



# City of Sierra Madre

Office of the City Clerk

232 W. Sierra Madre Blvd.,

Sierra Madre, CA

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THE BROWN ACT PROVIDES THE PUBLIC WITH AN OPPORTUNITY TO MAKE PUBLIC COMMENTS AT ANY PUBLIC MEETING.

THE FOLLOWING WRITTEN COMMENTS WERE RECEIVED IN ADVANCE OF THIS MEETING AND WILL BE POSTED ONTO THE CITY'S WEBSITE FOR PUBLIC ACCESS AND TRANSPARENCY.

THE COMMENTS ATTACHED ARE SUBMITTED BY MEMBERS OF THE PUBLIC. THE CITY DOES NOT CONFIRM THE VERACITY OF THE STATEMENTS PROVIDED BY MEMBERS OF THE PUBLIC.

## Joseph Nosrat

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**Subject:** FW: Supporting documents for the Sierra Madre Planning Commission - September 1, 2022  
**Attachments:** SIERRA MADRE PLANNING COMMISSION MEETING NOTES September 1, 2022.pdf

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**From:** Leesa Puleo [mailto: [REDACTED]]  
**Sent:** Thursday, September 1, 2022 2:32 PM  
**To:** Public Comment <publiccomment@cityofsierramadre.com>  
**Subject:** Supporting documents for the Sierra Madre Planning Commission - September 1, 2022

**CAUTION:** This message is from an EXTERNAL SENDER - be CAUTIOUS, particularly with links and attachments.

Please submit the attached file to the members of the Planning Commission for tonight's meeting.

Thank you,

Leesa Puleo  
[REDACTED], Sierra Madre, CA 91024

## SIERRA MADRE PLANNING COMMISSION MEETING NOTES

*Leesa A. Puleo*  
*September 1, 2022*

I would like to request that the Planning Commission reject Alverno Heights Academy's noise study performed by CDSA's based on the information provided by Mr. and Mrs. Stephens and their consultant, MD. Acoustics, LLC. I applaud their due diligence in reviewing this matter and hope that the Commission will take into account the peer review provided by MD. Acoustics, LLC.

I would also like to provide a few comments regarding items discussed at the previous commission meeting.

Firstly, it was suggested by the Commission that Alverno be allowed to have dancing on their terrace during Villa events, particularly wedding rentals. Alverno has NEVER been allowed to do this in the past and we believe it will increase the noise level of events and significantly impact neighbors. Several studies have concluded that the act of dancing ABSOLUTELY increases noise levels:

*Clubbing: The cumulative effect of noise exposure from attendance at dance clubs and night clubs on whole-of life noise exposure, W. Williams, E.F. Beach, M. Gilliver, National Acoustic Laboratories*

*Assessing Excessive Noise Exposure of Music Oriented Nightclub Employees, Aiyanna Fitzgerald, University of South Florida*

*Hearing Loss in Dance: Occupational Hazard, Steven Karageanes, BDP Resources, Hearing Loss*

*What is the recommended music volume at events, john@middletonevents.com, Wedding News*

*The Injury Dancers Ignore: Hearing Loss, Steven J. Karageanes, Dance Magazine*

*Dangerous Decibels: Dancing Until Deaf, Ed Walsh, The Bay Area Reporter /H.E.A.R.*

*Noise Level Dangers*, ASHA, American Speech-Language-Hearing Association,  
<https://www.asha.org/public/hearing/loud-noise-dangers/>

*Dance Music Noise Level Measured During Red Rocks Concert*, May 16, 2014, CBS  
Colorado

*Hearing Loss: The Neglected Dance Injury*, Bella Diva Would Dance,  
<https://belladivadance.com/hearing-loss-the-neglected-dance-injury/>

*Understanding Wedding Venue Noise Limits*,  
<https://www.goldcoastdjs.com/understanding-wedding-venue-noise-limits/>

We believe the Commission should not allow Alverno to permit dancing on the Villa terrace because it will increase the already significant noise level of rental events as evidenced by dozens of published articles on the subject.

The Commission also suggested that the city determine its own ambient noise level for the neighborhood surrounding Alverno and that this level will be used to determine the percentage over ambient noise during Alverno events. Appropriate neighborhood ambient noise levels have ALREADY been determined by OSHA and the U.S. Environmental Protection Agency and are used for measuring noise levels throughout the country! Ambient background noise in suburban neighborhoods has been determined at 45-50 dB (<https://www.epa.gov/>, <https://www.osha.gov/noise>).

Lastly, Alverno has touted that their facilities, programs, and services are available to EVERYONE and they do not discriminate on the basis of race, color, racial or ethnic origin in the administration of its education policies, admission policies, scholarship and loan programs, and athletic and other school-administered programs; that they will attempt to make reasonable accommodations for students with disabilities (<https://www.alvernoheightsacademy.org/>). It has recently come to light that Alverno has been accused of significant racial injustices. There have been protesters outside of the Alverno gates daily during school drop off and pickup (see picture below). Although this situation may not be directly relevant to the current CUP application and the Planning Commission's decisions, it may have significant impact on the future of Alverno and their ability to fulfill the items contained in the CUP.

Thank you,  
Leesa A. Puleo



**Joseph Nosrat**

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**Subject:** FW: 9/1/22 Planning Commission comments  
**Attachments:** VILLA CUP 9.1.22.pdf

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**From:** [REDACTED]  
**Sent:** Wednesday, August 31, 2022 10:24 AM  
**To:** Public Comment <publiccomment@cityofsierramadre.com>  
**Subject:** 9/1/22 Planning Commission comments

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Keith Stephens  
[REDACTED]

Sierra Madre

Public comment from Keith Stephens, [REDACTED]

9/1/22 Planning Commission meeting – public hearing item 1.

**CONDITIONAL USE PERMIT 22-03 (CUP 22-03) A REQUEST TO ALLOW ADAPTIVE REUSE OF THE VILLA DEL SOL D'ORO (VILLA) FOR PRIVATE RENTAL EVENTS**

**NOISE**

In 2009 or earlier residents requested the doors and windows of the villa be kept closed when amplified music was playing. Closed doors and windows efficiently contain inside noise to the premises. Villa claimed open doors were needed for ventilation, so air conditioning was proposed to minimize noise and enhance participant's comfort.

Neighbor complaints regarding noise include low frequencies created by sub-woofer speakers or diesel motors. These frequencies are not considered or measured in the dBA scaled used in code. Alverno noise studies do not capture the complete experience of loud music or working generators in the distance. The full spectrum of impact to facing homes must be considered in the CUP.

In the Sept 2009 Villa TUP renewal Recommended Conditions 1.4, "Central air conditioning shall be installed inside the Villa pursuant to a mutually agreeable timetable between Alverno and the neighbors." Air conditioning was never installed for various reasons for over 10 years.

This same language appeared in the 7/21/22 Adaptive Reuse of the Villa CUP, item 3.3. The item is removed from the final version because Mr. Farsing claims he "does not know who the neighbors are," to negotiate with. The commission cannot accept this reasoning. The names and addresses of the neighbors who speak at Planning and Council meetings regarding Alverno are available. Attendees of quarterly Alverno meetings must register. The information has always been there. My wife and I attended many of the quarterly Alverno meetings pre-covid. The subject of air conditioning the Villa was not a negotiation, but rather an explanation that it wasn't going to happen, and the doors will stay open.

The request has been successfully ignored for 13 years. Some neighbors have changed, but the parties have continued while the physics of sound radiation remain the same.

**I request the Planning Commission mandate immediate installation of air condition in the large downstairs areas of the Villa, with central or mini-split units.**

**Dancing on the Terrace item 3.4**

Dancing on the terrace was excluded on previous TUP's, but the activity has been noted by neighbors many times as the doors are left open to carry the music. The Villa should not be rewarded for their offenses.

**Reverse the condition to allow dancing on the Terrace.**

9/1/22 Planning Commission meeting – public hearing item 1.

**CONDITIONAL USE PERMIT 22-03 (CUP 22-03) A REQUEST TO ALLOW ADAPTIVE REUSE OF THE VILLA DEL SOL D'ORO (VILLA) FOR PRIVATE RENTAL EVENTS**

**Stimulating commerce and stabilizing neighborhoods**

In his July 21 2022 presentation to the Planning commission, Mr. Farsing of Alverno noted a list of architectural, historical, religious and non-profit designations they have voluntarily sought and been granted by authorities. Each designation has its own related law or code, offering tax incentives or operational exceptions in a residential area. To quote Mr. Farsing,

“preservation ordinance codifies incentives for financial preservation, enhancement of the attraction to visitors, stimulating commerce and stabilizing neighborhoods”

Villa rental income has varied between \$103,285 - \$606,921 a year in the last 5 years. That is stimulated commerce for Alverno, but there is no trickle-down on this income. Event permit prices are based on cost recovery only to the city. This city has no financial gain. Income taxes are avoided with non-profit status. An application is in process to greatly reduce the property tax expense due to historical status. There has been no indication that other Sierra Madre businesses benefit from Villa rentals. “Stimulated Commerce” needs to extend beyond the Alverno property.

The Villa offers no-charge event access, mostly Sundays, to Staff, alumni, friends of the school and religious affiliates. It is the Villa’s position that these gratuitous events are not covered by previous TUP or the new CUP as they are not commercial activity. This must be changed. They have pleaded their financial need to run a commercial venue in a residential neighborhood, but regularly host events that bring NO commerce. There is still the nuisance for the neighbors, however.

Neighbors are expected to bear the repeated nuisance of weekend noise and traffic of paid and free events, in addition to all school activities. This is not stabilizing behavior. It is emotionally stressful limitation on our outdoor enjoyment and a cost reducing disclosure on a home sales contract.

**All Non-School events at the Villa should be counted towards CUP limits. Condition requested on TUP**

Public comment from Keith Stephens, [REDACTED]



**Joseph Nosrat**

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**Subject:** FW: Documents for tonights Planning Commission 9/1/22

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**From:** K S [mailto: ]  
**Sent:** Thursday, September 1, 2022 10:48 AM  
**To:** Amber Tardif <atardif@cityofsierramadre.com>  
**Cc:** Joseph Nosrat <jnosrat@cityofsierramadre.com>  
**Subject:** Documents for tonights Planning Commission 9/1/22

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Hi

Per your instructions for documents that won't fit in and email.

Link for Joseph: [https://drive.google.com/drive/folders/1iuwHnGKTgI9\\_A1Ezy6S\\_InfNABiash9?usp=sharing](https://drive.google.com/drive/folders/1iuwHnGKTgI9_A1Ezy6S_InfNABiash9?usp=sharing)

Please go to this link and select the 4 documents:

2022\_09 01 1 Letter to PC reject noise studies Final.pdf

10462201\_Peer Review\_Villa.pdf

10462201\_Peer Review 2\_School.pdf

2022\_09 01 Noise studies w our comments .pdf

We are not providing access to Alverno, only the city for the purpose of distribution to the Planning Commission for 9/1

Thank you.

Respectfully yours,

Mr. & Mrs. K Stephens

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Mr. Bob Spears  
Mr. Tom Denison  
Mr. John C. Hutt  
Mr. William Pevsner  
Ms. Peggy Dallas  
Ms. Rachelle Arizmendi Council Alternate/  
Council Member

Mr. Robert Parkhurst Council Liaison/Council  
Member  
Staff Liaison: Vincent Gonzalez, Planning and  
Community Preservation Director  
Aleks Giragosian: City Attorney



Comments sent to [planningcommission@cityofsierramadre.com](mailto:planningcommission@cityofsierramadre.com) upload by 3PM

7:00 PM @ 232 W Sierra Madre Blvd | Sierra Madre | CA | 91024

September 01, 2022

Re: Item #1 – CUP 22-03

A REQUEST TO ALLOW ADAPTIVE REUSE OF THE VILLA DEL SOL D'ORO (VILLA) FOR PRIVATE RENTAL EVENTS ON PROPERTY LOCATED AT 200 N. MICHILLINDA AVE

Item#2 CUP AMENDMENT 21-19, AND ADDENDUM TO THE MITIGATED NEGATIVE DECLARATION TO UPDATE THE ALVERNO HEIGHTS ACADEMY MASTER PLAN

Good Morning,

The Gurhardy Heights neighbors who have been in opposition with some of the Alverno expansion are requesting that you reject CDSA's noise studies currently being used to craft the CUPs for the Villa and Alverno Schools. The studies are inherently flawed and cannot be used to create conditions for Item #1 and #2 on the agenda. The school study does not adequately prove that the Alverno Heights Academy is conforming to the noise limits during after-school activities.

I discussed my concerns with other neighbors. It was agreed that we needed to immediately seek out a firm in order to do a peer review of CDSA's studies before tonight's meeting. I have been poring over the 800+ page agenda for weeks. The CDSA's studies and reasoning weren't adding up. The studies did not come close to what my family, or certain other neighbors have been recording and hearing. The studies used in tonight's agenda did not reflect our experiences with the unwanted noise coming into our homes from the Michillinda parking lot as a sports venue and the playground since 9/20. The studies did not make sense in how the conditions were being derived. I sought out a firm that has worked with the City of Sierra Madre to provide a peer review. I asked them to review my concerns, provided them with CDSA noise studies, the city of Sierra Madre's noise ordinance, and more. They do not agree with the findings of the studies and need to be rejected.

I have attached both letters from MD Acoustics, LLc. One is in regards to the Villa, and the other is concerning the school. It was suggested that I provide the same pdf as I did to the sound engineer outlining my concerns and questions.

Speaking of acoustics, I am wondering why there hasn't there been a Noise Assessment of the Villa itself to assist in coming up with a Noise Management Plan? A plan that would protect the integrity of the building. It could quite possibly cut down on the noise complaints by neighbors if the recommendations are followed and done right. It's what other wedding venues of stature do that are similar to the Villa before going to city planning for permission. What is happening now is like putting the cart before the horse.

A proper Noise Management Assessment and Plan would assist Alverno in protecting the Villa and their desire to "re-purpose it". For example, did you know that bass driven music has been cited as a culprit in cracking plaster in historic mansions and buildings used for weddings? A proper assessment of the buildings strengths and weaknesses could let the stewards of the Villa know where a DJ's speakers should be placed to prevent that. Placement is key for maximum acoustics for the guests but out of neighbor's earshot. They would be able to suggest the proper types of removable noise mitigation components for use during events, their placement and then can be stored until later. Little things like that protect the integrity of the building and cut down on maintenance. Something to think about.

Please reject the noise studies for reasons already stated.

Thank you.

With respect,  
K. Stephens

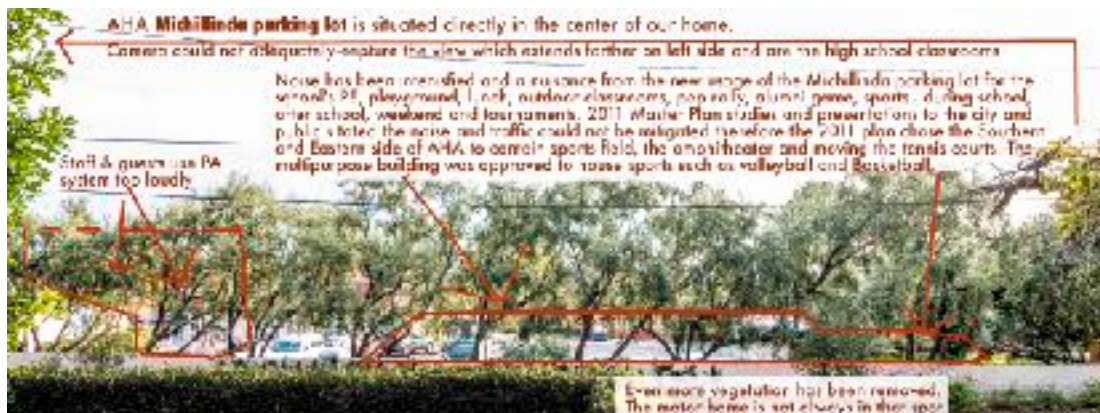
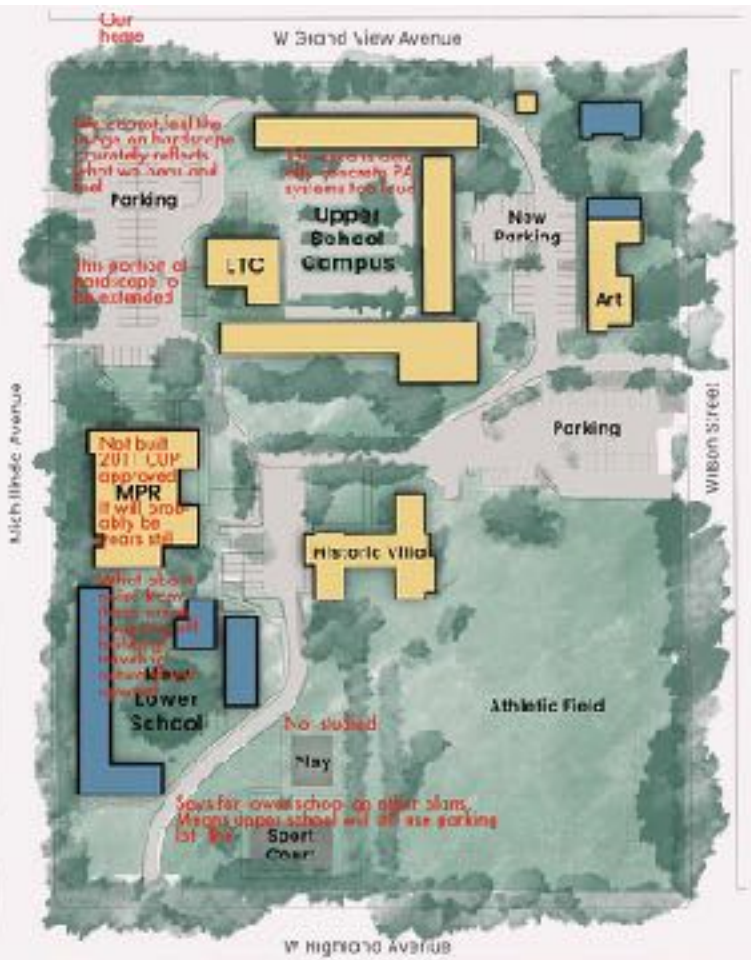
Albert Einstein:

**"Insanity is doing the same thing over and over again and expecting different results"**

Question to MD Acoustics:

Why do the noise studies make it seem that we do not have a noise problem yet since September 2020 the not-yet-enlarged parking lot has been used for the:

- drop off and pick up drive through for about 200 K-8 Students
- Recess, all grades
- PE, all grades
- Lunches and snacktime - all grades
- Outdoor classes (during filming)
- Aftercare playground
- Pep rally's and other school events with amplification
- Sports practices - volleyball and basketball
- Sports tournaments - volleyball and basketball for all grades with visitors, coaches, sports whistles cheerleaders etc. and sometimes with amplification speakers facing our home So much yelling and cheering. Good for them, not while we try to work, eat dinner, rest after cancer surgery, etc
- Summer sport camps
- Rental events (guests and event staff vehicles, trucks)
- Filming Staging of trucks, catering, generators
- And there is a playground just south of this lot. (There was no study of it, just signed off on by the city prior to 9/2



# Outdoor Activity Noise Monitoring

*This presentation slide of the map is incorrect. From CDSA study picture shows the device was on the eastern edge of 693 W Grandview Ave. Not where this slide is marked. Am I wrong? This is WELL OUTSIDE of the plane of the property per the city code. Per Google it's about 100ft.*



and the administration building are both single story structures, respecting the Villa's stature and significance to the overall campus.

The concept architecture for the new buildings will be compatible with the Villa's materials and designs. The buildings would present a new identity in line with the school's past. The buildings would be smooth plaster, have exposed wood elements, simple forms, clerestory windows that harvest light for the classrooms and provide security. The upper school buildings were constructed in 1960 and are mid-century modern in design. Many of the design features can be integrated into the architecture of the lower school, including the use of generous overhangs, exposed wood surfaces, such as benches and trellises, and other natural materials. (See the Exhibit - Concept Architectural Style Boards, pages 42-47).

The concept landscaping plan draws its inspiration from the existing campus use of native and drought tolerant trees, shrubs, and ground cover approved in the 2011 Master Plan. The Lower School site plan preserves the Moreton Bay Fig tree with a 120-foot diameter area around the tree where no structures can be located. The Moreton Bay Fig tree serves as the major focal point of the campus as the student quad.

The landscape concept continues the historic use of olive trees (*Olea Europea*) along Grandview Avenue, extended to the Michillinda perimeter, complimented by native oak trees. Jacaranda and Crepe Myrtle trees are added as flowering accent trees. Drought tolerant shrubs such as lavender and dwarf bottle brush are mixed in with drought tolerant groundcovers like Tufted Hair Grass and Ceanothus. Additional planting would be provided on Michillinda Avenue and Highland Avenue to screen the Lower School campus improvements. (See the Exhibit - Concept Landscaping, pages 48-52).

**Noise**

The potential noise impacts of the 2011 Master Plan were studied by the Planning Center in 2011. The study examined issues raised by the neighbors including noise from traffic, from school events during the day and evening, from weddings and receptions at the Villa,

mechanical equipment, athletic activities, parking lots, the proposed Multi-Purpose Building, and the short-term impacts from construction.

The 2011 study concluded that the predominant ambient noise in the area is generated by vehicles traveling on Michillinda. Noise on the school site was the typical noises associated with a school, the use of the athletic fields, and the Villa. The study concluded that the noise impacts from the 2011 Master Plan were less than significant with incorporation of mitigation measures for construction of the Multi-Purpose Building .<sup>8</sup>

The city requested a noise study for the 2021 Master Plan Update. The school retained CSDA Design Group to complete a noise study on the proposed improvements associated with the master plan update. The noise measurements were conducted between May 10, 2021, and May 12, 2021, when the Los Angeles County Health Department permitted the opening of all grade levels to in person instruction. It is estimated that over 330 students were on campus during the study period (See Noise Exhibit, page 53).

As with the 2011 noise study, the significant noise generated in the study area is from vehicles travelling on Michillinda Avenue and other local streets. The 2021 noise study concluded that with the decrease in overall vehicle trips due to the introduction of the elementary school, the Master Plan Update is not expected to make a considerable change in the noise levels.

After construction of the planned lower school buildings, noise from midday elementary school lunch/break periods are estimated to not exceed any of the existing ambient noise levels at nearby residential homes. The consultant modeled students having lunch in the new lower school courtyard, plus students playing in the open space, lower school sports court. The new buildings provide sound attenuation, especially in the central courtyard area. The noise levels were modeled at the front-yards of the homes adjacent to the school. The impacts could vary based on location of students, athletes, and spectators.

The most noise-intensive events are associated with break and lunch periods, and after school athletic events. The study concluded that student athletes (as well as

spectators, coaches, and officials) using the Michillinda parking lot for sports activities are not expected to generate average or instantaneous noise levels that exceed the existing ambient noise levels at the nearby homes on Grandview Avenue.

The same sport activities on the existing Athletic Field and the lower school sports court are not expected to generate average noise levels that exceed the existing ambient noise levels at the homes on Wilson Street and Highland Avenue. Estimates of instantaneous noise levels on Wilson Street could reach 63 dbA in the front yard of homes. The noise study revealed afternoon ambient noise levels of 53 dbA to 63 dbA in the neighborhood. Estimates of instantaneous noise levels on Highland Avenue could reach 65 dbA in the front yard of homes. The noise study documented existing weekday afternoon noise levels between 62 dbA and 64 dbA.

**Use of Modular Classrooms**

Alverno will require temporary modular classrooms to house students while plans for the permanent lower school buildings are being prepared and a capital campaign is conducted. The use of the modular classrooms at Alverno is the same as other public and private educational institutions. The Alverno modular classrooms are approved by the California State Architect and used in public schools. Currently there are six modular classrooms, located in three buildings, sited adjacent to the Prayer Garden (west of the Villa). These buildings are 24 feet by 60 feet in size (1,400 square feet in total floor area). Each classroom is 700 square feet in floor area. These three modular classrooms are within the footprint of the proposed Multi-Purpose Building, which is approved for 12,860 square feet in floor area. These classrooms were approved by city staff in June of 2020 and installed over the summer of 2020.

Three additional modular classrooms are proposed to be located north of the existing modular classrooms and the new Michillinda entrance, while the school conducts a capital campaign to fund the new construction. These modular classrooms would be smaller than the existing modular buildings, at 24 feet by 40 feet, or 960 square feet in size, with one classroom in each building. The larger classrooms would be used for the lower school computer lab, art room and for the largest lower school grade. The classrooms would be located to protect the existing oak trees in the area and situated to allow for the construction of the second Michillinda driveway into the school. The plans include a 960 square foot restroom modular, that would be located adjacent to the cafeteria. This restroom would serve the lower schools' boys and girls. The modular classrooms would be processed under the city's existing development review process.



NOISE SOURCE LEGEND  
 "A" - Elementary School Lunch Area  
 "B" - Elementary School Play Area  
 "C" - After-School Sports Events  
 "D" - High School Lunch Area

Conceptual Noise Diagram, refer to CSDA Noise Study for complete diagramming of campus zones

<sup>8</sup> Planning Center, Mitigated Negative Declaration, and Initial Study - Alverno High School Master Plan, March 2011.

# **Appendix H**

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## Supplemental Noise Study

**ALVERNO HEIGHTS ACADEMY  
NOISE STUDY  
200 NORTH MICHILLINDA AVENUE**



**ALVERNO HEIGHTS ACADEMY**

**PREPARED FOR: Alverno Heights Academy**

Attn: Julia Fanara, Head of School  
Sent via email: [jfanara@alvernoheights.org](mailto:jfanara@alvernoheights.org)  
April 5, 2022

Prepared by: CSDA Design Group  
Indi Savitala  
610 E. Franklin Avenue  
El Segundo, CA 90245

CSDA Project No. 21032.01

**CSDA DESIGN  
GROUP**



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### 1.0 Introduction and Project Description

Alverno Heights Academy (AHA) requested that CSDA Design Group - Acoustics (CSDA) perform an additional noise study and compare the measurements to the May 2021 noise study measurements. There have been complaints from surrounding neighbors that noise from after-school outdoor activities is louder than what was measured and discussed in our June 30, 2021, report. To understand the noise levels, AHA asked that we perform a noise study and focus our analysis on after-school outdoor noise.

The additional noise study was conducted March 1st to March 3rd. These dates correlated to the following activities:

Table 1: AHA After School Activities

Date	Time	Activity	Location
March 1	3:45 PM to 5:00 PM	Basketball	Michillinda
	3:30 PM to 5:30 PM	Softball	Wilson
March 2	3:45 PM to 5:00 PM	Basketball	Michillinda
March 3	3:45 PM to 5:00 PM	Basketball	Michillinda
	3:30 PM to 5:30 PM	Softball	Wilson

### 2.0 Acoustical Criteria

The LA County Code of Ordinances includes language that addresses exterior noise and playgrounds.

**Title 12 ‘Environmental Protection’ – Chapter 12.08 ‘Noise Control’**

**Section 12.08.390 – Exterior noise standards – Citations for violations authorized when.**

- A. *Unless otherwise herein provided, the following exterior noise levels shall apply to all receptor properties within a designated noise zone:*

Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level (dB)
II	Residential Properties	10:00 pm to 7:00 am (nighttime)	45
		7:00 am to 10:00 pm (daytime)	50

*Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise level from subsection A of this section; or, if the ambient L50 exceeds the foregoing level, then the ambient L50 becomes the exterior noise level for Standard No. 1.*

*Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from subsection A of this section plus 5dB; or, if the ambient L25 exceeds the foregoing level, then the ambient L25 becomes the exterior noise level for Standard No. 2.*

*Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the*

*applicable noise level from subsection A of this section plus 20dB; or, if the ambient L8.3 exceeds the foregoing level, then the ambient L8.3 becomes exterior noise level for Standard No. 3.*

*Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable noise level from subsection A of this section plus 15dB; or, if the ambient L1.7 exceeds the foregoing level, then the ambient L1.7 becomes the exterior noise level for Standard No. 4.*

*Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from subsection A of this section plus 20dB; or, if the ambient L0 exceeds the foregoing level then the ambient L0 becomes the exterior noise level for Standard No. 5.*

It is important to note that Los Angeles County Code of Ordinances provides an exemption for playground / school ground noise.

**Paragraph 12.08.570 – Activities Exempt from Chapter Restrictions**

*“activities conducted on public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events” are exempt from noise control measurements outlined in that chapter.*

Municipal noise ordinances supplement the Los Angeles County Noise Ordinance; therefore, the County's ordinances control in subject areas where municipal ordinance lack regulations.

The July 14, 2015, Sierra Madre General Plan is appropriate for addressing school children noise as it pertains to environmental impact noise. As outlined in the general plan, The City has a noise goal to protect residences from excessive non-transportation noise sources.

**Chapter 6, Noise Section, ‘Noise-Control of Non-Transportation Noise Sources’**

*However, the City also creates some exemptions for certain noise sources (e.g., construction, leaf blowers, and emergencies) and for noise generated during the daytime hours when people are generally less sensitive to noise. If noise occurs between the hours of 7:00 AM and 9:00 PM (7:00 PM for construction and leaf blowers) Monday through Saturday or 10:00 AM and 6:00 PM on Sundays and federal holidays, and does not produce noise levels that exceed 80 dBA at a distance of 25 feet, then the noise is considered exempt from the maximum permissible noise levels (i.e., 6 dBA above ambient when generated at residential properties and 8 dBA above ambient when generated at commercial properties).*

### 3.0 Noise Measurement Locations

The measurements were conducted at the same four locations previously chosen for the 2011 CSDA Noise Study. Figure 1 is a map of the AHA campus indicating noise monitor installation locations.

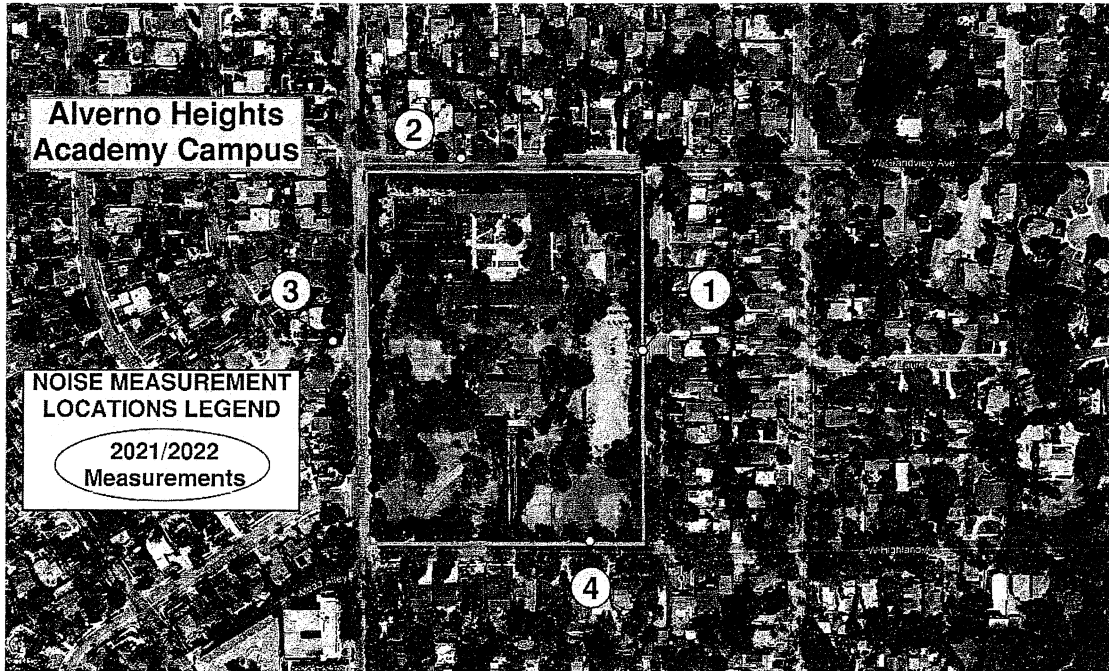


Figure 1: Noise Measurement Locations

- **Measurement #1, Wilson Street:** The sound level meter was placed on the AHA property approximately 35 feet from the center of Wilson Street and across the street from 209 Wilson Street. This roadway is infrequently traveled and is used primarily for residents of Wilson Street and for access to the school. Primary noise sources are distant traffic, infrequent vehicle passbys, and low levels of noise from athletic field usage at the school.
- **Measurement #2, W Grandview Avenue:** The sound level meter was placed approximately 20 feet from the center of W Grand View Avenue and across the street from the AHA property in front of 693 W Grand View Avenue. This location was intended to measure noise levels from the traffic along Grandview Avenue as well as general ambient noise levels.
- **Measurement #3, Michillinda Avenue:** The sound level meter was placed across the street from the AHA campus, approximately 30 feet from the center of Michillinda Avenue and in front of 1125 Michillinda Avenue. The primary noise source at this location was traffic along Michillinda Avenue.
- **Measurement #4, W Highland Avenue:** The sound level meter was placed on the AHA property approximately 25 feet from the center of W Highland Avenue and across the street from 660 W. Highland Avenue. The primary noise sources at this location were passing vehicles along Highland Avenue. Secondary noise sources were from the AHA campus.

### 4.0 Noise Measurement Summary (2021 vs 2022)

Table 2 includes data from the June 30, 2021 master plan update report, including Community Noise Exposure Level (CNEL) and the loudest hourly noise level. The data indicates that between the 2021 and

2022 noise measurements, the calculated 24-hour CNEL has increased by 1 dB, and the loudest hourly noise level occurs in the morning or at 3 PM as part of the after-school pickup.

Table 2: Measured Noise Level Increase Measurement Results (CSDA, 2021)

Measurement Location	Measured Noise Levels, CNEL, dBA		Measured Increase
	2021	2022	
Measurement #1: Wilson Street	56	57	+1
Measurement #2: Grandview Avenue	65	65 <sup>1</sup>	0
Measurement #3: Michillinda Avenue	67	68	+1
Measurement #4: Highland Avenue	62	63	+1

Measurement Location	Measured Noise Levels, 1-hour Period L <sub>eq</sub> , dBA		Measured Increase
	2021	2021 Master Plan	
Measurement #1: Wilson Street	64 (8 AM)/	65 (3 PM)	+1
Measurement #2: Grandview Avenue	72 (2 PM)	65 (7 AM)	-7
Measurement #3: Michillinda Avenue	71 (3 PM)	75 (10 AM)	+4
Measurement #4: Highland Avenue	64 (3 PM)	65 (3 PM)	+1

Note:

<sup>1</sup> Less than 24 hours of data collected Mar-1 to Mar-3. CNEL calculated from data collected on Apr-26.

### 5.0 Noise Measurements (2022)

L<sub>EQ</sub> is a descriptor that represents a steady-source sound level with the same A-weighted sound energy as a time-varying sound level associated with a given location and measurement duration. L<sub>10</sub> is a descriptor that represents the sound level exceeded for 10% of the measurement duration. The Federal Highway Administration (FHWA) uses the L<sub>10</sub> a descriptor to represent traffic noise. Additionally, per the FHWA, an environmental noise measurement is considered to be **dominated by roadway noise** when the L<sub>10</sub> value exceeds the associated L<sub>EQ</sub> value by at least 3 dBA.

Using the FHWA convention referenced above, L<sub>EQ</sub> and L<sub>10</sub> values were calculated over the time periods of each school outdoor event. Where L<sub>10</sub> exceeds the associated L<sub>EQ</sub> value by at least 3 dBA, **outdoor event noise is considered to be dominated by ambient roadway noise**. Figure 2 through Figure 11 represent the continuous noise levels for each day at each measurement location, along with the L<sub>EQ</sub> and L<sub>10</sub> values calculated over the duration of each after-school outdoor event.

5.1 Wilson Street

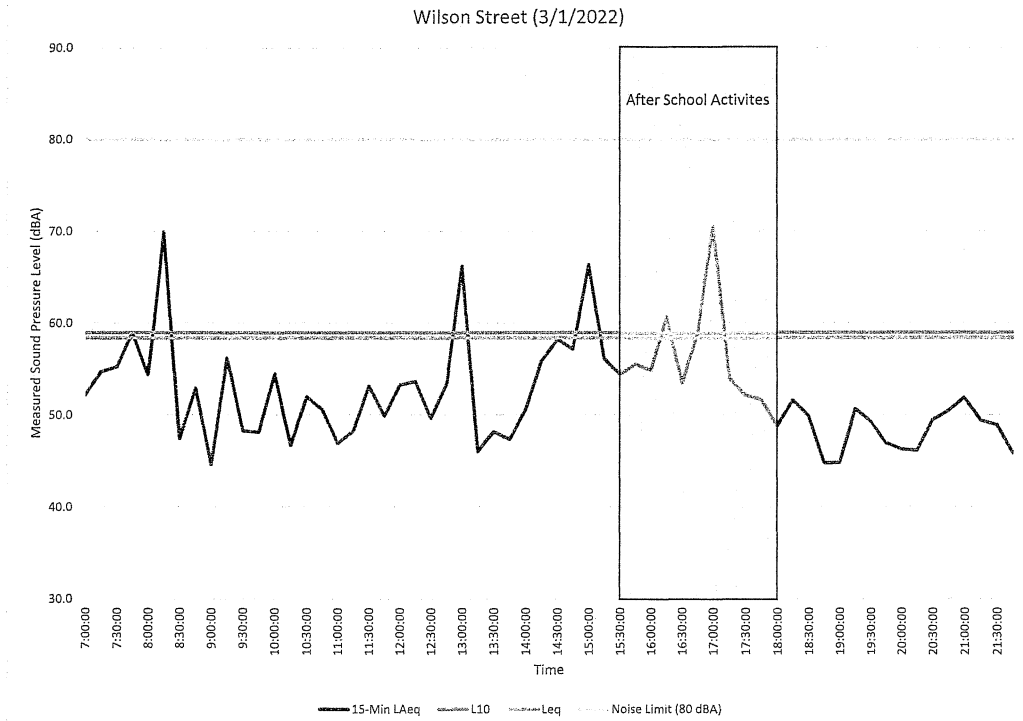


Figure 2: Wilson Street (3/1)

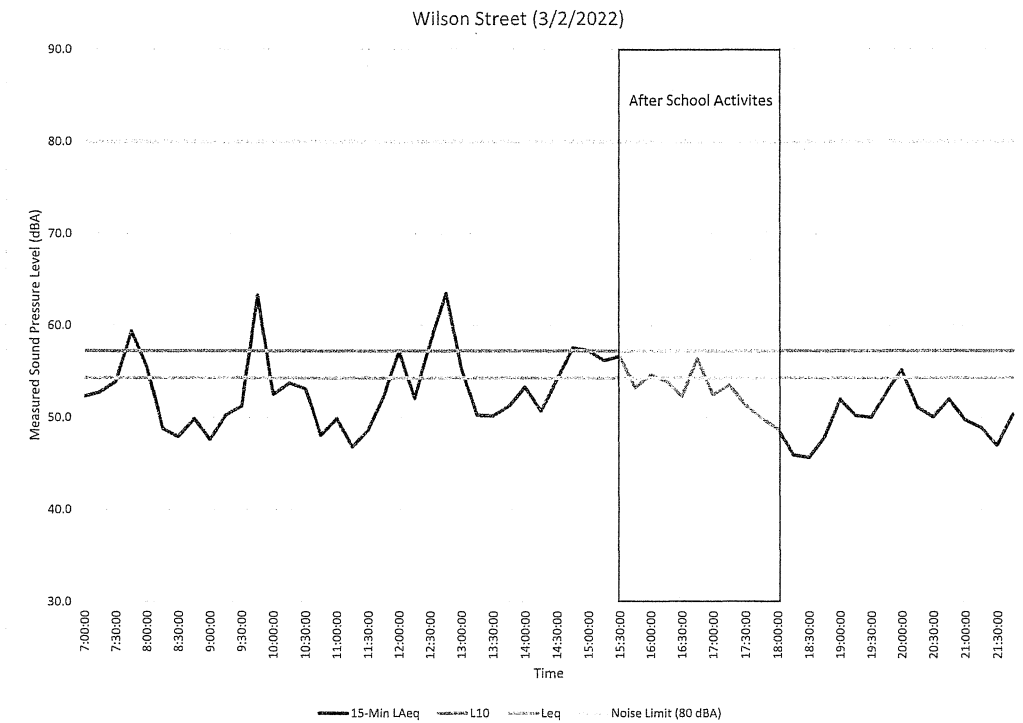


Figure 3: Wilson Street (3/2)

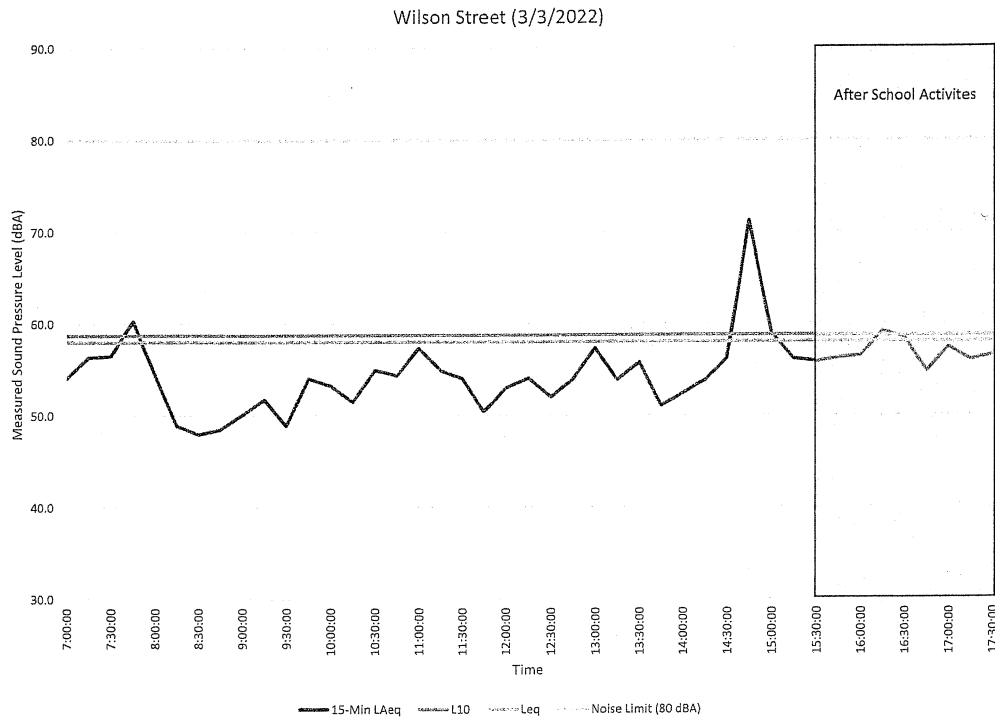


Figure 4: Wilson Street (3/3)

5.2 Grandview Avenue

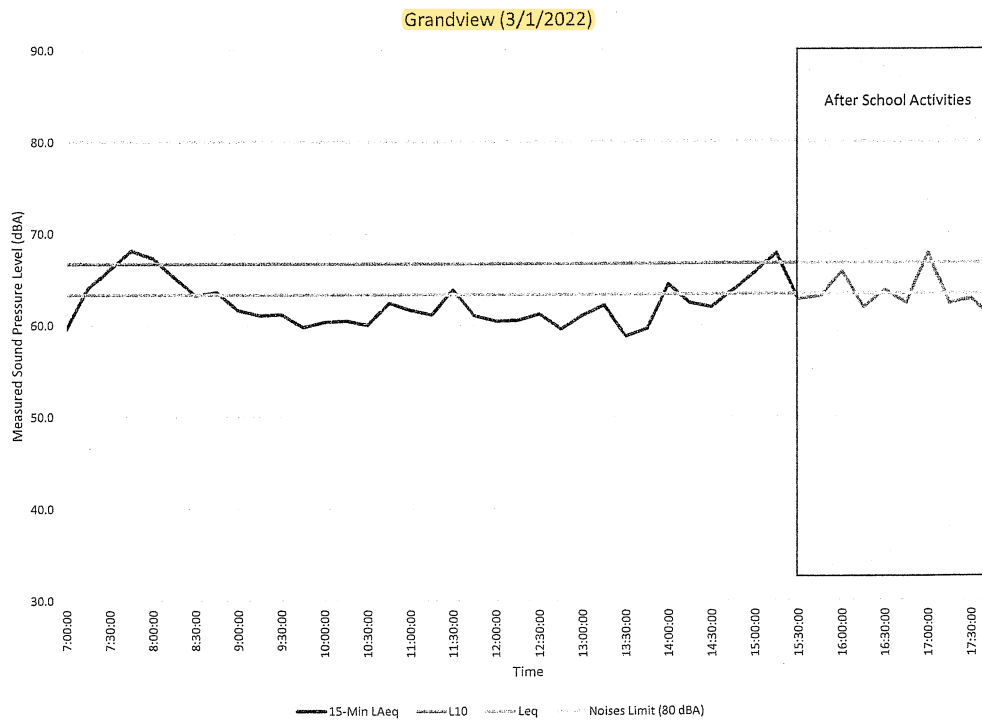


Figure 5: Grandview Avenue (3/1)

5.1 Michillinda Avenue

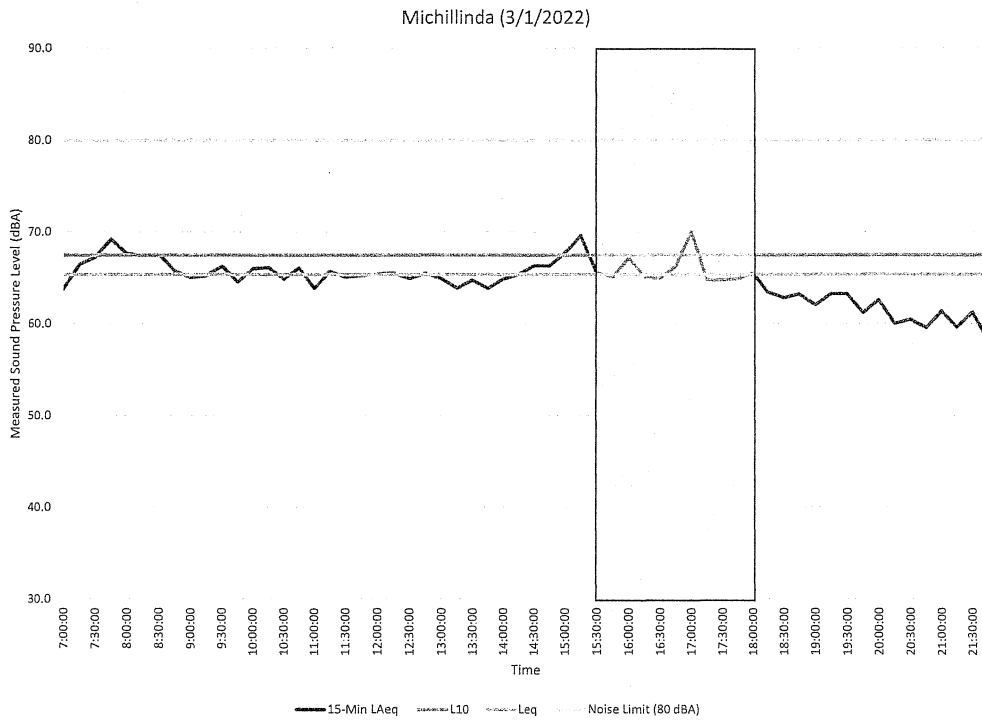


Figure 6: Michillinda Avenue (3/1)



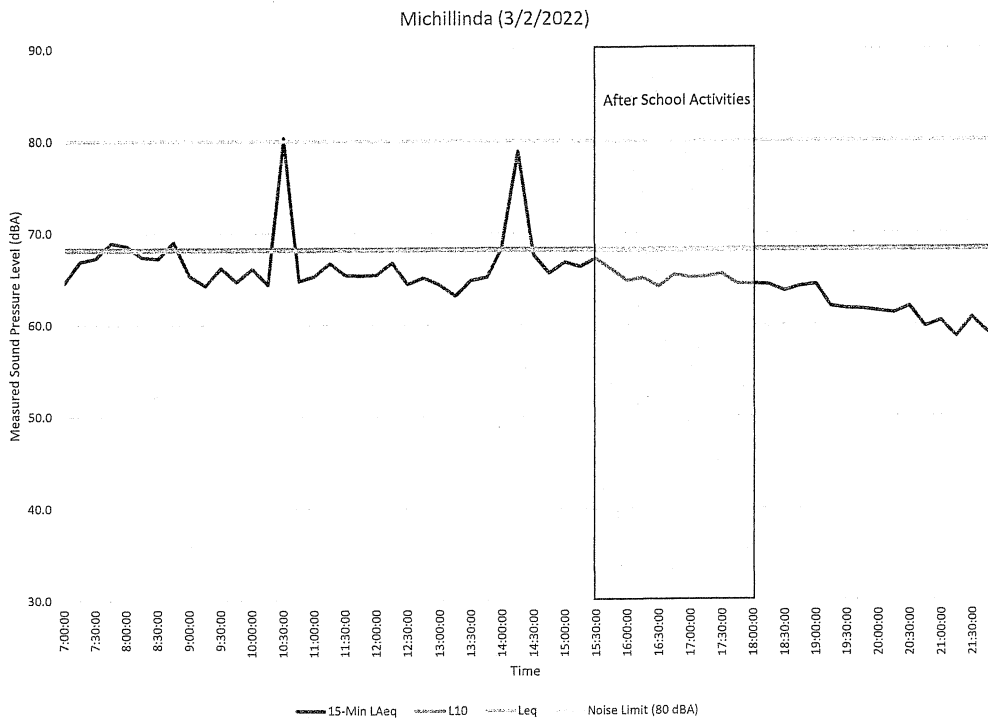


Figure 7: Michillinda Avenue (3/2)

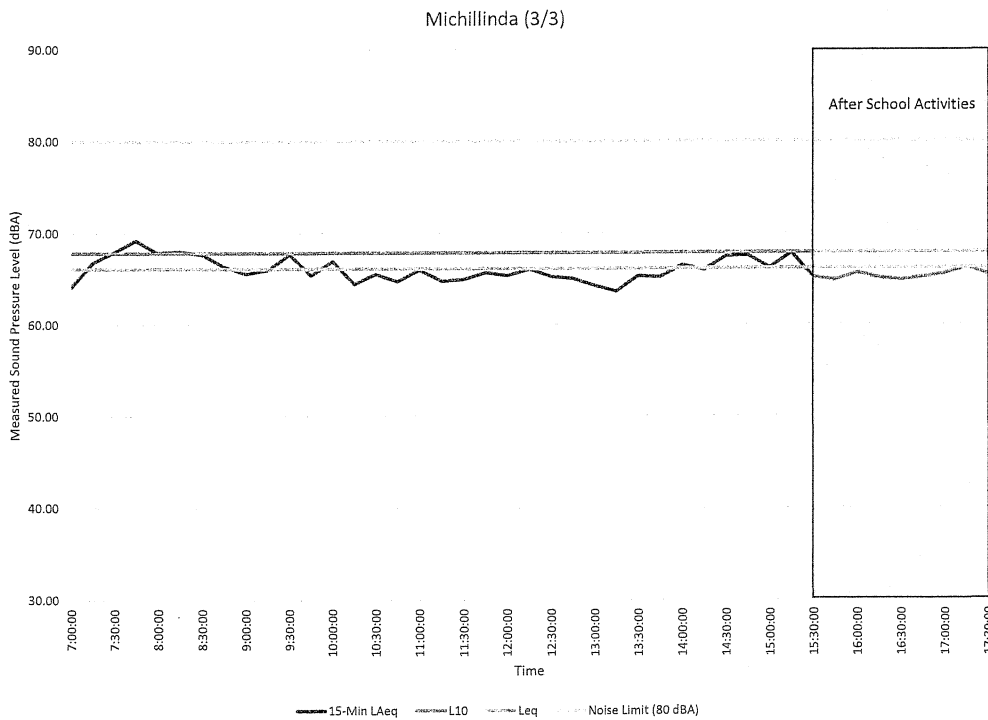


Figure 8: Michillinda Avenue (3/3)

5.2 Highland Avenue

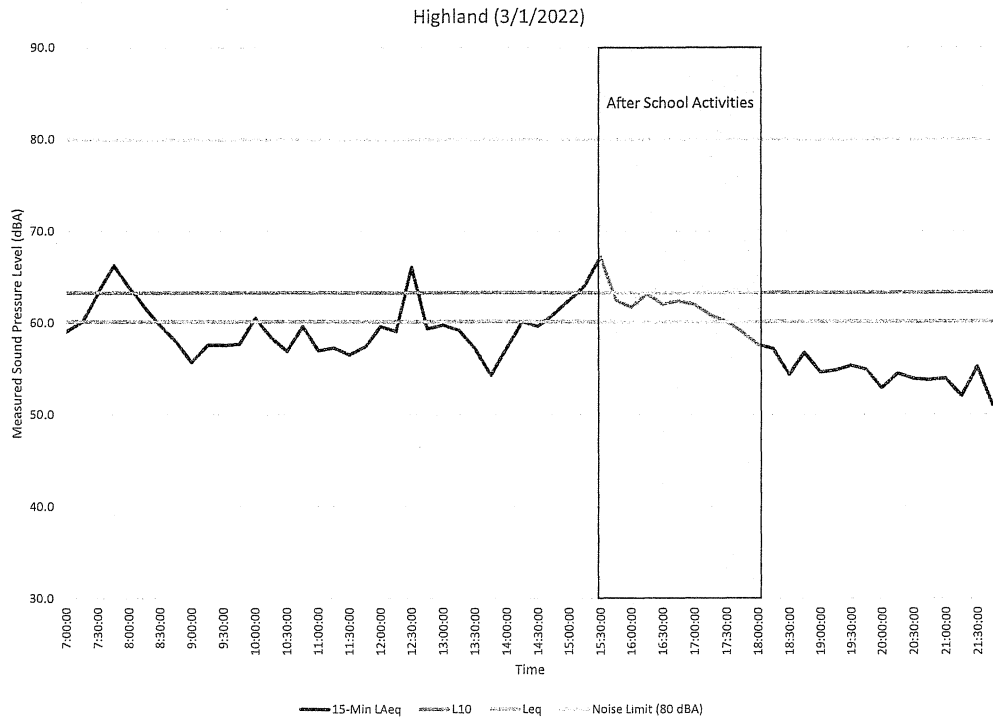


Figure 9: Highland Avenue (3/1)

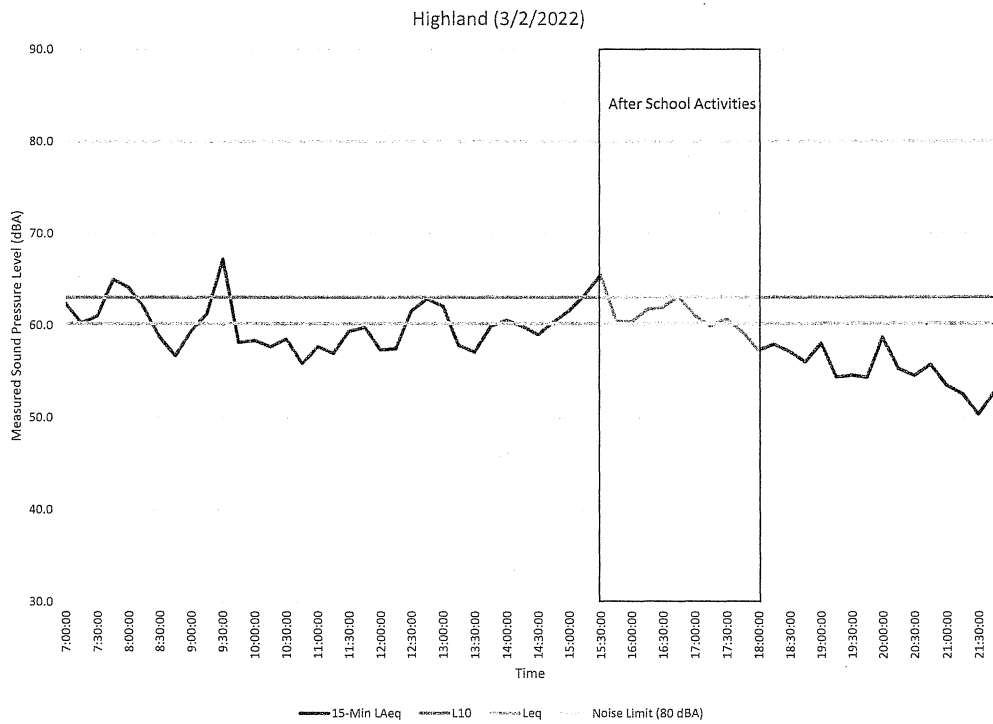


Figure 10: Highland Avenue (3/2)

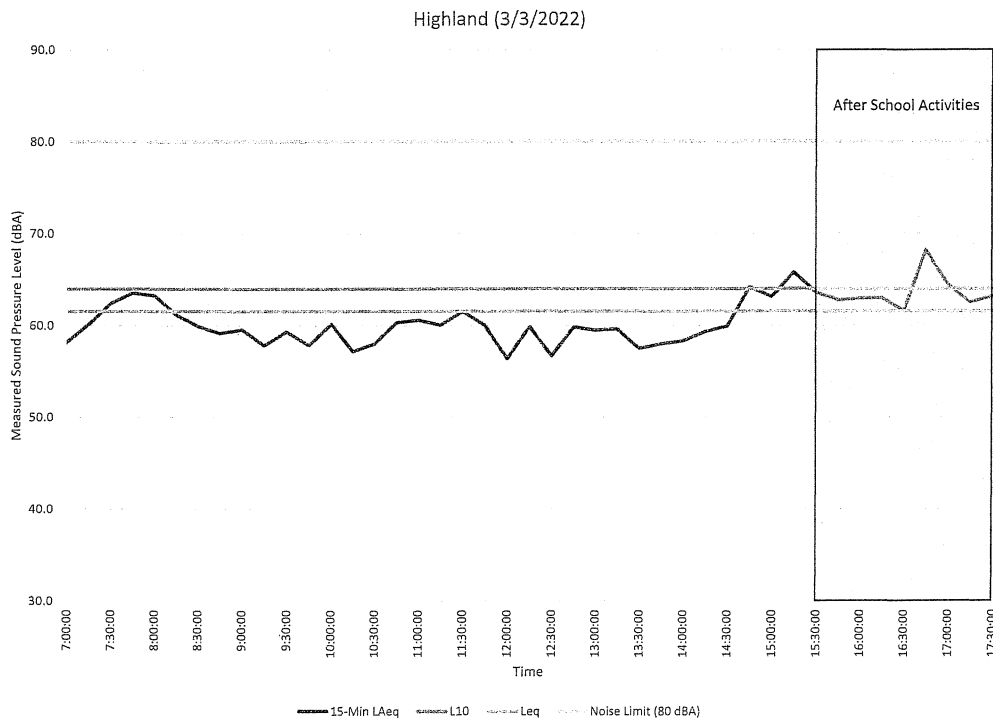


Figure 11: Highland Avenue (3/3)

## 6.0 Comments and Conclusions

The measurements indicate that during after-school outdoor activities the average noise level is within 3 dBA of the traffic noise level, indicating that the neighborhood noise is dominated by traffic noise. This validates the results of the 2011 master plan report. The Planning Center conducted noise studies for the 2011 Master Plan Amendment, which were discussed in the June 30th noise report.

The measurements also indicate noise levels less than 80 dBA during after-school outdoor activities, indicating compliance with the General Plan, Chapter 6 section on 'Noise-Control of Non-Transportation Noise Sources'.

After-school outdoor activity noise may contribute to the noise environment for short periods of time, not to exceed roughly five minutes. For example, the noise monitoring indicated that the noise level on Michillinda Avenue was roughly 81 dBA at around 10:00 AM on March 2nd; however, it is not the major source of noise in the neighborhood.

This concludes our noise study report for Alverno Heights Academy. Please do not hesitate to contact us with questions.

# Appendix C

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## Noise Analysis

**ALVERNO HEIGHTS ACADEMY MASTER PLAN UPDATE**  
**NOISE ANALYSIS**  
**200 NORTH MICHILLINDA AVENUE**



**PREPARED FOR: Julia Fanara, Head of School**

Sent via email: [jfanara@alveroheights.org](mailto:jfanara@alveroheights.org)

**June 30, 2021**

Prepared by: CSDA Design Group

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**CSDA** | **DESIGN  
GROUP**

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## 1.0 Project Description

CSDA Design Group (CSDA) completed a noise technical analysis for the Alverno Heights Academy Master Plan project in 2011 that reviewed project-related noise generation such as traffic noise and operational noise from student activity. The City of Sierra Madre is currently in the process of implementing an updated 2021 Master Plan for the Alverno Heights Academy.

The following report compares the noise environment associated with the proposed Master Plan (2021) with the noise environment predicted in the approved 2011 Master Plan.

## 2.0 Executive Summary

- Environmental Noise Measurements:
  - Noise measurements for the following study were conducted between Monday, May 10 and Wednesday, May 12, 2021, when the school was permitted to return to in-person learning by the Los Angeles County Health Department. See Section 5.2 for information about the 2021 noise measurements.
  - The following study also reviews the noise measurements conducted as part of the 2011 Master Plan Update. These noise measurements were conducted on Sunday March 28, 2010, to review the ambient conditions during weekend activities (e.g., special use Villa rentals for events such as weddings). Weekend outdoor events, although reviewed in the 2011 CEQA documentation, are not considered part of the 2021 Master Plan Update and are not included in the analysis below. See Section 5.1 for information about the noise measurements conducted as part of the 2011 Master Plan Update.
  - Both measurement sets included four separate measurements positioned in the same general areas. 24-hour CNEL levels between these two measurement periods exhibited a 1 dB to 6 dB change in noise level, which is typical of what is expected for residential weekday vs. residential weekend noise level measurements. See Section 5.3 for information about the comparison between measurement sets.
- Overall project-generated trips due to the 2021 Master Plan Update will decrease due to the change of enrollment (i.e., from the original planned enrollment of 400 high school students to the current enrollment of 400 students, split between high school and elementary school students), the proposed 2021 Master Plan Update is not expected to introduce a considerable change of noise level noise around the overall project area. See Section 6.1 for more information.
- After construction of the planned buildings that are part of the 2021 Master Plan Update, noise from midday elementary school lunch/break periods (i.e., students having lunch in the new lower school courtyard area plus students at play in the open space area/lower school sports court) are estimated to not exceed any of the existing ambient noise levels at nearby residential receivers. See Section 6.2 for more information.
- Student athletes (as well as adult spectators, coaches, and officials) using the hardcourt at the northwest corner of campus are not expected to generate average or instantaneous noise levels that exceed the existing ambient noise levels at nearby residential receivers. See Section 6.2 for more information.
- Student athletes (as well as adult spectators, coaches, and officials) using the athletic fields at the southeast corner of campus are not expected to generate *average* noise levels that exceed the existing ambient noise levels at nearby residential receivers. However, usage of this court

does have the potential to generate *instantaneous* noise levels that exceed the existing ambient noise levels measured along Wilson Street and Highland Avenue. Student athletes (as well as adult spectators, coaches, and officials) using the athletic fields at the southeast corner of campus are estimated to generate instantaneous noise levels up to 63 dBA at residential receivers along Wilson Street (where the existing weekday noise levels between 3 PM and 5:15 PM ranges between  $L_{EQ}$  53 dBA and 63 dBA), and up to 65 dBA at residential receivers along Highland Avenue (where the existing weekday noise levels between 3 PM and 5:15 PM ranges between  $L_{EQ}$  62 dBA and 64 dBA).

- As described in this report, the most noise-intensive events associated with the project would be midday elementary school break/lunch periods and after school athletic events. If there were to be a change in enrollment (e.g., max enrollment of 400 students with 65% elementary students, rather than the current 50/50 split), the estimated noise levels presented in this report would not change significantly. Additionally, a change in enrollment (while maintaining a max enrollment of 400 total students) would not significantly change the number of students attending the most noise-intensive outdoor activities (e.g., athletic events would still draw the same number of athletes and spectators).

### 3.0 2011 Master Plan Noise Study

In 2011, a Master Plan was developed for the Alverno Heights Academy to provide facilities to meet the educational and athletic needs of the school. The following list of approved items were either not construction, partially implemented, or fully implemented.

- **Multipurpose Building (not constructed):** A two-story building to be located on the western part of campus. The approved building consisted of a combination gymnasium, auditorium, and performing arts facility, to be used for events such as worship services, athletic events, and school plays and productions. This building was intended to be 12,860 square feet, large enough to hold the entire student body under one roof.
- **Outdoor Amphitheater (not constructed):** A 2,900 square foot amphitheater in the central portion of the campus. This area was intended to provide an outdoor instructional area. No large-scale musical performances would be staged at this location due to the small size of the planned facility.
- **Parking (partially implemented in 2019):** A reconfiguration of the two existing parking areas by reducing the size of the Wilson Street parking lot and enlarging the parking lot off Michillinda Avenue; implementation would result in a total number of 112 marked spaces. This proposed reconfiguration also included the addition of 52 tandem parking spaces next to an existing drive aisle in the southwestern part of the campus; direct access would be from West Highland Avenue. Tandem spaces will be used for special events such as school dances. Only changes to the Wilson Street parking lot were implemented with the 2011 Master Plan buildout.
- **Athletic Facilities (implemented in 2019):** Augmentation of the existing non-regulation softball field to create a multipurpose field in the southeastern part of the campus on the sites of the existing field and parking lot; no field lights would be provided. The improved field would accommodate a regulation softball field and a regulation soccer field.

The 2011 Master Plan also includes a reduction of the maximum permitted enrollment from 500 High School students to 400 High School students. The 2011 Noise Study completed for the Master Plan considered buildout of all facilities mentioned above, however the only changes that were implemented were the augmentation of the athletic facilities and a partial reconfiguration of the parking facilities. The current maximum capacity at Alverno Heights Academy remains at 400 students; however, rather than



providing capacity for 400 High School girls, the school enrollment now consists of an approximately 50/50 split of high school girls and elementary school students (transitional kindergarten to 8th grade).

#### 4.0 2021 Master Plan

The updated master plan for the Alverno Heights Academy proposes the following facilities:

- **Minimal Changes to Upper School Buildings:** The 2021 Master Plan Update proposes a small 1,200 square-foot art classroom expansion to the existing visual/performing arts building. The existing Cottage is also planned to be converted to a flexible classroom building. The rest of the Upper School Campus (used by High School students) will remain the same.
- **Multipurpose Building:** The Multipurpose Building that was approved in the 2011 Master Plan is proposed again as part of the 2021 Master Plan.
- **Parking Facilities:** The expansion of the Michillinda Parking Lot that was approved in the 2011 Master Plan is proposed again as part of the 2021 Master Plan.

Most changes included in the 2021 Master Plan will be at the Lower School near the southwest quadrant of campus. The changes include:

- **New Buildings:** The 2021 Master Plan buildout would include the construction of 22,000 square feet of new classroom buildings and administrative space.
- **Flex Classroom Space:** The existing Caretaker Cottage Building (2,100 square feet) will be renovated with new flexible classroom space.
- **Wilson Street Parking:** the 2021 Master Plan includes new faculty parking at Wilson Street (the existing non-historic office structure will be demolished)
- New internal drop-off zone and firetruck access

A site map representing the 2021 Master Plan is shown in Figure 1.

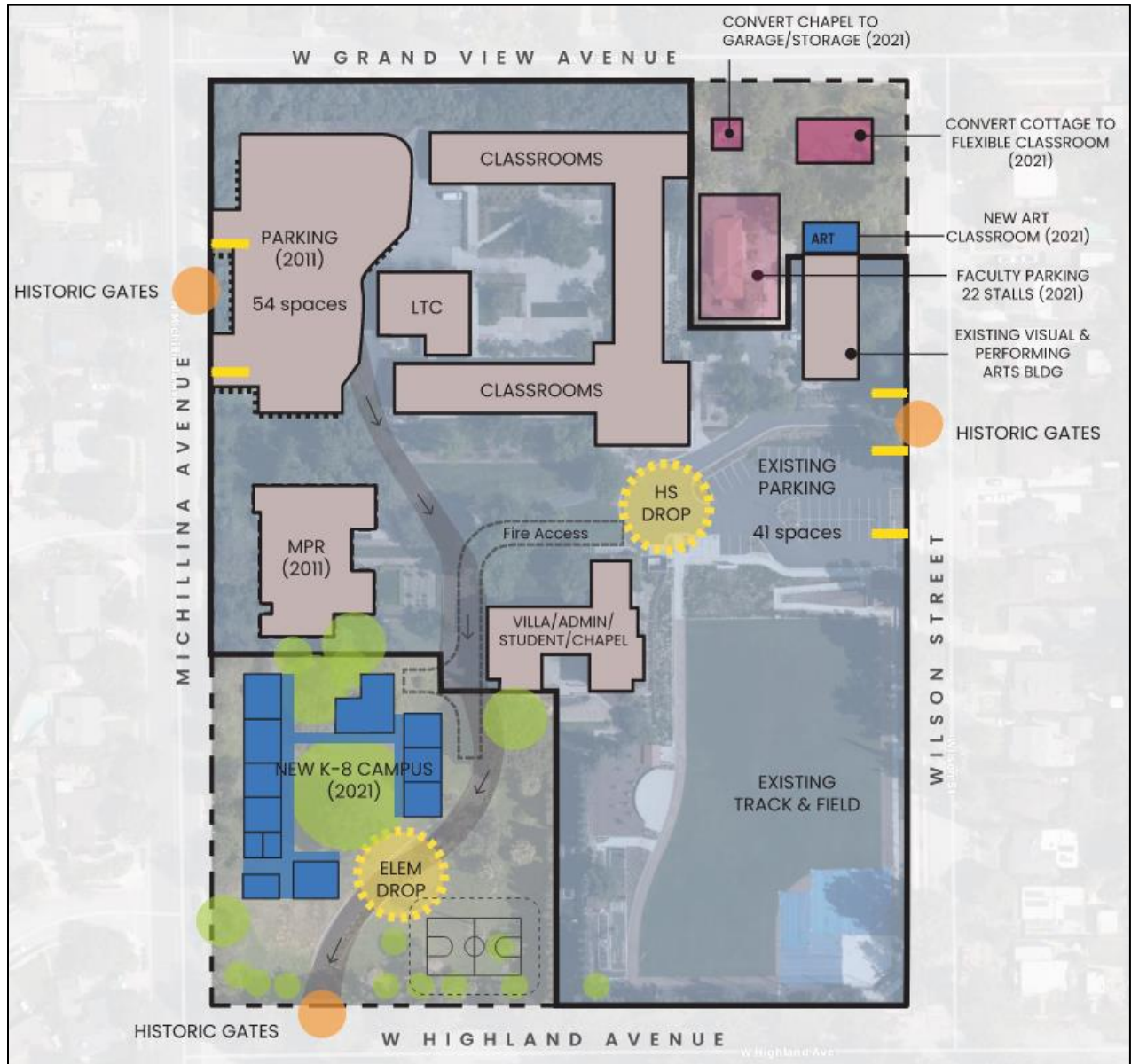


Figure 1: 2021 Master Plan Update Site

### 5.0 Noise Measurements

Noise measurements were conducted in 2010 by The Planning Center as part of the original noise and vibration technical study, and again in 2021 by CSDA Design Group. Both sets of measurements include four measurement locations – the 2021 measurements were positioned near the locations chosen for the 2010 measurements. Measurement locations for each set are shown in Figure 2.

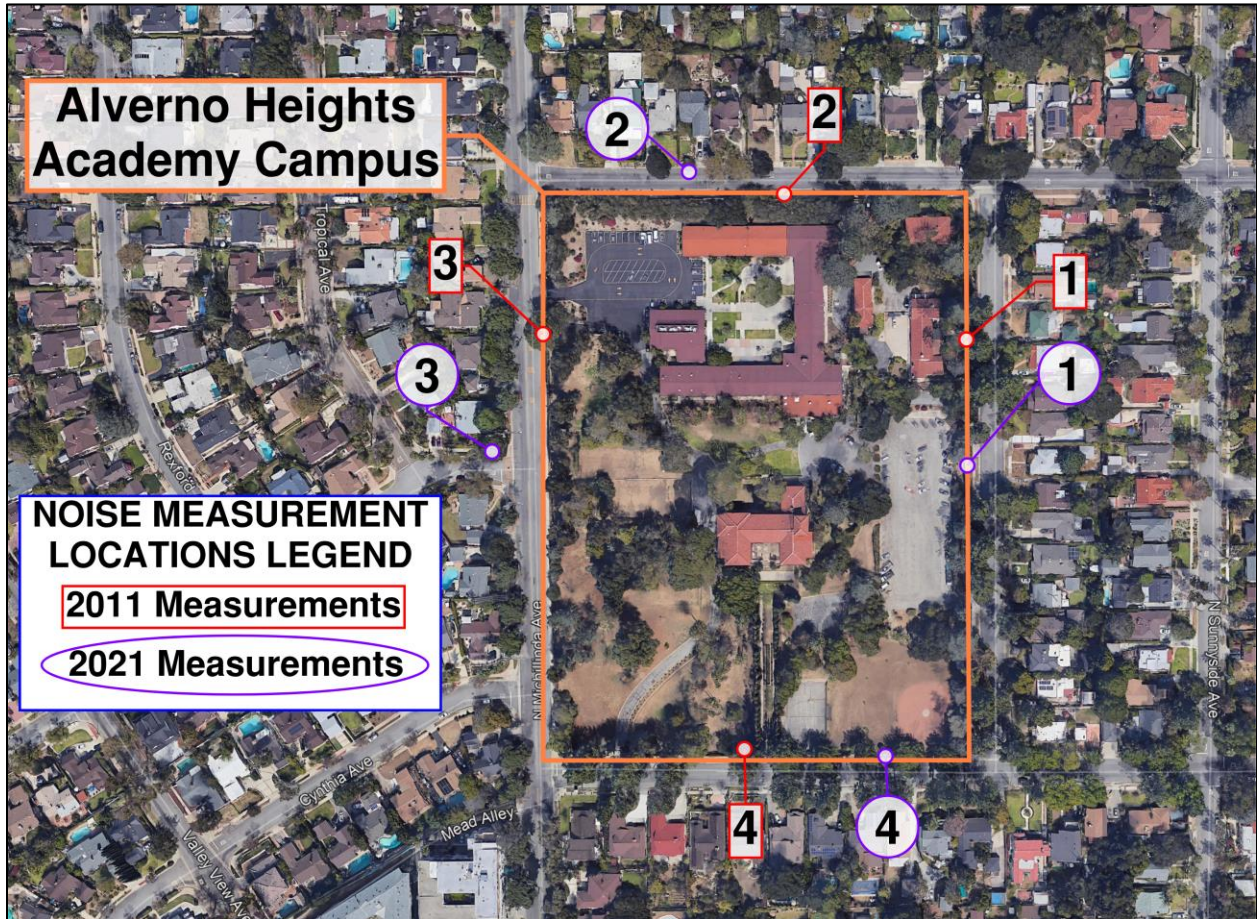


Figure 2: Noise Measurement Locations

## 5.1 2010 Noise Measurement Results

The Planning Center conducted ambient noise measurements on the 24-hour period of Sunday March 28, 2010, which were incorporated into the 2011 Master Plan Noise Study. The results of the noise measurements are presented in Table 1; these results are shown graphically in Figures 3 through 6. Measurement data, as well as the following description of the noise environment at that time, were provided in the 2011 Alverno High School Master Plan Noise and Vibration Technical Study.

At the time of these measurements, the noise environment at the project site and local vicinity primarily consisted of local roadway noise including Michillinda Avenue, as well as distant roadway noise from Interstate-210. Traffic noise from West Highland Avenue, Wilson Street, and West Grandview Avenue contributes to the noise environment to a lesser extent. For the 2010 measurements, sound level meters were placed near the Alverno High School property lines along West Highland Avenue, Wilson Street, Michillinda Avenue, and West Grandview Avenue to obtain ambient noise levels on a typical weekend without any school events. Descriptions of the noise measurement locations are as follows:

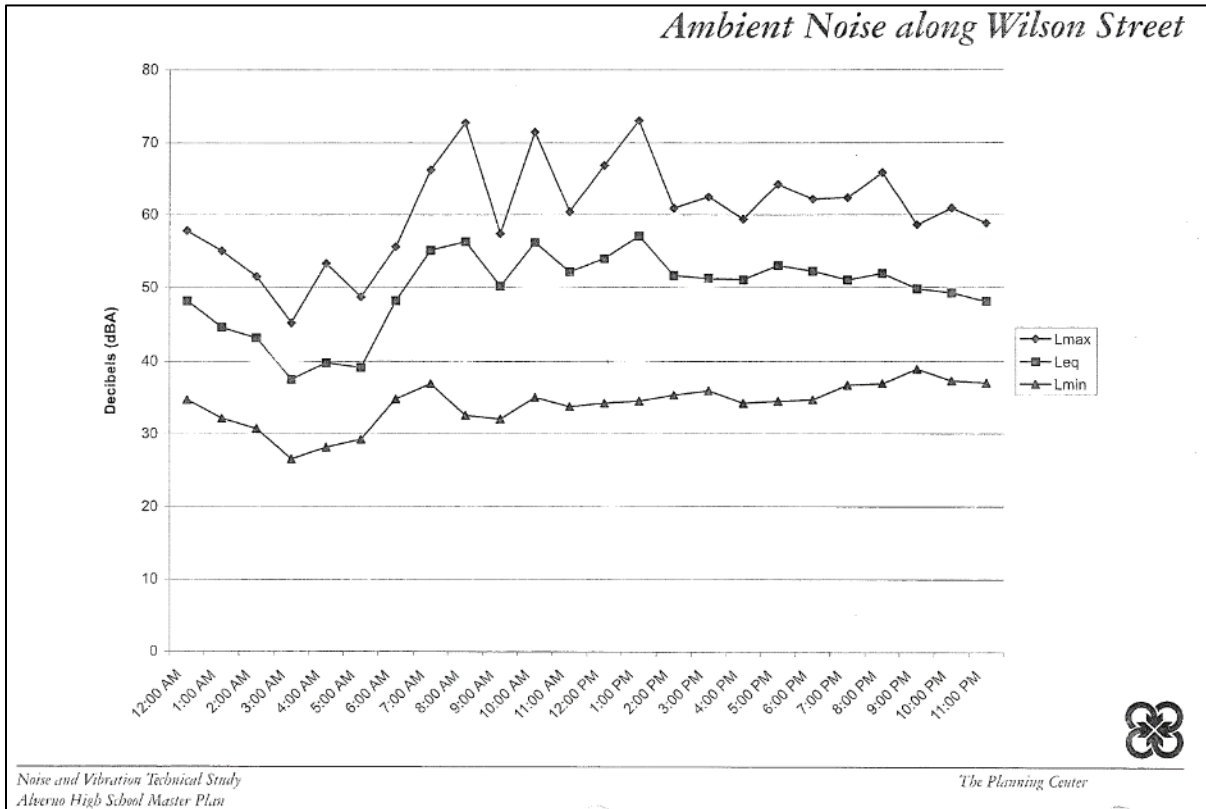
- **Measurement #1, Wilson Street:** The sound level meter was placed on Alverno High School Property approximately 35 feet from the edge of Wilson Street. This roadway is infrequently traveled and is used primarily for residents of Wilson Street and for access to the high school. Primary noise sources are distant traffic, infrequent vehicle passbys, and low levels of noise from athletic field usage at the high school. Noise monitoring shows that ambient noise levels are quiet, consistent with that of a suburban residential neighborhood.
- **Measurement #2, Grandview Avenue:** The sound level meter was placed approximately 7 feet from the edge of Grandview Avenue. This location was intended to measure noise levels from the traffic along Grandview Avenue as well as general ambient noise levels. Primary noise sources were passing vehicles along this roadway and distant traffic.
- **Measurement #3, Michillinda Avenue:** The sound level meter was placed on Alverno High School property, approximately 20 feet from the school property line and 27 feet from the edge of Michillinda Avenue. The primary noise source at this location was traffic along Michillinda Avenue.
- **Measurement #4, Highland Avenue:** The sound level meter was placed approximately 10 feet north of Highland to measure noise levels from the traffic along this roadway as well as ambient noise levels. The primary noise sources at this location were passing vehicles along Highland Avenue. Secondary noise sources were at Alverno High School. Music and noise generated by students at the Villa were discernable but not of high magnitude during the monitoring period.

The data reported in the 2011 Master Plan CEQA documentation (and represented in Figures 3 through 6) only represent noise levels recorded on Sunday, March 28, 2010. Regular school operations do not typically occur on weekends, as such these 2010 measurements are not an accurate representation of the ambient noise environment that exists during typical outdoor school day activities. The noise measurements associated with the 2011 Master Plan CEQA documentation were conducted on a Sunday because, in addition to typical school day activities, that environmental study also reviewed activities such as weddings that may occur on Sundays.

Note: The Alverno Heights Academy does not have regular outdoor activities on weekends, or past 5:15 PM on weekdays. There are a small number of non-regular events, such as graduation ceremonies or special sports events, that continue past 5:15 PM. The Villa, however, has their own activities with its own special-use permit through the city that typically accounts for 30 outdoor activities per year (e.g., the Villa could be rented out for private events or weddings). Outdoor events that use this special-use permit, although reviewed in the 2011 CEQA documentation, are not considered part of the 2021 Master Plan Update and are not included in the analysis below.

**Table 1: Noise Measurement Results (The Planning Center, 2010)**

Measurement Location	Measured Noise Levels (weekend)	
	CNEL, dBA	Loudest 1-hour Period $L_{eq}$ , dBA (time period)
Measurement #1: Wilson Street	55	57 (1 PM)
Measurement #2: Grandview Avenue	59	59 (1 PM)
Measurement #3: Michillinda Avenue	63	62 (12 PM)
Measurement #4: Highland Avenue	56	58 (11 AM)



**Figure 3: Continuous Noise Levels at Measurement #1 - Wilson Street (The Planning Center, 2010)**



Noise and Vibration Technical Study  
Alverno High School Master Plan

The Planning Center

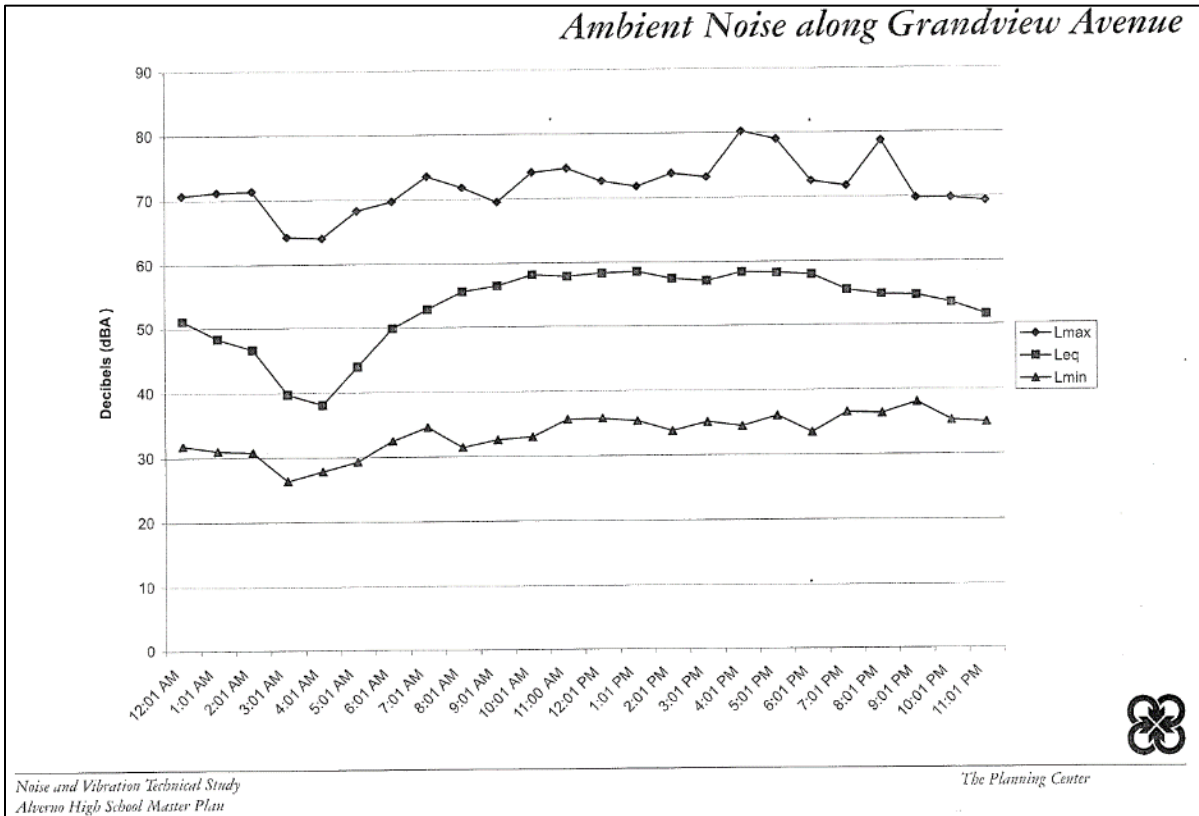


Figure 4: Continuous Noise Levels at Measurement #2 – Grandview Avenue (The Planning Center, 2010)

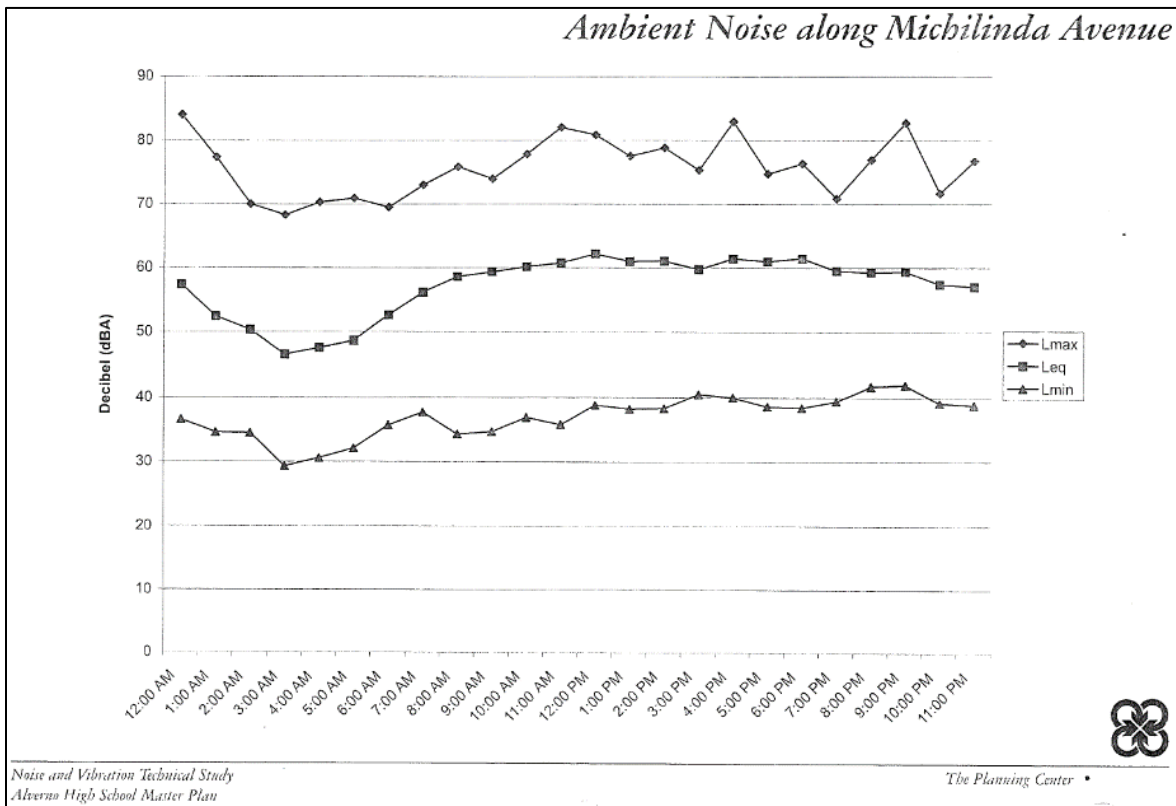


Figure 5: Continuous Noise Levels at Measurement #3 – Michillinda Avenue (The Planning Center, 2010)

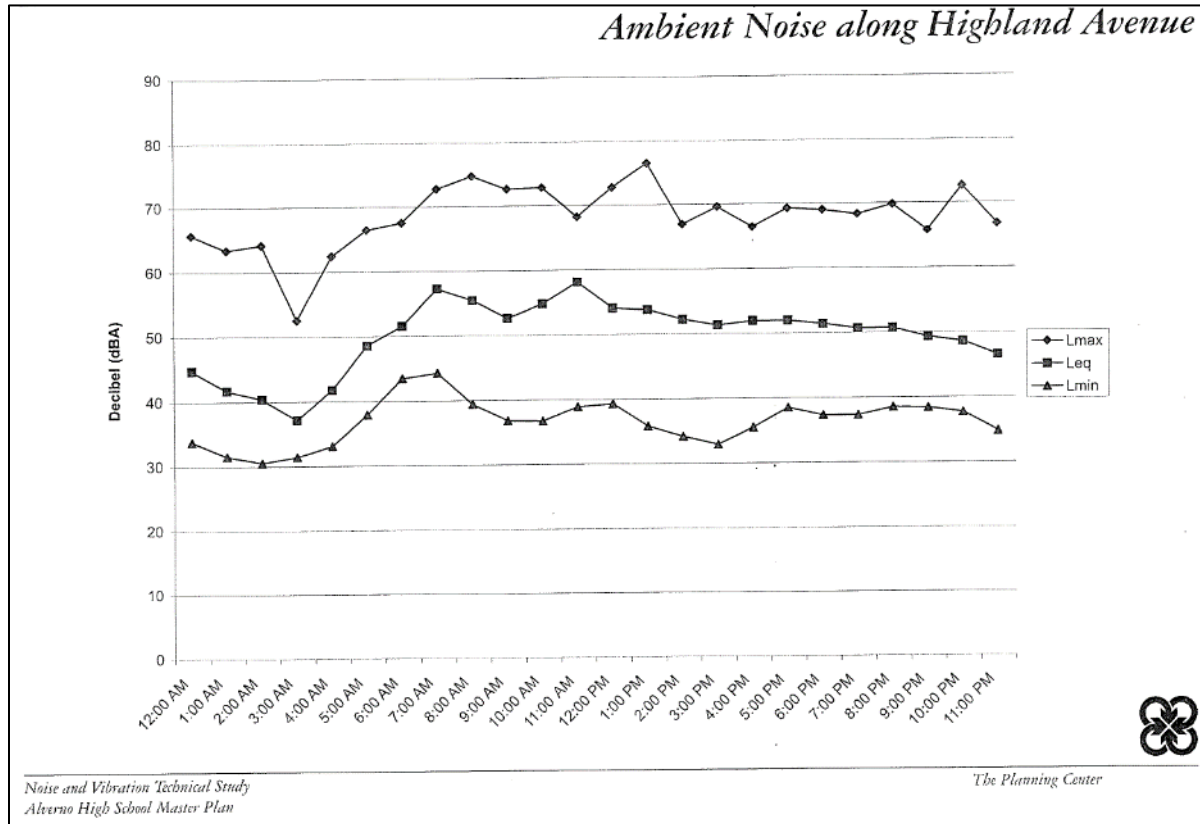


Figure 6: Continuous Noise Levels at Measurement #4 – Highland Avenue (The Planning Center, 2010)

### 5.2 Existing (2021) Noise Measurement Results

CSDA Design Group conducted noise measurements at the Alverno Heights Academy project site. Measurement positions similar to the positions chosen for the 2010 noise analysis were selected. 2021 measurements were conducted between Monday, May 10 and Wednesday, May 12, 2021. The results of the noise measurements are presented in see Table 2Figure 2.

As mentioned above, the noise measurements associated with the 2011 environmental documentation were conducted on a Sunday (due to review of weekend events that are outside of the scope of this noise study). As such, there is not a direct correlation between the continuous noise levels measured in the 2011 measurements vs. the 2021 measurements. Noise measurements are nonetheless compared and discussed in Section 5.3.

Table 2: Noise Measurement Results (CSDA, 2021)

Measurement Location	Measured Noise Levels	
	CNEL, dBA	Loudest 1-hour Period Leq, dBA (time period)
Measurement #1: Wilson Street	56	64 (8 AM)
Measurement #2: Grandview Avenue	65	72 (2 PM)
Measurement #3: Michillinda Avenue	67	71 (3 PM)
Measurement #4: Highland Avenue	62	64 (3 PM)

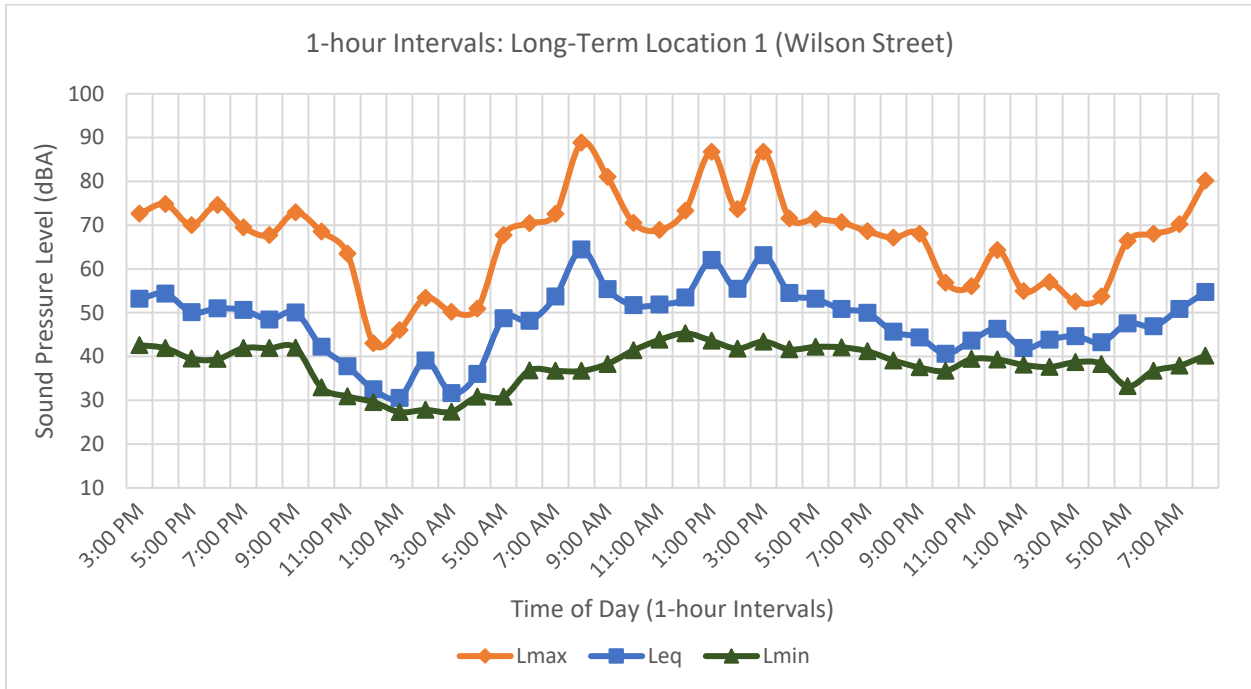


Figure 7: Continuous Noise Levels at Measurement #1 - Wilson Street (CSDA, 2021)

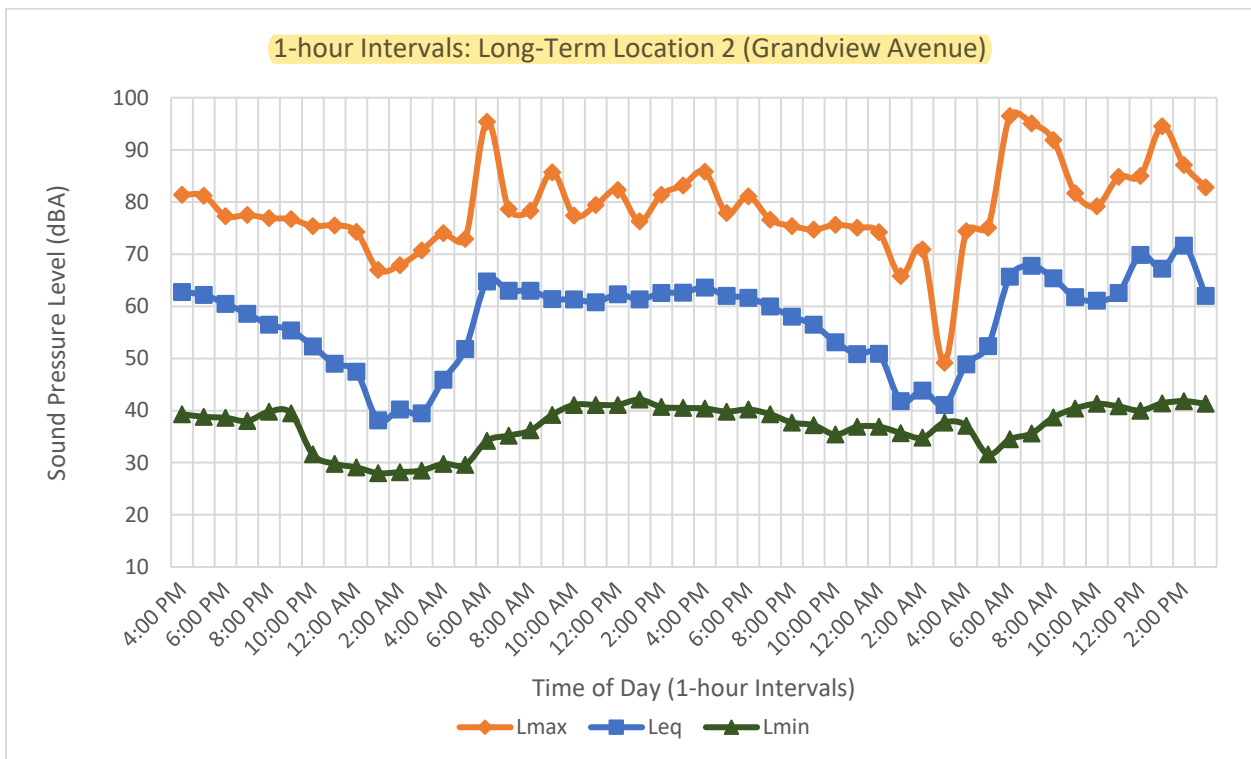


Figure 8: Continuous Noise Levels at Measurement #2 – Grandview Avenue (CSDA, 2021)



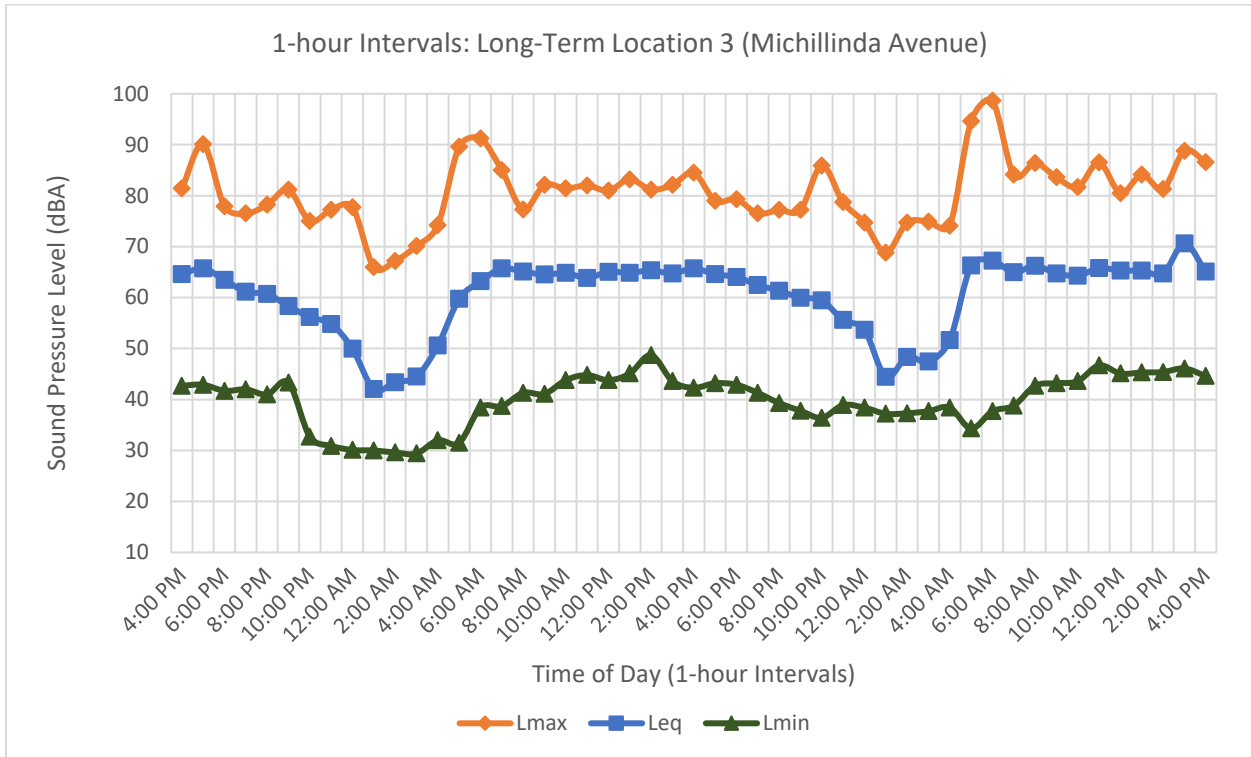


Figure 9: Continuous Noise Levels at Measurement #3 – Michillinda Avenue (CSDA, 2021)

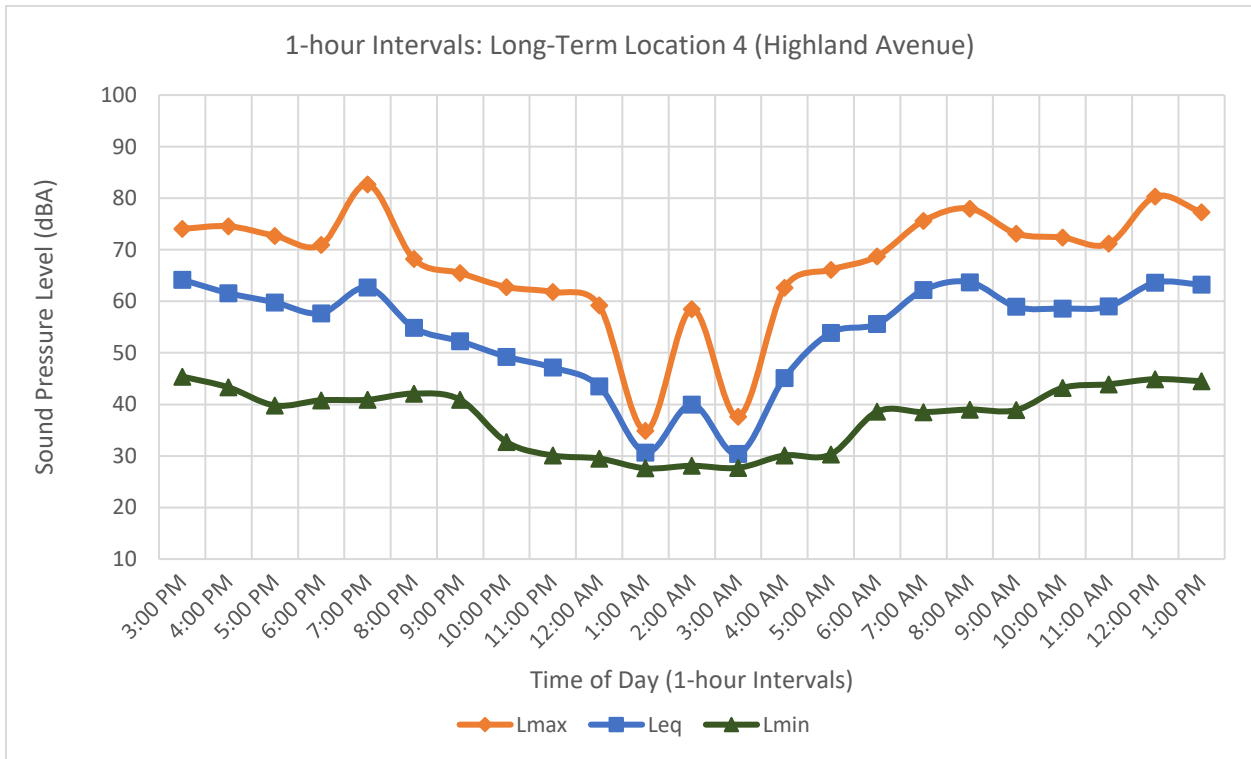


Figure 10: Continuous Noise Levels at Measurement #4 – Highland Avenue (CSDA, 2021)

**5.3 Noise Measurement Summary (2010 vs. 2021)**

As mentioned above, the data reported in the 2011 Master Plan CEQA documentation (and represented in Figures 3 through 6) only represent noise levels recorded on Sunday, March 28, 2010. The noise levels recorded in 2021 (and represented in Figures 7 through 10) represent weekdays, at which time outdoor school day activities will regularly occur.

Note: Due to differences in rush hour traffic periods, weekday and weekend noise environments are typically quite different. Nonetheless, these noise level differences are typical of what is expected for residential weekday vs. residential weekend noise level measurements. Table 4 represents the measured differences between the noise level measurements conducted for the 2011 Master Plan update and the 2021 Master Plan update.

**Table 3: Measured Noise Level Increase Measurement Results (CSDA, 2021)**

Measurement Location	Measured Noise Levels, CNEL, dBA		Measured Increase
	2011 Master Plan	2021 Master Plan	
Measurement #1: Wilson Street	55	56	+1
Measurement #2: Grandview Avenue	59	65	+6
Measurement #3: Michillinda Avenue	63	67	+4
Measurement #4: Highland Avenue	56	62	+6

Measurement Location	Measured Noise Levels, 1-hour Period L <sub>eq</sub> , dBA		Measured Increase
	2011 Master Plan	2021 Master Plan	
Measurement #1: Wilson Street	57 (1 PM)	64 (8 AM)	+7
Measurement #2: Grandview Avenue	59 (1 PM)	72 (2 PM)	+13
Measurement #3: Michillinda Avenue	62 (12 PM)	71 (3 PM)	+9
Measurement #4: Highland Avenue	58 (11 AM)	64 (3 PM)	+6

**6.0 Operational Noise Analysis**

School operations, including traffic during drop off/pickup periods and outdoor student activity during breaks and/or sport events, have the potential to generate levels of noise that are noticeable at nearby residential receivers.

Note: The Alverno Heights Academy does not have regular outdoor activities on weekends, or past 5:15 PM on weekdays. There are a small number of non-regular events, such as graduation ceremonies or special sport events, that continue past 5:15 PM. The Villa, however, has their own activities with its own special-use permit through the city that typically accounts for 30 outdoor activities per year (e.g., the Villa could be rented out for private events or weddings). Outdoor events that use this special-use permit are not considered part of the Alverno Heights project and are not included in the analysis below.

**6.1 Project-Related Traffic Noise**

A Traffic Circulation Analysis dated April 30, 2020, was provided by W.G. Zimmerman Engineering, Inc. (WGZE). This study analyzes the estimated trip generation associated with the approved 2011 Master Plan (i.e., based on 400 High School students), as well as the trip generation associated with the proposed 2021 Master Plan (i.e., 200 High School students + 200 Elementary School students).

The WGZE traffic study states that since the adjacent residential area is substantially built-out, the WGZE traffic study does not include existing condition ambient traffic counts. Instead of physical counts, existing condition traffic was estimated using the measured 2010 traffic counts, plus a 0.5% per year growth factor. The ambient traffic data used in the noise study for the 2011 Master Plan CEQA

documentation, as well as the projected current (2021) traffic data (which uses the WGZE estimate of 0.5% traffic volume increase per year), are presented in Table 4

**Table 4: Ambient Traffic Counts**

Condition	Roadway	Traffic Volumes		
		Total Daily (ADT)	AM Peak Hour	PM Peak Hour
2011 Master Plan**	Michillinda Ave	7,348	654	590
	Highland Ave	391	35*	31*
	Wilson Ave	1,877	167*	151*
	Grandview Ave	3,310	295*	266*
2021 Master Plan Update***	Michillinda Ave	7,919	705	636
	Highland Ave	421	38*	34*
	Wilson Ave	2,023	180*	162*
	Grandview Ave	3,567	317*	286*

\*AM and PM peak hour traffic counts were not provided for these roadways; peak hour volumes are based on the total daily count and the peak hour/ADT percent difference measured along Michillinda Ave. (i.e., AM peak hour is estimated to be 9% of the ADT, PM peak hour is estimated to be 8% of the ADT)

\*\*Traffic counts for the 2011 Master Plan are dated 2006

\*\*\*Ambient traffic volume based on 2011 Master Plan data plus a 0.5% increase between 2006 to 2021

The estimated traffic volume increase from WGZE, 0.5% per year for 15 years, accounts to a total traffic volume increase of approximately 8%. This accounts for a composite noise level increase of less than 1 decibel. Based on a review of the 2021 noise measurement data, noise levels around the project site are dominated by traffic sources.

The total vehicle trips generated by the school during AM drop-off and PM pickup conditions, are shown in Table 5.

**Table 5: Project-Generated Vehicle Trip Generation**

Project Condition	Traffic Volumes		
	Total Daily	AM Drop-off (M-F, 7 AM – 8 AM)	PM Pickup (M-F, 1:30 PM – 2:45 PM)
400 High School Students	823	172	116
200 High School Students, 200 Elementary School Students	727	176	114
Total Change	-96	+4	-2

Note: Traffic data provided by W.G. Zimmerman Engineering, Inc., 2020

The original Master Plan from 2011 included a maximum school capacity of 400 high school students. The current condition (as well as that of the proposed 2021 Master Plan Update) includes a maximum school capacity of 400 students, split between High School students and Elementary School students. As shown in Table 5, implementation of the updated enrollment condition (i.e., adding up to 200 elementary students into the total 400 student capacity) will decrease the total daily vehicle trips by 96 (decrease of approximately 12%). The change in vehicle trips associated with AM drop-off and PM pickup is marginal (i.e., less than 3% change due to change in enrollment).

Since project-generated trips due to the Master Plan Update will decrease due to the change of enrollment, the proposed Master Plan Update is not expected to induce a considerable change of noise level noise around the overall project area.

## 6.2 Outdoor Student Activity Noise

Although there may be outdoor student activity throughout the school’s operating hours, the outdoor student operations that contribute to most of the noise generation are as follows (details about outdoor school operations are based on discussions with Alverno Heights Administrative staff):

- Student Drop-off:
  - Student drop-off occurs Monday through Friday, from approximately 7 AM to 8 AM
  - See Section 6.1 for details about project-related traffic noise.
- Lunch/Break period (elementary school grades cycle through play area and lunch area)
  - Beginning at approximately 9 AM, Elementary School Students (Lower School) will begin recess. Groups of students (two grade levels per group, or approximately 35 students per group) will rotate into the play area in 30-minute intervals. At approximately 10 AM, groups of students will start taking their lunch period, and will also rotate into the outdoor lunch area in 30-minute intervals. Between approximately 10 AM to 1 PM, there is the potential for approximately 35 students to be using the break area at the same time as approximately 35 students are using the lunch area.
  - There is the potential for up to 40 High School girls to also use the Upper School courtyard area for lunch/break during this high-activity period between 10 AM to 1 PM.
  - **In total, during the worst-case mid-day lunch/break period between 10 AM to 1 PM, there is the potential for approximately 90 elementary school students to be using the outdoor break and lunch areas, and approximately 40 High School girls to be using the Upper School courtyard.**
- Student Pickup:
  - Occurs Monday through Friday, from approximately 1:30 PM – 3 PM
  - Elementary school students will typically wait outside in line while they wait to be picked up (approximately 200 elementary school students).
  - See Section 6.1 for details about project-related traffic noise.
- **After-school sport activities (High School only)**
  - **After-school sports will last from approximately 3 PM to no later than 5:15 PM.**
  - There is the potential that softball or soccer games (southeast corner of campus) will occur at the same time as basketball games (northwest corner of campus).
  - A sports game will typically have approximately 35 high school student athletes, and up to 35 adults (parents, coaches, referees).
  - **In total, during the worst-case after-school athletic period between 3 PM and 5:15 PM, there is the potential for approximately 35 student athletes plus 35 adult spectators/coaches/officials at each athletic field area (i.e., the softball/soccer field at the southeast corner of campus; the basketball court at the northwest corner of campus).**

**To estimate noise generated by elementary school students using outdoor facilities, this analysis primarily relies on a study by Noise and Sound Services titled “Carrying out noise assessments for proposed childcare facilities”. To estimate noise generated by high school students using outdoor facilities and athletic fields (as well as noise generated by adults attending sporting events), this analysis relies on information provided by Engineering Toolbox. The sound reference levels for human speech provided by the resources mentioned above are presented in Table 6. Note: sound reference levels for High School girls were assumed to be the logarithmic average of the provided child speech sound level and the provided adult speech sound level.**

**Table 6: Human Speech Sound Reference Levels**

	Sound Reference Level at 1 meter (3.28 feet), dBA				
	Shout	Loud	Raised	Normal	Casual
Adults <sup>1</sup>	-	82	76	70	65
Elementary School Students <sup>2</sup>	82	74	65	58	53
High School Girls <sup>3</sup>	86	80	73	67	62

Notes:

1. Engineering ToolBox, (2005). Voice Level at Distance. [online]
2. Noise and Sound Services (2006). Carrying out noise assessments for proposed childcare facilities.
3. Sound reference levels for High School girls was assumed to be the log average of the provided child speech sound level and the provided adult speech sound level.
4. Using a distance drop-off of 3-6 dBA attenuation per doubling of distance, the sound reference level for each of these individual sources at a distance of 25 feet would be between 9-18 dB lower than what is shown in the table. I.e., a high school girl shouting is estimated to be between 68 to 77 dBA at 25 feet.

The Noise and Sound Services resource also provides typical durations of each speech level for children at play. Typical speech level durations are not provided for high school students on break or during sporting events, or for adults – speech durations for high school students and adults are therefore assumed, as shown in Table 7.

**Table 7: Equivalent Speech Sound Levels**

Activity	Percent of time at each Speech Level					Equivalent Sound Level at 1 meter (3.28 feet), dBA
	Shout	Loud	Raised	Normal	Casual	
Elementary School Students at Play <sup>1</sup>	1.3%	13%	33%	33%	19%	68 dBA
High School Students during break <sup>2</sup>	-	-	-	-	100%	62 dBA
High School Students during after-school sports <sup>3</sup>	1.3%	13%	33%	33%	19%	74 dBA
Adult Spectators during after-school sports <sup>4</sup>	-	0.5%	10%	33%	56%	70 dBA

Notes:

1. Noise and Sound Services (2006). Carrying out noise assessments for proposed childcare facilities.
2. Based on discussion with school admin, High Schoolers spend most of their break using their cell phones or talking casually.
3. High Schoolers during after-school sports are assumed to use the same speech level percentages that were provided in the resource used for elementary students.
4. Assumptions were made for speech level percentages for adults during after-school sports.

The noise levels represented in Table 7 show the continuous equivalent noise level associated with outdoor activities (i.e., levels averaged over an entire outdoor activity period). The project-related outdoor activity noise analysis detailed below is in terms of this average noise level. However, as shown in Tables 6 and 7, instantaneous outdoor activity noise will be higher than the continuous equivalent noise level used in the noise models below:

- Elementary student “shouting” is estimated to be 14 dB louder than the equivalent continuous  $L_{EQ}$  noise level for elementary students.
- High school athlete “shouting” is estimated to be 12 dB louder than the equivalent continuous  $L_{EQ}$  noise level for high school athletes.
- Adult sports spectators at “loud” voice level are estimated to be 10 dB louder than the equivalent continuous  $L_{EQ}$  noise level for adult sports spectators.

Instantaneous noise levels may exceed the continuous equivalent noise level during, for example, intense sport plays with a lot of cheering. **To understand the expected instantaneous noise level in terms of the analysis below (which utilizes continuous equivalent,  $L_{EQ}$  noise levels), 10-14 dB should be added to the estimated continuous equivalent noise levels estimates.**

To calculate noise generated by the students using the outdoor facilities, 3D computer modeling software, CadnaA, was used. CadnaA utilizes the ISO 9613-2 calculation methodology. The noise reference levels from the resources below were inputted to the modeling software according to the 2021 Master Plan Update. The computer model also incorporates the shielding/blocking provided by the project buildings and considers any noise reflected off project buildings. Note: the noise sources used to model school operations were set within the model manually based on understanding of school operations and discussion with school administration. The results presented below should be considered general, as impacts in terms of each residential receiver may depend on the exact location of students/athletes/spectators during periods of loud activity. Additionally, each individual's percent of time at raised speech level, which may vary by person or event type, will also result in varied noise levels at receiver locations.

As described in Section 4.0, the 2021 Master Plan buildout will include the construction of new buildings in the southwest quadrant of campus. **Currently, lower school lunch activities**, which occur in the open space areas in the southwest quadrant of campus, have a clear noise path to residential receivers along Michillinda Avenue and Highland Avenue. Once the new buildings on campus are constructed, these structures will act as noise barriers between outdoor elementary school activities and some of the surrounding residential receivers along Michillinda Avenue and Highland Avenue. Noise estimates showing elementary school lunch/break activities with and without inclusion of the proposed buildings are presented below to demonstrate the estimated change in noise level between existing conditions (not including new proposed buildings) and proposed buildout conditions. High school students take their break/lunch in the existing courtyard at the upper school which also acts as a noise barrier between upper school courtyard activities and nearby residential receivers.

**The following conditions were modeled**, and noise contour maps were generated for each, as shown in the following figures:

- Lower School Lunch/Break period **without** proposed building additions. These activities may occur Monday-Friday from approximately 10 AM to 1 PM (Figure 11).
  - 35 Elementary School students using the area just north of the existing Villa for lunch.
  - 35 Elementary School students using the southwest open space area for break/playtime.
  - 40 High School students using the Upper Campus courtyard for lunch/break.
- Lower School Lunch/Break period, with proposed building additions. These activities may occur Monday-Friday from approximately 10 AM to 1 PM (Figure 12).
  - 35 Elementary School students using the area just north of the existing Villa for lunch.
  - 35 Elementary School students using the southwest open space area for break/playtime.
  - 40 High School students using the Upper Campus courtyard for lunch/break.
- **After-school sport activities (two simultaneous sports games), with proposed building additions.** These activities may occur Monday-Friday from approximately 3 PM to 5:15 PM (Figure 13).
  - 35 High School athletes using the northwest hardcourt for sporting event.
  - 35 adult spectators/coaches/officials surrounding the northwest hardcourt.
  - 35 High School athletes using the southeast field for sporting event.
  - 35 adult spectators/coaches/officials surrounding the southeast field.

**Note: The following figures only include noise generation from school operations (human activity), and do not include contribution from existing noise sources. The noise levels shown in the following figures**

are in terms of continuous equivalent noise levels ( $L_{EQ}$ ). To understand the expected instantaneous noise levels in terms of the noise contours below, 10-14 dB should be added to the estimated continuous equivalent noise levels ( $L_{EQ}$ ) estimates.

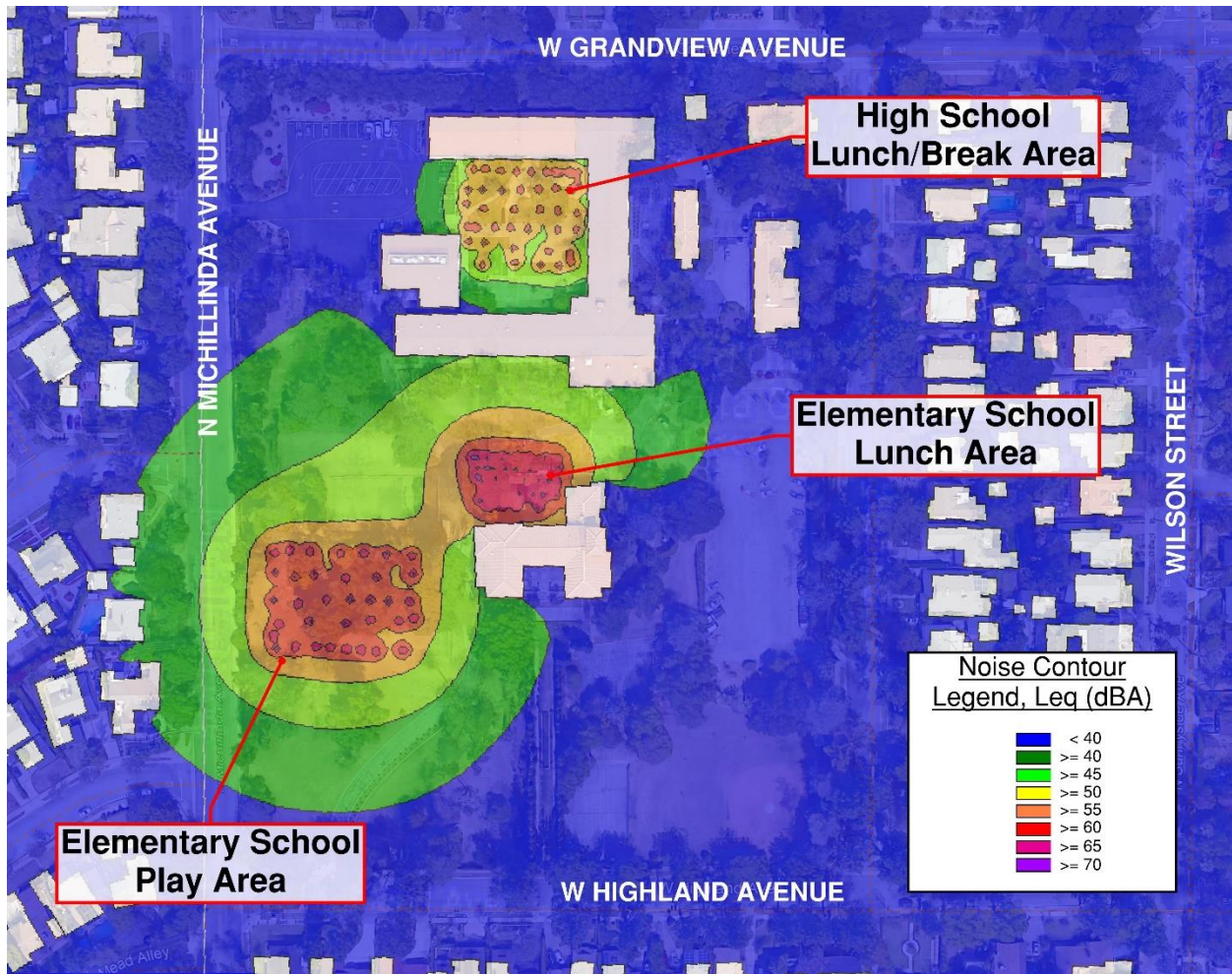


Figure 11: Noise Levels Generated by Mid-Day Outdoor Lunch/Break Activities (existing 2021 condition, i.e., Not Including New Building Constructions)

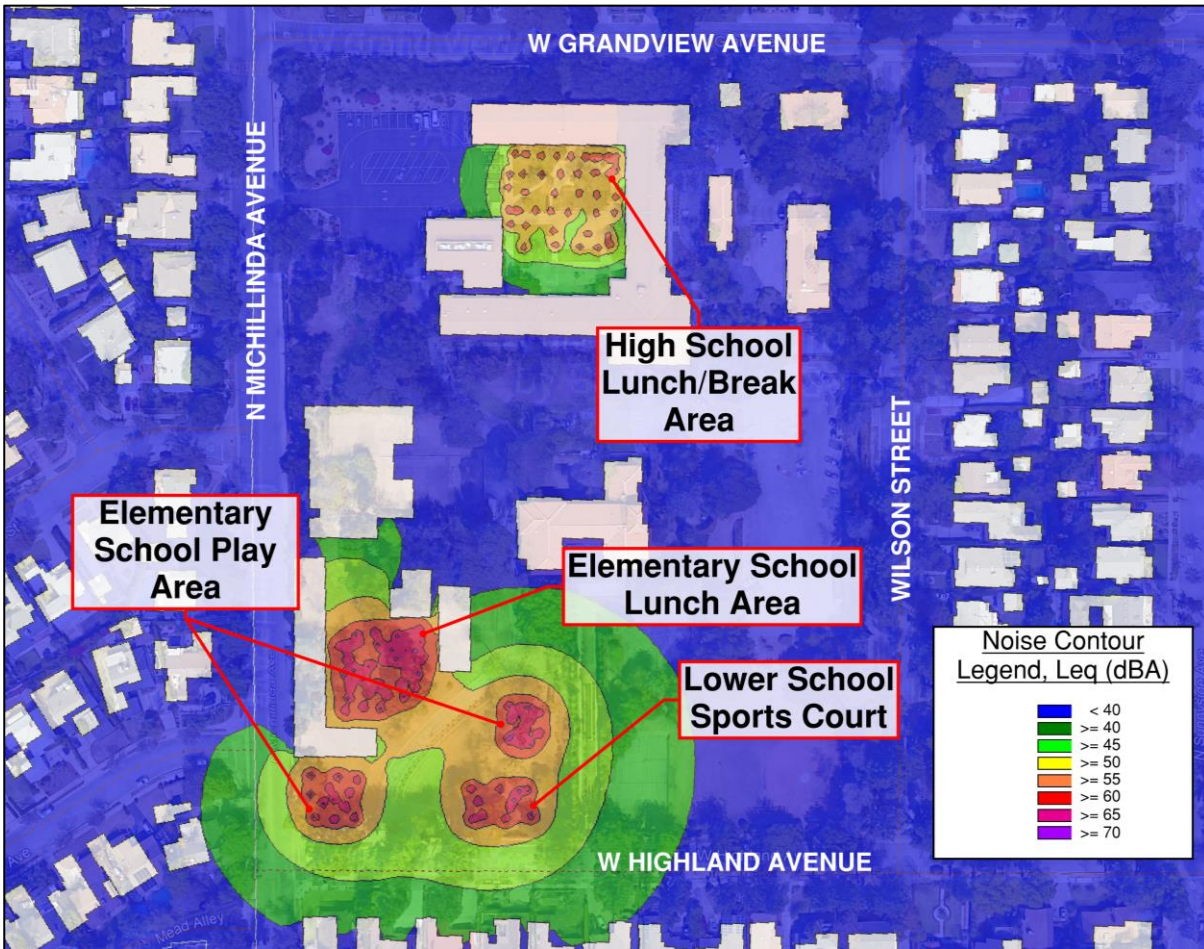
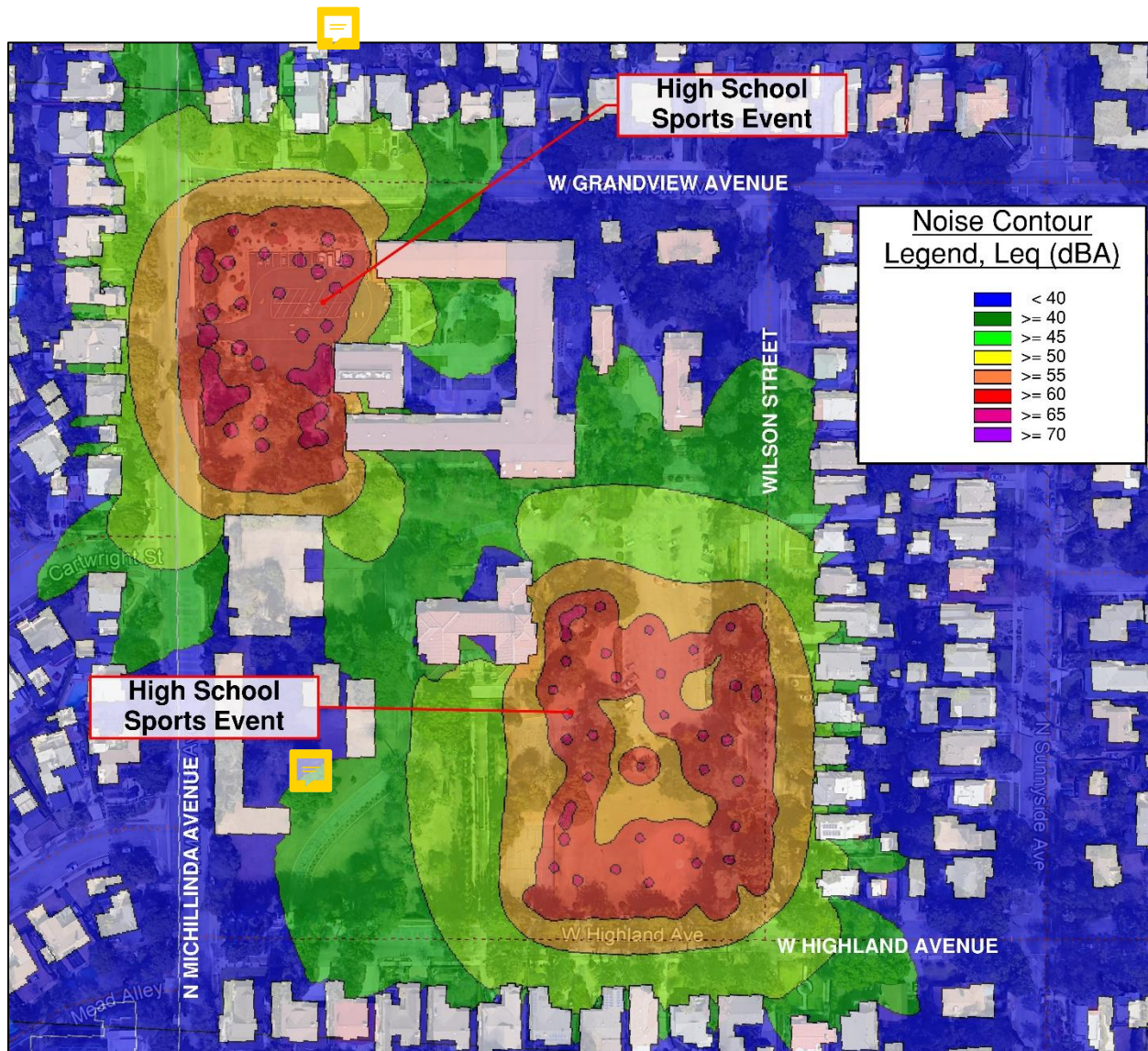


Figure 12: Noise Levels Generated by Mid-Day Outdoor Lunch/Break Activities (2021 Master Plan Buildout condition, i.e., Including New Building Constructions)





**Figure 13: Noise Levels Generated by After-School Sport Activities**  
 (2021 Master Plan Buildout condition, i.e., Including New Building Constructions)

School operations will generate noise that has the potential to expose nearby residents to high levels of noise. The figures above illustrate how each noise from regularly scheduled noise-generating activities will impact the surrounding area.

Additionally, Table 8 presents the noise level generation for activity in terms of the residential receivers along the adjacent streets, compared to the measured ambient noise conditions discussed in Section 5.0.

**Table 8: Project-Generated Noise vs. Existing Ambient Noise Level Measurement Results**

Receiver	Activity	Noise Level at Receiver, dBA		
		Lower School Lunch/Break period, without proposed building additions	Lower School Lunch/Break period, with proposed building additions	After-school sports activities
		Weekdays 10 AM – 1 PM	Weekdays 10 AM – 1 PM	Weekdays 3 PM – 5:15 PM
Residences Along Wilson Street	Measured Ambient Sound Level (2010)*	L <sub>EQ</sub> 50 – 56 dBA		L <sub>EQ</sub> 51 – 52 dBA
	Measured Ambient Sound Level (2020)	L <sub>EQ</sub> 52 – 54 dBA		L <sub>EQ</sub> 53 – 63 dBA
	Estimated Sound Level from Computer Model	L <sub>EQ</sub> 34 dBA	L <sub>EQ</sub> 29 dBA	L <sub>EQ</sub> 51 dBA
Residences Along Grandview Avenue	Measured Ambient Sound Level (2010)*	L <sub>EQ</sub> 58 – 59 dBA		L <sub>EQ</sub> 57 – 59 dBA
	Measured Ambient Sound Level (2020)	L <sub>EQ</sub> 61 – 69 dBA		L <sub>EQ</sub> 62 – 64 dBA
	Estimated Sound Level from Computer Model	L <sub>EQ</sub> 26 dBA	L <sub>EQ</sub> 19 dBA	L <sub>EQ</sub> 49 dBA
Residences Along Michillinda Avenue	Measured Ambient Sound Level (2010)*	L <sub>EQ</sub> 60 – 62 dBA		L <sub>EQ</sub> 60 – 61 dBA
	Measured Ambient Sound Level (2020)	L <sub>EQ</sub> 64 – 66 dBA		L <sub>EQ</sub> 65 – 71 dBA
	Estimated Sound Level from Computer Model	L <sub>EQ</sub> 44 dBA	L <sub>EQ</sub> 43 dBA	L <sub>EQ</sub> 57 dBA
Residences Along Highland Avenue	Measured Ambient Sound Level (2010)*	L <sub>EQ</sub> 53 – 58 dBA		L <sub>EQ</sub> 51 – 52 dBA
	Measured Ambient Sound Level (2020)	L <sub>EQ</sub> 59 – 64 dBA		L <sub>EQ</sub> 62 – 64 dBA
	Estimated Sound Level from Computer Model	L <sub>EQ</sub> 36 dBA	L <sub>EQ</sub> 45 dBA	L <sub>EQ</sub> 53 dBA

\*Note the 2010 noise measurements conducted by the Planning Center only presented Sunday noise data. Regular school activities do not occur on weekends, and therefore these noise levels do not necessarily represent the ambient noise level that is expected at the time of noise generating school activities.

Ambient noise level measurements for each time period are shown graphically in Section 5.0

The noise level results for each receiver are in terms of the worst-case home on each residential street (each noise level presented above is within the front yard of each worst-case home)

As shown in Table 8, noise from student operations at the Lower School (elementary school mid-day break/lunch) is not expected to exceed the existing continuous equivalent sound levels measured around the project boundary over the time periods where outdoor activities occur (see Section 5.0 for detail about the continuous equivalent sound levels measured around the project boundary). Note: Instantaneous noise levels (from elementary school students shouting) could be up to 14 dB higher than the continuous equivalent noise levels attributed to the “lower school lunch/break period”.

- Lower School lunch/break activities could generate an equivalent continuous noise level of L<sub>EQ</sub> 45 dBA, or an instantaneous noise level of 59 dBA at the residences along Highland Avenue. The existing weekday ambient noise level measured at this location between 10 AM and 1 PM was between L<sub>EQ</sub> 59-64 dBA (2021). Average or instantaneous noise from Elementary School students on midday lunch/break is not expected to exceed the existing ambient noise level at nearby residential receivers.

Noise from after-school sporting events is expected to be the most noise intensive outdoor activity at the school. The residential receivers along Wilson Street and Highland Avenue are generally the most sensitive to athletic field noise due to the relatively low ambient noise levels. Because of this, instantaneous sporting event noise may exceed the existing ambient noise level. Other sporting event noise may contribute to the total overall noise levels at residential receivers. Based on the noise level assumptions detailed above:

- Student athletes (as well as adult spectators, coaches, and officials) could generate an equivalent continuous noise level of approximately  $L_{EQ}$  51 dBA, or an instantaneous noise level of 63 dBA, at residential receivers along Wilson Street, where the existing weekday noise levels between 3 PM and 5:15 PM ranged between  $L_{EQ}$  53 and 63 dBA. Average noise generation ( $L_{EQ}$ ) from after-school athletic activities is not expected to exceed the existing ambient noise level at residences along Wilson Street. Instantaneous noise levels up to 63 dBA may exceed the existing ambient noise level at receivers along Wilson Street by 1-10 dBA. This range depends on the existing ambient average noise level, which was measured to range between  $L_{EQ}$  53 and 63 dBA within this period (i.e., when the ambient level is on the high end of the measured range, instantaneous sporting event noise is not expected to exceed the existing ambient; when the ambient level is on the low end of the measured range, instantaneous sporting event noise may exceed the existing ambient by 10 dB).
- Student athletes (as well as adult spectators, coaches, and officials) could generate an equivalent continuous noise level of approximately  $L_{EQ}$  53 dBA, or an instantaneous noise level of 65 dBA, at residential receivers along Highland Avenue, where the existing weekday noise levels between 3 PM and 5:15 PM ranged between  $L_{EQ}$  62 and 64 dBA. Average noise generation ( $L_{EQ}$ ) from after-school athletic activities is not expected to exceed the existing ambient noise level at residences along Highland Avenue. Instantaneous noise levels generated by after-school athletic activities may sporadically exceed the existing ambient noise level at receivers along Highland Avenue by approximately 1-3 dBA.

As described in the analysis above, school operational noise is expected to be noticeable to nearby residential receivers, and noise generated by school operations may also contribute to the overall noise levels at nearby residences. During after-school athletic events, the total noise level at receivers along Wilson Street and Highland Avenue may increase by approximately 10 dBA and 3 dBA, respectively, due to instantaneous noise events at the athletic field (e.g., intense sport plays with a lot of cheering). Project-related equivalent continuous or instantaneous noise levels at other residential receivers are not expected to exceed the existing ambient noise environment (i.e.,  $L_{EQ}$  or equivalent continuous ambient noise level) over the time periods where these regular school operations are expected to occur.

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This concludes our noise analysis associated with the Alverno Heights Master Plan Update. Please don't hesitate to reach out with questions or comments.

## Appendix: Acoustical Definitions, References, and Terminology

**A-Weighted Sound Level:** A decibel scale for sound level measurements using the “A” weighted network of a sound level meter and is denoted as “dBA.” The A-weighted network is shaped to correspond to the response of the human ear so that the results correlate approximately with human perception. It is the accepted standard for environmental noise measurements.

**Decibel (dB):** A scale that measures sound level pressure defined as 20 times the logarithm of the ratio of the sound level pressure to a standard reference pressure level of 20  $\mu$ Pa.

**Sound Pressure Level (SPL):** The amplitude of sound when compared to the reference sound pressure level of 20  $\mu$ Pa. SPL is measured in dB.

**Community Noise Equivalent Level (CNEL):** A metric for the 24-hour A-weighted average noise level. The CNEL metric accounts for the increased sensitivity of people to noise during the evening and nighttime hours. From 7 pm to 10 pm, sound levels are penalized by 5 dB; from 10 pm to 7 am, sound levels are penalized by 10 dB. A 10 dB increase in sound level is perceived by people to be twice as loud.

**Day/Night Average Sound Level ( $L_{dn}$  or DNL):** A descriptor established by the U.S. Environmental Protection Agency to describe the average day-night level with a 10 dB penalty applied to noise occurring during the nighttime hours (10 pm to 7 am) to account for the increased sensitivity of people during sleeping hours. A 10 dB increase in sound level is perceived by people to be twice as loud.

**$L_{eq}$ :** The A-weighted equivalent continuous sound exposure level for a defined period of time.

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**ISO 9613 2 calculation methodology:** International Organization for Standardization, 9613-2:1996 “Acoustics – Attenuation of Sound during Propagation Outdoor-2.”

**Reference Childcare Noise Reference Level Analysis:** Noise and Sound Services (2006). Carrying out noise assessments for proposed childcare facilities.

**Reference Adult Speech Noise Levels:** Engineering ToolBox, (2005). Voice Level at Distance. [online] Available at: [https://www.engineeringtoolbox.com/voice-level-d\\_938.html](https://www.engineeringtoolbox.com/voice-level-d_938.html) [Accessed June 2021].

**ALVERNO HEIGHTS ACADEMY**  
NOISE STUDY  
200 NORTH MICHILLINDA AVENUE



**PREPARED FOR: Alverno Heights Academy**

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## 1.0 Introduction and Project Description

Alverno Heights Academy (AHA) requested that CSDA Design Group - Acoustics (CSDA) perform an additional noise study and compare the measurements to the May 2021 noise study measurements. There have been complaints from surrounding neighbors that noise from after-school outdoor activities is louder than what was measured and discussed in our June 30, 2021, report. To understand the noise levels, AHA asked that we perform a noise study and focus our analysis on after-school outdoor noise.

The additional noise study was conducted March 1st to March 3rd. These dates correlated to the following activities:

Table 1: AHA After School Activities

Date	Time	Activity	Location
March 1	3:45 PM to 5:00 PM	Basketball	Michillinda
	3:30 PM to 5:30 PM	Softball	Wilson
March 2	3:45 PM to 5:00 PM	Basketball	Michillinda
March 3	3:45 PM to 5:00 PM	Basketball	Michillinda
	3:30 PM to 5:30 PM	Softball	Wilson

## 2.0 Acoustical Criteria

The LA County Code of Ordinances includes language that addresses exterior noise and playgrounds.

### Title 12 ‘Environmental Protection’ – Chapter 12.08 ‘Noise Control’

#### Section 12.08.390 – Exterior noise standards – Citations for violations authorized when.

- A. *Unless otherwise herein provided, the following exterior noise levels shall apply to all receptor properties within a designated noise zone:*

Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level (dB)
II	Residential Properties	10:00 pm to 7:00 am (nighttime)	45
		7:00 am to 10:00 pm (daytime)	50

*Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise level from subsection A of this section; or, if the ambient L50 exceeds the foregoing level, then the ambient L50 becomes the exterior noise level for Standard No. 1.*

*Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from subsection A of this section plus 5dB; or, if the ambient L25 exceeds the foregoing level, then the ambient L25 becomes the exterior noise level for Standard No. 2.*

*Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the*

*applicable noise level from subsection A of this section plus 20dB; or, if the ambient L8.3 exceeds the foregoing level, then the ambient L8.3 becomes exterior noise level for Standard No. 3.*

*Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable noise level from subsection A of this section plus 15dB; or, if the ambient L1.7 exceeds the foregoing level, then the ambient L1.7 becomes the exterior noise level for Standard No. 4.*

*Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from subsection A of this section plus 20dB; or, if the ambient L0 exceeds the foregoing level then the ambient L0 becomes the exterior noise level for Standard No. 5.*

It is important to note that **Los Angeles County Code of Ordinances** provides an exemption for playground / school ground noise.

**Paragraph 12.08.570 – Activities Exempt from Chapter Restrictions**

*“activities conducted on public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events”* are exempt from noise control measurements outlined in that chapter.

Municipal noise ordinances supplement the Los Angeles County Noise Ordinance; therefore, the County's ordinances control in subject areas where municipal ordinance lack regulations.

The July 14, 2015, Sierra Madre General Plan is appropriate for addressing school children noise as it pertains to environmental impact noise. As outlined in the general plan, The City has a noise goal to protect residences from excessive non-transportation noise sources.

**Chapter 6, Noise Section, ‘Noise-Control of Non-Transportation Noise Sources’**

*However, the City also creates some exemptions for certain noise sources (e.g., construction, leaf blowers, and emergencies) and for noise generated during the daytime hours when people are generally less sensitive to noise. If noise occurs between the hours of 7:00 AM and 9:00 PM (7:00 PM for construction and leaf blowers) Monday through Saturday or 10:00 AM and 6:00 PM on Sundays and federal holidays, and does not produce noise levels that exceed 80 dBA at a distance of 25 feet, then the noise is considered exempt from the maximum permissible noise levels (i.e., 6 dBA above ambient when generated at residential properties and 8 dBA above ambient when generated at commercial properties).*



### 3.0 Noise Measurement Locations

The measurements were conducted at the same four locations previously chosen for the 2011 CSDA Noise Study. Figure 1 is a map of the AHA campus indicating noise monitor installation locations.



Figure 1: Noise Measurement Locations

- **Measurement #1, Wilson Street:** The sound level meter was placed on the AHA property approximately 35 feet from the center of Wilson Street and across the street from 209 Wilson Street. This roadway is infrequently traveled and is used primarily for residents of Wilson Street and for access to the school. Primary noise sources are distant traffic, infrequent vehicle passbys, and low levels of noise from athletic field usage at the school.
- **Measurement #2, W Grandview Avenue:** The sound level meter was placed approximately 20 feet from the center of W Grand View Avenue and across the street from the AHA property in front of 693 W Grand View Avenue. This location was intended to measure noise levels from the traffic along Grandview Avenue as well as general ambient noise levels.
- **Measurement #3, Michillinda Avenue:** The sound level meter was placed across the street from the AHA campus, approximately 30 feet from the center of Michillinda Avenue and in front of 1125 Michillinda Avenue. The primary noise source at this location was traffic along Michillinda Avenue.
- **Measurement #4, W Highland Avenue:** The sound level meter was placed on the AHA property approximately 25 feet from the center of W Highland Avenue and across the street from 660 W. Highland Avenue. The primary noise sources at this location were passing vehicles along Highland Avenue. Secondary noise sources were from the AHA campus.

### 4.0 Noise Measurement Summary (2021 vs 2022)

Table 2 includes data from the June 30, 2021 master plan update report, including Community Noise Exposure Level (CNEL) and the loudest hourly noise level. The data indicates that between the 2021 and

2022 noise measurements, the calculated 24-hour CNEL has increased by 1 dB, and the loudest hourly noise level occurs in the morning or at 3 PM as part of the after-school pickup.

**Table 2: Measured Noise Level Increase Measurement Results (CSDA, 2021)**

Measurement Location	Measured Noise Levels, CNEL, dBA		Measured Increase
	2021	2022	
Measurement #1: Wilson Street	56	57	+1
Measurement #2: Grandview Avenue	65	65 <sup>1</sup>	0
Measurement #3: Michillinda Avenue	67	68	+1
Measurement #4: Highland Avenue	62	63	+1

Measurement Location	Measured Noise Levels, 1-hour Period L <sub>eq</sub> , dBA		Measured Increase
	2021	2021 Master Plan	
Measurement #1: Wilson Street	64 (8 AM)/	65 (3 PM)	+1
Measurement #2: Grandview Avenue	72 (2 PM)	65 (7 AM)	-7
Measurement #3: Michillinda Avenue	71 (3 PM)	75 (10 AM)	+4
Measurement #4: Highland Avenue	64 (3 PM)	65 (3 PM)	+1

Note:

<sup>1</sup> Less than 24 hours of data collected Mar-1 to Mar-3. CNEL calculated from data collected on Apr-26.

## 5.0 Noise Measurements (2022)

L<sub>EQ</sub> is a descriptor that represents a steady-source sound level with the same A-weighted sound energy as a time-varying sound level associated with a given location and measurement duration. L<sub>10</sub> is a descriptor that represents the sound level exceeded for 10% of the measurement duration. The Federal Highway Administration (FHWA) uses the L<sub>10</sub> a descriptor to represent traffic noise. Additionally, per the FHWA, an environmental noise measurement is considered to be dominated by roadway noise when the L<sub>10</sub> value exceeds the associated L<sub>EQ</sub> value by at least 3 dBA.

Using the FHWA convention referenced above, L<sub>EQ</sub> and L<sub>10</sub> values were calculated over the time periods of each school outdoor event. Where L<sub>10</sub> exceeds the associated L<sub>EQ</sub> value by at least 3 dBA, outdoor event noise is considered to be dominated by ambient roadway noise. Figure 2 through Figure 11 represent the continuous noise levels for each day at each measurement location, along with the L<sub>EQ</sub> and L<sub>10</sub> values calculated over the duration of each after-school outdoor event.

5.1 Wilson Street

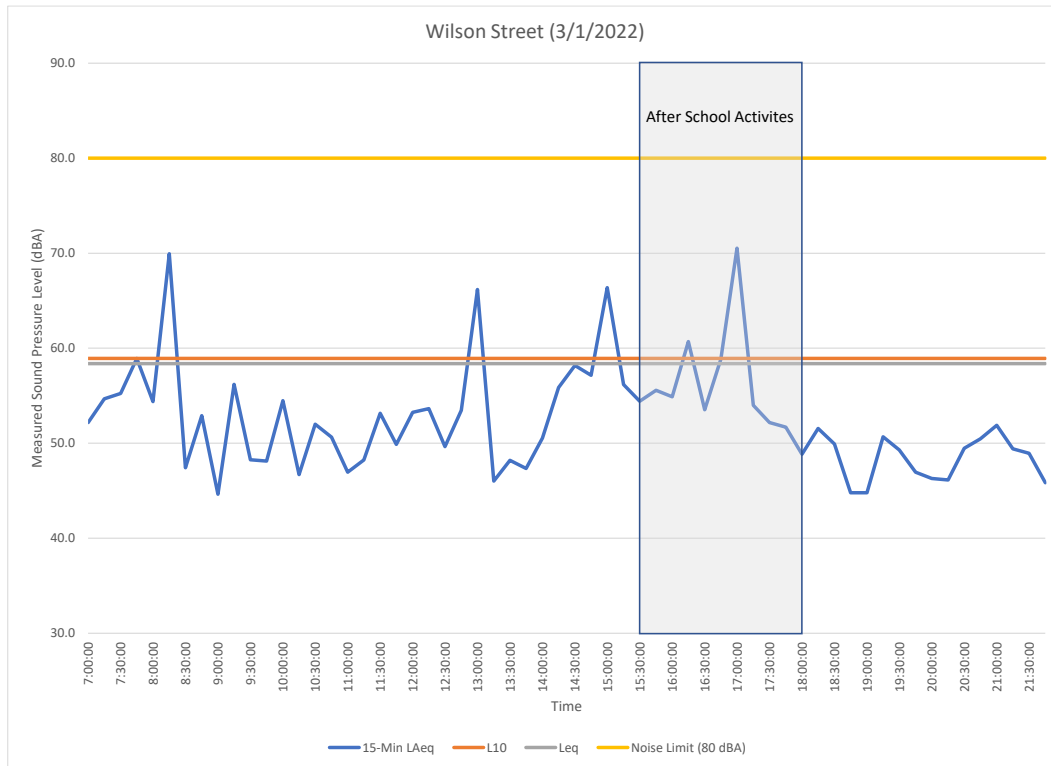


Figure 2: Wilson Street (3/1)

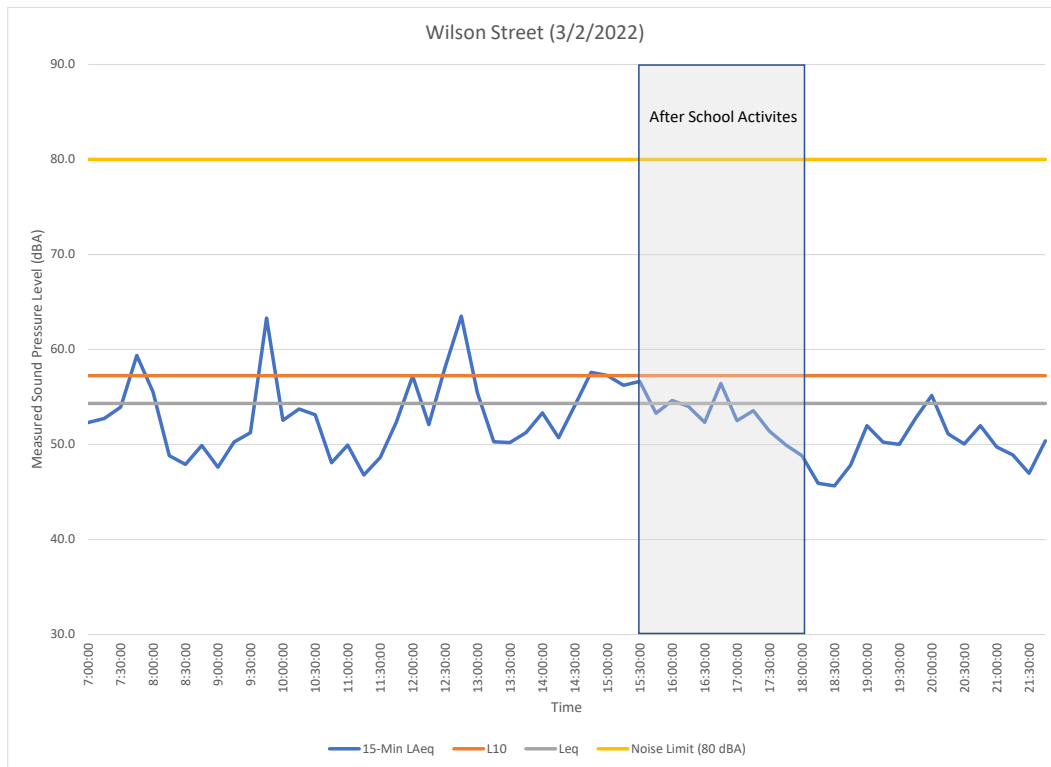


Figure 3: Wilson Street (3/2)

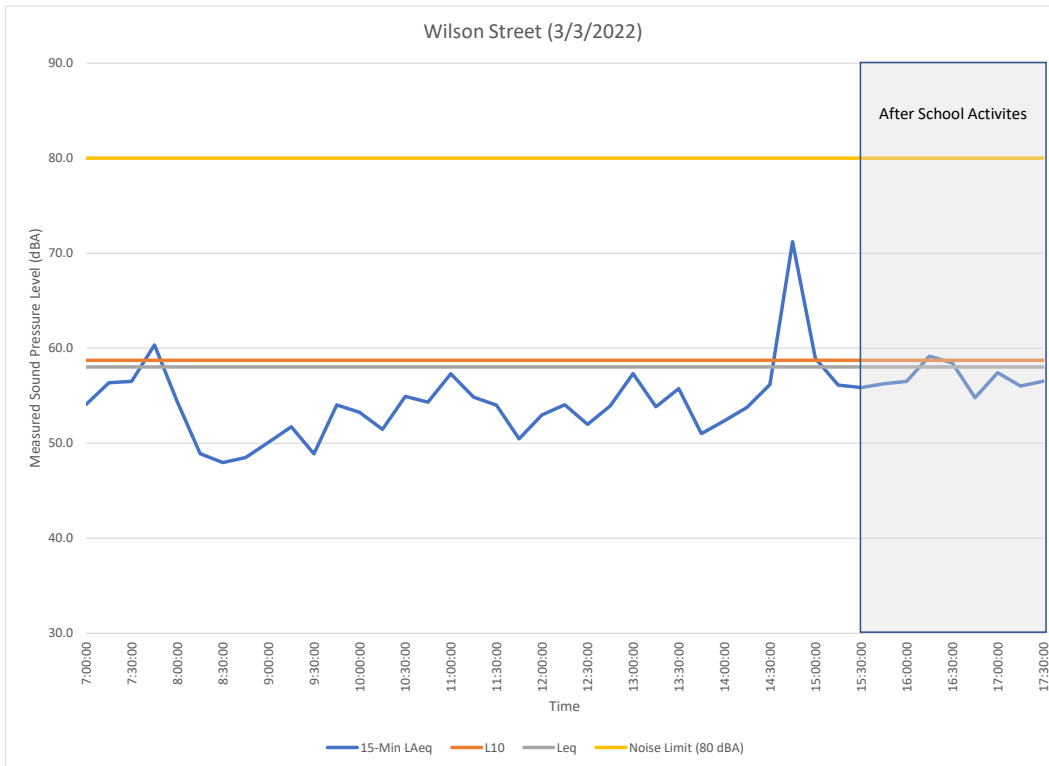


Figure 4: Wilson Street (3/3)

5.2 Grandview Avenue

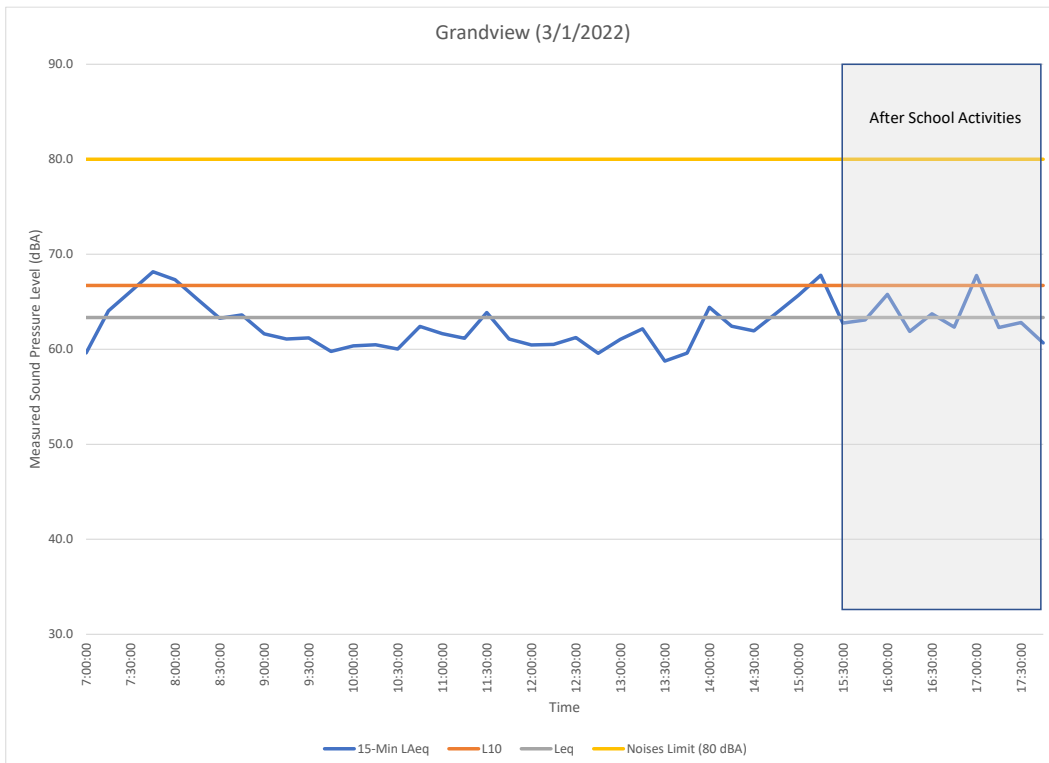


Figure 5: Grandview Avenue (3/1)

5.1 Michillinda Avenue

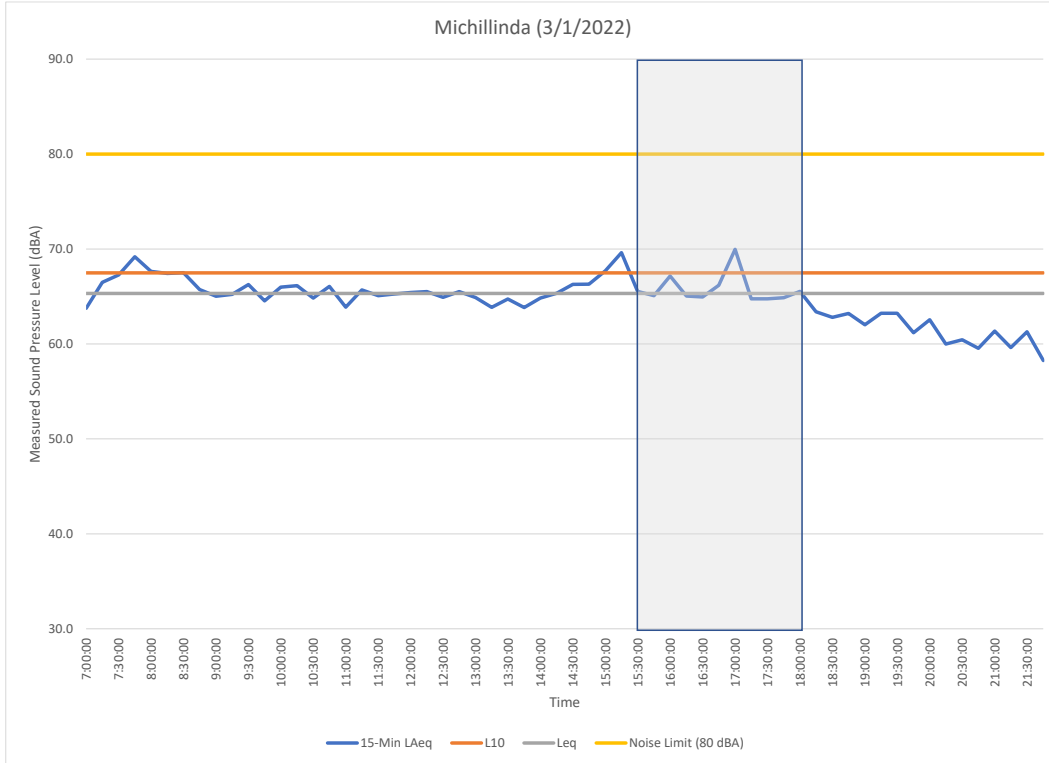


Figure 6: Michillinda Avenue (3/1)

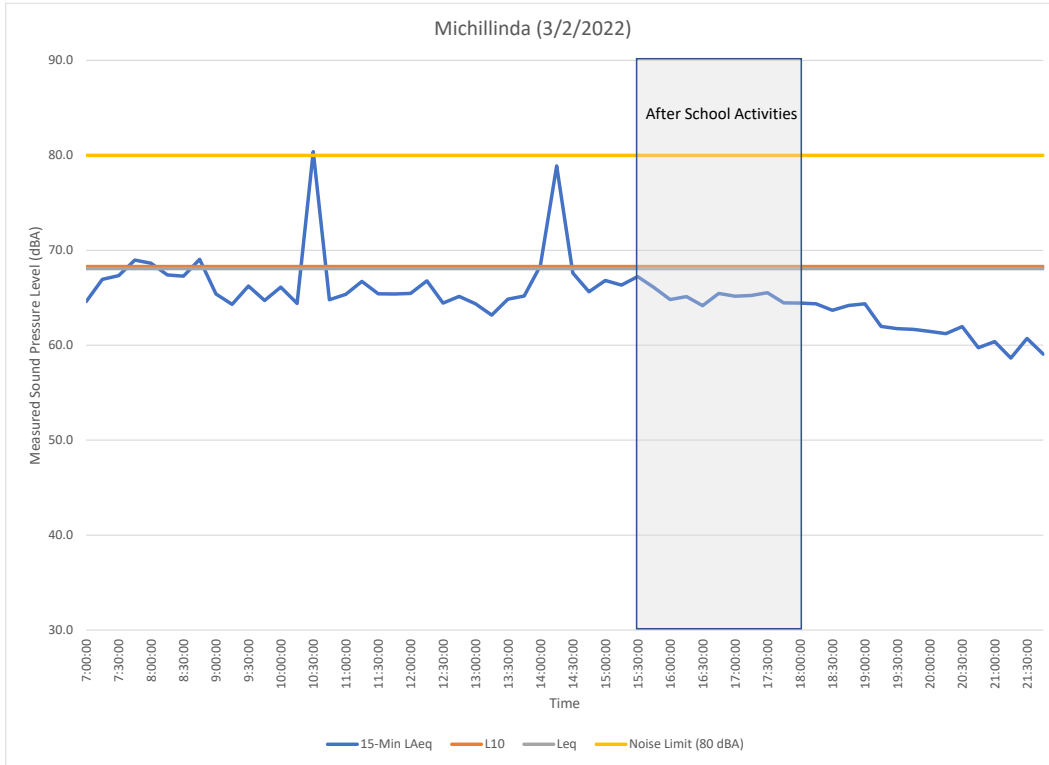


Figure 7: Michillinda Avenue (3/2)

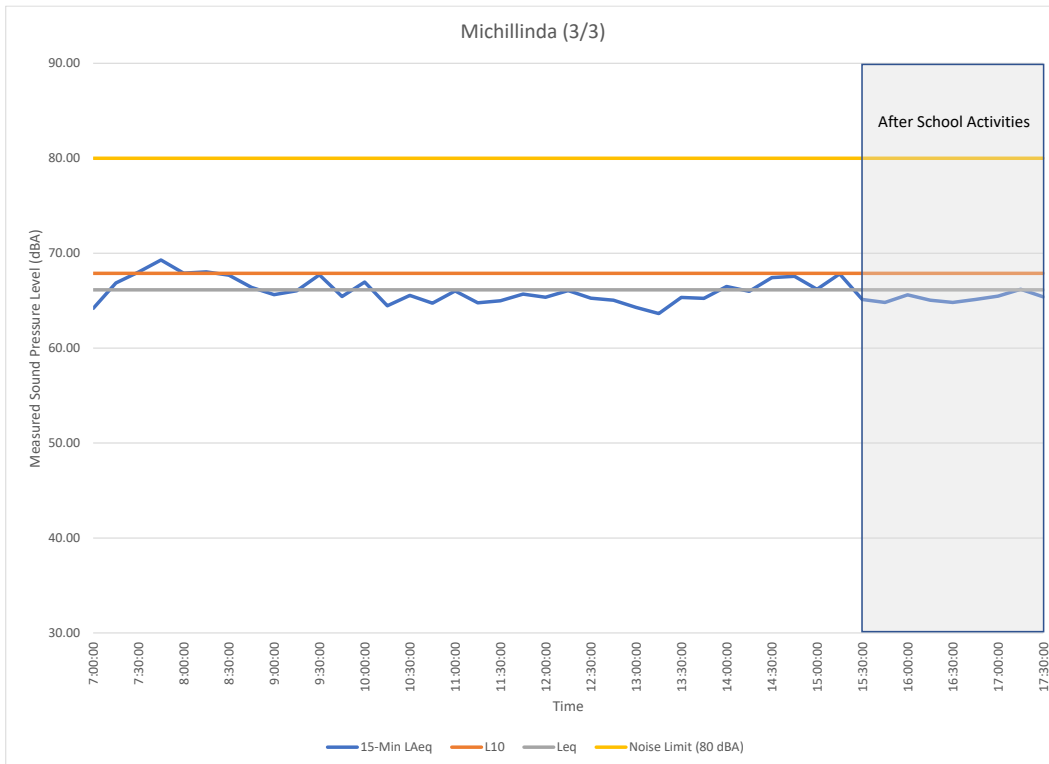


Figure 8: Michillinda Avenue (3/3)

5.2 Highland Avenue

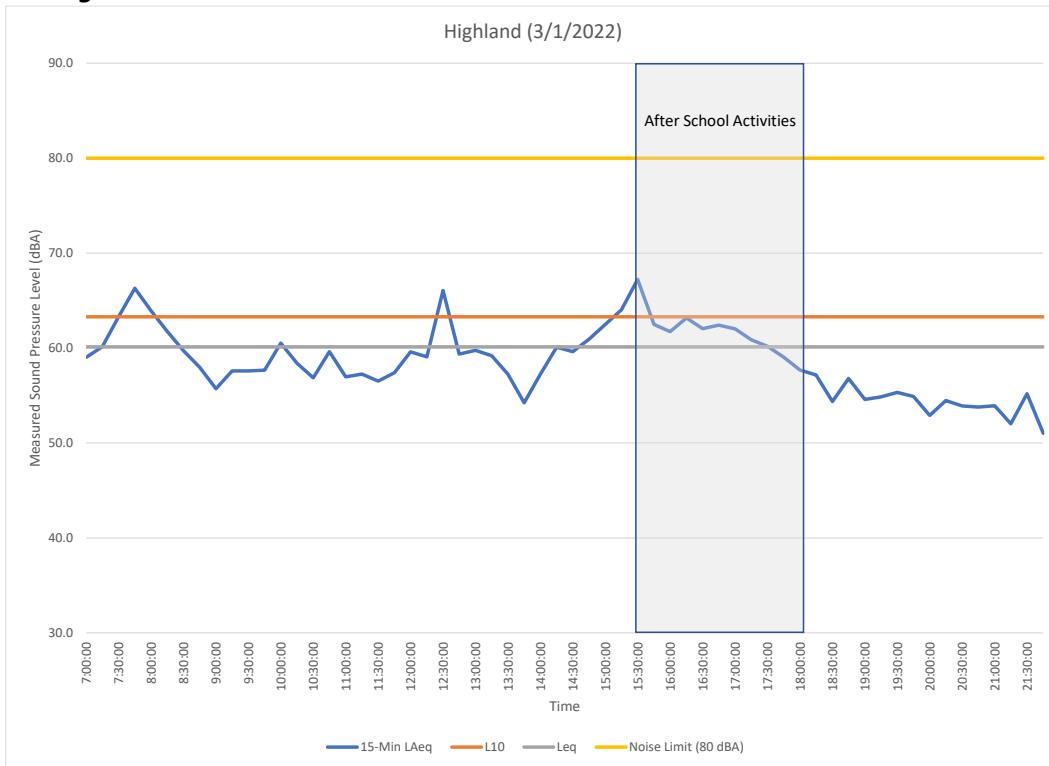


Figure 9: Highland Avenue (3/1)

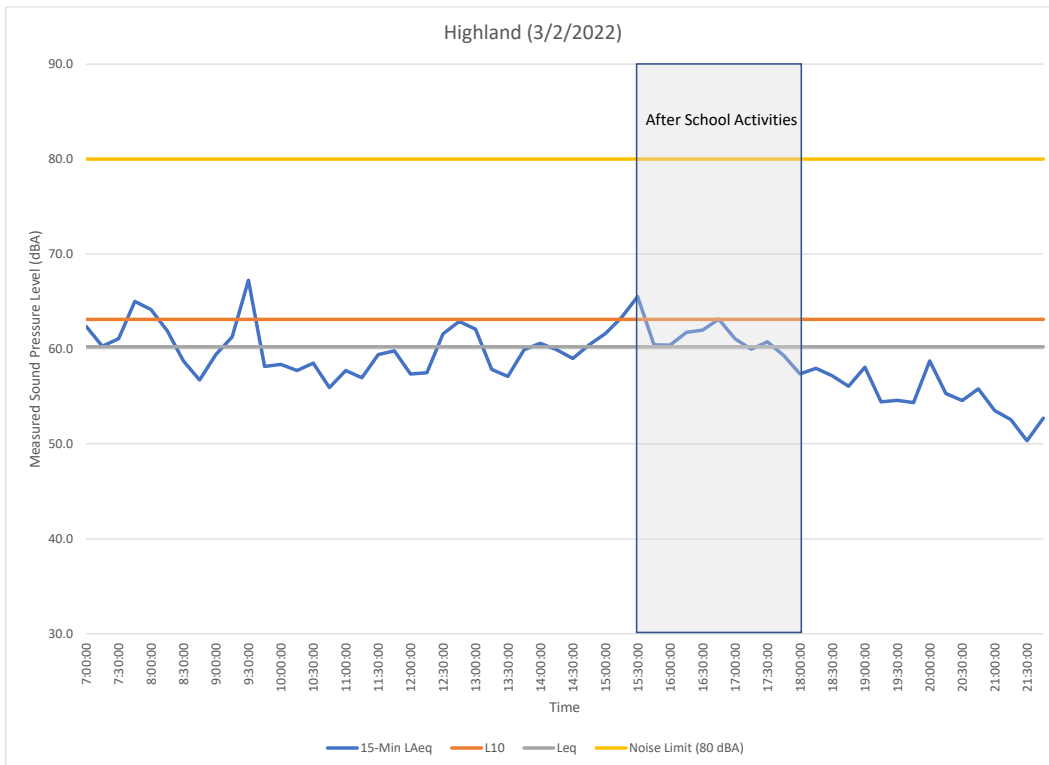


Figure 10: Highland Avenue (3/2)

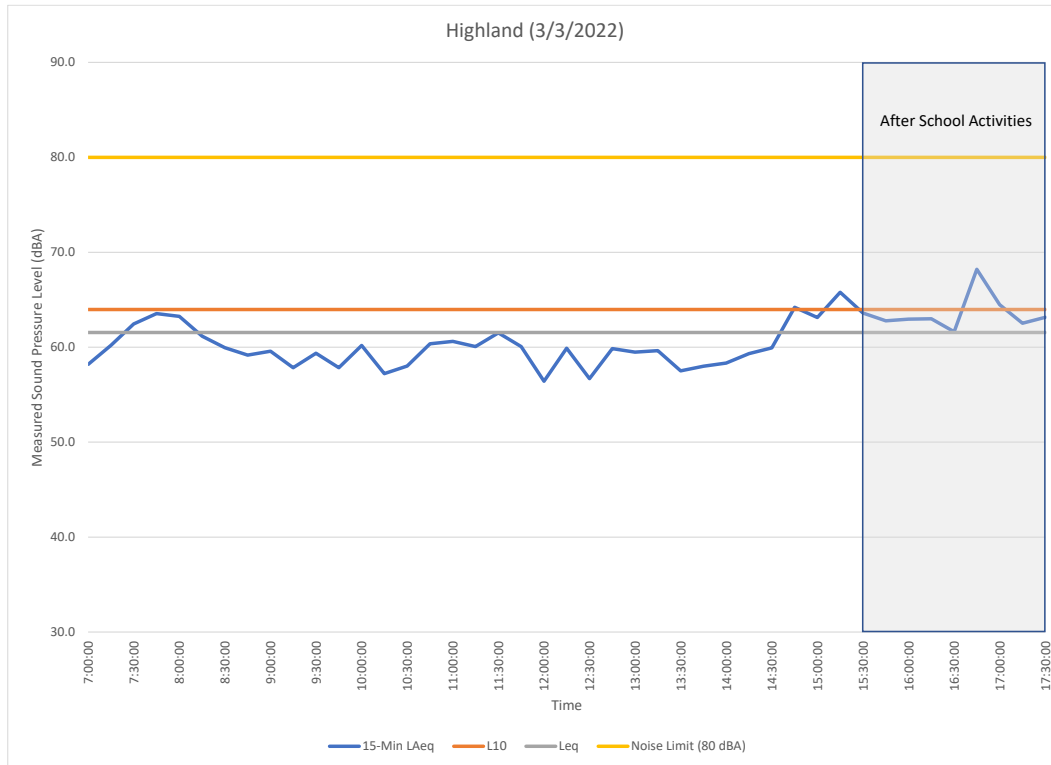


Figure 11: Highland Avenue (3/3)

## 6.0 Comments and Conclusions

The measurements indicate that during after-school outdoor activities the average noise level is within 3 dBA of the traffic noise level, indicating that the neighborhood noise is dominated by traffic noise. This validates the results of the 2011 master plan report. The Planning Center conducted noise studies for the 2011 Master Plan Amendment, which were discussed in the June 30th noise report.

The measurements also indicate noise levels less than 80 dBA during after-school outdoor activities, indicating compliance with the General Plan, Chapter 6 section on ‘Noise-Control of Non-Transportation Noise Sources’.

After-school outdoor activity noise may contribute to the noise environment for short periods of time, not to exceed roughly five minutes. For example, the noise monitoring indicated that the noise level on Michillinda Avenue was roughly 81 dBA at around 10:00 AM on March 2nd; however, it is not the major source of noise in the neighborhood.

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This concludes our noise study report for Alverno Heights Academy. Please do not hesitate to contact us with questions.



September 1, 2022

Kristin Stephens

Sierra Madre, CA 91024

**Subject: Alverno Heights Academy After-School Activities – Noise Peer Review, Sierra Madre, CA**

Dear Mrs. Stephens:

MD Acoustics, LLC (MD) is pleased to provide a peer review of the CSDA Design Group Noise Study dated 4/5/22 for the Alverno Heights Academy after-school activities.

### **1.0 Comments for the Report**

MD has specific comments relating to the report that should be addressed in this analysis as outlined below:

1. There is no source referenced for the methodology of calculating the traffic noise levels using the L10 metric. MD is not familiar with this methodology and can't find any reference to it in the FHWA traffic noise documents. FHWA defines the L10 as “an indicator of the noisiest portion of highway traffic” ([https://www.fhwa.dot.gov/Environment/noise/noise\\_compatible\\_planning/federal\\_approach/audible\\_landscape/al07.cfm](https://www.fhwa.dot.gov/Environment/noise/noise_compatible_planning/federal_approach/audible_landscape/al07.cfm)) and is not representative of average or median traffic noise.
2. The report incorrectly utilizes LA County Noise Ordinance. Properties within the limits of Sierra Madre are not subject to the LA County Noise Control Chapter. Sierra Madre has their own Noise Chapter of the Municipal Code and their own list of special exemptions. Playground/school noise is not included. The report should instead reference the Sierra Madre Municipal Code which outlines a residential standard of +6 dB above the local ambient.
3. The report compares the noise levels to the 80 dBA exemption. This exemption applies to sources at a distance of 25 feet from the source and not beyond. The measurement locations 1-4 are further than 25 feet from the noise sources, and therefore the 80 dBA threshold does not apply at those locations. These locations should instead be compared to the ambient +6 dB limit as outlined in the Sierra Madre Municipal Code. This limit appears to be exceeded at Highland on 3/3/2022 around 4:40 PM, at Highland on 3/2/2022 at 3:30 PM, at Highland on 3/1/2022 at 3:30 PM. This is not an exhaustive list, as the ambient level has not been properly established in the report for comparison.

### **2.0 Communications**

The review team had no communications with the project applicant or the preparer of the noise study.

### **3.0 Conclusion**

The study does not adequately prove that the Alverno Heights Academy is conforming to the noise limits during after-school activities. The reviewer's qualifications are provided in Appendix A. If you have any questions regarding this analysis, please don't hesitate to call us at (805) 426-4477.

Sincerely,  
MD Acoustics, LLC



Claire Pincock, INCE-USA  
Consultant

**Appendix A:**  
Reviewer's Resume



Claire Pincock graduated from Brigham Young University in the top 5% of her graduating class with a Bachelor of Science degree in Applied Physics with an emphasis in acoustics and a minor in Mathematics. Before joining MD Acoustics, she was a research assistant at BYU. Her research was focused on speech acoustics, specifically on how speech radiates from the mouth.

<https://www.physics.byu.edu/thesis/archive/2017>

In 2017, Claire presented her research with Dr. Timothy Leishman on speech directivity at the Acoustical Society of America, spring Boston conference where she placed 2<sup>nd</sup> in the student competition on speech acoustics.

<http://asa.scitation.org/doi/abs/10.1121/1.4987652>

This research is also presented in the following paper published in the Journal of the Acoustical Society of America in 2021: <https://asa.scitation.org/doi/10.1121/10.0003363>

### ***Education***

Brigham Young University  
B.S., Applied Physics (Acoustics), 2017  
Magna Cum Laude

### ***Affiliations***

Member, INCE-USA  
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### ***Representative Project Experience***

#### *Architectural Acoustics Assessment*

- Vista Del Mar Residential Development, Dana Point, CA
- Hampton Inn, Santa Ana, CA
- 745 N. Croft Avenue Multi-Family Residential Development, Los Angeles, CA
- 700 N. Virgil Multi-Family Residential Development, Los Angeles, CA
- Lakeview Senior Living, Yorba Linda, CA
- Harbor View Villas – Rebuild Development, Ventura, CA
- Miramar Super Star Car Wash, San Diego, CA
- Foursquare, Redondo Beach, CA
- Lakeside Special Care, Lakeside, CA
- 1835 Oddie Blvd Nursing Home, Sparks, NV
- HUD NEPA Project Legacy, Riverside, CA

#### *Noise Assessment*

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- Ft. Huachuca anechoic chamber qualification, AZ

RT-60

- FCG Conference Rooms and Training Room, Draper, UT

September 1, 2022

Kristin Stephens

Sierra Madre, CA 91024

**Subject: Alverno Heights Academy Villa – Noise Peer Review, Sierra Madre, CA**

Dear Mrs. Stephens:

MD Acoustics, LLC (MD) is pleased to provide a peer review of the CSDA Design Group Noise Study dated 5/26/22 for the Alverno Heights Academy Villa Del Sol d’Oro.

### 1.0 Comments for the Report

MD has specific comments relating to the report that should be addressed in this analysis as outlined below:

1. There is no source referenced for the methodology of calculating the traffic noise levels using the L10 metric. MD is not familiar with this methodology and can't find any reference to it in the FHWA traffic noise documents. FHWA defines the L10 as “an indicator of the noisiest portion of highway traffic” ([https://www.fhwa.dot.gov/Environment/noise/noise\\_compatible\\_planning/federal\\_approach/audible\\_landscape/al07.cfm](https://www.fhwa.dot.gov/Environment/noise/noise_compatible_planning/federal_approach/audible_landscape/al07.cfm)) and not as the average traffic noise level as indicated in the graphs.
2. The 1998 Villa Noise Agreement states that private security will “take decibel readings at each wedding on a periodic basis” and “sound emanating from the Villa was reasonable if it was within 70 db at the Villa, allowing 84 db for 15 minutes per hour, 89 db for 5 minutes per hour and 94 db for 1 minute per hour between the hours of 7:00 a.m. at 10:00 p.m. These findings shall serve as a baseline for evaluation of whether or not the noise emanating from weddings at the Villa are in compliance with the applicable Sierra Madre Code.” Later in the agreement it is stated that in the event of a complaint the security guard will “take a decibel reading from *immediately outside the Villa* and immediately outside the residence of the neighbor”.

These limits are baselines given to ensure compliance to the Sierra Madre Code. These periodic monitoring limits are explicitly applied at the Villa, and measurements at the Villa are explicitly required to be taken immediately outside the Villa. These periodic monitoring measurements are not taken at the property line or at surrounding residential properties. The only time measurements are explicitly taken at the residences is in the event of a complaint.

Locations 1-4 should therefore not be compared to these limits and instead should be compared only to the Sierra Madre Code. Location 5, however, should be compared to these limits and is not.

3. The ambient is not established per the Sierra Madre Code. The local ambient is defined as the lowest noise level repeating itself during a two minute period using slow response and “A” weighting and with the noise source at issue silent. At no point in the report is the ambient level at Locations 1-4

established with the noise source silent for comparison. The graphs outlining the ambient +6 include the event noise, which is not the definition of ambient.

4. The report outlines a noise exceedance from Villa at 8 PM on Michillinda Avenue. The noise level at the surrounding residences is far above the levels before and after the noise exceedance and clearly exceeds the ambient +6 limit and is therefore not in compliance with the Sierra Madre Municipal Code.

## **2.0 Communications**

The review team had no communications with the project applicant or the preparer of the noise study.

## **3.0 Conclusion**

The study does not adequately prove that the Alverno Heights Academy is conforming to the noise limits during events. In fact, the report clearly outlines at least one instance of an event exceeding the Sierra Madre noise limits. The reviewer's qualifications are provided in Appendix A. MD is pleased to provide this peer review of the Alverno Heights Academy Villa Del Sol d'Oro Noise Study. If you have any questions regarding this analysis, please don't hesitate to call us at (805) 426-4477.

Sincerely,  
MD Acoustics, LLC



Claire Pincock, INCE-USA  
Consultant



**Appendix A:**  
Reviewer's Resume



Claire Pincock graduated from Brigham Young University in the top 5% of her graduating class with a Bachelor of Science degree in Applied Physics with an emphasis in acoustics and a minor in Mathematics. Before joining MD Acoustics, she was a research assistant at BYU. Her research was focused on speech acoustics, specifically on how speech radiates from the mouth.

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- Ft. Huachuca anechoic chamber qualification, AZ

RT-60

- FCG Conference Rooms and Training Room, Draper, UT

## Joseph Nosrat

**Subject:** FW: Some Depth To Your Actions  
**Attachments:** Did you all sell your souls or something.jpg

**From:** Your Planet [mailto: [REDACTED]]  
**Sent:** Saturday, August 27, 2022 1:12 PM  
**To:** William Pevsner (Planning Commission) < [REDACTED] >; Tom Denison (Planning Commission) < [REDACTED] >; John Hutt (Planning Commission) < [REDACTED] >; Bob Spears (Planning Commission) < [REDACTED] >; Peggy Dallas (Planning Commission) < [REDACTED] >; Public Comment <publiccomment@cityofsierramadre.com>  
**Subject:** Re: Some Depth To Your Actions

**CAUTION:** This message is from an EXTERNAL SENDER - be CAUTIOUS, particularly with links and attachments.

Dear Planning Commission Members,

I never received a response from you all about my last email. Did you all sell your souls or something?



On Tue, Jul 19, 2022 at 11:24 PM Your Planet < [REDACTED] > wrote:

Dear Planning Commission,

I've sent the following message to Mater Dolorosa about the proposed housing project and wanted to send it to you too, as it may provide some clarity to the depth of your actions:  
Did you know that there's about 1 Native American remain every 0.85 acres in the U.S., about every 200 parking spaces, which means that there are about 50 Native American corpses living in the meadow that you all aim to scalp for Passionist money, money for an order of the Missions' overdogs that enslaved, tortured, raped, and murdered their people? That's 50 human beings! What's that, about twice the number of your staff? If that's not enough to prevent you from using them like this, then get personal with it: The galaxy is a vortex, a single movement, in which every part of it, both sentient and insentient, *alive and dead*, is that single movement everywhere within itself, both spatially and temporally. The Tongva, then, the natives to whom this

land really belongs, are there in the meadow that you all aim to sell, more than just as dispersed remains. What you do to them, you do to yourselves. [https://youtu.be/rBcF9cOuA\\_8](https://youtu.be/rBcF9cOuA_8) End the housing project.

Answer to them now:



### Bailey Canyon, A Wind Tunnel ...perfect for the Santa Ana winds

Wildfires here aren't a probability but a statistical certainty.

If you put your house in a fire-prone place, modern fire-resistant materials are just Band-Aids... It's where you build, not what you build with. All it takes is leaves and embers. Once houses ignite, 90% of them, even brand new ones, burn down.  
- Ventura County Fire Marshal

Don't pile tinder on a firebreak!

Don't let your City officials wrongfully bet your life and property!



...extreme fires are expected to rise 14% globally by 2030, 30% by the end of 2050, and 50% by 2100. - ABC News

**Tinder**  
...i.e. the proposed housing project at the meadows in a High Fire Hazard Severity Zone

**The firebreak**  
...made recently in Bailey's entry parallel to the meadow. The City's true stance?

The Esperanza Hills Wildfire (burnt 381 homes a similar high fire-risk zone) and the Thomas Fire (burnt 9 in another at the foot of a valley that funneled embers), your crystal balls.

**Existing Residents**

"Our honest... approach to all is the most critical part to our process." - New Urban West, the Developer's, website

**Sierra Madre's General Plan's Policy R3.2 states, "Ensure that wildland open space, including the area of the City designated as High Fire Hazard Severity Zone, is left in its natural state." That's pretty straightforward. A Special Plan is not a "Preference" Plan. Don't let it overwrite those aspects of the General Plan that are fundamental to it. Take action now. End the housing project!**