

RE: Golden Eagle Use Permit-check in



Don Burk <dburk@enplan.com>
To: nicktrover@trovercpm.com



Thu 3:21 PM

Nick-

Per your request, we have reviewed the project description for the of the proposed new building for Golden Eagle Charter School. As you are aware, ENPLAN's responsibilities included preparation of the biological and wetland studies, a cultural resources inventory, an air quality analysis, and a NEPA Environmental Report. The biological/wetland and cultural resources studies were based on the overall project site (a study area encompassing over 10 acres). The actual size of the proposed building had no effect on these technical studies or our impact analyses. The air quality analysis and the NEPA Environmental Report both address the construction of a ~27,500 square-foot classroom/office building and a 960 square-foot modular building, for a total building size of ~28,460 square feet. The smaller square footage reported in the CEQA Addendum had no effect on the results of the air quality analysis or the impact evaluations provided in the NEPA Environmental Report.

-Don



Donald Burk
Environmental Services Manager
dburk@enplan.com
(530) 221-0440 x 7102

ENPLAN



February 9, 2024

Mr. Nick Trover
TROVER Construction Project Management
974 Forest Avenue
Chico, CA 95928

Building Size Clarification Letter – Golden Eagle Charter School, Mt. Shasta, CA

Dear Mr. Trover,

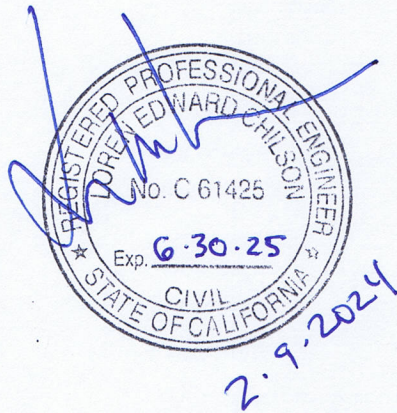
This letter provides clarification regarding the traffic analysis findings and the proposed new school building size.

It is important to recognize that building size has no implication on the traffic study or evaluation of the project's potential traffic impacts. The project traffic analysis (*Updated Transportation Review Letter, December 8, 2023*) is based entirely on the maximum number of students and staff.

A difference in building square footage is not relevant to the traffic analysis findings and no new potential traffic impacts would be found associated with a different building size.

Sincerely,
Headway Transportation, LLC

Loren E. Chilson, PE
Principal



From: nicktrover@trovercpm.com
To: [Hailey Lang](#)
Subject: FW: Golden Eagle School Noise
Date: Monday, February 12, 2024 1:59:42 PM
Attachments: [image001.png](#)

Good afternoon Hailey,

Wanted to forward you this email regarding the noise study and the square footage. Thanks!

Nick Trover

TROVER

CONSTRUCTION PROJECT MANAGEMENT

Lic. #1081347

974 Forest Ave

Chico CA, 95928

530-519-7132

nicktrover@trovercpm.com

www.trovercpm.com

From: Paul Bollard <paulb@bacnoise.com>

Sent: Friday, February 9, 2024 2:47 PM

To: nicktrover@trovercpm.com

Cc: 'Shelly Blakely' <shellyb@gecs.org>

Subject: RE: Golden Eagle School Noise

Good afternoon Nick,

The purpose of this email is to inform you that the noise study prepared for the project by my firm did not rely on the square footage of the building. Rather it was based on the increased number of students and faculty. As a result, the typographical error you mentioned citing the building area as 23,800 sf instead of the actual 28,300 has no bearing on the conclusions of our noise evaluation.

Please let me know if you have any questions.

Sincerely,

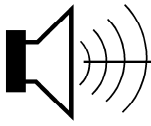
Paul Bollard

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Paul Bollard

Principal Consultant, **Bollard Acoustical Consultants**, Inc.

(O) 530-537-2328 | (M) 916-765-4113



February 12, 2024

Shelly Blakely
Director, Golden Eagle Charter School

Transmitted via email: shellyb@gecs.org, hlang@siskiyou.ca.us, nicktrover@trovercpm.com

**Subject: Response to noise-related comments received in a letter from David O'Shaughnessy (January 22, 2024) on the Golden Eagle School project located in Siskiyou County, California.
BAC Job #2023-059**

Dear Shelly:

Pursuant to the request from Hailey Lang, Siskiyou County Deputy Director of Planning, I have prepared this letter to provide responses to noise related comments on the above-referenced letter. This letter contains Mr. O'Shaughnessy's comments and BAC's responses. I will also be in attendance at the County planning commission hearing on February 21st to provide additional information as needed.

David O'Shaughnessy Letter: Paragraph 1

First, let me start off with a quick story of an engineer that was at a previous job... When going to a retailer for a presentation, I would ask for a study of our products. He would ask what I wanted to show and sometimes he told me that he had "worked the numbers into submission". simply put, he would find the results that I wanted but sometimes would shrink or fine tune the available data points to suit what I wanted to show.

BAC Response:

We understand Mr. O'Shaughnessy's concerns but want to assure him that the noise study report prepared by BAC for the project is completely transparent. All of the ambient noise level data collected by BAC, County noise standards, analysis methodology, and analysis results, are clearly provided in the report. No effort was made to to "fine tune" the data to achieve a favorable result for the applicant.

David O'Shaughnessy Letter: Paragraph 2

Knowing this from my past, I am alarmed with the sound study that is being used for the Charter School next door. The noise study underestimates the harm to our guests from larger groups of children shouting at the school's play area as close as 28 feet from our guest room windows at the Mount Shasta Ranch Bed and Breakfast. This distance is much shorter than that used in the noise study. The play area noise would be louder up close. The sound and disturbing nature of such nearby shouting is underestimated because, by using a 55 DNL noise limit, that noise volume becomes merged and averaged with much quieter times during an entire 24 hour day.

BAC Response:

There are a couple points made in this paragraph. The first is that the schools play area is as close as 28 feet from guest room windows. These areas are identified on Figures 2 and 4 of the BAC noise study. The noise level measurements of the children playing were obtained at the property line of the B&B, which was approximately 60 feet from the effective noise center of the playground area. The patio area of the B&B was scaled using Google Earth aerial imagery as being approximately 150 feet from the rear patio area of the B&B. While it is true that some play activity may occur closer than 150 feet, it is also true that the proposed area available for play extends approximately 230 feet from the B&B rear patio area. Because the County's noise limits are defined as averages, the approximate noise center of the outdoor activity area was appropriately used for the computation of noise exposure at the B&B site.

In the second part of this comment, the 24-hour averaging of the noise is discussed. While it is true that the County noise standard is based on a weighted 24-hour average (DNL), the BAC study utilized average noise levels during individual hours, in addition to 24-hour averages, to assess the potential or playground noise impacts at the nearest residences.

David O'Shaughnessy Letter: Paragraph 3

The noise report fails to inform anyone of the actual distance from these school playgrounds to our B&B buildings and the outdoor yards that our guests use. Without that information, the noise report's conclusions have no legitimacy and cannot be checked for accuracy. This blatant error will hide the real noise level of boisterous children cheering classmates or playing strenuous games, all of which are noisy activities at such a nearby distance that will be very detrimental to our business.

BAC Response:

The commenter is correct that the distance was inadvertently not included in the report. As noted above, the distance from the effective noise center of the proposed play area to the rear patio area of the B&B was scaled to be 150 feet.

David O'Shaughnessy Letter: Paragraph 4

The County Planning Department is using a 'threshold of significance' of 55 dBA DNL for vocal noise from the play area activities. That is the wrong standard because the County failed to make the mandatory adjustment described in the General Plan Noise Element for a quiet rural area where the school is located. That noise limit should be either 5 or 10 dB lower as a result. (i.e. 45 or 50 dBA DNL.) (See the General Plan Noise Element Appendix, Table A-10, for such adjustment factors.) Because our B&B is located in a quiet rural area and when this adjustment is included, the noise levels from loud playground activity occurring for five hours each day, just outside our windows, will exceed the County's noise standards by a much greater extent.

BAC Response:

As noted in Table 2 of the BAC report, measured ambient noise exposure at the 3 noise survey locations ranged from 56 to 65 dB DNL. These levels were affected by local traffic and indicate that the ambient noise environment in the immediate project vicinity is not sufficiently quiet to justify application of a lower noise level limit.

David O'Shaughnessy Letter: Paragraph 5

The County also misinterpreted the noise study to arrive at a conclusion that the kids' noise levels at our B&B would be less than significant. The noise study (Table 4, on page 202 of the Staff Report) presumably calculated the combined noise levels of both (1) existing noise levels without the project plus (2) the predicted noise levels from the kids playing, and arrived at a combined noise level of 58 dBA DNL. That cumulative noise level is however greater than the County's chosen threshold of significance of 55 dBA DNL (or an even lower standard with the adjustments mentioned above). The County should have realized therefore that the school's combined play area noise, when measured at our B&B, would be significant because 58 DNL is greater than 55 DNL. That greater than allowed noise level requires the County to prepare a Mitigated Negative Declaration with a revised noise study. The current Addendum to a MND isn't sufficient; it does not propose any noise mitigation to correct that playground noise exceedance of the County's standards. Instead, the Staff Report concludes that the play area noise level at our B&B (allegedly calculated to be 53 dBA DNL) is acceptable because that number is less than its 55 dBA DNL threshold of significance. But what the Staff Report misunderstands is that the test is not merely whether the kid's play area noise level on its own exceeds that 55 DNL standard, but whether the cumulative noise of existing noise sources in the neighborhood plus new school noise (a total which is purportedly 58 DNL) exceeds the 55 DNL limit. That noise volume would be significant.

BAC Response:

The 55 dBA DNL noise standard utilized in the impact assessment is the County's 60 dBA DNL standard adjusted downward by 5 dBA because the sounds of children playing on playgrounds consists primarily of speech. As indicated in Table 4 of the BAC report, the children using the playground are predicted to generate approximately 53 dBA DNL at the B&B. The predicted level of 53 is below the 55 dBA DNL exterior noise standard. Because the ambient condition is based on broadband noise (i.e. local and distant traffic), the 5 dBA penalty for speech is not applied to the ambient condition, making that standard 60 dBA DNL. When playground noise is added to ambient noise, the increase does result in a level of approximately 58 dBA DNL, as reported in Table 4 of the BAC analysis, but the 5 dBA penalty is only applicable to the playground noise, not the ambient noise. Because playground noise in isolation is predicted to be below 55 dBA DNL, and because ambient + playground noise is predicted to be below 60 dBA DNL, the noise study concluded that the project is in compliance with the County's noise standards.

David O'Shaughnessy Letter: Paragraph 6

The project's noise study provides strong evidence that the play area noise would be too loud unless some effective noise mitigations are imposed.

BAC Response:

The BAC study clearly identifies playground noise as a source which could affect the neighboring residences. And the noise study clearly indicates that the increase in students at the project site would result in an increase in playground noise. However, the mathematical evaluation of potential noise impacts relative to both baseline ambient conditions and against County noise standards indicates that the project's impacts would be less than significant.

David O'Shaughnessy Letter: Paragraph 7

Moreover, the location of point R1 (on PDF p. 192 - Figure 2, an aerial photo map in the noise study) is where the school's noise level at our residence is calculated or predicted. But, that point appears to be on our front porch's north side, and not at the closest part of our porch's south end or our other outdoor activity areas in the yard beyond the porch where, because being closer to the play area, the kids' noise would be louder. This misleading information about where the noise prediction is focused also disproves the noise study's and Staff Report's conclusions.

BAC Response:

Reference Point R1 on Figure 2 of the BAC analysis was intended to identify the location of the nearest residence to the north, not the location where the noise-sensitivity of that residence was evaluated. In fact, the location where the noise-sensitivity of residence R1 (the B&B) was evaluated was the areas to the rear (south) of the residence, not the front porch on the north side of the residence.

David O'Shaughnessy Letter: Paragraph 8

Mount Shasta Ranch Bed and Breakfast has been around for over 30 years. Located in a rural part of Mount Shasta, this commercial type business that Golden Eagle is working to push forward seems to be at any cost. Please pump the breaks on this and assure that sound mitigation is a major part of approval of this development.

BAC Response:

Had the BAC analysis identified significant adverse noise impacts at neighboring residences, including the residence to the north, appropriate noise mitigation measures would have been developed. Nonetheless, in the event that a greater number of students are using the northern play area than assumed in the BAC noise analysis, consideration of noise mitigation measures would be warranted.

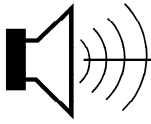
This concludes BAC responses to the above-described comment letter. Please contact me at (530) 537-2328 or paulb@bacnoise.com if you have any comments or questions regarding this letter.

Sincerely,

Bollard Acoustical Consultants, Inc.



Paul Bollard
President



April 30, 2024

Hailey Lang
County of Siskiyou
Deputy Director of Planning
806 S. Main Street
Yreka, CA 96097

Transmitted via email: hlang@co.siskiyou.ca.us

Subject: Construction noise discussion for the Golden Eagle School project located in Siskiyou County, California.
BAC Project # 2023-059

Dear Hailey,

As you are aware, Bollard Acoustical Consultants, Inc. (BAC) prepared a noise study for the Golden Eagle School project (report dated July 17, 2023). At the time BAC's noise analysis was prepared, the construction of a new building at the project site was not being proposed. As a result, construction noise was not specifically addressed in BAC's noise study report. In light of the fact that construction of a new school building is now being proposed at the site, BAC has prepared this letter to discuss the potential noise-related effects of project construction on the nearest residential neighbors to the project site.

During project construction, clearing, grading, excavation, paving, and building construction activities would occur in phases. Construction noise levels generated at the project site would vary depending on the type and number of equipment in use at any time, the location where that equipment is operating, and how well the equipment is maintained. Noise exposure at existing, off-site, sensitive receptors would also vary depending on the proximity of equipment and activities to the residence, the degree of shielding present between the construction equipment and receptor (i.e., buildings, vegetation, etc.).

Table 1 provides the range of maximum noise levels for equipment commonly used in general construction projects at full-power operation at a distance of 50 feet. Not all of these construction activities would be required of this project.

Table 1
Maximum Reference Noise Levels for Common Construction Equipment

Equipment Description	Maximum Noise Level at 50 Feet [dBA]
Air compressor	80
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete vibrator	76
Dozer	85
Generator	82
Grader	85
Loader	80
Paver	85
Pneumatic tools	85
Pump	77
Saw	76
Truck	84

Source: Federal Transit Administration Noise and Vibration Impact Assessment Manual, Table 7-1 (2018)

The distances from the nearest residences to the proposed building site in all four directions range from approximately 330 to 525 feet. The distances from these residences to the most significant sources of on-site construction would vary depending on the phase of construction. For a general assessment of potential construction noise impacts, the Federal Transit Administration (FTA) recommends utilizing the noise emission levels shown in Table 1, adjusting those levels for the percentage of the hour the equipment would be operating, correcting for distance by assuming mobile equipment operates at the approximately noise center of the project construction phase, and considering ground effects where appropriate.

For this project, there will be periods of time when the construction equipment is located closer to existing residences than the effective center of the project site, so calculating construction noise from the center of the site is not considered appropriate for this evaluation. However, because the noisiest construction equipment tends to be mobile (i.e. earthmoving equipment), calculating construction noise levels using the closest point of construction activity to existing residences is also not considered appropriate. For this evaluation, a distance of 400 feet was conservatively assumed for the construction noise evaluation distance for the nearest existing residences to the proposed building.

After correction for usage and multiple equipment operating concurrently, project construction noise was calculated using the Federal Highway Administration's Roadway Construction Noise Model (RCNM), to be approximately 70 dBA Leq at the nearby residences.

Although no standardized criteria have been developed for assessing construction noise impacts, The Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* contains guidance for use in assessing potential noise associated with project construction.

The FTA Manual states: "Where local noise ordinances provide guidance with respect to construction noise, they typically relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. The following guidelines can be considered reasonable criteria for assessment: construction noise levels of 90 dBA and 80 dBA Leq at residential land uses during daytime and nighttime hours, respectively. If these criteria are exceeded, there may be adverse community reaction."

Although construction of the new building at the Golden Eagle School site would result in short-term increases in ambient noise levels at nearby residences, such increases are attributable to most construction projects in Siskiyou County. However, because project construction activities would be of limited duration, are proposed during daytime hours, and would be satisfactory relative to noise criteria considered reasonable by the FTA, adverse noise effects are not anticipated to result from project construction.

I hope this additional information is useful to you. Please contact me at (530) 537-2328 or paulb@bacnoise.com if you have any comments or questions regarding this discussion.

Sincerely,

Bollard Acoustical Consultants, Inc.



Paul Bollard
President