



January 12, 2023

To: Garret Salus, Jody Gerhardt, Jonathan Lait
Planning and Development Services Department
City of Palo Alto

CC: Architectural Review Board, Planning Commission, City Council

Re: 3300 El Camino Real Office Project, Application #: 21PLN-00028

The Santa Clara Valley Audubon Society promotes the enjoyment, understanding, and protection of birds and other wildlife by engaging people of all ages in birding, education, and conservation. In the urban landscape, we focus on light pollution and bird safety as part of our interest in urban ecology and biodiversity. We appreciate the opportunity to comment on the 3300 El Camino Real Office Project. The Project proposes to construct a new two-story, 50,355 sf office/R&D project with 40% surface parking and 60% below-grade parking and a 2,517 sf amenity space.

1. Bird Safety

The project is located about 150 feet from the riparian corridor of Matadero Creek, and includes trees and vegetation that attract birds. The building consists of expansive surfaces of transparent glass. The location, plantings, and glass create a deadly combination of location-related and structure-related hazards for migratory and resident birds.

The Staff reports and the Mitigated Negative declaration do not include enough information to ensure compliance with the Palo Alto Comprehensive Policy L-6.3: "Encourage bird-friendly design." The Project renderings show glass walls at the ground floor and surrounding roof gardens, see-through glass elements,¹ and reflective glass areas. However, the Project plans² do not mention and provide no information on any bird-safety treatment. In conversation with staff and further research, we understand that the Conditions Of Approval include,

The project shall incorporate bird-safe glazing treatment that may include fritting, netting, permanent stencils, frosted glass, exterior screens, and physical grids placed on the exterior of

¹ See-through elements are glass elements where birds can see a flight path through a wall, a corner, or parallel walls

²

https://www.cityofpaloalto.org/files/assets/public/planning-and-development-services/new-development-projects/3300-el-camino/c7_3300elc_plan.pdf

glazing or UV patterns visible to birds. In some cases, bird-friendly treatment is invisible to humans. Vertical elements of the window patterns should be at least 1/4-inch-wide at a minimum spacing of 4 inches or have horizontal elements at least 1/8 inch wide at a maximum spacing of 2 inches. The applicant should reference the San Francisco Guidelines for Bird-Safe Buildings: <http://www.sf-planning.org/index.aspx?page=2506>.

It is not clear which parts and architectural elements of the structure are subject to this condition, and how it will be evaluated. For example - how is a “window” defined? Will bird safety glazing be required on the entire glazed facade? Will hazardous areas like corners, glazed areas near a green roof and other architectural elements be treated? The Mitigated Negative Declaration (MND) Does not address bird collisions, and provides no detail on how the condition of approval will effectively encourage bird safe design.

Palo Alto has yet to develop Program L6.3.1: “Develop guidelines for bird-friendly building design that minimizes hazards for birds and reduces the potential for collisions” Palo Alto seems to refer applicants to the San Francisco Guidelines for Bird-Safe Buildings.³ These guidelines were adopted in 2011 and have been generally appropriate for San Francisco – a dense City that has no surface creeks. Since then, some of the solutions that San Francisco allows have been shown to be ineffective and are no longer recommended. In addition, several Bay Area Cities have recognized the importance of creeks and riparian corridors in the urban/suburban landscape and require 90% of glass facades to be treated with effective glazing treatments for office buildings and other structures, especially if large expanses of glass are proposed, or the projects are within 300 feet of a water feature. Palo Alto should use Cupertino’s ordinance to ensure that the new development implements bird safe design measures⁴ and prohibits ineffective treatments, such as overhangs and UV glazing. Some Cities allow exemptions based on a biological opinion by a qualified biologist. Palo Alto did not require any biological opinion for the Project and provided ambiguous conditions for bird-safety glazing treatment.

Despite the acknowledgement⁵ that “*given the substantial amount of glazing present on the building, bird-safety glazing treatment is integral to the long-term function of the building and safety of birds travel near and around the site*”, the City’s requirements seem to fall short:

- The City’s condition of approval #8 requires the applicant to incorporate bird-safe glazing treatment, but provide a wide spectrum of implementation choices, including “*fritting, netting, permanent stencils, frosted glass, exterior screens, and physical grids placed on the exterior of glazing or UV patterns visible to birds*” (emphasis added). This direction includes an oxymoron, since UV treatments have been shown to be ineffective and invisible to birds, especially in the

³ <http://www.sf-planning.org/index.aspx?page=2506> and https://sfplanning.org/sites/default/files/resources/2019-09/Design%20Guide%20Standards%20for%20Bird%20Safe%20Bldgs_Final.pdf

⁴

<https://www.cupertino.org/our-city/departments/community-development/planning/non-residential-mixed-use-development/bird-safe-and-dark-sky>

⁵ Architectural Review Board Staff Report (ID # 14743), Oct 29, 2022

early morning and in the evening, when birds are active. UV treatments are also ineffective on cloudy days. Lastly, there are many bird species that cannot see treatments that the human eye cannot see, including hawks that are frequent victims of collision with glass in Palo Alto (SCVAS observations).

- The City requires “Vertical elements of the window patterns to be at least 1/4-inch-wide at a minimum spacing of 4 inches or have horizontal elements at least 1/8 inch wide at a maximum spacing of 2 inches, and refers the applicant to the San Francisco Guidelines for Bird-Safe Buildings⁶. The spacing of visual cues is good, but It is not clear what are the “vertical elements” that are required to implement such visual cues to birds. The Project plans show no bird-safety glass treatment on the hazardous curtain walls and large facades, near landscaping or green roofs, or on the Project’s see-through elements.
- Many cities in our region require 90% of glass facades to be treated with effective glazing treatments in areas within 300-ft of a “bird-activity area”, such as a creek or a park. In addition, hazardous architectural elements and see-through situations - especially where situated within 300-ft of a park, a creek or other bird activity areas - are discouraged, or require stronger bird-safety protection regardless of location (See Appendix A).

Please require specific and effective glazing treatments, including:

- Elimination of transparent, see-through and other hazardous architectural elements.
- Effective bird-safe glazing treatment to 90% of all glass surfaces. Please require glazing that achieves an American Bird Conservancy Threat Factor rating of no more than 15. A product database that offers rated glazing solutions is available online⁷.
- Prohibit UV glazing treatments, angled glass and overhangs from being considered bird-safety glazing treatments.

2. Lighting

In most species studied to date, including humans, the biological clock is synchronized by light. This mechanism evolved over millions of years in response to the daily and annual cycles of sunlight—day and night and their varying lengths that correspond to the change of seasons. Different species developed activity patterns that correspond to these changes in light intensity and daylength and developed anatomical, physiological and behavioral adaptations suitable for day or night activity and seasonality.

The transition to lighting with LED technology saves energy, maintenance requirements, and cost per lighting fixture, but it has introduced unprecedented light pollution into our environment, interfered with biological clocks of most organisms, and has shifted the spectrum of the light to a high blue-light

⁶ <http://www.sf-planning.org/index.aspx?page=2506>

⁷ <https://abcbirds.org/glass-collisions/resources/>

component. These changes have adverse impacts on human health, and devastating impacts to environmental health, ecosystems, and both migrating and resident birds, wildlife species, and even trees in the urban forest. Indeed, outdoor Artificial Light at Night disrupts human sleep and hormonal balance, thereby impacting physical and mental health. Outdoor light at night has been scientifically linked to many contemporary ailments including anxiety disorders, diabetes, various types of cancer and more.

Artificial Light at Night impacts plant and animal behavior from the individual level to ecosystem wide disruption. Reproduction, foraging, migration and seasonal dependencies lose ecological synchrony. Birds and insects are especially impacted, due to their (disruptive and often fatal) attraction to light. Migratory birds are attracted to lit environments, where they are increasingly susceptible to collision with man-made buildings. Insects, including many pollinators, are fatally “trapped” in artificial light.

Palo Alto’s lighting requirements are based on the State Green Buildings requirements, which primarily aim to save energy (but include some provisions to protect the night sky). The City code, however, does not limit the light that may emit from the building itself at night. Furthermore, Palo Alto does not set a limit on the Correlated Color Temperature of lighting fixtures, allowing the use of fixtures that emit harmful blue light in their spectrum.

Please require specific and effective lighting restrictions, including:

- Correlated Color Temperature of no more than 2700K for all outdoor installations
- Blinds to close after 11PM so that light in the building is not visible from outside the building.

3. IS/MND

The IS/MND is inadequate since it has not analyzed, discussed or mitigated the potential impact of bird collision.

- Please analyze and discuss the potential impact on bird collision, and provide adequate mitigation.

APPENDIX A: Cities’ requirements for bird safety treatment

NOTE: Cities that require bird-friendly (or birds-safe) design for buildings and other structures include San Francisco, San Jose, Cupertino, Mountain View, Sunnyvale, Burlingame and others.

NOTE: The following summary of Cities regulations reflects the elements of concern that are relevant/applicable to the 3300 El Camino Office Project’s transparent glazing elements. The summary does not include requirements for addressing highly reflective or mirror-like glass, and does not include specific requirements that are not applicable to office development.

1. City-wide and location Related Hazards

Several cities provide regulations throughout the urban landscape, whereas others address location-related hazards. Usually, location-related hazards include projects within 300-feet of park, open space, riparian corridor, hillsides, or a body of water. Some Cities consider the size of the natural/park/water feature in the requirements.

- a. **San Francisco** defines location-related hazards as those within, or at 300-feet of (if line of sight exists), areas that are 2-acres or more and dominated by vegetation, including vegetated landscaping, forest, meadows, grassland, or wetlands, or open water. In these locations, Bird-Safe Glazing Treatment is required such that the Bird Collision Zone, as defined below, facing the Urban Bird Refuge consists of no more than 10% untreated glazing. Bird Collision Zone are the portion of buildings most likely to sustain bird-strikes and includes: (i) The building façade beginning at grade and extending upwards for 60 feet, or (ii) Glass facades directly adjacent to landscaped roofs 2 acres or larger and extending upwards 60 feet from the level of the subject roof.
- b. **San Jose** requires bird safety treatment within 300-ft of a creek
 - i. Citywide⁸: For façades with more than 20 percent glazing within 60 feet of grade and located within 300 feet from a body of water, including creeks and vegetated flood control channels; or within 100 feet of a landscaped area, open space, or park larger than one acre in size, apply a bird safety treatment to at least 90 percent of the glazed areas within 60 feet of grade (required)
 - ii. Downtown⁹: Use a bird safety treatment on facades within 300 feet of a riparian corridor that have 50% or more glazed surface.
- c. **Mountain View**
 - i. Citywide: For Commercial/Mixed-Use, Bird safety is included in REACH Codes¹⁰: Bird-safe glass shall be installed on the exterior of the structure where the structure is \geq than 10,000 square feet or the applicable precise plan requires it.
 - ii. Precise Plans developed after 2020 include specific Bird Safe Design Standards. This includes East Whisman¹¹ and North Bayshore¹² Precise Plans. These plans require Façade Treatments - No more than 10% of the surface area of a building's total exterior façade shall have untreated glazing between the ground and 60 feet above ground.

⁸ <https://www.sanjoseca.gov/home/showpublisheddocument/69148/637520903552430000> section 3.3.6

⁹ <https://www.sanjoseca.gov/home/showpublisheddocument/38781/637268875547770000> section 4.4.2.b

¹⁰ <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=31899> MVCC 8.20.11 - 8.20.12 & Table 101.10

¹¹ <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=32005> section 3.11

¹² <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=38665> section 5.2

d. Cupertino

- i. Citywide: Façades of all projects subject to bird-safe development requirements shall have: a) No more than 10% of the surface area of the façade be untreated glass between the ground and 60 feet above ground, and b) No more than 5% of the surface area of the façade be untreated glass between 60 feet above ground and up.
- ii. Exemptions: The following are exempted from bird-safe treatment regulations: 1) Any historic structure; 2) First floor retail storefronts, up to a height of 15'; and, 3) Residential development in R1 zoning districts outside of Bird-Sensitive Areas.

e. Sunnyvale has guidelines that are implemented as a requirement.

- i. Within 300-ft of a body of water of one acre or more:
 - Avoid the use of multi-floor expanse of reflective or transparent glass in the first 60 feet of the building design, specifically in these area facing the water or open space;
 - Limit the amount of glass on ground level stories, especially in areas adjacent to landscaping;
 - Consider use of opaque, fritted or etched glass on the ground floor in areas adjacent to landscaped areas.

4. Architectural Element Feature-related Hazards

San Francisco

Feature-related hazards include free-standing glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments 24 square feet and larger in size. Feature-related hazards can occur throughout the City. Any structure that contains these elements shall treat 100% of the glazing on Feature-Specific hazards.

Glass walls adjacent to green roof

San Jose

- ii. Citywide: For non-residential uses, apply a bird safety treatment to glazed areas of any building façade with more than 10 percent glazing that is within 15 vertical feet and 20 horizontal feet of a **green roof or a vegetated courtyard**, within or outside of the development (required)
- iii. Downtown: Use a bird safety treatment on the facade of any floor of the building within 15 vertical feet of the level of and **visible from a green roof**, including a green roof on an adjacent building within 20 horizontal feet, if the facade has 50% or more glazed surface. (required)

f. Mountain View

- i. No special requirements since all glazing requires bird safety treatment

g. Sunnyvale

- i. Citywide: Reduce glass at top of building, especially when incorporating a green roof into the design

2. Hazardous Architectural Elements (See-through elements, corners, free-standing walls, glass skyways and other hazardous elements)

a. San Francisco

- i. Citywide¹³: 100% of building feature-related hazards shall be treated. Building feature-related hazards include free-standing clear glass walls, skywalks, greenhouses on rooftops, and balconies that have unbroken glazed segments 24 square feet and larger in size.

b. San Jose

i. Citywide:

- For non-residential uses, apply a bird safety treatment on areas of glazing within 10 feet of a building corner (required)
- Use a bird safety treatment on parallel panes of glass 30 feet or less apart, such as skyways, walkways, and other glass building connectors (required).
- Use a bird safety treatment on transparent atria, free-standing glass features, and glass architectural elements that protrude from the primary building mass. (required).
- Use a bird safety treatment on windows or other glazed areas through which landscaping, water features, or the sky can be seen through the glass (guideline).

- ii. Downtown: Use a bird safety treatment on areas of glass through which sky or foliage is visible on the other side of parallel panes of glass less than 30 feet apart (required).

c. Sunnyvale (Citywide)

- i. Prohibit glass skyways or freestanding glass walls
- ii. Avoid transparent glass walls coming together at building corners to avoid birds trying to fly through glass

d. Cupertino (Citywide)

- i. All projects shall: 1) Avoid the funneling of flight paths along buildings or trees towards a building façade; 2) Avoid use of highly reflective glass or highly transparent glass; and, 3) Not include skyways or walkways, balconies, freestanding walls, or building corners made of untreated glass or other transparent materials, or any other design elements that are untreated and

13

https://sfplanning.org/sites/default/files/resources/2019-09/Design%20Guide%20Standards%20for%20Bird%20Safe%20Bldgs_Final.pdf and

https://sfplanning.org/sites/default/files/documents/reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%202011-30-11.pdf page 30-31 Requirements for Feature-Related Hazards.

through which trees, landscape areas, water features or the sky are visible from the exterior or from one side of the transparent element to the other.

3. Lighting

a. San Jose

- i. Turn off decorative exterior lighting between 11:00 p.m. and 6:00 a.m. except during June, July, December, and January due to bird migration.

b. Sunnyvale (Citywide)

- i. Turn commercial building lights off at night or incorporate blinds into window treatment to use when lights are on at night;
- ii. Prohibit up lighting or spotlights;