

RECEIVED

MAY 02 2024

SISKIYOU COUNTY
CLERK'S OFFICE

Siskiyou County Supervisors Meeting, 05/07/2024
RE: Appeal of Golden Eagle Charter School, Use Permit UP-23-08/Addendum
to Certified Mitigated Negative Declaration

REPORT ABOUT PROJECT'S SIGNIFICANT LIGHTING IMPACTS

Board of Supervisors,

May 2, 2024

PROJECT'S POTENTIALLY SIGNIFICANT NIGHTTIME LIGHTING IMPACTS

Golden Eagle Charter School Project proposed along W.A. Barr Road may create significant lighting impacts that were not previously considered by the Planning Commission or the County's Addendum.

This Golden Eagle Charter School Project will repave a paved parking lot, make available an unpaved, graveled overflow parking lot, and likely install some additional parking lot pole lights to illuminate these parking lots. Yet the Project's Addendum to the MND does not evaluate the potentially significant lighting impacts such tall pole lights and unshielded signage lights may cause to neighbors and people walking or driving along W.A. Barr Road at nighttime.

Golden Eagle currently has several parking lot pole lights near its existing parking lot that appear to be about 24 feet tall. (See numbered parking lot pole lights in Figure 1 below.) With this Project's greatly expanded school floor area of about four times, and with more than four times as many students, it is reasonable to assume that the parking lot with its new, reconfigured dual driveways and gravel parking area will require additional parking lot pole lights of similar size.

Figure 1 – Three of Golden Eagle's Existing Parking Lot Pole Lights



GECS is proposing to nearly quadruple¹ the existing building floor area by adding new buildings, while reducing the number of its existing parking spaces from 82 paved spaces to 68 paved spaces. That major expansion in numbers of students and building floor areas implies the existing graveled overflow parking area will be used more frequently, or will at least also require some tall parking lot pole lights to be installed for nighttime safety.

But GECS did not submit any illumination study to the County as part of its current Project application, something it did when it applied to build this school within the City of Mt. Shasta in 2020. There is no information in the Addendum to the MND that analyzes this Project's increased nighttime lighting impacts. As shown below, this Project will have significant new lighting impacts by adding additional building lighting, parking lot pole lighting, and signage lighting that the County never evaluated.

The Project site is at the periphery of the Mt. Shasta community. This is a rural town at the edge of a large wilderness where its night skies are darker than in urban communities. Visitors at the neighboring Mt. Shasta Ranch Bed & Breakfast, as well as neighbors living nearby, sometimes enjoy views of these uncommonly visible night skies. Stars are still visible in our skies at night. But this Project could create unacceptably bright sky glow and lighting trespass as the result of excessive parking lot and driveway lighting levels. Some outdoor lighting is required for safety at nighttime since the school will be in use during the dark at times in the winter. But unmitigated lighting fixtures will, if Golden Eagle's previous intentions are continued again on its new school site, inevitably create harmful nighttime lighting glare visible from W.A. Barr Road and from neighboring residences.

The nearest residence, Mt. Shasta Ranch Bed & Breakfast's building, is only about 125 feet from the school's gravel parking lot. Its windows currently have some unblocked, direct views of this parking lot where new tall parking lot pole lighting might be installed. Since no information is included in the Addendum or Staff Report about such parking lot lighting, the neighbors can justifiably assume that lighting from a newly installed tall parking lot pole light or two may glare into their yard as close as only about 15 feet away from the graveled parking lot. Such parking lot pole lighting might also shine into their bedroom windows and disturb the B&B's guests.

No mitigation was adopted by the Planning Commission to prevent such overly bright parking lot pole lighting from bleeding onto neighboring properties or the public right-of-way along W.A. Barr Road. Section 10-6.5602 of the Siskiyou County Code states: "*Light, glare and Heat. Exposed sources of light, glare or heat shall be shielded so as not to be directed outside their premises.*" But since the County does not seem to enforce this law at least pertaining to Golden Eagle as explained below, the public has the right to see similar protections be formalized as enforceable mitigations pursuant to CEQA.

If matching or similar pole lights are installed in the school's graveled parking lot, they may create unacceptable light trespass onto the Mt. Shasta Ranch Bed & Breakfast's property just about 14 feet away. If new parking lot pole lights are installed closer to the road, their light might also glare and be directed hazardously into the eyes of the public passing nearby.

¹ See Addendum, Fig. 1: Existing building area: 8,250 s.f. + 1,920 s.f. = 10,070 s.f. New building area: 28,300 s.f. + 960 s.f. = 29,206 s.f. Total building area: 10,070 s.f. + 29,206 s.f. = 39,276 s.f. Increased size = 39,276 s.f. / 10,070 s.f. = 3.9 times larger floor area.

Thus, because the applicant failed to provide information and the County failed to investigate these various exterior lighting problems, the Addendum to the MND does not contain any substantial evidence to support its determination that the Project's lighting impacts will be less-than-significant.

The Addendum, p. 10, purports to answer if the Project would "Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?" Then it, but without any support whatsoever, concludes that "No. The project would not create a source of substantial light or glare." That conclusion is clearly absurd under the circumstances. For safety, this school must have lighting in its parking lots. The newly proposed 28,300 square foot school building will also have exterior lighting fixtures that may shine outward towards W.A. Barr Road where their glare could cause safety impacts if interfering with motorists from seeing students walking along the side of a dark road that has no sidewalk or street lights.

GOLDEN EAGLE'S EXISTING SIGN VIOLATES COUNTY CODE WITH DIRECT PUBLIC VIEWS OF LIGHT BULBS.

For example, Golden Eagle's existing sign next to W.A. Barr Road is illuminated by bright light bulbs that violate the County Code by visibly shining directly into motorists' and other peoples' eyes at nighttime. See photo below. This violates County Code § 10-6.5823 which states: "Sign illumination. Any sign permitted under the Siskiyou County Code may be illuminated provided that **no light bulb**, tube, filament, or similar source of illumination **is visible** beyond the display face.") Some of this sign's light bulbs are directly visible from the road. In the winter, this sign's hazardous glare will be even more serious because the deciduous plants in the sign's planter will no longer shield its other light bulbs from public view. This issue must be evaluated under CEQA with an enforceable mitigation imposed, because quite obviously neither the school nor the County has bothered to comply with the County Code § 10-6.5823 so far.

Figure 2 – Existing Signage Lighting Glares Hazardously onto W.A. Barr Road

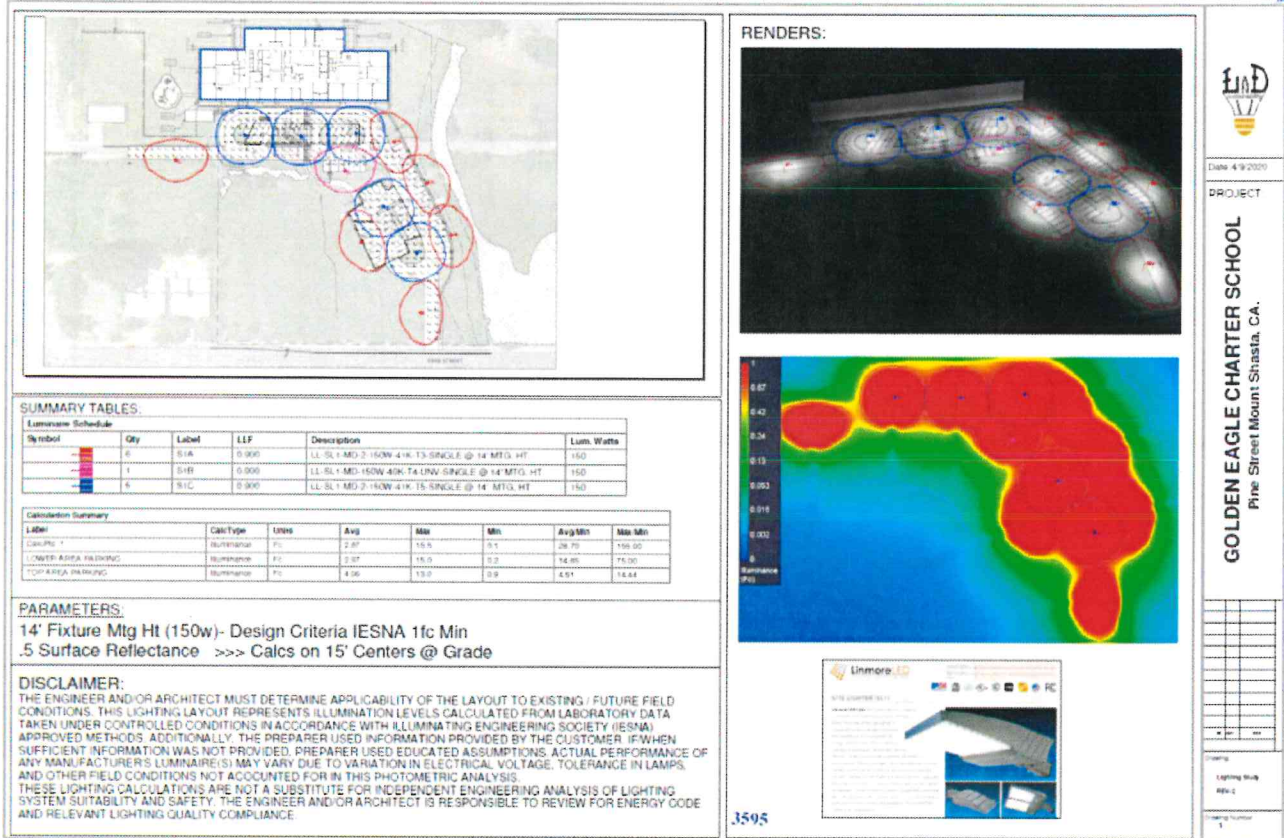


2024 Photo of Golden Eagle Charter School's Sign Next to W.A. Barr Road

GOLDEN EAGLE PREPARED A LIGHTING STUDY FOR ITS PREVIOUS SITE

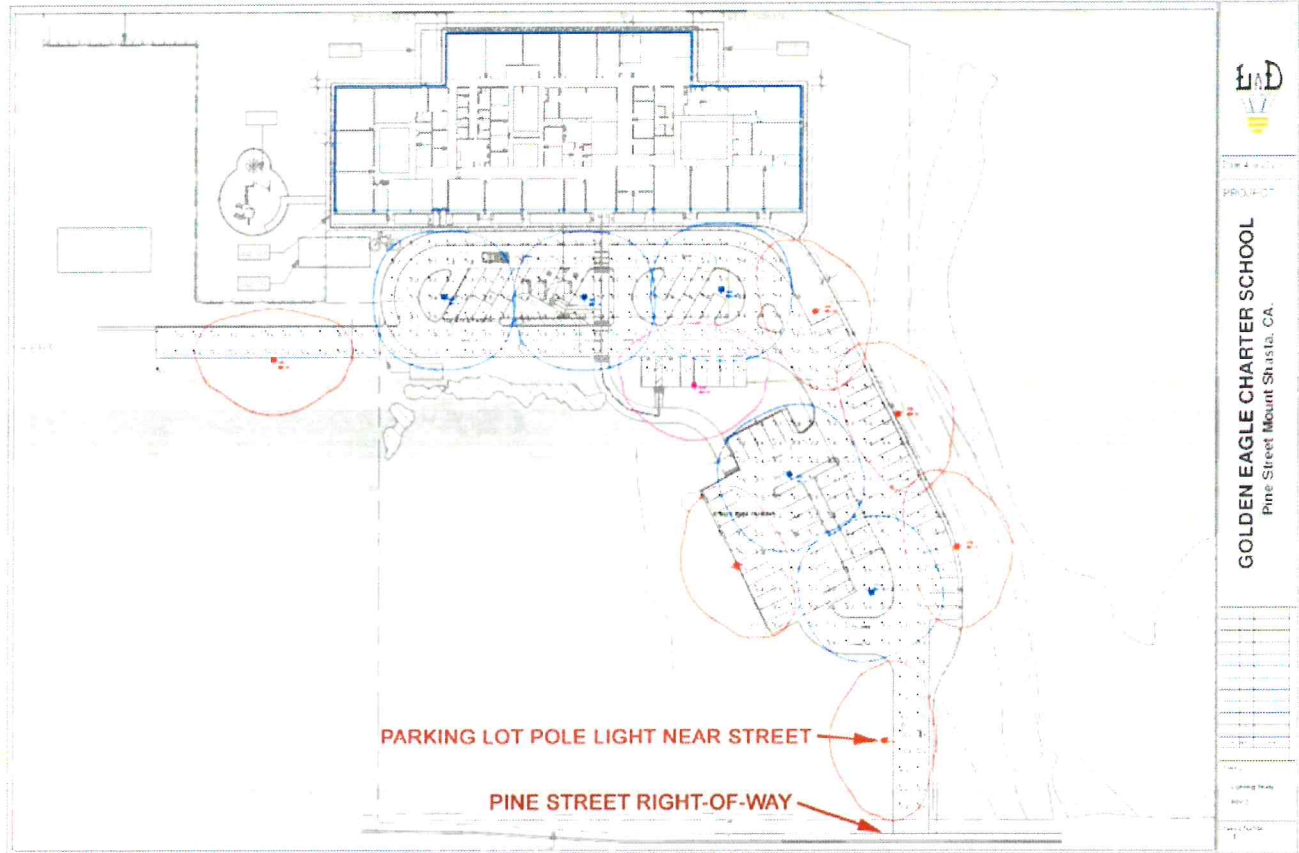
Golden Eagle previously in 2020 proposed excessively bright parking lot pole lighting when it applied to build its new school within the City of Mt. Shasta on Pine Street. A lighting study was then prepared for that school project. That Preliminary Lighting Plan (shown below), however, never revealed how bright the Project lighting would be when it creates lighting glare emitted from the building's exterior wall fixtures or exterior signage. That lighting plan only evaluated parking lot and driveway lighting levels. It also never evaluated how bright the reflected lighting will be on a snowy evening when excessive bright lighting levels will be further increased by reflected light bouncing off of white snow instead of darker colored ground cover or pavement.

Figure 3a –Golden Eagle’s 2020 Preliminary Lighting Plan for its Pine Street School Site.



(this preliminary lighting plan continues on the next page)

Figure 3b –April 9, 2020 Preliminary Lighting Plan for Golden Eagle’s Pine Street Site



Nor did that 2020 “Preliminary Lighting Plan” compare its computerized lighting levels for the parking lot to any thresholds of significance or standards for illuminance. CEQA requires such a study to explain in plain English its analysis of the interpretation of its technical information. Parking lot lighting levels as Golden Eagle proposed would have been too bright though, based upon recommendations from the International Dark Sky Association (ISDA). The County does not have its own threshold of significance for parking lot lighting levels, so according to CEQA, other standards are appropriate to reference here.

That previous 2020 GECS Preliminary Lighting Plan showed that the average lighting level in the proposed parking lot areas **would be about 4 to 8 times brighter than recommended by the ISDA.** This is a table from the first page of that Preliminary Lighting Plan above:

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts 1	Illuminance	Fc	2.87	15.5	0.1	28.70	155.00
LOWER AREA PARKING	Illuminance	Fc	2.97	15.0	0.2	14.85	75.00
TOP AREA PARKING	Illuminance	Fc	4.06	13.0	0.9	4.51	14.44

This table indicates the average brightness (illuminance, in footcandles) for Golden Eagle’s parking lot lighting would have been between 2.97 to 4.06 foot-candles. That lighting level is excessive, wasteful of energy, and harmful to neighbors. People do not need parking lot lighting to be that bright for safety at night. That number may not mean much to the average person, but it is excessive by

standards set by the International Dark Sky Association for parking lot illumination. Those IDSA standards recommend that public and private parking lots not exceed 0.8 and 0.5 foot-candles respectively.² Accordingly, if GECS installs what it proposed a few years ago for its previous school site, the new Project's average lighting levels would be from about **4 to 8 times brighter** than what the International Dark Sky Society recommends as a maximum illumination level. Exceeding such a well known lighting standard by that degree is evidence of a potentially significant lighting impact.

There is another lighting standard that can apply. The current GECS Project's lighting levels for the W.A. Barr Road site also would be too bright, if they followed their previous 2020 GECS application specifications, when compared to standards used by the Illuminating Engineering Society (IES) of an average 1.0 foot-candles for outdoor suburban parking lots.³ Since the previous Project lighting levels would have been between 2.97 to 4.06 foot-candles on average, and Golden Eagle may repeat now what it proposed at that former site, then its proposed lighting levels would still be between about **3 to 4 times brighter** than what the IES recommends. This is a fair argument supported by substantial evidence of this Project potentially having a significant lighting impact not revealed by the County in the Addendum to the MND.

The IES and its standards are relevant because the IES was referenced in GECS's previous Preliminary Lighting Plan. But that Preliminary Lighting Plan's *Disclaimer* section acknowledged that that lighting plan provided no guarantee of compatibility or suitability for that particular Mt. Shasta site. It instead left that up to the Project's architect or engineer. The previous Preliminary Lighting Plan, p. 2, *Disclaimer* stated:

"These lighting calculations are not a substitute for independent engineering analysis of lighting system suitability and safety. The engineer and/or architect is responsible to review for energy code and relevant lighting quality compliance."

In this current case for a new school along W.A. Barr Road, Golden Eagle's officials should have hired a professional architect to evaluate the brightness of its Project's lighting plan, or else the County should have evaluated its lighting impacts. Clearly that did not occur though. Nothing in the Addendum to the MND reveals that parking lot lighting levels could be very excessive for our relatively dark, rural community and this neighborhood.

² Source: International Dark-Sky Association: GUIDELINES FOR GOOD EXTERIOR LIGHTING PLANS, page 6, "Recommended Illumination Levels for various tasks;" **Recommended Average Illumination for Parking Lots:** (Public: **0.8 Fc**; Private: **0.5 Fc**) FOOTCANDLE: ("Fc") – Is the basic unit of illuminance (the amount of light falling on a surface). Footcandle measurement is taken with a hand held light meter. One footcandle is equivalent to the illuminance produced on one square foot of surface area by a source of one candle at a distance of one foot. Horizontal footcandles measure the illumination striking a horizontal plane. Footcandle values can be measured directly with certain handheld incident light meters.

<http://www.darksksociety.org/handouts/LightingPlanGuidelines.pdf>

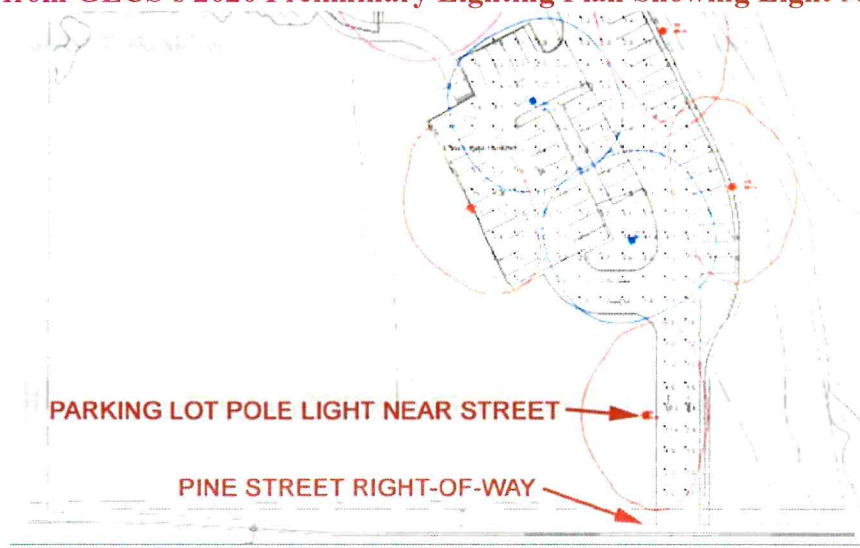
³ The IES lighting levels are found in the Footcandle Light Guide. It states that: "Footcandles are the most common unit of measure used by lighting professionals to calculate light levels in businesses and outdoor spaces. A footcandle is defined as the illuminance on a one square foot surface from a uniform source of light. The Illuminating Engineering Society (IES) recommends the following footcandle levels to ensure adequate illumination and safety for occupants. Below is a guideline for common areas to assist in achieving appropriate light levels with the greatest energy-efficiency." A copy of this lighting guide will be made available to County officials if requested; it is also available on the Internet at: https://www.lightingdesignlab.com/sites/default/files/pdf/Footcandle_Lighting%20Guide_Rev.072013.pdf

If Golden Eagle were to someday rely on CALGreen Code to reduce its lighting's glare impacts, that Code would not be sufficient. CALGreen Code section 5.106.8 (pertaining to Light Pollution Reduction) includes standards and restrictions for outdoor lighting systems. The intent of this requirement is to minimize light pollution in an effort to maintain dark skies and to ensure that newly constructed projects reduce the amount of backlight, uplight, light, and glare from exterior light sources. However, the light pollution reduction standards including glare impacts for lighting on building facades are exempt from the CalGreen light pollution code. That is one more reason why the Project's Addendum must actually disclose the various specific light reduction measures needed, rather than falsely claiming there would be no impact.

OVERLY BRIGHT POLE LIGHTING MAY CAUSE HAZARDOUS GLARE ALONG W.A. BARR ROAD.

Golden Eagle may install a parking lot pole lamp even closer to W.A. Barr Road than currently exists. A new overly-bright, excessively tall, and inadequately shielded pole light fixture there near the road could cause safety hazards to motorists or other people that does not currently exist. That very real risk could occur because, with a newly-configured double driveway intersecting with the road, Golden Eagle may need more driveway lighting there than did the previous church. The existing parking lot pole light (#1 in photo above) is about 100 feet from W.A. Barr Road. But that existing parking lot pole light is too far away to illuminate the driveway's intersection with the road. As shown on Golden Eagle's previously-proposed 2020 Preliminary Lighting Plan for its other Pine Street site, it then proposed a parking lot pole light at about half that distance from the road:

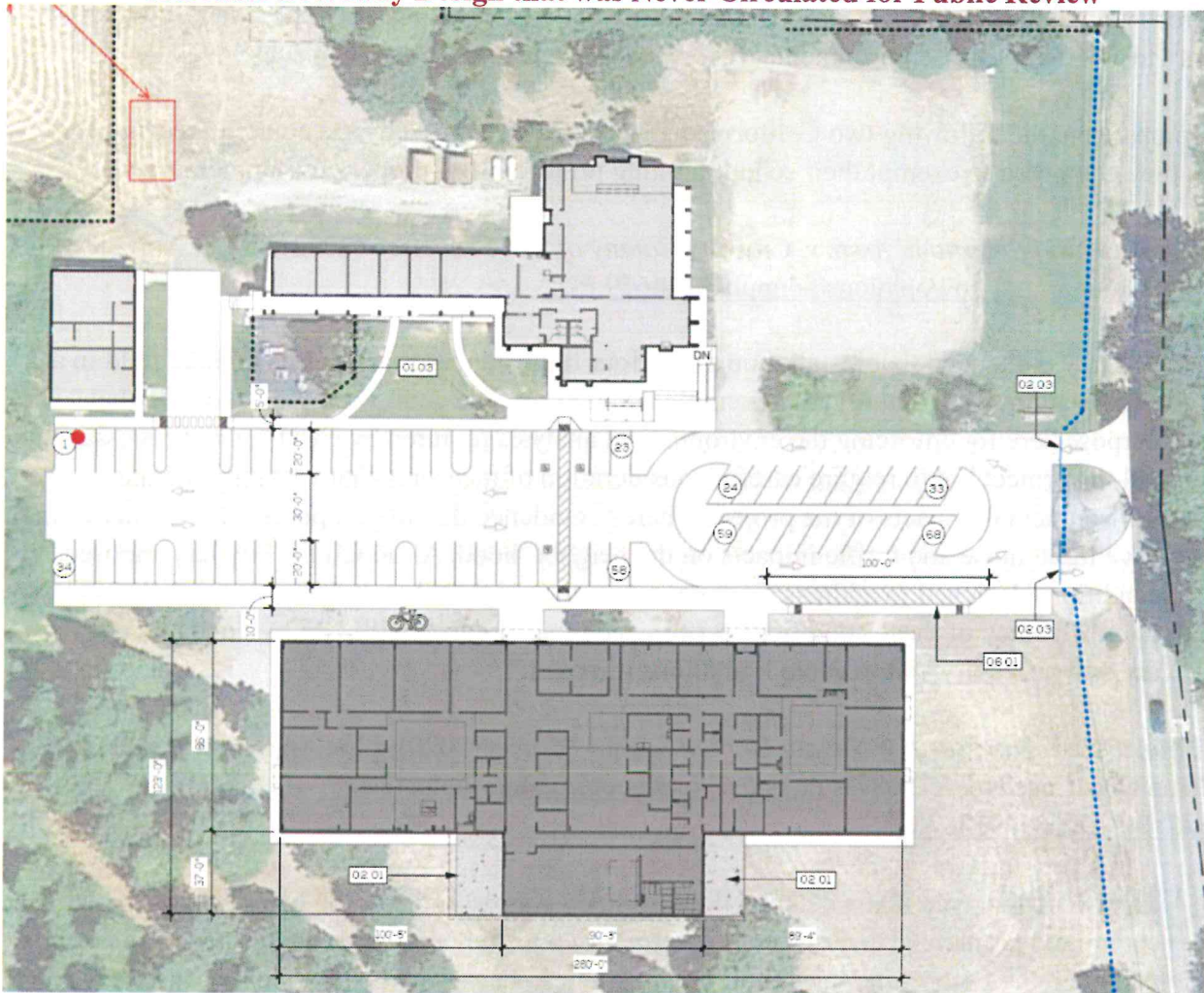
Figure 4 – Clip from GECS's 2020 Preliminary Lighting Plan Showing Light Near Street



On the next page is the final Site Plan that the Planning Commission approved for Golden Eagle's project. This Site Plan included for the first time two separate driveways for the school's access from W.A. Barr Road. New lighting will be needed for this driveway design at the road because this design poses traffic safety risks in the dark that were never evaluated within a licensed traffic engineer's report. For example, a north-bound motorist on W.A. Barr Road intending to turn into the school's northern driveway might cross paths with a vehicle or student exiting the southern driveway

and turning left.

Figure 5 - A Portion of the Site Plan for the Golden Eagle Charter School Project Showing A Double Driveway Design that was Never Circulated for Public Review



Feb. 6, 2024 Revised Site Plan – Exhibit H

CALIFORNIA COURT CASES HAVE EMPHASIZED THE NEED FOR PUBLIC REVIEW OF SCHOOL PROJECT LIGHTING IMPACTS.

The Planning Commission’s approval of the Golden Eagle Charter School Project violates CEQA because the conclusion in the Addendum to the MND of no significant lighting impact is not supported by any substantial evidence. My report above and these public comments provide a fair argument supported by substantial evidence from a qualified expert that such lighting impacts would be potentially significant. The photographic evidence of Golden Eagle’s signage lighting glaring at passing motorists at night is additional evidence that a significant lighting impact is already occurring, in that this clearly violates the County’s lighting standards. The County’s failure to require proper CEQA review of the school’s lighting impacts is grounds to overturn the Planning Commission’s approvals for this Project.

Not only is there no evidence to support the conclusion of no significant lighting impact in the Addendum to the MND. There is also direct evidence that this very same Project applicant, Golden Eagle Charter School, has previously attempted a few years ago to get approval for its very similar school project that would have had excessive outdoor lighting levels of perhaps 4 to 8 times brighter than recommended in lighting standards of credible lighting organizations. These facts compel the County to conduct proper environmental review of this school's lighting impacts.

For comparison, the following two California agencies were rebuffed by the courts in recent years when they attempted to exempt their school lighting projects from proper environmental review:

Saint Ignatius Neighborhood Assn. v. City and County of San Francisco (2022) 85 Cal.App.5th 1063
<https://www.courts.ca.gov/opinions/nonpub/A164629.PDF>

The city contended that installation of the four light standards around its athletic field in a dark location was categorically exempt from CEQA. The court disagreed and held that “The purpose here for enforcing the environmental analysis required by CEQA is not necessarily to kill the project but to require careful consideration of measures that will mitigate the environmental impacts of the project. There is evidence that the proposed light standards may have light, noise and traffic impacts on the neighborhood. Although the city has imposed conditions designed to address these concerns, the neighborhood citizens are entitled to have the sufficiency of these conditions scrutinized in accordance with CEQA standards and, if deemed necessary, enforceable limitations imposed.”

Coalition to Save San Marin v. Novato Unified School District (2020), First Appellate District, Division One, Case No. A156877. https://scholar.google.com/scholar_case?case=6124129968989128767

The Court also held that a detailed lighting study was essential to the EIR and that the District committed prejudicial error when it deferred such a study until after the Project's approval. Although the District included preliminary studies, these were insufficient because they were not open for public comment and lacked substantial evidence to support the District's conclusions regarding lighting impacts.

CONCLUSION

Since this Project's lighting impacts would be and already are significant in this scenic rural setting as described in this report, and these potential lighting impacts are not adequately mitigated, the Addendum to the MND is inadequate and an EIR must be prepared in order to comply with CEQA.

Sincerely,



Chris Marrone