



February 7, 2020

Fiona Phung
David J. Powers & Associates
1871 The Alameda, Suite 200
San José, CA 95126

Subject: CityView Plaza – Revised Avian Collision Risk Assessment (HTH #4390-01)

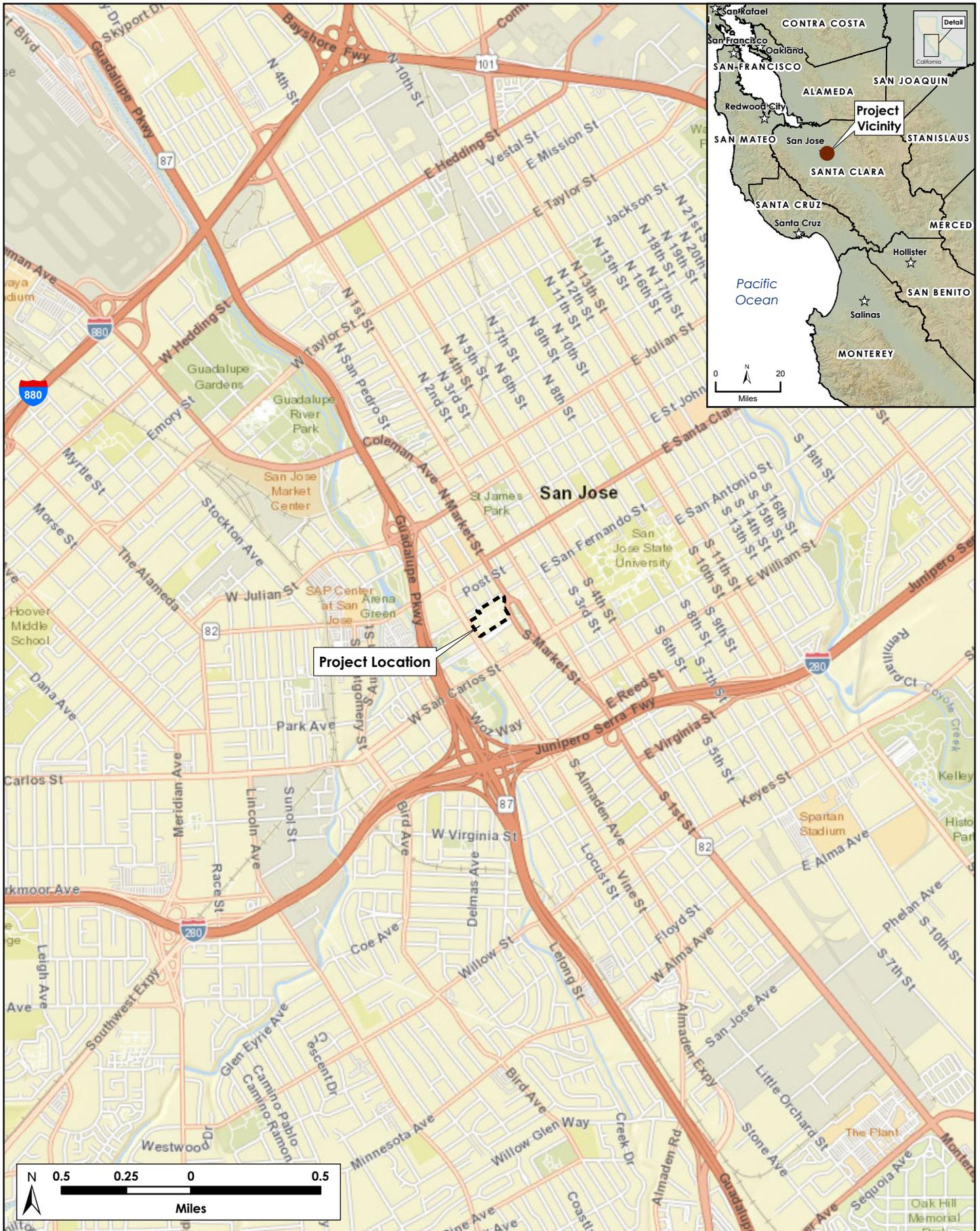
Dear Ms. Phung:

Per your request, H. T. Harvey & Associates has performed an assessment of avian collision risk for the proposed CityView Plaza project in San José, California. It is our understanding that the project entails the demolition of the existing structures on the site and redevelopment of the property with a new building consisting of three 19-story towers with 3.65 million square feet of office space, 15,400 square feet of retail space, and 40,000 square feet of active use/tenant-leasable space. We further understand that you are requesting our assistance with an analysis of potential bird collision issues related to the construction of the new building. This report evaluates potential project impacts related to bird collisions with the proposed new building, from the perspective of the California Environmental Quality Act (CEQA).

Project Location and Description

The approximately 8.1-acre project site is located at 150 Almaden Boulevard in San José, California (Figure 1). The site is bounded by West San Fernando Street to the northwest, Almaden Boulevard to the southwest, Park Avenue to the southeast, and commercial development and South Market Street to the northwest (Figure 2). Surrounding areas consist of a mix of high-density commercial and residential development in downtown San José. The Guadalupe River is located approximately 772 feet southwest of the site, and Plaza de Cesar Chavez Park is located opposite South Market Street from the site approximately 40 feet to the northeast.

The proposed redevelopment project entails the demolition of the existing buildings on the site and the construction of three new 19-story towers with 3.65 million square feet of office space. The towers will be connected by multistory bridges that extend from Level 5 to Level 19. A new ground floor plaza (referred to in sections as the west plaza, central plaza, and Market Street plaza on the project plans) will include 15,400 square feet of retail space and 40,000 square feet of active use - tenant leasable space. The plaza and new landscaping connect to San José's revised "Park Paseo" design for Park Avenue. Vehicular parking will be provided in a private below-grade three-level parking garage and two levels of valet stacker parking. Garage access will be via four driveways: one on Almaden Boulevard, two on West San Fernando Street, and one on



N:\Projects\4390\4390-01\Reports\Fig 1 Vicinity Map.mxd;mlg;arade

Figure 1. Vicinity Map

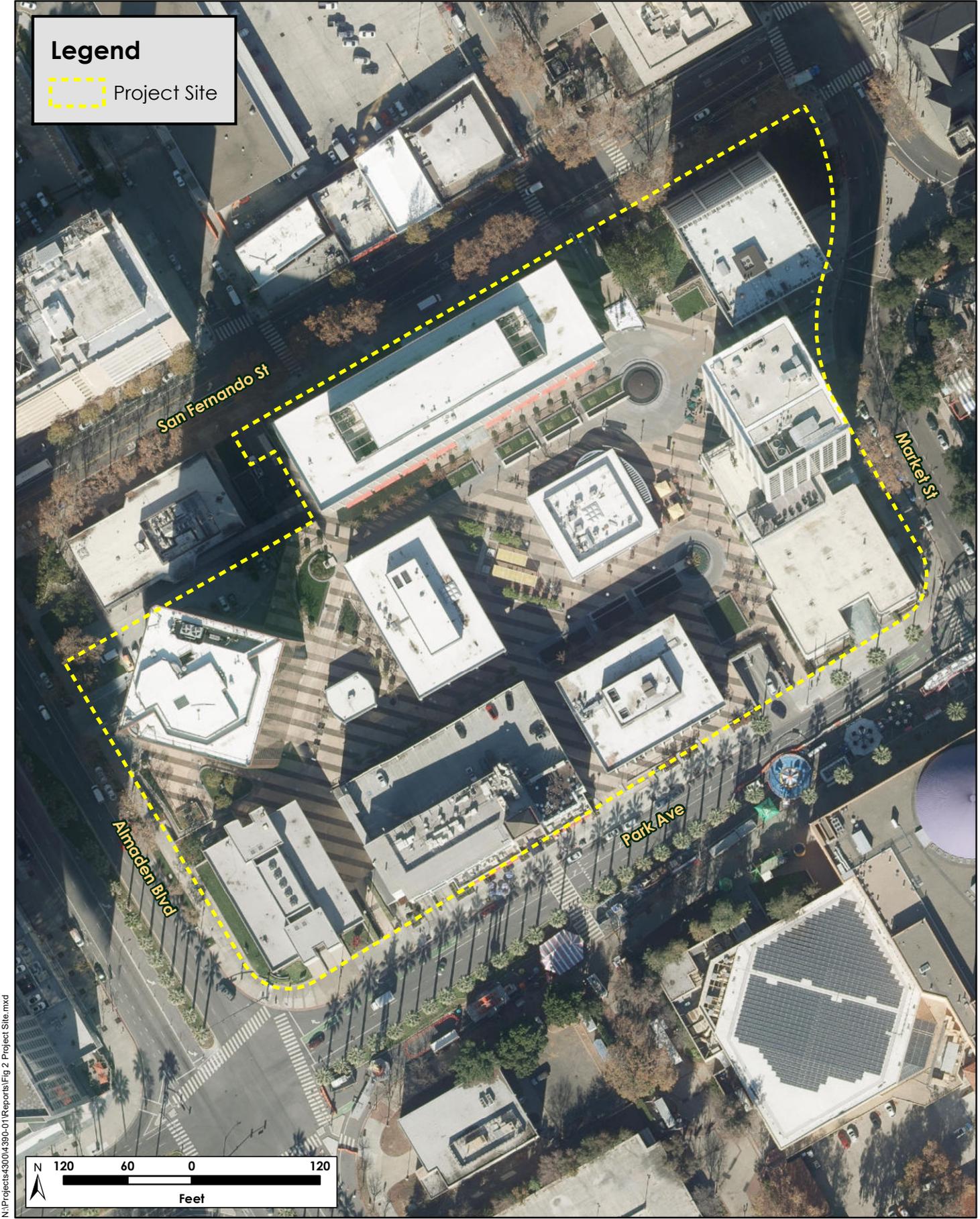
CityView Plaza Avian Collision Risk Assessment (4390-01)

December 2019



H. T. HARVEY & ASSOCIATES

Ecological Consultants



N:\Projects\4390\4390-01\Reports\Fig 2 Project Site.mxd

Legend

 Project Site

San Fernando St

Market St

Almaden Blvd

Park Ave



H. T. HARVEY & ASSOCIATES
Ecological Consultants

Figure 2. Project Site

CityView Plaza Avian Collision Risk Assessment (4390-01)
December 2019

Market Street. Delivery loading services will be provided via a driveway on Almaden Boulevard and a driveway on West San Fernando Street. Outdoor terraces will be provided on Levels 2–19 and designed by the future tenants. Demolition and construction will occur in phases to accommodate existing tenant leases.

Methods

Prior to conducting field work, H. T. Harvey & Associates ecologists reviewed aerial photos (Google Earth 2019), project plans provided by David J. Powers & Associates, environmental documents for nearby projects, including the *Museum Place Mixed-Use Project First Amendment to the Draft Supplemental Environmental Impact Report* (EIR) and the *200 Park Avenue Office Project Initial Study/ Addendum*, and avian collision risk assessments that we have previously prepared for other projects in the vicinity. Following our background review, I conducted a field survey of the project site on December 7, 2019.

For the bird collision hazard assessment, H. T. Harvey & Associates ornithologists assessed the suitability of habitat on the project site and in the immediate vicinity to support birds that might be present as breeders/permanent residents, migrants, and wintering birds. We also assessed how birds might use resources around the project site, including using vegetation or artificial structures as roost or nest sites or for cover from predators and the elements; obtaining food (such as invertebrate prey, fruit, or seeds) from vegetation; and obtaining anthropogenic food resources such as food waste. We assessed the potential for avian collisions with the façades of the proposed building, taking into account the location of the proposed buildings relative to food or structural resources (such as vegetation); the distance from the proposed glass façades to those resources; the potential for vegetation to be reflected in the glass façades; and the existing conditions of the façades of other buildings in the vicinity.

Because some new vegetation will be planted at CityView Plaza, future habitat conditions in the project vicinity will differ from existing conditions. Thus, we also considered the potential future use of the site by birds based on the conceptual drawings of the building (i.e., showing the locations of proposed vegetated areas), the surrounding land use, and existing/expected bird use of the site. We are familiar with the birds of the Guadalupe River and Plaza de Cesar Chavez Park in the vicinity of the site, and we drew on this knowledge in assessing bird use of the segment of river immediately adjacent to the site. To ensure that we were taking into account all available information, we also searched for bird observations on the internet to determine what birds others have seen in the vicinity of the site and nearby areas. We searched the archives of the “South Bay Birds” list (<https://groups.io/g/southbaybirds>) for observations in the site vicinity in San José. This internet list is used by the community of birders in Santa Clara County to report interesting bird observations. In addition, we searched the eBird database (<http://ebird.org/content/ebird/>), which has been established by the Cornell University Laboratory of Ornithology to archive records of birds seen worldwide, for records in the vicinity of the site.

Impacts from Avian Collisions with the New Building (Less than Significant with Mitigation)

Under existing conditions, terrestrial land uses and habitat conditions on the project site and in surrounding areas consist primarily of developed areas such as buildings (varying in height from one to 13 stories), parking lots, and roads. Vegetation in these surrounding areas is very limited in extent, and consists primarily of nonnative landscaped trees and shrubs. Nonnative vegetation supports fewer of the resources required by native birds than native vegetation, and the structural simplicity of the vegetation (without well-developed ground cover, understory, and canopy layers) further limits resources available to birds (Anderson et al. 1977, Mills et al. 1989). Thus, although a number of bird species will regularly use the vegetation on the project site and surrounding developed areas, they typically do so in low numbers, and particularly rare species or species of conservation concern are not expected to occur on the project site. As a result, the number of individual birds that inhabit and regularly use vegetation on the project site at any given time is relatively low under existing conditions.

Habitat conditions and bird occurrence in the immediate vicinity of the project site (i.e., on the site and on immediately adjacent lands) are typical of much of the urbanized San Francisco Bay area. The site consists of existing commercial buildings and hardscape lined with narrow, interrupted areas of landscaping. This landscaping is dominated by a variety of trees and shrubs, all of which are nonnative. These include London plane (*Platanus hybrida*), silver birch (*Betula pendula*), southern magnolia (*Magnolia grandiflora*), Japanese maple (*Acer palmatum*), honey locust (*Gleditsia triacanthos*), crape myrtle (*Lagerstroemia* sp.), ornamental pear (*Pyrus calleryana*), shiny xylosma (*Zylosma congesta*), flowering rosemary (*Rosmarinus officianalis*), raphiolepis (*Rhaphiolepis* sp.), boxwood (*Buxus* sp.), bamboo (*Phyllostachys* sp.), restio (*Restio* sp.), and New Zealand flax (*Phormium tenax*). Birds expected to use the vegetation on and immediately adjacent to the site include the native dark-eyed junco (*Junco hyemalis*), lesser goldfinch (*Spinus psaltria*), and Anna's hummingbird (*Calypte anna*), as well as the nonnative rock pigeon (*Columba livia*) and house sparrow (*Passer domesticus*). Birds that commonly occur at nearby Plaza de Cesar Chavez Park east of the site include year-round residents such as the acorn woodpecker (*Melanerpes formicivorus*), American robin (*Turdus migratorius*), house finch (*Haemorhous mexicanus*), and bushtit (*Psaltriparus minimus*), as well as migrants such as the cedar waxwing (*Bombycilla cedrorum*) and yellow-rumped warbler (*Setophaga coronata*) (Cornell Lab of Ornithology 2019). Birds that occur along the Guadalupe River to the west include year-round residents such as the lesser goldfinch and mallard (*Anas platyrhynchos*); summer-resident breeding birds such as the cliff swallow (*Petrochelidon pyrrhonota*) and northern rough-winged swallow (*Stelgidopteryx serripennis*); and migrants such as the cedar waxwing, yellow-rumped warbler, and ruby-crowned kinglet (*Regulus calendula*) (Cornell Lab of Ornithology 2019). Raptors are uncommon in downtown San José, but up to one pair of red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*Buteo lineatus*), and Cooper's hawks (*Accipiter cooperii*) may nest and forage in in the vicinity (especially along the Guadalupe River and at parks such as Plaza de Cesar Chavez) (Cornell Lab of Ornithology 2019). Some of these birds may occasionally occur on or immediately adjacent to the project site. For example, acorn woodpeckers are known to periodically cache acorns in the palm trees along Park Avenue, and migrating birds may occasionally forage in the ornamental vegetation on the site. However, no bird species are expected to occur on or immediately adjacent to the site in large numbers,

and all of the species expected to occur regularly are regionally abundant species. No special-status birds (i.e., species of conservation concern) are expected to nest or occur regularly on the site.

Under proposed conditions, based on the conceptual plans provided by David J. Powers & Associates, the site is not expected to provide habitat that is of substantially greater value to birds. Birds that occur on the site and in the vicinity will be attracted to trees and landscaped areas, and will primarily move between the small areas of landscaping on the site and in the surrounding vicinity. However, the relatively small numbers of these trees and plants, coupled with the lack of structural diversity and relatively open nature of the project (i.e., with paved pedestrian walkways), would not provide high-quality habitat for native birds. As a result, following project construction, the project site may support only slightly higher numbers of regionally common, resident and migrant urban-adapted bird species compared to existing conditions, but no major changes to the habitat in areas surrounding the project site, nor any substantial increases in bird abundance or diversity in the immediate site vicinity, are anticipated following project construction.

However, changes to landscaping along Park Avenue southeast of the site could improve habitat conditions for birds to some extent. The palm trees that line Park Avenue southeast of the site are undergoing relocation to Almaden Boulevard to the east. Park Avenue is part of the City's Paseo de San Antonio, which connects San José State University to Plaza de Cesar Chavez Park, and the City's future improvements to Paseo de San Antonio include demolition of the median, widening of sidewalks, and installation of canopy trees and outdoor seating¹. Plans for the City's improvements are not available; however, preliminary design drawings indicate that more trees will be planted along Park Avenue compared to existing conditions². The value of this new habitat to birds will depend on the species of trees and other vegetation planted along the paseo, as well as the extent, density, and structure of the vegetation. Regardless of the species and extent of vegetation used, higher numbers of birds are expected to be present along the paseo following the City's improvements compared to existing conditions due to the anticipated increase in number of trees and canopy cover. In addition, this new habitat will increase connectivity between Plaza de Cesar Chavez Park to the east and the Guadalupe River to the west, and birds traveling between these areas would be more likely to travel past the project site compared to existing conditions. However, habitat quality at Plaza de Cesar Chavez Park and along the Guadalupe River at Park Avenue is of relatively low quality compared to more extensive oak woodland and riparian habitats in the region, and although the number of birds traveling past the site is expected to increase as a result of the City's improvements, this increase in bird numbers is expected to be modest.

It has been well documented that glass windows and building façades can result in injury or mortality of birds due to birds' collisions with these surfaces (Klem et al. 2009, Sheppard and Phillips 2015). Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through

¹ <https://www.bizjournals.com/sanjose/news/2019/11/22/san-jose-park-avenue-palm-trees-removed.html>

² <https://www.cmgsite.com/project/park-paseo/>

glass to reach that vegetation. The greatest risk of avian collisions with buildings occurs in the area within 40–60 feet of the ground, because this is the area in which most bird activity occurs (Sheppard and Phillips 2015, San Francisco Planning Department 2011). Very tall buildings (e.g., buildings 500 feet or more high) may pose a threat to birds that are migrating through the area, particularly to nocturnal migrants that may not see the buildings or that may be attracted to lights on the buildings, but no buildings greater than 293 feet in height are proposed under the project.

As noted above, we expect that relatively low numbers of native, resident birds and occasional migrants occur in the project vicinity, but even during migration, the number of native birds expected to occur on the site will be low, relative to more natural areas in and around the Santa Clara Valley. As a result, the majority of the glass façades of the proposed building at CityView Plaza are expected to result in collisions by relatively few birds regardless of the project design. Further, several features of the architecture of the proposed building would reduce the potential for avian collisions. Based on the project plans, numerous non-reflective fins and mullions break up the glassy façades of the proposed building (Figure 3). These features would prevent the building from appearing as unbroken panes of glass, and would break up the reflection of the sky or vegetation within the glass considerably. As a result of these features, we expect that birds will be much better able to perceive this building as a solid obstruction to flight than if the glassy surface appeared more uniform.



Figure 3. View of the south façade of the CityView Plaza building. Fins and mullions break up the facades of the towers and make the building more visible to birds. However, the transparent glass bridges are a collision hazard because birds can see through to the other side of the bridge, and will collide with the glass when they attempt to fly through to the far side of the bridge.

We expect that some avian collisions with glass façades on the new building will occur, and there are some features evident in the project’s plans where bird collisions are more likely to occur compared to other locations

because they may not be as easily perceived by birds as physical obstructions. The greatest potential collision hazards on the building are the two large transparent glass bridges that connect the three towers (Figure 3). According to the renderings we were provided, these two bridges have much less densely spaced, and apparently much narrower, fins/mullions than the main buildings, and as a result, they would appear to birds as being mostly “open air” rather than a solid surface. When birds are flying in the vicinity, they are likely to perceive a direct flight path through these bridges, and would collide with the glass facades when they attempt to fly through to the other side of the bridges. In addition, the design of the building’s west and central plazas, which include rows of trees that extend inward from the street to the center of the site, is expected to attract birds, effectively funneling birds into the plazas where they are surrounded by glazing. Birds that are inside the plaza may collide with glazing surrounding the plaza for a number of reasons (several additional, less substantial collision hazards are discussed below); however, the risk of bird collisions with the bridges is especially high due to their large size (i.e., approximately 120 feet wide by 200 feet tall) and because birds may not perceive the glass on the bridges as a solid structure and may attempt to fly to vegetation, sky, or structures that are visible on the far side of the glass. Due to the planned landscaping improvements along the City’s Paseo de San Antonio, which provides connectivity between Plaza de Cesar Chavez Park and the Guadalupe River, as well as the close proximity of Plaza de Cesar Chavez Park to the site, enough birds are expected to be present in the site vicinity that collisions with the bridges could occur fairly frequently. As a result, the proposed bridges could potentially result in the mortality of sufficient numbers of birds, relative to the size of regional populations, and enough individuals of common bird species can potentially strike the bridges over the long term, to result in a significant impact according to CEQA, in our opinion. Mitigation Measure 1 below would incorporate bird-safe design elements into the design of these bridges, reducing this impact to a less-than-significant level.

Mitigation Measure 1. Implement Bird-Safe Building Design. Due to the potential for the two bridges that connect the CityView Plaza building towers to result in high numbers of bird collisions, the project will implement the following bird-safe building design considerations:

- All glazing on the facades of the two bridges will be low-reflectivity glazing (defined as 20% reflectivity or lower) to minimize reflections of the sky and vegetation in the bridge facades.
- If glazing on the two bridges is tinted or translucent so that it is not possible to see through from one side of the bridge to the other, then no glazing treatments will be necessary.
- If transparent glazing is used for the two bridges that connect the building’s three towers such that it is possible to see through from one side of the bridge to the other, all such glazing on the façades of the two bridges will be 100% treated with a bird-safe glazing treatment, as described below.
 - Bird-safe glazing treatments may include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of glazing, or ultraviolet patterns visible to birds. Vertical elements of the window patterns should be at least 1/4 inch wide at a maximum spacing of 4 inches, and/or horizontal elements at least 1/8 inch wide at a maximum spacing of 2 inches (Klem et al. 2009).

- The visibility of frit patterns on bird-safe glazing products is highly variable based on the glazing design (e.g., the glass surface on which the frit is placed, the color/tint of the glass, and the color of the frit), the frit type (e.g., sandblasted, acid-etched, or ceramic frit), and the production process (e.g., the pressure of sandblasting). If bird-safe glazing is used on the bridge and/or freestanding glass railings, a physical sample of the glazing will be evaluated by a qualified biologist to ensure that the proposed bird-safe glazing treatment is adequately visible to birds and will minimize bird collisions.

Examples of available bird-safe glazing products that would be appropriate to minimize bird collisions with the bridges are as follows:

- A list of effective architectural products that have been tested by the American Bird Conservancy is provided at <https://abcbirds.org/get-involved/bird-smart-glass/>. Additional products are listed in the American Bird Conservancy's threat score table for Leadership in Energy and Environmental Design Pilot Credit 55 at <https://abcbirds.org/wp-content/uploads/2016/03/ABC-LEED-Threat-table-2015.pdf>.
- Walters & Wolf is a local company based in Fremont, California that produces bird-safe glass: <https://www.waltersandwolf.com/>.

In addition to the two bridges connecting buildings, the plans indicate additional collision hazards. These include transparent glass corners with angles $\leq 90^\circ$; freestanding glass railings; extensive glazing on Levels 1, 2, and portions of Level 3; terraces on Levels 2–19, including a large terrace on Level 4 and terraces on the glass bridges on Levels 9 and 19 (no plans for these terraces are available, but tenants may design these terraces to include vegetation that may attract birds towards the building's glass facades); and sections of the east and west façades (wall type 3 on the project plans) with narrow mullions and no fins, which are more likely to be perceived by birds as unbroken panes of glass (Figures 3, 4, and 5). A number of these hazards are present around the building's west and central plazas, and because the design of these plazas is expected to funnel birds inward towards the building, collision risk with these hazards is higher in the plazas compared to other areas of the site. However, these collision hazards are much less extensive than the transparent bridges; due to the combination of overall low abundance of birds expected to be present on and immediately adjacent to the site, the limited extent of these potential collision hazards, and the mullions/fins that break up the glassy appearance of the facades on much of the building, we expect the frequency of collisions with these hazards and with the remaining areas of the building (i.e., all areas except the two bridges) to be low over the long-term relative to the regional populations of bird species that may occur on the site.



Figure 4. Extensive glazing is present on Levels 1, 2, and portions of Level 3 of the building, and the glazing on wall type 3 above the central walk on the building's east façade is more likely to be perceived by birds as unbroken panes of glass compared to other portions of the building.



Figure 5. Freestanding glass railings are proposed on the building's exterior terraces.

Further, although building collisions by some migrant songbirds are likely to occur, the majority of bird strikes is expected to be by resident species, both because the low-quality habitat on the site is more conducive to use by urban-adapted resident birds than by migrants and because resident birds would spend far more time near the proposed building than would birds that are migrating through the region. The resident species occurring on the project site are all common, urban-adapted species that are widespread in urban, suburban, and (for many species) natural land use types throughout the San Francisco Bay area. As a result, these species have high regional populations, and the number of individuals that might be impacted by collisions with the majority of the building (with the exception of the bridges connecting the building's three towers) would represent a very small proportion of regional populations.

There is some potential for certain common bird species with high vulnerability to collisions to occur on the project site and collide with the proposed building, as follows:

- Acorn woodpeckers are known to occur at Plaza de Cesar Chavez Park, which supports a number of native *Quercus* oak trees, and woodpeckers can be more vulnerable to collisions compared with certain other bird species (Sheppard and Phillips 2015). Acorn woodpeckers' diet consists primarily of *Quercus* acorns, other fruits, and invertebrates (Koenig et al. 1995); therefore, these birds primarily forage within the park where

acorns are present. Their territories contain at least one main storage tree or *granary* where acorns are stored, often one or more secondary granaries, a nest tree, and foraging areas (Gutiérrez and Koenig 1978). The territory of an acorn woodpecker family group may be up to 3.5–9 hectares in size (Scofield et al. 2010), but acorn woodpeckers collect the majority of their acorns within 100–150 meters (328–492 feet) of their primary granary (Scofield et al. 2010, Thompson et al. 2014). The woodpeckers in Plaza de Cesar Chavez Park have established several primary granaries in tall date palms (*Phoenix dactylifera*) near the southern end of the park. We observed evidence that these acorn woodpeckers periodically use other palms in the area as secondary granaries, including palms along Park Avenue adjacent to the project site. Although these palms are currently undergoing relocation to Almaden Boulevard to the east, acorn woodpeckers are expected to continue to make use of trees along Park Avenue in the future as secondary granaries, and potentially for foraging opportunities if *Quercus* oaks are planted along Park Avenue in the future. As a result, there is some possibility that acorn woodpeckers may collide with the proposed building in the future, especially with the building's east façade (which faces Plaza de Cesar Chavez Park) and south façade (which faces Park Avenue).

- Raptors can also be more vulnerable to collisions compared with certain other bird species (Sheppard and Phillips 2015). Red-tailed hawks and red-shouldered hawks occur in the vicinity primarily along the Guadalupe River and in larger open parks in the region, and are unlikely to be present on the site itself or collide with the proposed building. However, Cooper's hawks will forage in urban areas, and individuals of this species may forage on the site occasionally. Thus, there is some possibility that one or more Cooper's hawks may collide with the proposed building in the future.
- Migrating birds that can potentially occur on the site include cedar waxwings, which can potentially forage on the site and, similar to woodpeckers and raptors, are also more vulnerable collisions compared with certain other birds species (Klem 1989). Thus, as with acorn woodpeckers and Cooper's hawks, there is some possibility that cedar waxwings may collide with the proposed building.

Acorn woodpeckers, Cooper's hawks, and cedar waxwings are relatively common and widespread in the Bay area, with Cooper's hawks and cedar waxwings occurring throughout urban areas and acorn woodpeckers occurring in urban areas where communities of *Quercus* oaks are present. As a result, these species have fairly high regional populations; the number of individuals that might be impacted by collisions with the majority of the project building will be low and would thus represent a very small proportion of regional populations. As discussed above, the potential for these birds to collide with the bridges that connect the building's three towers would be higher, and over the long term this impact would potentially be significant under CEQA, in our opinion. The implementation of Mitigation Measure 1 below would incorporate bird-safe design elements into the building design to minimize the numbers of these birds that collide with the building over the long term. With the implementation of this measure, the project would not result in the loss of a substantial proportion of these species' Bay-area populations, and such an impact would be less than significant under CEQA.

The proposed building could be designed to be more bird-safe if the applicant voluntarily addresses the "additional" collision hazards identified herein with bird-safe design features. Recommendations are provided

below for the applicant's consideration that, while not necessary to reduce impacts to less than significant levels under CEQA, would reduce bird collisions with the building.

Recommendations

Due to the additional design elements discussed above that pose a risk to birds as well as the proximity of the proposed building to Plaza de Cesar Chavez Park and the City's Paseo de San Antonio, we have the following recommendations for the project applicant to consider:

- We expect bird collisions with the glass railings on the building's terraces where vegetation is present to occur more frequently than at other locations because vegetation that may attract birds will be placed behind transparent glass. The applicant should consider treating the glass railings in these areas with a bird-safe glazing treatment per the specifications provided in Mitigation Measure 1 above to make the glass more readily perceived as a solid structure to avoid.
- We expect bird collisions with transparent glass corners with angles $\leq 90^\circ$ to occur more frequently than at other locations because birds will perceive an unobstructed flight route through the glass and collide with the glass when attempting to fly to structures, vegetation, or sky on the far side of the corner. The applicant should consider treating transparent glass corners with angles $\leq 90^\circ$ with a bird-safe glazing treatment per the specifications provided in Mitigation Measure 1 above. If desired, this recommendation may be prioritized in areas where vegetation is present (e.g., at the ground level and at terraces), but treatment of all transparent corners would be beneficial.
- We recommend that low-reflectivity glazing (20% reflectivity or lower) be used throughout the building, especially on the east façade adjacent to Plaza de Cesar Chavez Park and on the south façade adjacent to the City's Paseo de San Antonio, to minimize reflections of sky and vegetation in the glass.
- We recommend that no vegetation be placed behind clear, extensive glass panels; if vegetation must be placed behind windows, the applicant should consider treating those panels with bird-safe design elements such as patterned glass.
- The project applicant should consider implementing a bird strike monitoring plan after the building is constructed to document whether there are bird collision "hotspots" (areas subject to a disproportionate number of collisions) on the building, and, if so, retrofit those hotspots (e.g., with internal blinds or patterning applied to the glass) to address the problem areas to reduce the number of bird collisions.

While these recommendations are not necessary to reduce project impacts to less than significant levels under CEQA, bird collisions with the building are expected to occur due to the building's extensive glazing, and these recommendations would help to minimize bird collisions with the building.

F. Phung
February 7, 2020
Page 13 of 14

Please feel free to contact me at (408) 722-0931 or srottenborn@harveyecology.com if you have any questions regarding this assessment. Thank you very much for contacting H. T. Harvey & Associates about this project.

Sincerely,

A handwritten signature in blue ink that reads "Robin Carle". The signature is written in a cursive style with a blue ink color.

Robin Carle, M.S.
Senior Wildlife Ecologist/Project Manager

References

- Anderson, B. W., A. E. Higgins, and R. D. Ohmart. 1977. Avian use of saltcedar communities in the lower Colorado River valley. Pages 128-136 in R. R. Johnson and D. A. Jones (eds.), Importance, preservation, and management of riparian habitats. USDA For. Serv. Gen. Tech. Rep. RM-43.
- Cornell Lab of Ornithology. 2019. eBird. <http://www.ebird.org>. Accessed December 2019.
- Gutiérrez, R.J. and W.D. Koenig. 1978. Characteristics of Storage Trees Used by Acorn Woodpeckers in Two California Woodlands. *Journal of Forestry* 76(3): 162-164.
- Klem, D. 1989. Bird-Window Collisions. *Willson Bulletin* 101(4): 606-620.
- Klem, D., Jr., C. J. Farmer, N. Delacretaz, Y. Gelb, and P. G. Saenger. 2009. Architectural and landscape risk factors associated with bird-glass collisions in an urban environment. *The Wilson Journal of Ornithology* 121(1):126-134.
- Koenig, Walter D., Peter B. Stacey, Mark T. Stanback and Ronald L. Mumme. 1995. Acorn Woodpecker (*Melanerpes formicivorus*), version 2.0. In *The Birds of North America* (P. G. Rodewald, editor). Cornell Lab of Ornithology, Ithaca, New York, USA. <https://doi.org/10.2173/bna.194>.
- Mills, G. S., J. B. Dunning, Jr., and J. M. Bates. 1989. Effects of urbanization on breeding bird community structure in southwestern desert habitats. *Condor* 91:416-429.
- San Francisco Planning Department. 2011. Standards for Bird-Safe Buildings. Planning Department. July 14, 2011.
- Scofield, D.G., V.L. Sork, and P.E. Smouse. 2010. Influence of Acorn Woodpecker Social Behavior on Transport of Coast Live Oak (*Quercus agrifolia*) Acorns in a Southern California Oak Savanna. *Journal of Ecology* 98: 561-572.
- Sheppard, C. and G. Phillips. *Bird-Friendly Building Design*, 2nd Ed. The Plains, VA: American Bird Conservancy, 2015.
- Thompson, P.G., P.E. Smouse, D.G. Scofield, and V.L. Sork. 2014. What Seeds Tell Us About Birds: A Multi-Year Analysis of Acorn Woodpecker Foraging Movements. *Movement Ecology* 2:12: 2-10.