.



Source: Foothill College, 2022; City of Los Altos Hills, 2024; PlaceWorks, 2024.

Figure 2-1
Regional and Vicinity Map

Source: Foothill College, 2022; City of Los Altos Hills, 2024; Google Maps, 2024; PlaceWorks, 2024.

Figure 2-2
Aerial View of the Project Site and Surroundings

These lights would be on from sunset until 10:00 p.m. every night and turn on at 6:00 a.m. every morning until sunrise. Court two, the second-closest court to campus, would have the most lighting of all six courts with a maximum of 65.4 foot-candles[4] and an average of 46.4 to 49.4 foot-candles. The other courts would average from 37.3 foot-candles at court three to 47.4 foot-candles at court four. Total light spillage around the courts would average 2.5 foot-candles.[5]

The proposed project would not impact existing lighting surrounding the parking lots and sidewalks.

2.5.3 Construction Schedule

The proposed project would entail resurfacing and restriping the courts and installation of the lighting, and would occur over a 13-week period. There would be no tree removal or landscaping included as part of the proposed project.

2.6 REQUIRED PERMITS AND APPROVALS

Following approval of the CEQA Notice of Exemption by the Foothill De Anza Community College District Board, the project would go out to bid for construction.

[4] A foot-candle is defined as enough light to saturate one square foot with one lumen of light. One foot-candle equals 10.764 lux.

[5] Visionaire Lighting, Photometric Study, revised May 23, 2024.

3. Exemptions

As stated in Chapter 1, *Introduction*, Article 19 of the CEQA Guidelines includes a list of classes of projects that have been determined not to have a significant effect on the environment and, as a result, are exempt from review under CEQA. This document has been prepared to serve as the basis for compliance with CEQA as it pertains to the proposed project, and to demonstrate that the project qualifies for a Class 1 and Class 14 CEQA Exemption, consistent with the provisions of CEQA Guidelines Sections 15301, 15314, and 15300.2. Specifically, the information provided shows that:

- The proposed project qualifies for an exemption under CEQA Guidelines Section 15301 (Class 1: Existing Facilities) and, as a result, would not have a significant effect on the environment.
- The proposed project qualifies for an exemption under CEQA Guidelines Section 15314 (Class 14: Minor Addition to Schools) and, as a result, would not have a significant effect on the environment.
- No exceptions to the Existing Facilities or Minor Addition to Schools exemptions, as identified in CEQA Guidelines Section 15300.2, apply to the proposed project.

3.1 SECTION 15301: EXISTING FACILITIES CONSISTENCY

The proposed project is consistent with a Class 1, Existing Facilities CEQA Exemption, as it would only renovate the existing tennis courts. Though additional pickleball courts would be added to the courts, there would be a negligible expansion of use. The student capacity at Foothill College would not increase due to the proposed project and the renovated courts would remain open to the public.

3.2 SECTION 15314: MINOR ADDITION TO SCHOOLS CONSISTENCY

The proposed project is consistent with a Class 14, Minor Addition to Schools CEQA Exemption. The entire proposed project would occur at the existing tennis courts at Foothill College. These changes would have no effect on the student capacity at Foothill College or the District. The courts would remain open to the public. The proposed project does not include the addition of classrooms or parking.

4. Exceptions

In addition to analyzing the applicability of CEQA Guidelines, Section 15301 (Class 1) and 15314 (Class 14), this document assesses whether any of the exceptions to categorical exemptions identified in CEQA Guidelines Section 15300.2 (Exceptions) apply to the proposed project. The following analysis compares the criteria in CEQA Guidelines Section 15300.2 (Exceptions) to the project, and concludes, based on substantial evidence, that none of the exceptions are applicable to the project, and that the project is categorically exempt from CEQA pursuant to CEQA Guidelines Sections 15300 and 15332.

4.1 SECTION 15300.2(A): LOCATION

Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply to all instances, except where the project may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

The proposed project does not qualify for an exemption under Classes 3, 4, 5, 6, or 11. The project site is on an existing school campus in an urban area adjacent to I-280 and surrounded by residential neighborhoods. It is not in a sensitive environment. In addition, the proposed project would not result in any impacts on an environmental resource of hazardous or critical concern. Therefore, the exception under CEQA Guidelines Section 15300.2(a) does not apply to the proposed project.

4.2 SECTION 15300.2(B): CUMULATIVE IMPACT

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.

The proposed project would renovate the existing tennis courts and add pickleball lines and lighting at an existing school campus. There would be no changes in student enrollment or visitors and the courts would remain open to the public. The proposed project would not result in significant impacts pertaining to traffic, noise, greenhouse gas emissions, air quality, water quality, or other cumulative impact areas. Further analysis of the noise impacts due to adding pickleball courts to the existing tennis courts is described in Section 4.2.1, *Noise.* In addition to the construction noise impacts described in Section 4.2.1.2, *Project-Related Construction Noise*, any other construction effects would be temporary, confined to the project vicinity, and reduced to the extent feasible by implementing applicable regulatory requirements. Therefore, the exception under CEQA Guidelines Section 15300.2(b) does not apply to the proposed project.

4.2.1 Noise

This section provides a community noise assessment of the proposed project. Because pickleball play would be added to the existing tennis courts, with implementation of the proposed project, this analysis evaluates construction and operational noise and vibration due to the added activity.

4.2.1.1 EXISTING NOISE CONDITIONS

The project site is within the 65 A-weighted decibel (dBA) community noise equivalent level (CNEL) noise contour.[6] The noise environment in the project vicinity is dominated by traffic on I-280. Noise from El Monte Road and school campus activities also contribute to the noise environment in the project vicinity. To determine baseline noise levels in the project vicinity, ambient noise monitoring was conducted by PlaceWorks on Thursday, May 31, 2024. Three short-term (15-minute) measurement locations were selected and conducted around the proposed project site.

The short-term sound level meter used (Larson Davis LxT) for noise monitoring satisfies the American National Standards Institute (ANSI) standard for Type 1 instrumentation. The short-term sound level meter was set to "slow" response and "A" weighting (dBA). The meter was calibrated prior to and after each monitoring period. All measurements were at least 5 feet above the ground and away from reflective surfaces. Short-term measurement locations are described below and shown in Figure 4-1, *Noise Monitoring Locations*, and results are summarized in Table 4-1, *Short-Term Noise Measurements Summary in A-weighted Sound Levels*.

Table 4-1 Short-Term Noise Measurements Summary in A-weighted Sound Levels

Monitoring Location	Description	15-minute Noise Level, dBA						
		L_{eq}	L_{max}	L_{min}	L_{50}	L_{25}	L_8	L_2
ST-1	Northwestern walkway of tennis courts, north of the Foothill College weight room.	55.9	66.7	50.4	55.1	56.5	58.2	60.1
ST-2	Open area on foothill near 1100 and 1200 buildings, west of Perimeter Road.	52.4	68.4	48.8	51.9	52.7	53.7	55.5
ST-3	Southwest of campus, across El Monte Road, along Stonebrook Drive.	58.6	74.1	43.9	51.4	56.1	64.0	67.9

Source: PlaceWorks 2024, See Appendix A.

[6] Town of Los Altos Hills General Plan Update 2007, *Chapter 7, Noise Element,* Figure 7-3, November 2008.

Source: Foothill College, 2022; City of Los Altos Hills, 2024; Google Maps, 2024; PlaceWorks, 2024.

Figure 4-1
Noise Monitoring Locations

- **Short-Term Location 1 (ST-1)** was conducted on the project sites northwestern walkway within the tennis court area. The 15-minute noise measurement began at 3:13 p.m. on Thursday, May 30, 2024. The noise environment is characterized by I-280 traffic, tennis practice noise, and occasional aircraft over-flights. Noise levels measured 55.9 dBA L_{eq} and 66.7 dBA L_{max} during the measurement period at ST-1.

- **Short-Term Location 2 (ST-2)** was conducted west of Perimeter Road adjacent to school buildings 1100 and 1200 in the open area. A 15-minute noise measurement began at 3:43 p.m. on Thursday, May 30, 2024. The noise environment is characterized primarily by roadway noise on Perimeter Road and I-280. Noise levels measured 52.4 dBA L_{eq} and 68.4 dBA L_{max} during the measurement period at ST-2.

- **Short-Term Location 3 (ST-3)** was conducted at the south of the project site along Stonebrook Drive, south of Foothill College and El Monte Road. A 15-minute noise measurement began at 4:31 p.m. on Thursday, May 30, 2024. The noise environment is characterized primarily by residential noise (i.e., cars, dogs barking, and birds), roadway noise along El Monte Road, and drill noise associated with exterior remodeling at 12400 Stonebrook Drive. Noise levels measured 58.6 dBA Leq and 74.1 dBA L_{max} during the measurement period at ST-3.

4.2.1.2 PROJECT-RELATED CONSTRUCTION NOISE

Two types of short-term noise impacts could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul and (2) stationary-source noise from use of construction equipment. Existing uses surrounding the project site would be exposed to construction noise.

Construction

Noise generated during construction is based on the type of equipment used, the location of the equipment relative to sensitive receptors, and the timing and duration of the noise-generating activities. Each activity phase of construction involves the use of different construction equipment and therefore each activity phase has its own distinct noise characteristics. Noise levels from construction activities are dominated by the loudest piece of construction equipment. The dominant noise source is typically the engine, although work piece noise (such as dropping of materials) can also be noticeable.

The noise generated at each activity phase is determined by combining the L_{eq} contributions from each piece of equipment used at a given time. Construction activities associated with the proposed project would not require blasting or pile driving. Demolition and grading typically generate the highest noise levels because they require the largest equipment. Construction noise quite often exhibits a high degree of variability because factors such as noise attenuation due to distance, the number and type of equipment, and the load and power requirements to accomplish tasks at each construction activity phase result in different noise levels at a given sensitive receptor. Heavy equipment, such as a dozer or a loader, can have maximum, short-duration noise levels of 85 dBA at 50 feet. Since noise from construction equipment is intermittent and diminishes at a rate of 6 dBA per doubling distance,[7] the average noise levels at noise-sensitive receptors would be lower, because mobile construction equipment would move around the site with different loads and power requirements. The Town of Los Altos Hills has not established criteria for

[7] The sound attenuation rate of 6 dBA is generally conservative and does not consider additional attenuation provided by existing buildings, structures, and natural landscapes around the project site.

construction noise. The Federal Transit Administration (FTA) provides criteria for acceptable construction noise levels and recommends a daytime noise threshold of 80 dBA L_{eq} (eight hour) for residential uses. For the purposes of this analysis, the FTA criterion is applied to nearby residences to determine impact significance.

The expected construction equipment mix was estimated and categorized by construction activity using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). Results are summarized in Table 4-2, *Project-Related Construction Noise, dBA L_{eq}*.

Table 4-2 Project-Related Construction Noise, dBA L_{eq}

Construction Activity Phase	RCNM Reference Noise Level	Residences to the East	Residences to the South
Distance in feet	50	1,000	1,260
Resurfacing	86	60	58
Striping	80	54	52
Light Pole Installation	83	57	55
Maximum dBA L_{eq}		**60**	**58**
Exceed 80 L_{eq} dBA Threshold?		**No**	**No**

Note: Calculations performed with the FHWA RCNM software are included in Appendix A.

The closest residences to the project site are single-family homes approximately 1,000 feet to the east across I-280 and north of El Monte Road. At this distance, construction noise would attenuate to 60 dBA or less, which is below the Town's criterion of 75 dBA. It should be noted that this estimate conservatively does not take into account additional noise reduction from intervening features such as I-280, buildings, and topography. Therefore, project construction noise impacts would be less than significant.

Vibration

The Town of Los Altos Hills has not established specific numerical limits for vibration. The FTA provides criteria for acceptable levels of groundborne vibration for various types of buildings. These criteria are shown in Table 4-3, *Groundborne Vibration Criteria*. For the purposes of this analysis, the FTA criteria is applied to vibration-sensitive receptors to determine impact significance.

Table 4-3 Groundborne Vibration 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. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: FTA, 2018, *Transit Noise and Vibration Impact Assessment*.
PPV = peak particle velocity

Construction can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The effects from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

Table 4-4, *Vibration Levels for Typical Construction Equipment*, summarizes vibration levels for typical construction equipment at a reference distance of 25 and 100 feet. Typical construction equipment can generate vibration levels ranging up to 0.089 inches per second (in/sec) peak particle velocity (PPV) at 25 feet. Vibration levels at a distance greater than 100 feet would attenuate to 0.01 in/sec PPV or less.

Table 4-4 Vibration Levels for Typical Construction Equipment

Equipment	PPV (in/sec) at 25 feet	PPV (in/sec) at 100 feet
Large bulldozer	0.089	0.011
Loaded trucks	0.079	0.010
Jackhammer	0.035	0.004
Small bulldozer	0.003	0.000

Source: FTA, September 2018, *Transit Noise and Vibration Impact Assessment*.
In/sec = inches per second; PPV = peak particle velocity

The Town of Los Altos Hills does not have an established threshold for assessing construction vibration impacts. The FTA maximum acceptable vibration standard of 0.2 in/sec PPV for nonengineered timber and masonry buildings is applied for assessing vibration impacts from project construction-related activities. The nearest structure to the site's construction activities, the residential uses to the east, is approximately 1,000 feet away from the proposed construction area boundary. At this distance, construction vibration from a large bulldozer would attenuate to well below 0.02 in/sec or less. Proposed construction activities would not exceed the FTA vibration standard of 0.2 in/sec for nonengineered timber and masonry buildings. In addition, the project would not accommodate vibration-generating equipment. Therefore, impacts from construction vibration would be less than significant.

4.2.1.3 STATIONARY OPERATIONAL NOISE

The proposed project would operate seven days a week from 6:00 a.m. to 10:00 p.m. Noise associated with operations would be predominantly from pickleball and tennis play and parking activities. Noise from parking activities would remain similar to existing conditions and would not result in significant increases due to implementation of the project; however, pickleball paddle and ball contact noise would be a new source as a result of the project.

Pickleball noise consists of ball hits, when the ball contacts the paddle, and voice communication between players. Noise produced when the ball contacts the paddle may be described as instantaneous and brief with rapid decay, or impulsive noise with a duration of less than two milliseconds. Pickleball noise predominantly travels in the direction

of play versus the sides of the court.[8] Effective ways to reduce pickleball noise at sensitive receptors is to increase the distance from pickleball courts to receptors, orientation of pickleball courts, barriers, earthen berms, and requiring the use of quieter paddles and balls.

Instantaneous pickleball noise levels have been measured to range between 70 dBA and 75 dBA L_{max} during a single ball strike with the paddle. Measurements of pickleball noise have resulted in noise levels ranging between 55 dBA L_{eq} and 57 dBA L_{eq} at 50 feet from the perimeter of the court, depending on the number of active courts.[9] For this analysis, a conservative noise level of 65 dBA L_{eq} at 50 feet has been applied to project pickleball noise to account for all proposed courts being active for an hour.

Pickleball noise levels decrease by approximately 6 dBA for each doubling of distance from the source (not including additional ground attenuation effects and shielding factors). The nearest residential uses are 1,000 feet to the east and 1,200 feet south of the project. At these distances, pickleball noise levels would attenuate to approximately 39 dBA L_{eq} or less. In addition, pickleball noise levels would attenuate to approximately 44 dBA L_{eq} or less at the nearest noise-sensitive campus building, the Smithwick Theater approximately 800 feet west of the project site. Therefore, pickleball noise would not exceed the daytime and nighttime threshold of 50 dBA and 40 dBA L_{eq}, respectively, at noise-sensitive residential uses and would not result in a substantial increase over ambient noise levels as a result of the project. In addition, project operational noise would be less than significant.

4.2.1.4 TRAFFIC NOISE

A project would normally have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas. Most people can detect changes in sound levels of approximately 3 dBA under normal, quiet conditions, and changes of 1 to 3 dBA under quiet, controlled conditions. Changes of less than 1 dBA are usually indiscernible. A change of 5 dBA is readily discernible to most people in an outdoor environment. Noise levels above 65 dBA CNEL are normally unacceptable at sensitive receptor locations such as residences, and noise environments in these areas would be considered degraded. Based on this, a significant impact would occur if the following traffic noise increases occurred relative to the existing noise environment:

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

Access to the project site is provided by I-280 and El Monte Road. Based on the Town's General Plan Circulation Element, El Monte Road is considered a four-lane arterial with average daily traffic volumes ranging between 15,000 and 35,000 vehicles per day. Assuming average daily traffic volume on El Monte Road is 15,000 daily trips, the proposed project would generate a nominal net increase over existing trips to the courts, resulting in a less than 1 dBA CNEL

[8] Spendiarian & Willis Acoustics & Noise Control LLC, https://www.acousticalnoise.com/noise-control/why-are-your-pickleball-courts-receiving-complaints-from-neighbors, accessed June 26, 2024.

[9] B AP Acoustics Ltd. *Pickleball Noise Assessment*. February 2023.

increase. Therefore, project-related traffic noise increases would be less than 1.5 dBA CNEL and traffic noise impacts would be less than significant.

4.3 SECTION 15300.2(C): SIGNIFICANT EFFECT

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.

There are no known unusual circumstances that are applicable to the proposed project, and which may result in a significant effect on the environment. The proposed project consists of the renovation of existing tennis courts and the addition of pickleball court lines and lighting. The proposed project would not result in a change in the existing use or increase usership that could result in a significant effect on the environment. Therefore, the exception under CEQA Guidelines Section 15003.2(c) does not apply to the proposed project.

4.4 SECTION 15300.2(D): SCENIC HIGHWAYS

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. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified environmental impact report (EIR).

The proposed project would not affect a scenic resource in a designated State Scenic Highway. The closest officially designated State Scenic Highways are State Route (SR-) 35, 4.7 miles west of the project site, and I-280, in San Mateo County, 5 miles north of the project site. Additionally, I-280, 0.05 miles (250 feet) east of the project site is eligible for listing as a State Scenic Highway.[10] Based on the topography of the area and surrounding mature trees, the project site is not visible from the closest part of I-280 nor the scenic highways of SR-35 and I-280. Additionally, the project site and surrounding area is already developed, and therefore the proposed project would not alter scenic resources. Thus, no scenic resources within view of a State Scenic Highway would be altered as part of the project and the exception under CEQA Guidelines Section 15003.2(d) does not apply to the proposed project.

4.5 SECTION 15300.2(E): HAZARDOUS WASTE SITES

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.

California Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to compile, maintain, and update specified lists of hazardous material release sites. CEQA[11] requires the lead agency to consult the lists compiled pursuant to Government Code Section 65962.5 to determine whether a project and any

[10] Caltrans, 2018, California State Scenic Highway System Map, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed October 24, 2025.

[11] California Public Resources Code, Section 21092.6.

alternatives are identified. The required lists of hazardous material release sites are commonly referred to as the "Cortese List" named after the legislator who authored the legislation and are contained on internet websites hosted by the boards or departments referenced in the statute, including California Department of Toxic Substance Control's (DTSC's) online EnviroStor database and the State Water Resources Control Board's (SWRCB's) online GeoTracker database. These two databases include hazardous material release sites, along with other categories of sites or facilities specific to each agency's jurisdiction. A search of these online databases found the project site, Foothill College, is not on any list pursuant to Section 65962.5 of the Government Code or any other list compiled for purposes related to identifying the prior release of hazardous materials.[12,13,14,15,16] Therefore, the exception under CEQA Guidelines Section 15300.2(e) does not apply to the proposed project.

4.6 SECTION 15300.2(F): HISTORICAL RESOURCES

A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

Foothill College Historic District has the potential to be eligible for the National Register and therefore the California Register; however, the proposed project does not result in the demolition of any potential district contributors or other historic resources as it would be renovating the existing tennis courts and would not impact any areas outside of the courts. Additionally, the Foothill College Facilities Master Plan Environmental Impact Report (Certified EIR)[17] includes Mitigation Measures IV.D-1a through IV.D-1c to ensure the proposed project is compatible with eligible historic resources.

Several archaeological sites have been recorded upstream along Adobe Creek and the Santa Clara Valley is known for having buried archaeological resources. Ground-disturbing activities are not expected as part of the proposed project and thus, archaeological sites would not be impacted. Should sensitive resources be found during construction, the proposed project would comply with Mitigation Measures IV.D-2a and IV.D-2b of the Certified EIR. Further, the proposed project would comply with State and federal historic preservation laws, regulations, and codes, including laws related to archaeological resources. In particular, the proposed project would be required to comply with CEQA Guidelines Section 15064.5(e), which specifies procedures to be used in the event of a discovery of Native American

[12] California Department of Toxic Substances Control. EnviroStor online database, https://www.envirostor.dtsc.ca.gov/public/map/, accessed October 24, 2025.

[13] California State Water Resources Control Board. GeoTracker online database, https://geotracker.waterboards.ca.gov/map/?myaddress=California&from=header&cqid=4401471793, accessed October 24, 2025.

[14] California Department of Toxic Substances Control, 2025, Hazardous Waste and Substances Site List (Cortese), https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, accessed October 24, 2025.

[15] California Environmental Protection Agency, 2025, Sites Identified with Waste Constituents Above Hazardous waste Levels Outside the Waste Management Unit, https://calepa.ca.gov/wp-content/uploads/2016/10/SiteCleanup-CorteseList-CurrentList.pdf, accessed October 24, 2025.

[16] California Environmental Protection Agency, 2025, List of "active" CDO and CAO from Water Board, https://calepa.ca.gov/wp-content/uploads/2016/10/SiteCleanup-CorteseList-CDOCAOList.xlsx, accessed October 24, 2025.

[17] State Clearinghouse No. 2007091014, certified August 2008.

human remains on non-federal land. With mandatory compliance with applicable laws and regulations related to historic, archaeological, and paleontological resources, as well as the mitigation measures of the College's Certified EIR, impacts to unknown historic, cultural, or tribal cultural resources would remain *less than significant*. Therefore, the exception under CEQA Guidelines Section 15300.2(f) does not apply to the proposed project.

5. Conclusion

As discussed in Chapter 3, *Exemptions*, the proposed project meets the criteria for categorical exemptions using Class 1, Existing Facilities, and Class 14, Minor Addition to Schools, in CEQA Guidelines Sections 15301 and 15314, respectively. Additionally, as explained in Chapter 4, *Exceptions*, none of the exceptions to the categorical exemptions in CEQA Guidelines Section 15300.2 apply, and the proposed project would not have a significant effect on the environment. Thus, this analysis finds that an exemption may be used, and a Notice of Exemption prepared for the proposed project.

6. List of Preparers

FOOTHILL DE ANZA COMMUNITY COLLEGE DISTRICT

David Fisch, Director, Capital Construction Program

Welianto Liu, Project Manager

PLACEWORKS

Steve Noack, Principal

Rachel Goren, Project Manager

Chris Shields, Senior Associate, Noise and Vibration

Jacob Cisneros, Associate, Noise and Vibration

Vivian Kha, Associate, Geographic Information Systems

APPENDIX A:
NOISE DATA

FDA-03.0 - Construction Noise Modeling Attenuation Calculations

Levels in dBA Leq

Phase	RCNM Reference Noise Level	Receptor to East	Receptor to South
Distance in feet	*50*	*1000*	*1260*
Resurfacing	85.8	59.8	57.8
Striping	79.7	53.7	51.7
Light Pole Installation	83.3	57.3	55.3

Attenuation calculated through Inverse Square Law: Lp(R2) = Lp(R1) - 20Log(R2/R1)

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 06/06/2024
Case Description: FDA-03.0 - Resurfacing

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	70.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	50.0	0.0
Pavement Scarafier	No	20		89.5	50.0	0.0
Dump Truck	No	40		76.5	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	89.6	82.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	89.5	82.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	76.5	72.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.6	85.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 06/06/2024
Case Description: FDA-03.0 - Striping

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	70.0	65.0	60.0

Description	Impact Device	Usage (%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	50.0	0.0
Pickup Truck	No	40		75.0	50.0	0.0
Generator	No	50		80.6	50.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	75.0	71.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.6	79.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 06/06/2024
Case Description: FDA-03.0 - Light Pole

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	70.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	50.0	0.0
Drill Rig Truck	No	20		79.1	50.0	0.0
Concrete Saw	No	20		89.6	50.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Drill Rig Truck	79.1	72.2	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	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
Total	89.6	83.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

FDA-03.0 - Vibration Damage Attenuation Calculations

Levels, PPV (in/sec)

Distance in feet	**Vibration Reference Level at *25 feet***	**Receptor to East 1000**	**Receptor to South 1260**
Large Bulldozer	0.089	0.000	0.000
Caisson Drilling	0.089	0.000	0.000
Loaded Trucks	0.076	0.000	0.000
Jackhammer	0.035	0.000	0.000
Small Bulldozer	0.003	0.000	0.000

Measurement Report

Report Summary

Meter's File Name	LxT_Data.018.s	Computer's File Name	LxT_0005425-20240530 151342-LxT_Data.018.ldbin
Meter	LxT1 0005425	Firmware	2.404
User		Location	ST-1
Job Description	FDA-03.0		
Note			

Start Time	2024-05-30 15:13:42	Duration	0:15:00.0		
End Time	2024-05-30 15:28:42	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-01-10 10:02:46	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	55.9 dB		
LAE	85.4 dB	SEA	--- dB
EA	38.9 µPa²h		
EA8	1.2 mPa²h		
EA40	6.2 mPa²h		
LZ_{peak}	100.5 dB	2024-05-30 15:13:53	
LAS_{max}	66.7 dB	2024-05-30 15:13:53	
LAS_{min}	50.4 dB	2024-05-30 15:18:05	
LA_{eq}	55.9 dB		
LC_{eq}	65.9 dB	LC_{eq} - LA_{eq}	10.0 dB
LAI_{eq}	61.8 dB	LAI_{eq} - LA_{eq}	5.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZpk > 135.0 dB	0	0:00:00.0
LZpk > 137.0 dB	0	0:00:00.0
LZpk > 140.0 dB	0	0:00:00.0

Community Noise

L_{DN}	L_{Day}	L_{Night}
--- dB	--- dB	0.0 dB

L_{DEN}	L_{Day}	L_{Eve}	L_{Night}
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	55.9 dB		65.9 dB		--- dB	
$Ls_{(max)}$	66.7 dB	2024-05-30 15:13:53	--- dB	None	--- dB	None
$LS_{(min)}$	50.4 dB	2024-05-30 15:18:05	--- dB	None	--- dB	None
$L_{Peak(max)}$	--- dB	None	--- dB	None	100.5 dB	2024-05-30 15:13:53

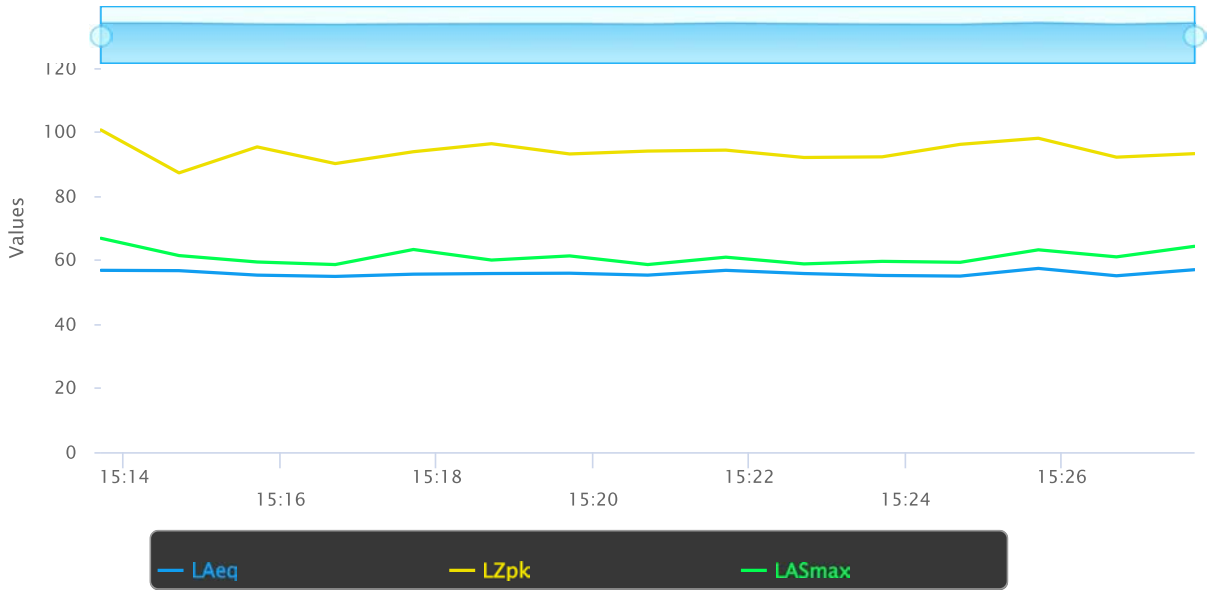
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 2.0	60.1 dB
LAS 8.0	58.2 dB
LAS 25.0	56.5 dB
LAS 50.0	55.1 dB
LAS 90.0	53.2 dB
LAS 99.0	51.2 dB

Time History


120
100
80
60
40
20
0
Values
15:14
15:16
15:18
15:20
15:22
15:24
15:26
LAeq
LZpk
LASmax

Measurement Report

Report Summary

Meter's File Name	LxT_Data.019.s	Computer's File Name	LxT_0005425-20240530 154313-LxT_Data.019.ldbin
Meter	LxT1 0005425	Firmware	2.404
User		Location	ST-2
Job Description	FDA-03.0		
Note			

Start Time	2024-05-30 15:43:13	Duration	0:15:00.0		
End Time	2024-05-30 15:58:13	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-01-10 10:02:46	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	52.4 dB		
LAE	81.9 dB	SEA	--- dB
EA	17.4 µPa²h		
EA8	556.1 µPa²h		
EA40	2.8 mPa²h		
LZ_{peak}	103.3 dB	2024-05-30 15:43:19	
LAS_{max}	68.4 dB	2024-05-30 15:43:19	
LAS_{min}	48.8 dB	2024-05-30 15:43:57	
LA_{eq}	52.4 dB		
LC_{eq}	63.2 dB	LC_{eq} - LA_{eq}	10.8 dB
LAI_{eq}	56.7 dB	LAI_{eq} - LA_{eq}	4.3 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZpk > 135.0 dB	0	0:00:00.0
LZpk > 137.0 dB	0	0:00:00.0
LZpk > 140.0 dB	0	0:00:00.0

Community Noise

L_{DN}	L_{Day}	L_{Night}
--- dB	--- dB	0.0 dB

L_{DEN}	L_{Day}	L_{Eve}	L_{Night}
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	52.4 dB		63.2 dB		--- dB	
$Ls_{(max)}$	68.4 dB	2024-05-30 15:43:19	--- dB	None	--- dB	None
$LS_{(min)}$	48.8 dB	2024-05-30 15:43:57	--- dB	None	--- dB	None
$L_{Peak(max)}$	--- dB	None	--- dB	None	103.3 dB	2024-05-30 15:43:19

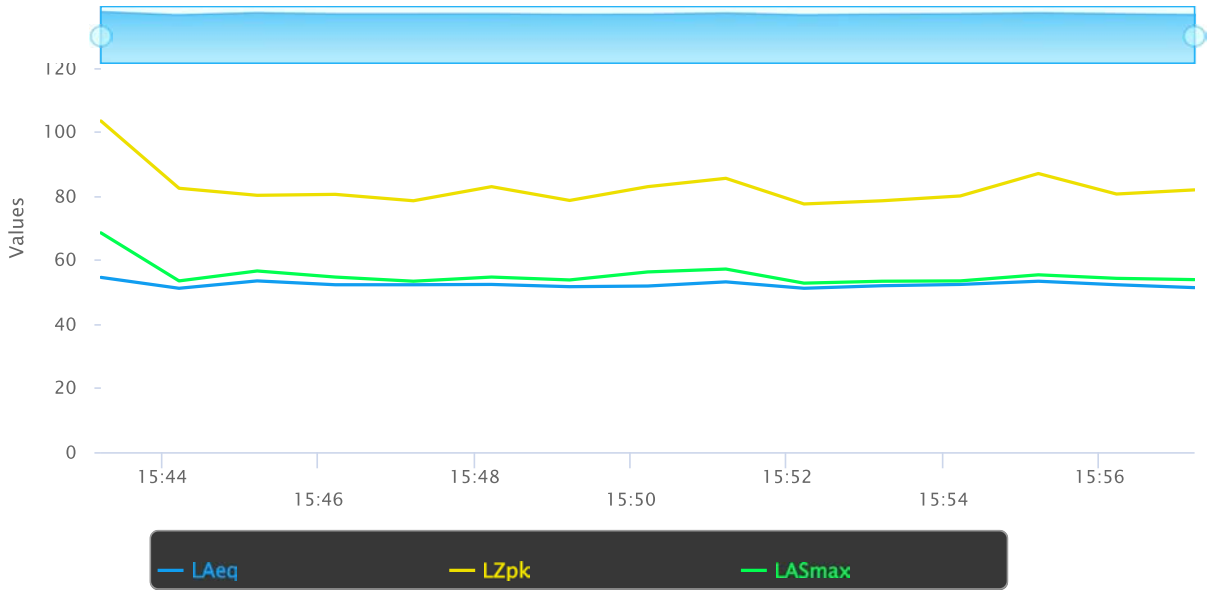
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 2.0	55.5 dB
LAS 8.0	53.7 dB
LAS 25.0	52.7 dB
LAS 50.0	51.9 dB
LAS 90.0	50.6 dB
LAS 99.0	49.4 dB

Time History


120
100
80
60
40
20
0
Values
15:44
15:46
15:48
15:50
15:52
15:54
15:56
LAeq
LZpk
LASmax

Measurement Report

Report Summary

Meter's File Name	LxT_Data.020.s	Computer's File Name	LxT_0005425-20240530 163121-LxT_Data.020.ldbin
Meter	LxT1 0005425	Firmware	2.404
User		Location	ST-3
Job Description	FDA-03.0		
Note			

Start Time	2024-05-30 16:31:21	Duration	0:15:00.0		
End Time	2024-05-30 16:46:21	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-01-10 10:02:46	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	58.6 dB		
LAE	88.1 dB	SEA	--- dB
EA	72.4 µPa²h		
EA8	2.3 mPa²h		
EA40	11.6 mPa²h		
LZ_{peak}	99.3 dB	2024-05-30 16:32:10	
LAS_{max}	74.1 dB	2024-05-30 16:35:35	
LAS_{min}	43.9 dB	2024-05-30 16:37:48	
LA_{eq}	58.6 dB		
LC_{eq}	66.2 dB	LC_{eq} - LA_{eq}	7.6 dB
LAI_{eq}	61.8 dB	LAI_{eq} - LA_{eq}	3.2 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZpk > 135.0 dB	0	0:00:00.0
LZpk > 137.0 dB	0	0:00:00.0
LZpk > 140.0 dB	0	0:00:00.0

Community Noise

L_{DN}	L_{Day}	L_{Night}
--- dB	--- dB	0.0 dB

L_{DEN}	L_{Day}	L_{Eve}	L_{Night}
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	58.6 dB		66.2 dB		--- dB	
$Ls_{(max)}$	74.1 dB	2024-05-30 16:35:35	--- dB	None	--- dB	None
$LS_{(min)}$	43.9 dB	2024-05-30 16:37:48	--- dB	None	--- dB	None
$L_{Peak(max)}$	--- dB	None	--- dB	None	99.3 dB	2024-05-30 16:32:10

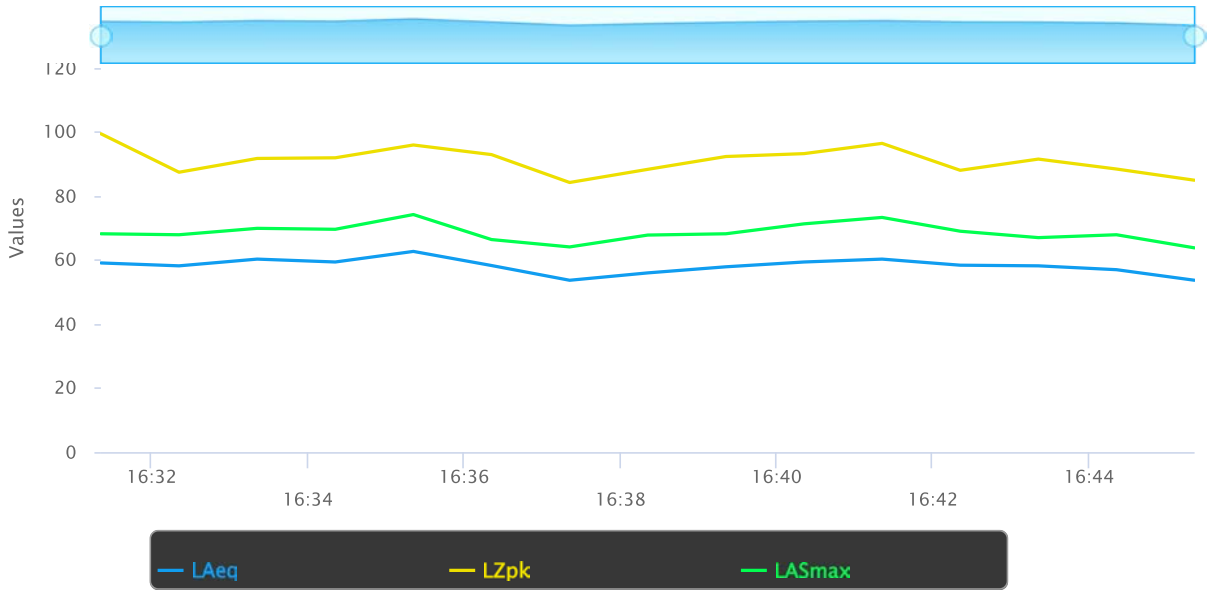
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 2.0	67.9 dB
LAS 8.0	64.0 dB
LAS 25.0	56.1 dB
LAS 50.0	51.4 dB
LAS 90.0	47.0 dB
LAS 99.0	44.5 dB

Time History


120
100
80
60
40
20
0
Values
16:32
16:34
16:36
16:38
16:40
16:42
16:44
LAeq
LZpk
LASmax

Project Number: FDA-03.0 Sheet 1 of 3

Project Name: Pickleball Courts at Foothill College

Monitoring Personnel: Jacob Cisneros

Site Number: 1 Date: 5/30/24 Start: 3:13 PM End: 3:28PM

Site Location: Tennis courts. Pathway entering two courts closest to the freeway on northern end

Primary Noise Source: freeway noise, birds chirping, tennis rackets hitting balls, court conversations, yelling and light cheers, plane noise

Measurement Results	
	dBA
Leq	55.9
Lmax	66.7
Lmin	50.4
Lpeak	100.5
L2	60.1
L8	58.2
L25	56.5
L50	55.1
SEL/CNEL	—

Observed Noise Sources/Events		
Time	Noise Source Event	dBA
3:23	Plane heard/seen overhead	
3:26	Motorcycle heard on freeway	
3:13	nearby conversation started	

Data File: LxT_Data.ldbx Photos: _____

Comments/Wall Heights: Small groups of people on courts, mainly public casual matches and training. Freeway not visible in location. Tennis courts at higher elevation than neighboring room (approx. 20 ft). Parking lot limited visibility, light activity

Max Wind Velocity (knots/hr)	Average Wind Velocity (knots/hr)	Temperature (F)	Relative Humidity (%)
13	4	84	33
Comments:			

Traffic Description: N/A

Roadway	# Lanes	Posted Speed	Autos	MD	HD
N/A					
N/A					

Project Number: FOA - 03.0 Sheet 2 of 3

Project Name: Pickleball Courts at Foothill College

Monitoring Personnel: Jacob Cisneros

Site Number: 2 Date: 5/30/24 Start: 3:43 PM End: 3:58 PM

Site Location: Foothill near 1100 and 1200 buildings

Primary Noise Source: Traffic noise along freeway and Perimeter Road, distant plane noise, distant garage noise, wind, birds chirping, bushes moving

Measurement Results	
	dBA
Leq	52.4
Lmax	68.4
Lmin	48.8
Lpeak	103.3
L2	55.5
L8	53.7
L25	52.7
L50	51.9
SEL/CNEL	—

Observed Noise Sources/Events		
Time	Noise Source Event	dBA
3:43	Garage noise from possible staff building	
3:50	Garage noise	

Data File: LD_Data.019 ☑ Photos: _____

Comments/Wall Heights: Tennis courts, freeway, Perimeter Road not visible from location, bushes cover most of the foothill making it pedestrian inaccessible, light to no activity near 1100 and 1200 buildings

Max Wind Velocity (knots/hr)	Average Wind Velocity (knots/hr)	Temperature (F)	Relative Humidity (%)
13	0	84	33
Comments: wind reaches location less			

Traffic Description:

Roadway	# Lanes	Posted Speed	Autos	MD	HD
N/A					
N/A					

Project Number: FDA-03.0 Sheet 3 of 3

Project Name: ~~[illegible]~~ Pickleball Courts at Foothill College

Monitoring Personnel: Jacob Cisneros

Site Number: 3 Date: 5/30/24 Start: 4:38 PM End: 4:46 PM

Site Location: Residential area across El Monte Road

Primary Noise Source: Traffic along Stonebrook Drive (speed limit 25 MPH), traffic along El Monte Road, distant freeway noise, residential (CRES) construction noise, birds chirping

Measurement Results	
	dBA
Leq	58.6
Lmax	74.1
Lmin	43.9
Lpeak	99.3
L2	67.9
L8	64.6
L25	56.1
L50	51.4
SEL/CNEL	—

Observed Noise Sources/Events		
Time	Noise Source Event	dBA
4:35	drill from res use starts	

Data File: LT_Data.020 ☒ Photos: _____

Comments/Wall Heights: No pedestrian sidewalks, residential construction/modeling heard from location ~ 100 feet away, light to no pedestrians, college sheds visible from location

Max Wind Velocity (knots/hr)	Average Wind Velocity (knots/hr)	Temperature (F)	Relative Humidity (%)
13	9	90	33
Comments:			

Traffic Description:

Roadway	# Lanes	Posted Speed	Autos	MD	HD
Stonebrook Drive	1	25	30	—	—

~~[illegible]~~

Fundamentals of Noise

NOISE

Noise is most often defined as unwanted sound; whether it is loud, unpleasant, unexpected, or otherwise undesirable. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness."

Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Decibel (dB).** A unitless measure of sound, expressed on a logarithmic scale and with respect to a defined reference sound pressure. The standard reference pressure is 20 micropascals (20 μPa).

- **Vibration Decibel (VdB).** A unitless measure of vibration, expressed on a logarithmic scale and with respect to a defined reference vibration velocity. In the U.S., the standard reference velocity is 1 micro-inch per second ($1x10^{-6}$ in/sec).

- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.

- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the "intrusive sound level." The L_{90} is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

- **Maximum Sound Level (L_{max})**. The highest RMS sound level measured during the measurement period.
- **Root Mean Square Sound Level (RMS).** The square root of the average of the square of the sound pressure over the measurement period.
- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 PM to 10:00 PM and 10 dB from 10:00 PM to 7:00 AM. NOTE: For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive – that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.
- **Peak Particle Velocity (PPV).** The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Characteristics of Sound

When an object vibrates, it radiates part of its energy in the form of a pressure wave. Sound is that pressure wave transmitted through the air. Technically, airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure that creates sound waves.

Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). Loudness or amplitude is measured in dB, frequency or pitch is measured in Hertz [Hz] or cycles per second, and duration or time variations is measured in seconds or minutes.

Amplitude

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 1 presents the subjective effect of changes in sound pressure levels. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually not discernible (even under ideal conditions). A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernible to most people in an exterior environment, and a 10 dB change is perceived as a doubling (or halving) of the sound.

Table 1 Noise Perceptibility

Change in dB	Noise Level
± 3 dB	Barely perceptible increase
± 5 dB	Readily perceptible increase
± 10 dB	Twice or half as loud
± 20 dB	Four times or one-quarter as loud

Source: California Department of Transportation (Caltrans). 2013, September. Technical Noise Supplement ("TeNS").

Frequency

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all, but are "felt" more as a vibration. Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

When describing sound and its effect on a human population, A-weighted (dBA) sound levels are typically used to approximate the response of the human ear. The A-weighted noise level has been found to correlate well with people's judgments of the "noisiness" of different sounds and has been used for many years as a measure of community and industrial noise. Although the A-weighted scale and the energy-equivalent metric are commonly used to quantify the range of human response to individual events or general community sound levels, the degree of annoyance or other response also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- General nature of the existing conditions (e.g., quiet rural or busy urban)
- Difference between the magnitude of the sound event level and the ambient condition
- Duration of the sound event
- Number of event occurrences and their repetitiveness
- Time of day that the event occurs

Duration

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time; half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2, L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively. These "n" values are typically used to demonstrate compliance for stationary noise sources with many cities' noise ordinances. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period, respectively.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and many local jurisdictions use an adjusted 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). The CNEL descriptor requires that an artificial increment (or "penalty") of 5 dBA be added to the actual noise level for the hours from 7:00 PM to 10:00

PM and 10 dBA for the hours from 10:00 PM to 7:00 AM. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 PM and 10:00 PM. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher). The CNEL or L_{dn} metrics are commonly applied to the assessment of roadway and airport-related noise sources.

Sound Propagation

Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single-point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source (conservatively neglecting ground attenuation effects, air absorption factors, and barrier shielding). For example, if a backhoe at 50 feet generates 84 dBA, at 100 feet the noise level would be 79 dBA, and at 200 feet it would be 73 dBA. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance over a reflective ("hard site") surface such as concrete or asphalt. Line source noise in a relatively flat environment with ground-level absorptive vegetation decreases by an additional 1.5 dB for each doubling of distance.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 2 shows typical noise levels from familiar sources.

Table 2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans). 2013, September. Technical Noise Supplement ("TeNS").

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. As with noise, vibration can be described by both its amplitude and frequency. Vibration displacement is the distance that a point on a surface moves away from its original static position; velocity is the instantaneous speed that a point on a surface moves; and acceleration is the rate of change of the speed. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the

square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage and RMS is typically more suitable for evaluating human response.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 3 displays the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

Table 3 Human Reaction to Typical Vibration Levels

Vibration Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e. not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: California Department of Transportation (Caltrans). 2020, April. *Transportation and Construction Vibration Guidance Manual.* Prepared by ICF International.

LOCAL REGULATIONS AND STANDARDS

Noise Element

INTRODUCTION

Purpose

701. Freedom from excessive noise is a major factor in the quality of life for Los Altos Hills residents. Noise can disrupt sleep, cause stress and tension, and interfere with conversation and many other aspects of day-to-day life. The Noise Element is intended to protect residents from unwanted noise, thereby assuring their continued enjoyment of the quiet, peaceful community envisioned in the Introduction to the General Plan.

> *Los Altos Hills should be a community dedicated to maintaining a semi-rural atmosphere, where people can live in the midst of open space, exposed to minimum noise, congestion, and confusion, and with sufficient space on each lot to allow activities such as gardening, cultivating vineyards and orchards, keeping horses, and enjoying outdoor recreation.*
>
> Community Goal 1
> Introduction to the General Plan

Scope

702. The Noise Element provides a basis for evaluating noise issues and limiting the exposure of the community to excessive noise levels. The Noise Element identifies current noise conditions and projects future noise conditions resulting from continued growth in Los Altos Hills and surrounding communities. It establishes policies and programs to mitigate the current and future potential impacts of noise. In addition, it provides direction for reviewing existing Town standards and establishing new standards and criteria, as appropriate, for the mitigation of noise impacts determined to be unacceptable.

State Requirements

703. State law requires every General Plan to have a Noise Element that identifies noise problems in the community and works toward their resolution. The State also provides guidelines for the preparation of the Noise Element. These guidelines were initially adopted by the Office of Noise Control, California Department of Health, in 1976. The Los Altos Hills Noise Element has been prepared in recognition of these guidelines and the requirements of State law.

Relationship to Other Elements

704. Since traffic is one of the major sources of noise, there is a direct relationship between the Noise Element and the Circulation & Scenic Roads Element. The Noise Element is also closely related to the Housing Element and the Open Space & Recreation Element, which address two of the Town's most noise-sensitive land uses—residential development and open space. All of these components are integrated in the Land Use Element, which provides for the compatibility of land uses.

NOISE BASICS

Subjective Factors

705. Defined simply as unwanted sound, noise is a subjective phenomenon that depends upon the listener's attitude toward the sound. The degree to which noise is irritating depends on a variety of factors, some independent of the noise source itself. Time of day, background sound level, the listener's activity, and surrounding land use can all influence the degree to which a particular sound is perceived as annoying. Value judgments also enter into tolerance for urban sound levels. Most people tolerate emergency sirens and loud lawnmowers because they represent necessary actions related to public safety and neighborhood upkeep. However, loud noises from cars with defective or modified mufflers are usually perceived as annoyances.

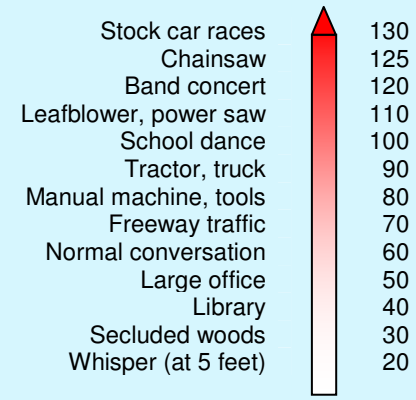
Noise Measurements

706. Three important characteristics of noise are its level of intensity or loudness, its frequency range, and the variation in noise level with time. Each of these factors is addressed in the following methods of measurement:

1. Noise levels are measured in **decibels (dB)**. A decibel is a unit for describing the amplitude of sound.

2. The **A-weighted filter network** adjusts the measured noise level to account for the frequency range of noise so that it most closely relates to human perception of loudness. The A-weight filter de-emphasizes the very low and very high frequency components of sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise. Typical sound levels measured in the A-weighted scale (**dBA)** are shown in Figure 7-1**.**

Figure 7-1
Typical sound levels
measured in dBA



Source: *Noise Levels in Our Environment,* League for the Hard of Hearing, 2007

3. The **Community Noise Equivalent Level (CNEL)** is the average equivalent A-weighted sound level during a 24-hour day, obtained after adding 5 decibels to sound levels in the evening from 7 pm to 10 pm, and 10 decibels to sound levels in the night from 10 pm to 7 am. The State has adopted the Community Noise Equivalent Level (CNEL) as the standard metric because it corresponds well to community annoyance over noise.

Noise Terminology

707. The **ambient noise level** is the composite of noise from all sources near and far. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Noise attenuation is the reduction of sound intensity by various means.

THE NOISE ENVIRONMENT

708. Residents of Los Altos Hills enjoy a relatively quiet noise environment. Because the community is characterized by low-density residential development and has no industrial or commercial areas, a majority of noise-producing sources normally found in Bay Area cities are not located within its boundaries. Noise is not confined by city limits, however, and the community's noise environment is affected by noise-producing sources in neighboring cities. It is not possible to control all noise sources that affect Los Altos Hills, but the negative impacts of excessive noise can and should be mitigated to the greatest extent possible.

709. As in most Bay Area communities, motor vehicle traffic is the primary source of noise in Los Altos Hills. The level of noise produced by vehicular traffic generally fluctuates in relation to the volume of traffic, the percentage of trucks, and average traffic speed. Other sources of community noise include air traffic, construction activities, the use of home maintenance equipment such as chainsaws and gas-powered leaf blowers, and the operation of residential pool equipment and air conditioning units. The noise issues of greatest concern to the community are briefly described below, including suggestions for evaluating noise problems and mitigating their impacts.

Motor vehicle traffic

710. The Town is bisected by Interstate 280, which is the primary source of noise in the community. Freeway noise has often affected the normal use of residential properties and associated activities, both indoors and outdoors. In addition, it is likely that some property values have decreased as a result of freeway noise. Another major source of noise is traffic on Foothill Expressway and Arastradero Road, portions of which are maintained by Santa Clara County and the City of Palo Alto. The Town should continue to work with the appropriate agencies to minimize noise generated by Interstate 280, Foothill Expressway and Arastradero Road. To a lesser degree, traffic on local roadways also can be a significant source of noise for adjacent residents. Vehicle noise is regulated by the State's noise emissions standards, and cities are generally prohibited from applying stricter standards. The Sheriff's Department will continue to enforce the State's noise emission standards for all vehicles, including motorcycles.

711. Air traffic

Low-flying airplanes and helicopters are another significant source of noise. Most of the air traffic is generated by the San Francisco, Oakland and San Jose airports, as well as Moffett Field. In addition, medical transport airplanes and helicopters fly in and out of Stanford Medical Center. The Regional Airport Planning Commission (RAPC) serves as a public forum for issues such as airport noise. Town residents should continue to work with the RAPC and the Federal Aviation Administration to minimize air traffic noise and flight patterns that impact Los Altos Hills.

Schools, recreation facilities and other conditional uses

712. Public and private recreation facilities, schools, churches and other conditional uses can be a significant source of noise, particularly at peak-use periods. Noise generated by the use of these facilities can be disruptive to neighboring residents. The conditional use permits for these uses typically restrict the hours of operation and the use of loud speakers so that noise impacts are minimized.

Construction activities

713. Although construction noise usually lasts only a limited period of time, it can severely restrict the enjoyment of residential properties. Due to the topography of the community, noise from construction activities such as grading and the operation of other heavy equipment often carries for great distances. The Town's Municipal Code limits the hours and days of outside construction activities to 8:00 a.m. to 5:30 p.m. Monday through Saturday, with no construction allowed on Sundays or public holidays. (These restrictions do not apply to the use of domestic power tools by homeowners.) All construction equipment operating within the Town should be encouraged to be equipped with the most up-to-date muffling devices generally available.

Residential activities

714. Amplified music, loud parties and other social gatherings, barking dogs, crowing roosters, auto repair and the operation of power mowers, chainsaws, workshop equipment, home improvement tools and similar equipment are sources of potentially annoying noise. Under provisions of the Town's Municipal Code, homeowners are prohibited from keeping or permitting barking dogs, and the use of power tools is generally limited to the hours of 8:00 a.m. and sunset on weekdays and between 9:00 a.m. and sunset on weekends.

Los Altos Hills Municipal Code
Sec. 6-1.510. Barking dogs

It is unlawful for any person to keep, maintain or permit in or upon any premises within the Town any barking dog that is under the control of that person. "Barking dog" means a dog that barks, bays, cries, howls or makes any other noise continuously and incessantly for a period of ten (10) minutes within a fifteen (15) minutes period to the disturbance of any other person. The issuance of a citation shall be within the discretion of the Animal Control Officer or other enforcement person.

Air conditioning units and pool equipment

715. The operation of heating, ventilating and air conditioning (HVAC) units, pool equipment, generators and similar equipment can be noisy. The recent trend to construct larger homes has in some cases involved the installation of commercial-scale equipment, which is even more likely to annoy neighbors. To protect them from excessive noise, the Town does not allow HVAC or pool equipment to be located in setback areas. HVAC equipment, pool equipment, generators, and similar types of equipment should be enclosed as much as possible, and the enclosures should be insulated to minimize noise impacts. Specific standards for this type of equipment should be developed and implemented through the Town's planning and building permit process.

The Noise Ordinance

The Town's Noise Ordinance identifies a series of noise sources and specifies the maximum decibel levels for day and night (defined as the period between sunset and 7:00 a.m.). Violation of these standards constitutes a public nuisance and is subject to nuisance abatement. Exceptions are made for alerting persons to the existence of an emergency and the performance of emergency work, neither of which are subject to the maximum noise levels established in the ordinance. The Noise Ordinance should be periodically reviewed and updated to ensure that the noise standards are appropriate and attainable.

Los Altos Hills Municipal Code
Title 5, Chapter 2

Noise Contours

716. The noise environment for Los Altos Hills can be described with noise contour maps that have been developed for land use planning purposes. Noise contours define areas of equal noise exposures based on noise measurements at given locations. Figures N-2 and N-3 are noise contour maps for present-day conditions (Year 2007) and future conditions (2030) based on projected local and regional growth.

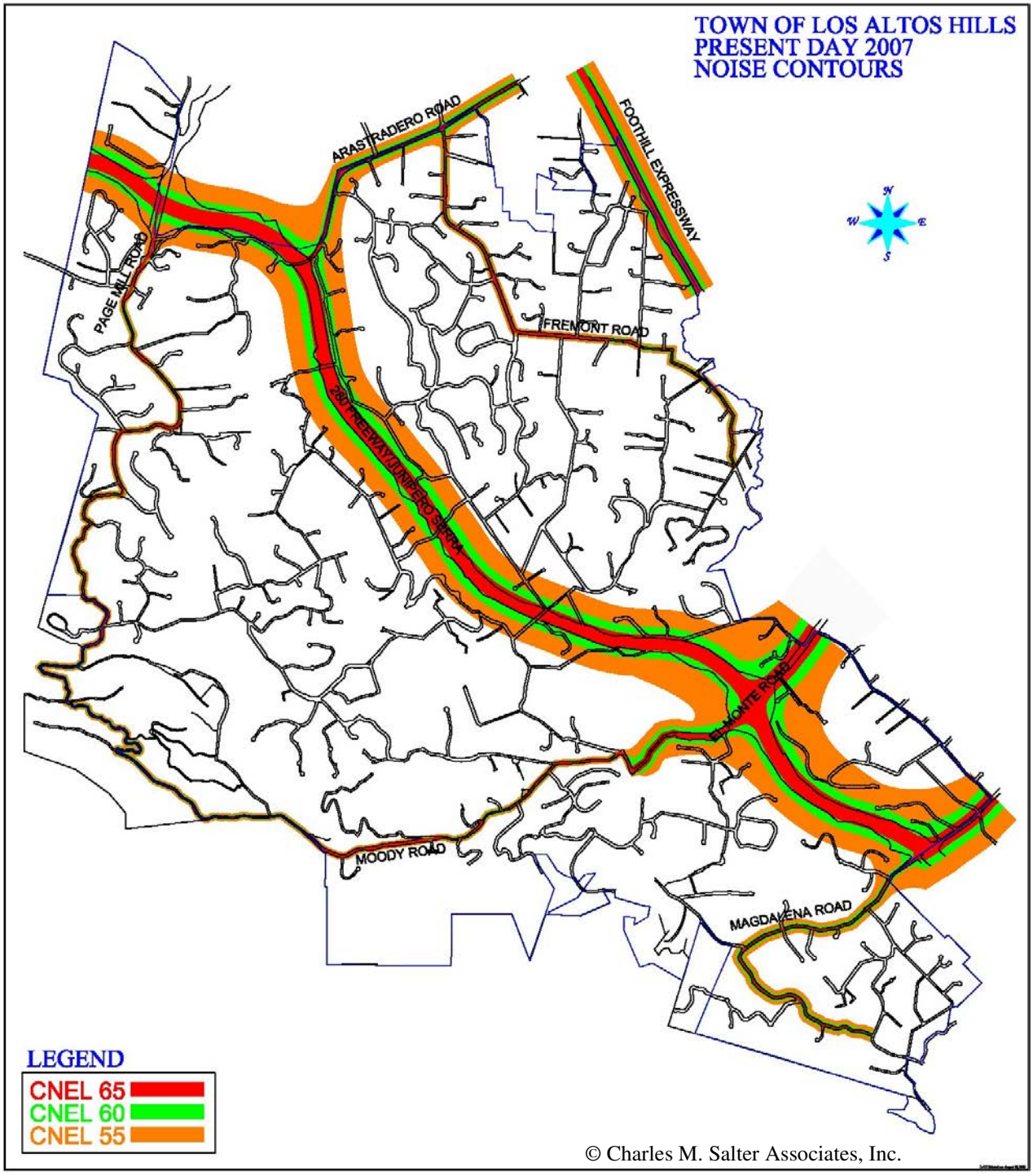
Existing Conditions

717. Larger roadways such as Interstate 280, Foothill Expressway and Arastradero Road are corridors with high noise levels generated by heavy volumes of traffic. As shown on Figure 7-2, the high-noise contours extend a considerable distance beyond the roadways, indicating greater noise impacts on residents living within those contours. In contrast, residents who live farther away from the roadways and outside the high-noise contours experience a significantly quieter environment, with CNELs in the low 50s and 40s and noise levels sometimes dropping down to 30 dbA at night. Roadways that were not modeled for noise contours also experience traffic noise, with noise levels along local streets expected to be similar or quieter than those on modeled streets.

Future Conditions

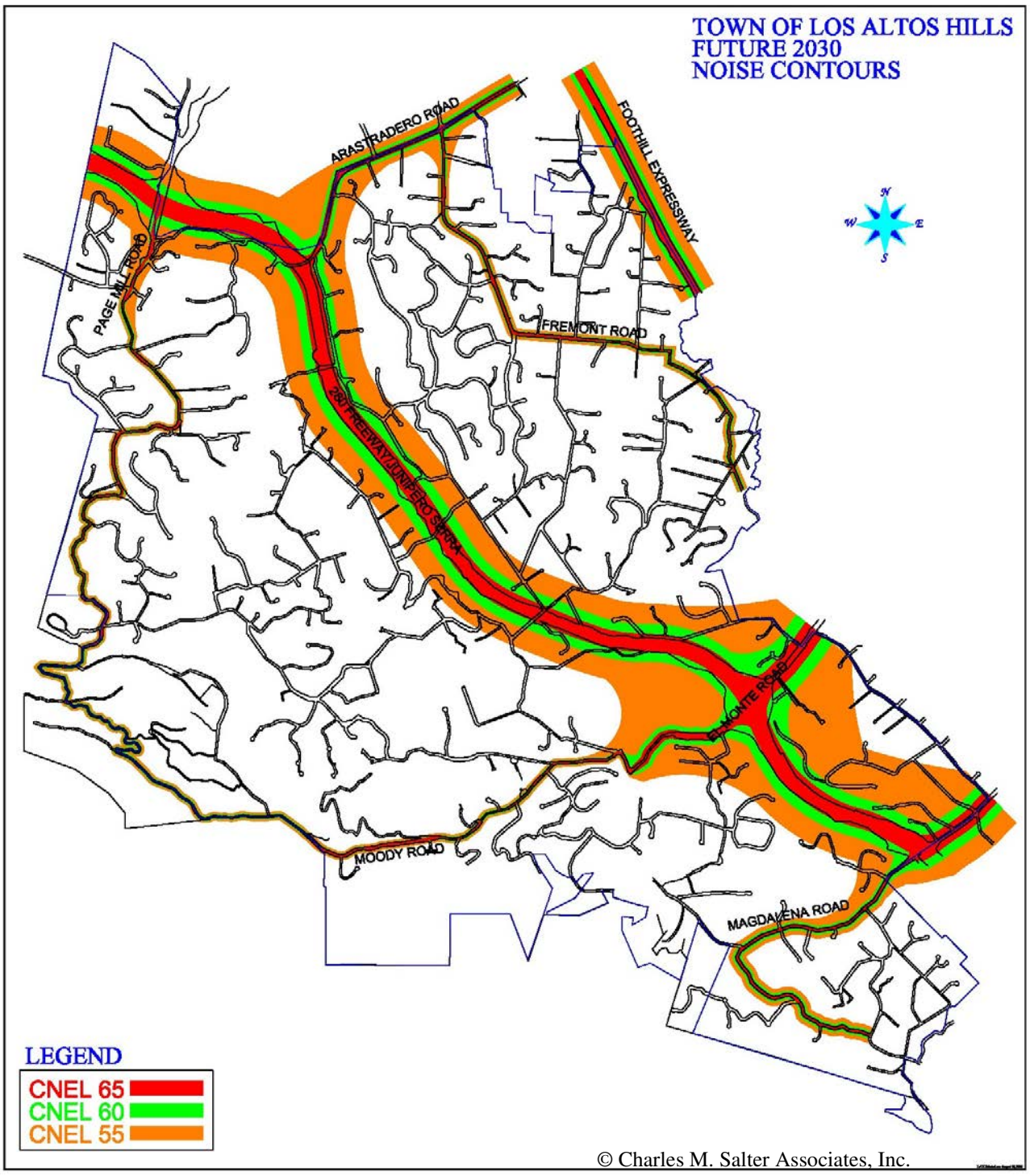
718. Figure 7-3 shows the noise contours projected to 2030 based on traffic growth projections by the Santa Clara Valley Transportation Authority and the Metropolitan Transportation Commission. The projected contours are similar to existing noise conditions, with significant increases in noise levels occurring at major freeway intersections, especially at El Monte Road. The increase in traffic will result primarily from regional growth, over which the Town has no control. However, the Town can and should require new development in high-noise contours to include noise mitigation measures.

Figure 7-2



NOTE: Community Noise Equivalent Level (CNEL) is the average equivalent A-weighted sound level during a 24-hour day, obtained after adding 5 decibels to sound levels in the evening from 7 pm to 10 pm, and 10 decibels to sound levels in the night from 10 pm to 7 am.

Figure 7-3



NOTE: Community Noise Equivalent Level (CNEL) is the average equivalent A-weighted sound level during a 24-hour day, obtained after adding 5 decibels to sound levels in the evening from 7 pm to 10 pm, and 10 decibels to sound levels in the night from 10 pm to 7 am.

GOAL 1

Minimize noise levels so that residents may enjoy the amenities of living in a quiet, semi-rural community.

Policy 1.1 **Noise levels shall be compatible with the Town's semi-rural atmosphere and consistent with Town standards.**

Policy 1.2 **All appropriate methods for reduction of noise at the source (i.e. automobile, aircraft, etc.) shall be supported.**

Policy 1.3 **Individual use of noise-generating equipment should not interfere with the normal use and enjoyment of outdoor or indoor areas on surrounding properties.**

Policy 1.4 **Noise generated by construction equipment shall be attenuated to the maximum extent possible. Hours of construction activity shall be regulated to minimize the impact of noise on surrounding residential properties.**

Program 1.1 Update the Noise Ordinance to provide for clear interpretation of the regulations and effective enforcement of appropriate standards based on the A-weighted scale in order to protect residents from unwanted noise, thereby ensuring their continued enjoyment of the quiet, peaceful community envisioned in the Introduction to the General Plan.

Program 1.2 Continue to restrict the hours of non-emergency grading and construction activities to specified days of the week and times of day to minimize noise impacts on neighboring residents and other sensitive land uses.

Program 1.3 Encourage construction contractors to use construction equipment that incorporates the best available noise control technology.

Program 1.4 Continue to prohibit the location of heating, ventilating and air conditioning (HVAC) equipment, pool equipment, pumps and similar equipment in setbacks. Develop siting and noise attenuation standards for HVAC equipment, pool equipment, pumps and similar equipment. Standards should be more stringent for these types of equipment that produce continuous noise than for sources that emit noise occasionally.

Program 1.5 Encourage the use of quiet pavement materials in repaving projects including the repaving of Interstate 280.

Program 1.6 Work with appropriate State, regional and local agencies such as Caltrans, Santa Clara County and the City of Palo Alto to reduce noise from roadways adjacent to Los Altos Hills.

Program 1.7 Work with the Federal Aviation Administration, the Regional Airport Planning Commission and other appropriate agencies to reduce noise levels generated by aircraft flying over Los Altos Hills.

Program 1.8 Continue to address potential noise impacts when reviewing applications for new or renewed conditional use permits.

Program 1.9 Make residents aware of noise limits by providing a copy of the Town's Noise Ordinance to all applicants for site development permits. In addition, provide a copy of the Town's construction hours to all residents and contractors who obtain building permits.

LAND USE COMPATIBILITY

719. In larger cities, many undesirable noise effects can be reduced or avoided if noise conditions are considered when assigning uses to specific parcels of land. In Los Altos Hills however, there is limited opportunity to address land use compatibility in this manner because the community is almost fully developed, little growth is anticipated, and major land uses are primarily single-family residential, open space and recreation, and institutions such as schools and churches. The community has no commercial or industrial uses. Moreover, the Town has little or no control over major sources of noise generated by motor vehicle traffic on Interstate 280, Arastradero Road and the Foothill Expressway.

720. Compatibility of land uses in Los Altos Hills is best achieved through analysis of each proposed use on a case-by-case basis through the site development review process. To ensure that new development is not adversely impacted by noise sources, or is itself a source of noise, the Town uses land use compatibility guidelines as part of planning and site development review. Figure N-2 summarizes the compatibility of specific land uses with various noise levels. Given the semi-rural nature of the community, the Town may adopt more restrictive standards as part of the Noise Ordinance.

Mitigation Measures

721. The potential impacts of traffic noise and other unwanted sound should be identified and mitigation measures required as needed to meet the Town's noise standards. The most effective measures for noise attenuation include the following:

- Site planning that is sensitive to potential noise impacts
- Careful orientation of buildings and placement of windows
- Increased setbacks
- Buffers consisting of earthen berms and landscaping
- Sound proofing and double-glazed windows
- Use of acoustically treated or quiet-design equipment such as furnaces, fans, motors, compressors, generators, pool equipment and air conditioning units

722. In determining the best combination of noise attenuation techniques for a specific project, noise mitigation measures should be weighed against other community values such as open space and aesthetics. Noise mitigation is usually less expensive and more effective if it is included during the design phase of a project rather than as an after-thought.

Sound Walls

723. In many communities, sound walls are used to reduce freeway noise impacts on adjacent residences. In Los Altos Hills, however, sound walls are prohibited on private property adjacent to Interstate 280, primarily because they block views of surrounding countryside and tend to bounce sound to other locations. Although the Town has no authority to prohibit the construction of sound walls in the State right-of-way, it should convey its sound wall policy to Caltrans. In the event that sound walls are constructed, the Town should work with Caltrans to ensure that the walls are screened with evergreen trees, vines and other landscaping to soften their visual impact.

Figure 7-4

Land Use and Noise Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (Ldn or CNEL, dB)						
	55	60	65	70	75	80	
Single-family residential and open space							
Outdoor sports and recreation, Neighborhood parks and playgrounds							
Schools, libraries, museums, hospitals, personal care, meeting halls, churches							
Office buildings, business commercial, and professional (such as Town Hall)							
Auditoriums, concert halls, amphi-theatres							

NORMALLY ACCEPTABLE Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.

CONDITIONALLY ACCEPTABLE Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

UNACCEPTABLE New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Source: Adapted from *General Plan Guidelines*, Office of Planning and Research, Appendix C, 2003.

GOAL 2

Provide compatible noise environments for new development.

Policy 2.1 **All development adjacent to Interstate 280, Arastradero Road or Foothill Expressway should be designed so as to minimize the impacts of noise generated by traffic movement.**

Policy 2.2 **Residential construction in high-noise-level areas shall include provisions for structural insulation as necessary to ensure maximum possible noise attenuation, with the objective of ensuring a maximum of CNEL 45 dB.**

Policy 2.3 **Mitigation measures such as site planning, building orientation, window placement, increased setbacks, landscaped berms, and sound-proofing shall be required in new development when necessary to reduce the impacts of noise.**

Policy 2.4 **The construction of sound walls on private property adjacent to Interstate 280 and within the State right-of-way shall be discouraged.**

Policy 2.5 **The potential for new development to generate noise levels higher than Town standards shall be evaluated, and significant impacts shall be appropriately mitigated.**

Policy 2.6 **Work with adjoining municipalities and public and private landholders to assure noise-compatible land uses across jurisdictional boundaries.**

Program 2.1 Evaluate noise impacts on surrounding land uses during the site development review and permitting process.

Program 2.2 Utilize the Land Use and Noise Compatibility Guidelines as a basis for determining the compatibility of land uses.

Program 2.3 To determine noise exposure, use the noise contour maps or more detailed noise analysis if appropriate.

Program 2.4 Require the mitigation of all significant noise impacts as a condition of project approval.

Program 2.5 Convey the Town's sound wall policy to Caltrans and work with the agency to develop more acceptable alternatives such as landscaped berms along Interstate 280.

Title 5. Public Welfare, Morals and Conduct

Chapter 2. NOISE

Note: Prior ordinance history: Ords. 181, 249 and 254.

§ 5-2.01. Definitions.

For the purposes of this chapter, unless otherwise apparent from the context, certain words and phrases used in this chapter are defined as follows:

Animal means any mammal, bird, reptile, fish or any other creature or any live vertebrae creature other than a human being.

A-weighted sound level or sound level means the sound pressure level in decibels as measured on a sound level meter using the A-weighted network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives a good correlation with subjective reactions to noise.

dBA means the A-weighted unit of sound pressure level.

Decibel (dB) means the unit of measurement for sound pressure level.

Emergency means any occurrence or set of circumstances involving actual or imminent physical trauma or property damage which demands immediate actions.

Farm equipment means a device which is used exclusively in the conduct of agricultural operations, including devices such as power saws, lawn mowers, pump motors, air compressors, or similar power-driven devices used in connection with agricultural operations, but not including vehicles which are designed primarily for the transportation of persons or property on a highway.

Farm tractor means a tractor which may be used on a highway to draw a farm trailer carrying product or carrying other implements of husbandry between farms or to a processing or handling point and returning with or without the trailer, but which otherwise is itself an implement of husbandry.

Fixed noise source means a stationary device which creates sound while fixed or motionless, including, but not limited to pumps, fans, compressors, air-conditioners, pool equipment, generators, and refrigeration equipment.

Machine, tool, or appliance means every machine, motor, device, or equipment, powered or unpowered, including, without limitation, such normally employed to fabricate, clean, or modify other items, and including any device (other than farm equipment and on permitted construction sites), such as power saws, routers, drills, hoists, mixers, sanders, cleaners, grinders, jacks, pumps, generators, and the like.

Motor vehicle means a vehicle which is self-propelled (including motorcycles, motor-assisted bicycles, motor-driven cycles, and powered motor vehicles) as defined in the California **Vehicle Code**, including

all on-highway type motor vehicles subject to registration under said Code and all off-highway type motor vehicle subject to identification under said Code.

Person means and includes every human being, whether adult, minor, or infant. When a group of persons acts in unison to create noise, each individual shall be deemed as responsible as though solely the principal producing the resultant noise.

Powered model vehicle means any self-propelled, airborne, waterborne, or land borne plane, vessel, or vehicle which is not designed to carry persons, including but not limited to any model airplane, boat, car or rocket.

Sound-producing or amplifying device means any device for the creation or amplification of the human voice, music, or any other sound. Examples include, without limitation, public address systems, music amplifiers, horns, sirens, whistles, bells, and drums.
(§ 1, Ord. 527, eff. May 21, 2011)

§ 5-2.02. Standards.

The following standards are established to be applicable to the classifications indicated when measured as follows:

(a) Use a standard noise level meter as prescribed by ANSI-S1.4. All measurements will be taken with the meter switched to the weighting network labeled "A" and "Slow" time averaging.

(b) When the source is on private property, measurements shall be made at any location on or beyond the property boundary.

(c) When the source is on public property, measurements shall be made 50 feet from the source or at the private property line, whichever is closer.

(d) Vehicles on public streets and highways within the Town shall conform to the noise emission standards prescribed for them by the **Vehicle Code** of the State.

(e) Fixed noise source installations shall conform to applicable setback standards. Additional noise attenuation such as enclosure, baffling or housing may be required for roof mounted installations to meet the standards in subsection **(g)** of this section.

(f) Equipment defined in Title **5**, Chapter **6** is not regulated by this chapter.

(g) Noise sources shall be regulated by the following table:

Noise Sources	Exterior Noise Level Standard (dBA)	
	Daytime	Nighttime
Animals	50	40
Farm tractor	82	40
Farm equipment	65	40
Fixed noise source	50	40
Machines, tools or appliances	50	40
Motor vehicle repairing, rebuilding, modernizing and testing	82	40
Persons	50	40
Powered model vehicle	60	40
Sound-producing or amplifying device	50	40

For the purposes of enforcing the provisions of this chapter, "daytime" shall be the period from 8:00 a.m. on weekdays, and 9:00 a.m. on weekends and Town Holidays, to 7:00 p.m., and "nighttime" shall be the period from 7:00 p.m. to the beginning of "daytime," Pacific Standard Time or Daylight Saving Time. "Nighttime" shall begin at 10:00 p.m. for persons and sound-producing or amplifying devices.

(§ 1, Ord. 527, eff. May 21, 2011)

§ 5-2.03. Conflicts with other laws.

The provisions of this chapter shall not be deemed to supersede or repeal other existing laws which are designed to control public nuisances or disturbances, such as noise.

(§ 1, Ord. 527, eff. May 21, 2011)

§ 5-2.04. Public nuisances.

Each violation of the provisions of this chapter shall constitute a public nuisance and shall be subject to abatement as such.

(§ 1, Ord. 527, eff. May 21, 2011)

§ 5-2.05. Emergency exemption.

The provisions of this chapter shall not apply to:

(a) The emission of sound for the purpose of alerting persons to the existence of an emergency; or

(b) The emission of sound in the performance of emergency work.

(c) Noise from equipment used during emergencies.

(§ 1, Ord. 527, eff. May 21, 2011)