Exhibit 4

CITY OF Alameda

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ALAMEDA, CA 94501

PETITION FOR APPEAL

Community Development • Planning & Building
2263 Santa Clara Ave., Rm. 190
Alameda, CA 94501-4477
alamedaca.gov
510.747.6800 • F: 510.865.4053 • TDD: 510.522.7538
Hours: 7:30 a.m.–3:30 p.m., M–Th

Please print clearly. This petition is hereby files as an appeal of the decision of the:

Planning Board, which
(Community Development Director/Zoning Administrator/Planning Board/Historical Advisory Board)

Granted/Approved for application
(Denied/Granted/Established Conditions)

a Design Review and Development Plan Amendment number PLN18-0381 File No. 2018-6292
(Application Type) (Application Number)

at 400-feet northwest of the corner of Harbor Bay Parkway and Bay Edge Road on Dec. 10, 2018
(Street Address) (2900 Harbor Bay Parkway) (Date of Action)

State the reasons or justification for an appeal (attach additional sheets if needed):

Each of the issues raised in the attached comment letters including but not limited to 1. Board incorrect that 1989 Development Agreement trumps CEQA requirements; 2. hotel is a different project than the project considered by 1974 EIR; 2. new formaldehyde issues not addressed; 3. new traffic issues not addressed; 4. new GHG emissions; and 5. new bird strikes and burrowing owl information. See attachments.

Appellant

Name: Laborers International Union of North America, Local Union 304 Phone: 510-836-4200

Address: c/o Michael R. Lozeau, Lozeau Drury LLP, 410 12th Street, Suite 250, Oakland, CA, 94607

Email: michael@lozeaudrury.com

Alameda Municipal Code (AMC) 30-25, Appeals and Calls for Review, provides that within ten (10) days a decision of the Community Development Director or Zoning Administrator may be appealed to the Planning Board, and decisions of the Planning Board or the Historical Advisory Board may be appealed to the City Council. In addition to the appeal process, decisions of the Community Development Director or Zoning Administrator may be called for review within ten (10) days to the Planning Board by the Planning Board or by the City Council and decisions of the Planning Board or the Historical Advisory may be called for review by the City Council or a member of the City Council.

Fees (must accompany this petition)

Single-Family or Duplex Residence: $250 plus time and materials cost up to $500, max $750.

Multi-Family Residential, Commercial, or Non-Residential: $350, plus time and materials costs up to $2,500, max $2,850

Michael R Lozeau
Appellant Signature

December 19, 2018
Date

Michael R. Lozeau, Attorney for LIUNA Local 304
Print name

FOR OFFICE USE ONLY

Received by: H Dong Receipt No.: 528120 Date Received Stamp

ATTACHMENTS

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December 7, 2018

Via E-mail

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Re: 2900 Harbor Bay Parkway - PLN18-0381, Harbor Bay Hospitality, LLC (December 10, 2018 Planning Board Hearing, Agenda Item 7-B; File # 2018-6059)

Dear Planning Board members and Messrs. Thomas and Dong:

I am writing on behalf of the Laborers International Union of North America, Local Union 304 and its members living in and around the City of Alameda ("LIUNA") regarding the above-referenced hotel project proposed for the parcel located at 2900 Harbor Bay Parkway along the shore of San Francisco Bay in Alameda. The proposed project includes the construction and operation of a 63-foot tall, 5-story, 172-room hotel on the 5.5 acre parcel. Staff claims that the potential environmental effects of the Project already have been fully addressed by the City's Harbor Bay Isle Environmental Impact Report certified in April 1974 ("1974 EIR"). Fundamentally, the proposed hotel is an entirely different project than the overall development plan reviewed in the 1974 EIR. The 1974 EIR has no informational value to the proposed hotel and is irrelevant to analyzing its environmental impacts. In addition, as proposed, the project is inconsistent with the development plan addressed in the 1974 EIR which states unequivocally that "[b]uildings will not … be closer than 100 feet from the shore." 1974 EIR, p. IV-232.

According to hotel design drawings, the front of the hotel facing the Bay will be significantly less than 100 feet from the Bay shore. *See* Project Plans, Sheet A8. Likewise, the 1974 EIR conceptually only mentions a total of 450,000 square feet of office space in the area zoned for business park. *See* 1974 EIR, p. IV-48. The square footage is at least at 1.2 million square feet and climbing, entirely inconsistent with the amount identified in in the 1974 EIR. Thus, not even tiering is allowed to review the hotel project as proposed. As a result, the hotel project must be reviewed as a separate project pursuant to the California Environmental Quality Act ("CEQA").

A number of highly qualified experts have reviewed the proposed hotel project and its environmental effects. Biologist Shawn Smallwood, Ph.D., traffic engineer Daniel Smith. Jr., P.E., and Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH have identified a number of significant impacts from the proposed hotel including wildlife, traffic, and air quality impacts, as well as omissions and flaws in the documents relied upon by staff. These comments are attached as Exhibits A through C. In addition, BAAQMD screening levels indicate the project will have significant greenhouse gas ("GHG") emissions. Local residents have articulated the project's profound visual impacts a five-story hotel building will have on their views of the Bay and access to the shoreline. Because the hotel project has never been reviewed pursuant to CEQA, this substantial evidence of significant impacts requires the preparation of an EIR for the hotel project.

Even assuming the hotel was considered in the 1974 EIR, "[n]ew information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete…, shows …[t]he project will have one or more significant effects not discussed in the previous EIR…." 14 Cal. Admin. Code § 15162(a)(3)(A). Likewise, the project has substantially changed from the Village I and zoning project addressed by the 1974 EIR and profound changes in the circumstances of the project have occurred requiring a comprehensive update of the 1974 EIR. 14 Cal. Admin. Code § 15162(a). Thus, whether the project is a new project distinct from the 1974 development plan or whether it was a considered part of that plan, the City must review with either a stand-alone or supplemental EIR the proposed hotel's impacts on the health of its workers from toxic air emissions of formaldehyde, on birds colliding into the building, on greenhouse gas emissions, on traffic and resulting air pollution emissions, and on people's views of and access to the adjacent San Francisco Bay.

Further, if the City insists on treating the project as being the same project as the 1974 development plan, the City must implement the mitigation measure set forth in the 1974 EIR and purportedly revised by the 1989 Addendum for Village V requiring that, "[i]n the event such technology becomes feasible, applicant should provide an electric car for each house sold in Village V as proposed in the HBI Master Plan for local Alameda trips, to mitigate air and noise impacts of traffic and reduce use of gasoline." 1989 Addendum, p. 4-23. *See* 1974 EIR, pp. I-12, I-20, p. IV-233 ("special electric cars which will be available to all residents"), p. I-21. There can be no serious argument at this date that electric vehicles are not feasible. There is substantial evidence that the hotel project by itself will have and the Bay Farm development generally is having significant GHG impacts. Likewise, Harbor Bay is having traffic impacts to which the proposed hotel will contribute. The electric car mitigation measure must be honored to address the unavoidable traffic, air quality and GHG impacts from the Harbor Bay development, including the proposed hotel.

In contrast to this evidence of environmental impacts from the hotel project, the obvious omission of any evaluation of a hotel project in the 1974 EIR, and the awareness of new impacts of which the City and the public were not aware in 1974, staff suggests that "[p]ursuant to CEQA Guidelines Section 15162, there have been no significant changes in circumstances that require revisions to the previously certified Harbor Bay Isle Environmental Impact Report" and that "[t]he proposed project is not likely to cause substantial environmental damage or substantially and avoidably injure endangered, rare, or threatened fish or wildlife or their habitat." Both of these assertions are incorrect and none of the reports prepared for the project address the significant impacts identified by Dr. Smallwood, Mr. Offermann and Mr. Smith. Nor do they give appropriate weight to the concerns expressed by many residents. As a result, an environmental impact report ("EIR") is required to analyze the project's impacts and to propose all feasible mitigation measures to reduce those impacts. We urge the Planning Board to decline to approve the project and the CEQA determination proposed by staff, and to instruct staff to prepare an EIR for the project prior to any project approvals. We reserve the right to supplement these comments during public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

DISCUSSION

I. THE HOTEL PROJECT WAS NOT ADDRESSED IN THE 1974 EIR AND IS A SEPARATE PROJECT FROM THE PROJECT ADDRESSED IN THE 1974 EIR.

A specific development project is not the same as an area plan. The development plan reviewed by the 1974 EIR consisted of a general plan identifying zoning areas for the Harbor Bay development and a specific proposal to build out one of five residential villages envisioned by the development. *See* 1974 EIR, p. I-1 – I-2. The project description found at the beginning of the EIR does not even mention the office park. *Id.* Only at page I-5 does the EIR begin to describe generally the proposed zoning for the office park, which it does so only in the most general terms:

> The 51 acres of land allocated for the administrative/professional office park complex will provide at least 450,000 square feet of net desirable office space. The intent is to provide professional service office space geared to convenient service to nearby residents.

1974 EIR, p. I-5. The only portion of the entire development that was presented in any detail was the first of five residential areas to be developed – Village 1. *See id.*, p. II-1. Any projects to be built within the area to be zoned commercial was only conceptual at the time of the 1974 EIR:

> The plan submitted to the City of Alameda by HBI Associates is for 640 acres of the 908.7-acre site and provides for a residential community with associated commercial, educational, and recreational activities, including a 51-acre site intended by the developer for professional administrative office activities.

1974 EIR, p. II-4. A developer's mere intention at the time does not amount to a specific project proposal beyond the zoning change. The plan as of the 1974 EIR was simply to rezone the 51 acre area for commercial development. *See id.*, pp. II-7 – II-8; IV-2. No specific proposals were evaluated as part of the 1974 EIR. Just blank spaces on the map were proposed. *Id.* Indeed, the 1974 EIR expressly states that any projects within the business park area were conceptual and not yet proposed:

> The 51 acres immediately northwest along the bay are proposed for development as an administrative-professional office park. It is presently zoned for residential use but the developer has requested a zoning change to C-M-PD. ***Plans for the development of this office park are not yet complete, but the concept is for structures of moderate density in a landscape setting***.

1974 EIR, p. II-19 (emphasis added). Likewise, in addressing the zoning change, the 1974 EIR could only surmise at the scope of office park development that might take place.

> The project also proposes to place 51 acres in an administrative and professional office park. It is estimated that the site could accommodate roughly 567,000 square feet of building area, of which about 450,000 would be usable office space. The ***intention appears to be*** to provide office space for small businesses and for professionals, such as dentists, doctors, lawyers, and others who would derive their trade primarily from residents in the development and in nearby areas. Demand for other types of office uses is not apparent.

1974 EIR, p. IV-48 (emphasis added). Indeed, the 1974 EIR notes the lack of any office demand in the Bay Farm area at the time and uses that fact to downplay any potential impacts from the rezoning of the business park area from residential to commercial. *Id.* ("If the land were not marketable as the developer intends, there would not, however, be any substantial adverse or other impacts on adjacent land in the project or on Alameda"). Thus, it is evident from the 1974 EIR, that the project reviewed in that document was Village 1 plus the zoning changes for the remainder of the site. It did not include any proposed office development, never mind any hotel projects on Bay Farm Island. Accordingly, staff cannot persist with the fiction that the potential environmental impacts of the proposed hotel already were addressed 44-years ago in the EIR prepared for Village 1 and zoning changes.

Because the original EIR did not evaluate any business park proposal but only, in part, the zoning change, the new proposed hotel is an entirely different project from that considered in the 1974 EIR. The proposed hotel is not a change to the 1974 EIR because neither the hotel specifically nor a business park as a whole was described in that 1974 EIR. Even if it were arguable that the hotel is changing any project described in the 1974 EIR, in order to be deemed the same project subject to CEQA's subsequent review provisions Pub. Res. Code 21166 and 14 Cal. Admin. Code § 15182, the prior EIR has to have some informational value. "If the original environmental document retains some informational value despite the proposed changes, then the agency proceeds to decide under CEQA's subsequent review provisions whether project changes will require major revisions to the original environmental document because of the involvement of new, previously unconsidered significant environmental effects." *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 952. It is clear from the above excerpts that the 1974 EIR, although pertinent to zoning the business park area as commercial, has no informational value or relevance to the currently proposed hotel or to the actual, physical business park that has been approved in piecemeal fashion over the years.

Although the proposed hotel is not the same project as was considered in the 1974 EIR, CEQA does provide for tiering the environmental review of a project from a prior EIR review to the extent some of the environmental impact analysis of the overarching plans would be applicable to considering impacts of this specific project. Thus, "[a]gencies are encouraged to tier the environmental analyses which they prepare for ***separate*** but related projects including general plans, zoning changes, and development projects." 14 Cal. Admin. Code § 15152(b). Just because tiering is appropriate does not mean that a specific development project is deemed to be the same project as the prior approved area plan or general plan:

> Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for ***a later project pursuant to or consistent with*** the program, plan, policy, or ordinance should limit the EIR or negative declaration on the ***later project*** to effects which:
>
> > (1) Were not examined as significant effects on the environment in the prior EIR; or
> > (2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

14 Cal. Admin. Code § § 15152(d) (emphasis added). Thus, the tiering provision expressly treats a later site specific development project as a separate project from the planning level decisions.

Additionally, when the tiering requirements are being employed by a lead agency, the agency is expressly limited to preparing either an EIR or a negative declaration.

> A ***later EIR shall be required*** when the initial study or other analysis finds that the later project may cause significant effects on the environment that were not adequately addressed in the prior EIR. A ***negative declaration shall be required*** when the provisions of Section 15070 are met.

14 Cal. Admin. Code § § 15152(f) (emphasis added). Although tiering does relieve the lead agency from having to revisit effects of the newer project that were in fact addressed in the prior program-level EIR, it does not eliminate site specific analyses or the need to prepare either an EIR or negative declaration subject to CEQA's public notice, review and hearing requirements. Moreover, by requiring at least a negative declaration when Section 15070's requirements are met, the tiering procedure expressly incorporates CEQA's fair argument standard. Section 15070 provides:

> A public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:
> (a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
> (b) The initial study identifies potentially significant effects, but:
> (1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
> (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

14 Cal. Admin. Code § 15070. There is no authority to use an addendum to another project's EIR in order to tier from that prior program EIR for a specific development project. Hence, the numerous addenda that have been prepared by the City to the 1974 EIR since that time have no bearing on the need for preparing an EIR for the proposed hotel. If, in the end, the City is not presented with substantial evidence of a fair argument that the Project may have a significant environmental effect, it must at least prepare a negative declaration.

Important to the proposed hotel project is the rule under CEQA that a project's environmental review cannot rely on tiering "when the later project is inconsistent with the program, plan, policy, or ordinance for which a prior EIR was prepared." Where a project is inconsistent with the project reviewed in the prior EIR it is outside the scope of the prior review. *See Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307. *See also* Kostka & Zischke, Practice Under the California Environmental Quality Act, ¶ 10.7.

Thus, in regard to the hotel, even assuming it was a project reviewed by the 1974 EIR, it is inconsistent with at least two substantial components of the 1974 zoning project. First, the 1974 EIR discusses potential visual impacts of the zoning changes (though no particular building project). The EIR provides that:

> One of the distinguishing characteristics of the site for the present residents of Bay Farm Island is the view of the bay and San Francisco beyond. At full project development that view will be diminished by the dwelling units to be built and the industrial park now planned. ***Buildings will not, however, be closer than 100 feet from the shore***.

IV-232 (emphasis added). Sheet A1 for the proposed hotel depicts the footprint of the hotel in relation to the Bay shore. The drawing depicts a "contour line at elevation 103" but does not define what this line is intended to depict. It would appear to be the mean high tide line which would reasonably identify the Bay shore consistent with the jurisdiction of the Bay Conservation and Development Commission ("BCDC"). The measurements on the plan indicate that the proposed building will be within 100 feet of the shore. As a result, the proposed building is inconsistent with a basic parameter set forth for the development plan considered by the 1974 EIR.

Likewise, the 1974 development plan estimated the amount of office space that would possibly be included in the 51-acre area proposed to be zoned as a commercial business park. Although only a concept at the time, the EIR "estimated that the site could accommodate roughly 567,000 square feet of building area, of which about 450,000 would be usable office space." 1974 EIR, p. IV-48. Only that concept was addressed, if at all, in the 1974 EIR. The amount of office space in the business park has now ballooned to an amount greatly in excess of the project discussed in the 1974 EIR. Even as of 19 years ago in the 1989 Addendum to the 1974 EIR, the City determined that as of December 1988, "[a]pproximately 1.2 million square feet of office and R&D space has been completed in the Business Park." April 1989 Addendum, p. 1-6. Hence, the addition of a 113,000 square feet hotel is well beyond the concept addressed in the 1974 EIR and is entirely inconsistent with the relatively modest office space contemplated at the time.

For these reasons, even tiering to the 1974 EIR is not appropriate for the proposed hotel project and it must be evaluated on its own as a separate project under CEQA.

II. AN EIR MUST BE PREPARED FOR THE PROPOSED HOTEL BECAUSE THERE IS SUBSTANTIAL EVIDENCE OF A FAIR ARGUMENT THAT THE PROJECT MAY HAVE ONE OR MORE SIGNIFICANT ENVIRONMENTAL IMPACTS.

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." *Communities for a Better Env't v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 ["CBE v. SCAQMD"], citing, *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505. "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code ["PRC"] § 21068; see also 14 CCR § 15382. An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." *No Oil, Inc., supra*, 13 Cal.3d at 83. "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." *Communities for a Better Env't v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].

The EIR is the very heart of CEQA. *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927. The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." *Bakersfield Citizens,* 124 Cal.App.4th at 1220. The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." *Laurel Heights Improvements Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392. The EIR process "protects not only the environment but also informed self-government." *Pocket Protectors*, 124 Cal.App.4th at 927.

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." PRC § 21080(d); see also *Pocket Protectors*, 124 Cal.App.4th at 927. In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs.§ 15371), only if there is not even a "fair argument" that the project will have a significant environmental effect. PRC, §§ 21100, 21064. Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." *Citizens of*

Lake Murray v. San Diego (1989) 129 Cal.App.3d 436, 440. A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and...there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." PRC §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331. In that context, "may" means a reasonable possibility of a significant effect on the environment. PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors, supra*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. 14 CCR § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-15; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602. The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. *Pocket Protectors,* 124 Cal.App.4th at 928. An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

Kostka & Zishcke*, Practice Under CEQA*, §6.29, pp. 273-274. The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with a preference for resolving doubts in favor of environmental review." *Pocket Protectors,* 124 Cal.App.4th at 928. As a matter of law, "substantial evidence includes . . . expert opinion." Pub.Res.Code § 21080(e)(1); 14 Cal. Code Regs. § 15064(f)(5). CEQA Guidelines demand that where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the environmental effects to be significant and prepare an EIR. 14 Cal. Code Regs. § 15064(f)(5); Pub. Res. Code § 21080(e)(1); *Pocket Protectors*, 124 Cal.App.4th at 935.

A. There Is Substantial Evidence of a Fair Argument That the Hotel Project's Emissions of Formaldehyde to the Air Will Have Significant Health Impacts on Future Employees.

Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the proposed hotel project and relevant documents regarding the Project's indoor air emissions. Indoor Environmental Engineering Comments (Oct. 29, 2018) (Exhibit A). Mr. Offerman concludes that it is likely that the Project will expose future workers employed at the hotel to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is one of the world's leading experts on indoor air quality and has published extensively on the topic. *See* attached CV.

Mr. Offermann explains that many composite wood products typically used in hotel construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential and hotel building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." Offermann Comment, p. 3.

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that full-time workers at the hotel project will be exposed to a cancer risk from formaldehyde of approximately 18.4 cancers per million. Offermann Comment, p. 4. This is almost double the Bay Area Air Quality Management District ("BAAQMD") CEQA significance threshold for airborne cancer risk of 10 cancers per million. *See* Exhibit D. Mr. Offermann states:

> With respect to this project, Marriott Residence Inn, located at 2900 Harbor Bay Parkway, Alameda, CA, since this is a hotel, guests are expected to have short-term exposures (e.g. less than a week), but employees are expected to experience longer-term exposures (e.g. 40 hours per week, 50 weeks per year). The longer-term exposures for employees is anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residences and hotels.

Offermann Comments, pp. 3-4. Mr. Offermann concludes that this significant environmental impact should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. *Id.*, pp. 4. Mr. Offermann identifies mitigation measures that are available to reduce these significant health risks, including the installation of air filters and a requirement that the applicant use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins in the buildings' interiors. Offermann Comments, pp. 11-12.

When a project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes a fair argument that the project will have a significant adverse environmental impact and an EIR is required. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. *See, e.g. Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 (County applies BAAQMD's "published CEQA quantitative criteria" and "threshold level of cumulative significance"). See also *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ("A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"). The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ("As the [South Coast Air Quality Management] District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact"). Since expert evidence demonstrates that the Project will exceed the BAAQMD's CEQA significance threshold, there is a fair argument that the Project will have significant adverse impacts and an EIR is required.

The City has a duty to investigate issues relating to a project's potential environmental impacts, especially those issues raised by an expert's comments. *See Cty. Sanitation Dist. No. 2 v. Cty. of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98 ("under CEQA, the lead agency bears a burden to investigate potential environmental impacts"). In addition to assessing the hotel project's potential health impacts to workers, Mr. Offermann identifies the investigatory path that the City should be following in developing an EIR to more precisely evaluate the hotels' future formaldehyde emissions and establishing mitigation measures that reduce the cancer risk below the BAAQMD level. Offermann Comments, pp. 5-9. Such an analysis would be similar in form to the air quality modeling and traffic modeling typically conducted as part of a CEQA review.

The failure to address the project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA*"). At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme

Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. *CBIA*, 62 Cal.4th at 800-801. However, to the extent a project may exacerbate existing adverse environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. *Id.* at 801 ("CEQA calls upon an agency to evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present"). In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on ***a project's users or residents*** that arise ***from the project's effects*** on the environment." *Id.* at 800 (emphasis added).)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the hotel project. Employees will be users of the hotel. Currently, there is presumably little if any formaldehyde emissions at the site. Once the project is built, emissions will begin at levels that pose significant health risks. Rather than excusing the City from addressing the impacts of carcinogens emitted into the indoor air from the project, the Supreme Court in *CBIA* expressly finds that this type of effect by the project on the environment and a "project's users and residents" must be addressed in the CEQA process.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings,* either directly or indirectly.'" *CBIA*, 62 Cal.4th at 800 (emphasis in original). Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." *Id.*, citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d). It goes without saying that the hundreds of future employees at the project are human beings and the health and safety of those workers is as important to CEQA's safeguards as nearby residents currently living adjacent to the project site.

Mr. Offermann also notes that the high cancer risk that may be posed by the hotel project's indoor air emissions likely will be exacerbated by the additional cancer risk that exists from the project's location near the Oakland Airport and Port of Oakland and the high levels of PM2.5 already present in the ambient air. Offermann Comments, pp. 10-11. No analysis has been conducted of the significant cumulative health impacts that will result to employees working at the proposed hotel.

Because Mr. Offermann's expert review is substantial evidence of a fair argument of a significant environmental impact to future users of the project, an EIR must be prepared to disclose and mitigate those impacts.

B. The Traffic Analysis Prepared for the Proposed Hotel Is Not Substantial Evidence of No Traffic Impacts Because It Leaves Out Key Intersections Most Likely to be Adversely Affected by the Project's Traffic.

Traffic Engineer Dan Smith has reviewed the Transportation Impact Analysis ("TIA") prepared by Abrams Associates dated November 14, 2018. Although Mr. Smith had no concerns with the analysis conducted for the intersections addressed in the report, he explains that the TIA does not fully resolve the hotel project's potential traffic impacts because it leaves out critical intersections that will be affected by traffic to and from the project. As Mr. Smith explains:

> The problem is that the analysis only focuses on intersections within the Harbor Bay Island portion of Alameda close to the Project site. It fails to consider potential traffic impacts on the major gateway intersections to Harbor Bay Island where there is large concentration of traffic and where traffic impacts would be more consequential than at the intersections the TIA studied. Four of the five intersections studied involve intersections of key circulation roads with minor cross streets with only the cross streets controlled by stop signs. Among the gateway intersections that should have been studied are Otis with Fernstein, Doolittle with Island / Otis, Doolittle with Harbor Bay Parkway, Doolittle with Hegenberger, Doolittle with Airport Access Road, Airport Access Road with 98th Avenue and Airport Access Road with Hegenberger.

Smith Comments, p. 1 (Exhibit B). This substantial omission from the traffic analysis is substantial evidence of a fair argument that the hotel project may have significant individual and cumulative traffic impacts.

C. There Is Substantial Evidence of a Fair Argument That the Hotel Project Will Have a Significant Adverse Impact on Wildlife Resulting From Numerous Collisions of Birds, Including Sensitive Species, With the Building's Windows.

Despite the recent attention by the City and others of the massive environmental impact of bird collisions with building windows, no effort is made by staff to consider the impacts of the proposed hotel on birds despite the project's location on the edge of San Francisco Bay. Dr. Shawn Smallwood has reviewed this impact of the project as well as the report prepared regarding wildlife at the proposed site. Dr. Smallwood's evaluation provides substantial evidence that the project will have significant individual and cumulative adverse impacts on birds foraging and flying through the area. Dr. Smallwood's comments and CV are attached as Exhibit C.

During a three hour visit to the site on November 16, 2018, Dr. Smallwood identified 22 species of wildlife on and adjacent to the site. Dr. Smallwood was impressed with the amount of wildlife relying on this site:

> An inescapable impression was the abundance of wildlife on site. High densities of mourning doves, house finches and killdeer crowded together on site. Everywhere I looked there were hordes of mourning doves pecking at the ground while walking along with house finches, white-crowned sparrows and killdeer, often flushing and relocating in reaction to people walking along the trails on the west side, often with leashed dogs.

Smallwood Comments, p. 2. Dr. Smallwood notes the incremental development of the shoreline of Bay Farm Island has left very little undeveloped habitat on Bay Farm adjacent to the open Bay waters, incrementally forcing the once incredible concentration of bird life that was found here in 1973 to a few parcels. As Dr. Smallwood explains, "One of the greatest concentrations of shorebirds in the world has been reduced to a desperate avian foothold upon a 5.5-acre patch of upland that bridges a constructed lagoon and the Bay." *Id.*, p. 7. As habitat has been reduced on Bay Farm, the importance of each undeveloped parcel has become ever more important to the bird species in the area, as evidenced by the concentration of birdlife at and near the site observed by Dr. Smallwood.

Dr. Smallwood identifies a number of serious impacts the project will have on birdlife. First and foremost is the fact that many birds will collide with the five-story, window-clad building located at the edge of San Francisco Bay. Smallwood Comments, pp. 13-21. Although initially identified as a concern by a lone scientist in a paper published in the late 1970s, only in the last few decades has the problem of bird collisions with buildings become common knowledge. Indeed, only last month did the City of Alameda take steps to incorporate policies into its municipal code intended to implement some measures intended to hopefully reduce bird collisions for certain new buildings in the City. Despite this attention, no analysis of this serious impact has been prepared for the project. Nor was this issue addressed at all by the 1974 EIR, not having come to light until some years later.

One of Dr. Smallwood's specialized areas of expertise is the effect of human structures on wildlife, in particular bird strikes or collisions with buildings, wind turbines, transmission lines, and other features. In his comment on this project, Dr. Smallwood has evaluated the available studies of rates of bird strikes with buildings. Dr. Smallwood calculates that, based on that available data, the expected mean average of bird strikes with the proposed five-story hotel covered with windows is about 337 strikes per year. Smallwood Comments, p. 17. Applying a 95 percent confidence level, Dr. Smallwood estimates that the range of bird collisions would be from 7 to 2,100 bird deaths per year from this building. *Id.* Over a 50-year lifetime for the project, Dr. Smallwood estimates that, "[a]fter 50 years the toll from this average annual fatality rate would be 16,850 bird deaths, with an empirically founded upper-end possibility of 105,050 deaths." *Id.* Some of these species would be sensitive species, including the fully protected brown pelican.

These many bird deaths do not happen in isolation. As Dr. Smallwood notes,

> The existing conditions – the developed area – is undoubtedly killing many birds each year. Not only are windows killing many birds, but so too are house cats, feral cats, electric distribution lines, electric power poles, and autos. This said, the proposed project will add a level of impact that is entirely missing from the CEQA review. Constructing a five-story building will not only take aerial habitat from birds, but it will also interfere with the movement of birds in the region and it will result in large numbers of annual window collision fatalities.

Smallwood Comments, p.16.

Dr. Smallwood's observations of the site and the surrounding area also indicate that the project likely will pose a significant impact on wildlife movement from the Bay shore to the upland area as well as to the nearby lagoon. As Dr. Smallwood states:

> Not only would the project remove what must now be critically important stop-over habitat (Runge et al. 2014, Taylor et al. 2011, Warnock 2010), but it would replace the open space with a building posing as another barrier to movement through the area by migratory or dispersing volant wildlife. The earlier EIR (City of Alameda 1973, 1989) also neglected to address the project's impact on wildlife movement in the region.

Smallwood Comments, p. 13.

Dr. Smallwood also has reviewed the more recent survey conducted by Monk & Associates on September 10, 2018. Dr. Smallwood points out that the Monk survey was not a detection survey and, hence, does not provide substantial evidence of the absence of any particular species from the site, including for example burrowing owls. Dr. Smallwood explains:

> Monk & Associates (2018) surveyed the site on 10 September 2018, but that survey was a preconstruction survey, not a detection survey. Detection surveys are designed for supporting species absence determinations, whereas preconstruction surveys are intended to follow up on detection surveys just prior to construction; preconstruction surveys are intended to detect the readily detectable animals that might have arrived at a project site since the detection surveys and to salvage nests or individual animals before the tractor blade scrapes them away. Preconstruction surveys are not designed for supporting absence determinations.

Smallwood Comments, p. 9.

Dr. Smallwood also identifies the project's likely impacts on birds and wildlife from its artificial lighting. "Neither the earlier EIR (City of Alameda 1973, 1989) nor the Staff Report (City of Alameda (2018) addressed the project's impacts on wildlife that would be caused by the addition of artificial lighting." Smallwood Comments, p. 13. Dr. Smallwood's evaluation continues:

> Artificial lighting causes a variety of substantial impacts on a variety of wildlife species (Rich and Longcore 2006). At the site of the proposed project I am particularly concerned about the project's lighting impacts on wildlife residing in Bay waters, including harbor seals, California brown pelicans, double-crested cormorants, and other species. Added lighting could cause displacement or altered activity patterns of at least some species. An EIR should be prepared to address potential lighting impacts on Bay wildlife, and how those impacts could be mitigated.

Id. Dr. Smallwood's expert opinion on these many wildlife impacts is substantial evidence of a likely impact of the project.

D. There is substantial evidence of a fair argument that the hotel project will have a significant GHG emission impacts.

The Bay Area Air Quality Management District ("BAAQMD") has established screening thresholds for greenhouse gas emissions. A project exceeding the screening threshold indicates it is likely to exceed BAAQMD's threshold of significant for GHG emissions of 1,100 MT of CO2e/yr. The screening threshold for a hotel is 83 rooms. BAAQMD CEQA Guidelines, p. 3-2 (May 2017) (http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). The project's proposed 177 rooms is more than double the BAAQMD screening threshold. As a result, a quantitative analysis of the project's GHG emissions from its operations must be conducted and addressed in an EIR in order to disclose and compare the project's GHG emissions to BAAQMD's numeric significance threshold.

A similar sized hotel project was recently proposed in San Jose. The San Jose project includes 166 rooms (slightly smaller than the proposed Alameda hotel) and has similar features including, for example, a restaurant. GHG emissions modeling was conducted for that similar sized hotel. The modeling for that slightly smaller hotel calculated that hotel's operation would emit 1,528 MT of CO2e/year, well in excess of BAAQMD's significance threshold. *See* City of San Jose, Revised Public Review Draft Initial Study – Mitigated Negative Declaration for AC by Marriott – West San Jose, File No. H17-023 (Oct. 2018) (GHG excerpt attached as Exhibit E). The size of the project and the analysis of a similar related project in San Jose are substantial evidence of a fair argument that the hotel project may have a significant GHG emission impact.

III. Alternatively, Assuming Staff is Right That the Hotel Project is the Same Project Addressed by the 1974 EIR, New Information and New Circumstances Have Arisen in the Interim 44-years That Require Significant Revisions to the 1974 EIR.

Even assuming that the zoning change reviewed by the 1974 EIR somehow equates to reviewing a hotel project, numerous substantial changes in the development plans have occurred, new information of substantial importance has arisen, and substantial changes in circumstances have taken place that require a wholesale revision of that dated EIR.

When changes to a project's circumstances or new substantial information comes to light subsequent to the certification of an EIR for a project, the agency must prepare a subsequent or supplemental EIR if the changes are "[s]ubstantial" and require "major revisions" of the previous EIR. *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 943. "[W]hen there is a change in plans, circumstances, or available information after a project has received initial approval, the agency's environmental review obligations "turn[ ] on the value of the new information to the still pending decisionmaking process." *Id.*, 1 Cal.5th at 951–52. The agency must "decide under CEQA's subsequent review provisions whether project changes will require major revisions to the original environmental document because of the involvement of new, previously unconsidered significant environmental effects." *Id.*, 1 Cal.5th at 952. Section 21166 and CEQA Guidelines § 15162 "do[] not permit agencies to avoid their obligation to prepare subsequent or supplemental EIRs to address new, and previously unstudied, potentially significant environmental effects." *Id.*, 1 Cal.5th at 958.

Section 15162 provides, in relevant part,

> (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
>
> (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
>
> (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a).

14 Cal. Admin. Code § 15162(a)-(b). All of the evidence indicates that the project considered by the 1974 EIR has undergone significant changes to the project and its circumstances requiring substantial revisions to that 44-year old EIR and, not surprisingly, that new information and mitigations are now available that must be considered in an EIR.

A. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

Assuming the proposed hotel is the same project as was considered in 1974, it is a substantial change to that project. As discussed above, the only project that was considered regarding the 51-acre business park was to rezone the area from residential to commercial. The use of the area as an office park was mentioned as a conceptual possibility. No specific proposal of how many buildings, how much office space, locations, or specific uses was identified. All of the maps of the business park area are simple outlines with no proposal to fill in the blank on the zoning map. The only mention of size beyond the land footprint zoned commercial, is an estimate that the newly zoned area "could accommodate roughly 567,000 square feet of building area, of which about 450,000 would be usable office space." 1974 EIR, p. IV-48. The hotel alone would contain 113,000 square feet of hotel space – about one-fourth of the entire square footage of office space estimated in the 1974 EIR. That amount of additional space when compared to the 1974 EIR is substantial. Given that the office space within the business park is now greater than 1.2 million square feet, a further increase to 1.3 million square, more than doubling any office park anticipated by the 1974 EIR also is a substantial change.

Significant revisions are necessary for the 1974 EIR to address the individual and cumulative impacts of this massively expanded development beyond that estimated generally in the 1974 EIR. Revisions are necessary to address for the first time, significant impacts of destroying what was, as of 1973, "[o]ne of the greatest concentrations of shorebirds in the world" and developing mitigations for that impact. *See* Smallwood Comments, p. 7. Likewise, Dr. Smallwood discusses the substantial incremental impact of that additional development on wildlife access to open areas in this portion of Bay Farm adjacent to the Bay. *Id.*, pp. 8-9. The additional visual, air pollution, traffic and noise impacts of the greatly expanded business park would require entirely new discussions and analyses to be added to the 1974 EIR. The fact that workers throughout this large expanse of office parks are being exposed to cancer-causing levels of formaldehyde would require a new discussion and new mitigation within the EIR. *See* Offermann Comments. Similarly, an entirely new analysis and disclosure of GHG emissions must be added to the EIR to address the development beyond anything envisioned in the 1974 EIR.

B. Substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

Our review of the project has disclosed a number of dramatically altered circumstances requiring a re-write of the 1974 EIR in order to address numerous environmental impacts of the Harbor Bay development. Some of the more dramatic changes in circumstances include:

- The impacts and apparent failure of the burrowing owl relocations that occurred many years after the 1974 EIR was certified. The 1974 EIR references statements by Elsie Roemer noting that, at the time, burrowing owls were "fairly common." 1974 EIR, p. F-2. Dr. Smallwood describes the current plight of burrowing owls in the area:

  > Available evidence indicates burrowing owls have declined to their last 1-2 successful breeding pairs in western Alameda County (Trulio et al. 2018). Ironically, the only species for which mitigation was attempted in the 1989 EIR have since been extirpated from all but one site across western Alameda County, and even at that one site the species is essentially extirpated, with only 1 to 2 pairs remaining in 2018.

Smallwood Comments, p. 10. Nor have any owls relocated to the vicinity of Oakland Airport fared well in recent years. *See* Center For Biological Diversity, Petition for Listing the California Population of the Western Burrowing Owl (*Athene Cunicularia Hypugaea*) as an Endangered or Threatened Species Under the California Endangered Species Act (attached as Exhibit F); Smallwood Comments, p. 10. The ongoing plight of burrowing owls in western Alameda county, and beyond, is a substantial change of circumstances from those considered in 1974 requiring major revision of the EIR.

- The traffic impacts considered in the 1974 EIR only extended to 1995. Smith Comments, p. 2. The EIR fails to address the changes in traffic that have occurred over the last 23 years. Given the numerous intersections on Bay Farm Island with a LOS F, those traffic circumstances have grown to significant levels of impact.

These changed circumstances are substantial changes in circumstances and indicate that the severity of the 1974 project's impacts on burrowing owls and traffic is much more extensive than anticipated in that prior EIR. Substantial revisions are necessary to cure this deficiency.

C. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence in 1974, shows that the project will have one or more significant impacts that were not considered or are more severe.

Several of the impacts described above involve new information (i.e. information available after 1974) that demonstrates significant impacts from not only the proposed hotel but the overall development of the Harbor Bay project. Because staff indicates that the hotel is the same project reviewed in 1974, many of these impacts must be addressed for, not only the proposed hotel, but also the portions of the project that have already been constructed.

As discussed above, the hotel project will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde into the air that will expose workers to cancer risks well in excess of BAAQMD's threshold of significance. Information regarding the health risks posed by the use of formaldehyde-based products in building construction was not known in 1974. The main studies, some of which Mr. Offermann was involved, were not published until 2009. Offermann Comments, pp. 2-3. Hence, these threats are significant new information vis-à-vis the 1974 EIR.

Not only is it true that the hotel will pose these health risks to workers, but it also is true of all of the offices and residences that have been built since 1974. To the extent the hotel is part of the 1974 project, the discretionary approval of that piece of the project opens up the entire project to review and revision of the EIR to address this substantial health risk. Indeed, the risks to the residents of the residential buildings constructed as part of the project have even higher cancer risks of 125 up to 180 cancers per million in gross exceedance of the BAAQMD threshold. Offermann Comments, pp. 2-3. Formaldehyde continues to emit from building materials many decades after its initial installation. As a result, mitigations are still available to long-time residents, including air filters or potentially retrofitting flooring or other sources. Initially however, CEQA requires the City to react to this new information, disclose it in a revised EIR, and determine the appropriate mitigations that should be implemented. Because, according to staff, the 1974 project is being reopened by the proposed hotel, the City's duty to update the EIR with this important health risk information and mitigations is triggered now.

In addition, there is significant new information regarding the impact of the proposed hotel, as well as all of the office buildings already built in the business park, and the thousands of homes constructed as part of the project, on birds colliding into those many buildings. Although not available to a typical resident in the 1970s, the very first study of bird strikes with buildings was not published until 1976, almost three years after the 1974 EIR's certification. Smallwood Comments, p. 13. The issue was not more publicly disseminated until several notable reports issued in 1989. *Id.*, pp. 14-15. Either way, the significance of bird fatalities from collisions with buildings like the hotel is significant new information. As shown above, bird strikes even with the one five-story hotel will be significant. As part of the overall project considered in 1974, every office building as well as the homes must be considered in addressing this significant impact recognized post-1974 and formulating appropriate mitigation measures.

D. Mitigation measures previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project.

The 1974 EIR includes as a mitigation measure for the project that "[e]lectric vehicles will be provided each house for internal trips." 1974 EIR, p. I-12. This mitigation was to address air pollution, traffic and noise. *See id.*, p. I-20 (noise analysis calls for "[a] maximum use of electrically powered vehicles in the project area"); pp. IV-146-147 (modest mitigation for air quality); p. IV-233 ("special electric cars which will be available to all residents"). For traffic, the 1974 EIR states:

> The major negative impacts associated with the project area will be the extensive traffic generation the project will produce in a location least able to absorb such traffic. The developer, in response to this factor, has instigated an extensive system of alternative transportation systems including pedestrian pathways, bicycle pathways, and ***electrically powered vehicles available with each home*** as an alternative to the second car.

1974 EIR, p. I-21 (emphasis added). Each unit of the residential portion of the project was to provide an enclosed parking space for the electric vehicle. *See* 1974 EIR, p. II-10 ("In addition to these resident parking spaces there will be guest parking and one enclosed parking space per unit for an electric car); *Id.*, p. II-19.

According to the 1989 Addendum addressing Village V, the City purportedly modified this mitigation measure when the number of residents to be built for the overall project was reduced in number from 4,950 units to 3,200 units. *See* 1989 Addendum, p. 5-6. However, there is no mention of any modification of the EIR analyzing the impacts of eliminating that mitigation measure relied upon in the 1974 EIR. Nevertheless, the 1989 Addendum modifying Village V carries forward this mitigation, though purporting to add a feasibility condition that was not present in the 1974 EIR. The mitigation for Village V in the 1989 Addendum provides that:

> In the event such technology becomes feasible, applicant should provide an electric car for each house sold in Village V as proposed in the HBI Master Plan for local Alameda trips, to mitigate air and noise impacts of traffic and reduce use of gasoline.

1989 Addendum, p. 4-23. The 1989 Addendum then concludes that, at the time, "[w]hile the technology of electric-powered vehicles has improved and has become somewhat less costly than in 1976, providing electric cars for the new homes in Village 5 would not be a viable mitigation measure at this time." *Id.*, p. 5-6.

Of course, given the current ready availability of electric cars, especially the smaller, local vehicles envisioned by the 1974 EIR and the 1989 Addendum, electric vehicles are now entirely feasible. Alameda Municipal Power acknowledges their feasibility, offering rebates and otherwise encouraging the use of electric vehicles. *See* *https://www.alamedamp.com/environment/electric-vehicles*. There is a wide assortment of smaller electric vehicles consistent with those included in the 1974 EIR and the 1989 Addendum. *See, e.g.* *http://motoelectricvehicles.com/neighborhood-electric-vehicle*. The feasibility and availability of smaller electric vehicles cannot reasonably be questioned. This new information must be assessed in an EIR that fully explores the implementation of this long-stated mitigation measure.

E. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment.

Lastly, numerous mitigation measures addressing the above issues have been identified by the attached expert comments. None of these measures were addressed in the 1974 EIR. Every identified mitigation measure is significant new information that post-dates the 1974 EIR. In addition, the Project's GHG emissions can be reduced by requiring solar panels, electric shuttles, and other GHG reducing measures that were not available and not considered in the 1974 EIR. A new EIR should be prepared to provide a process consistent with CEQA that would ensure that the 44-year old review of the Harbor Bay project is brought up to current environmental standards and all impacts and mitigations be addressed and disclosed to the public for review and comment.

IV. CONCLUSION

In light of the above comments, staff's recommendation to rely on the 44-year old EIR should be withdrawn, a relevant and updated EIR either for the hotel project or the entire Bay Harbor project should be prepared, and the draft EIR should be circulated for public review and comment in accordance with CEQA. Thank you for considering these comments.

Sincerely,

Michael R. Lozeau

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EXHIBIT A

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From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: Marriott Residence Inn Alameda IAQ

Pages: 14

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 μg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 μg is 2 $\mu g/m^3$, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 $\mu g/m^3$. The median indoor formaldehyde concentration was 36 $\mu g/m^3$, and ranged from 4.8 to 136 $\mu g/m^3$, which corresponds to a median exceedance of the 2 $\mu g/m^3$ NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 $\mu g/m^3$, is 180 per million as a result of formaldehyde alone. Because residential projects typically will be built using typical materials and construction methods used in California, future residents will experience a cancer risk from formaldehyde of approximately 180 per million. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Bay Area Air Quality Management District (BAAQMD, 2017a).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 $\mu g/m^3$ to 28% for the Acute REL of 55 $\mu g/m^3$.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential and hotel building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations that are below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Chan et. al., 2018), and found that the median indoor formaldehyde in new homes built after the 2009 CARB formaldehyde ATCM had lower indoor formaldehyde concentrations, with a median indoor concentrations of 25 $\mu g/m^3$ as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 30% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 125 per million for homes built with CARB compliant composite wood products which is more than 12 times the BAAQMD's 10 in a million cancer risk threshold.

With respect to this project, Marriott Residence Inn, located at 2900 Harbor Bay Parkway, Alameda, CA, since this is a hotel, guests are expected to have short-term exposures (e.g. less than a week), but employees are expected to experience longer-term exposures (e.g. 40 hours per week, 50 weeks per year). The longer-term exposures for employees is anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residences and hotels.

Because the hotel will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and is ventilated with the minimum code required amount of outdoor air, the indoor hotel formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 25 $\mu g/m^3$.

Assuming that the employees work 8 hours per day and inhale 20 m^3 of hotel air per day, the formaldehyde dose per work-day at the hotel is 167 μg/day.

Assuming that the hotel employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 73.6 μg/day.

This is 1.84 times the NSRL of 40 μg/day and represents a cancer risk of 18.4 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

While measurements of the indoor concentrations of formaldehyde in residences built with CARB Phase 2 Formaldehyde ATCM materials (Chan et. al., 2018), indicate that indoor formaldehyde concentrations in buildings built with similar materials (e.g. hotels, offices, schools) will pose cancer risks in excess of the CEQA cancer risk of 10 per million, a determination of the cancer risk that is specific to this project and the materials used to construct these buildings can and should be conducted prior to completion of the environmental review.

The following describes a method that should be used prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of the specific building materials/furnishings selected for the building exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment.

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of <u>all</u> potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) <u>Calculate the Formaldehyde Emission Rate</u>. For each building material, calculate the formaldehyde emission rate (μg/h) from the product of the area-specific formaldehyde emission rate (μg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (μg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., μg/m^2-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 μg/m^2-

h, but not the actual measured specific emission rate, which may be 3, 18, or 30 $\mu g/m^2$-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) <u>Calculate the Total Formaldehyde Emission Rate.</u> For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) <u>Calculate the Indoor Formaldehyde Concentration</u>. For each IAQ Zone, calculate the indoor formaldehyde concentration ($\mu g/m^3$) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration ($\mu g/m^3$)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.
Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated air contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 ach, with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The Marriott Residence Inn in Alameda project is located close to the Oakland International Airport as well as roads with moderate to high traffic (e.g. Harbor Bay Parkway and Mecartney Road) and as such is anticipated to be in a noise impacted area. The noise analysis report (Saxelby Acoustics, 2018) only considers the noise impact resulting from the Oakland International Airport, and fails to consider the additional impact of vehicle traffic noise on Harbor Bay Parkway and Mecartney Road. This report includes no actual on-site measurements, but rather only considers the Oakland International Airport Noise Contours as depicted in Figure 2 or the report. The report concludes that the noise from the airport alone (vehicle road traffic excluded) would be 65 dBA CNEL or less, and further states that "Modern construction practices typically provide a minimum exterior–to–interior noise level reduction of 25 dBA. Based upon the maximum predicted exterior noise exposure of 65 dBA CNEL, interior noise levels are predicted to be 40 dBA CNEL, or less. Therefore, interior noise levels are predicted to meet the State of California, City of Alameda, and Oakland International Airport Land Use Compatibility Plan interior noise standard of 45 dBA CNEL with no special noise reduction measures."

However, modern construction practices typically provide a minimum exterior–to–interior noise level reduction of 20-25 dBA only if the windows are kept closed. Thus, the report incorrectly concludes that no special noise reduction measures will be required, as mechanical outdoor air ventilation will be required so that windows and doors could be kept closed at the occupant's discretion to control exterior noise within the hotel interior spaces.

An on-site noise survey by a qualified acoustic firm should be conducted to assess the true outdoor noise levels and additional noise reduction strategies (e.g. low sound transmission windows etc.) included as needed to achieve acceptable interior noise levels of 45 dBA CNEL or less.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the increased outdoor concentrations of $PM_{2.5}$.

This development is located in Alameda, CA, which is in the San Francisco Bay Area Basin which is an EPA non-attainment area for $PM_{2.5}$., with exceedences of both the National (EPA) maximum annual average concentration of 12 $\mu g/m^3$ and the maximum 24-hour average of 35 $\mu g/m^3$. The closest BAAQMD air monitoring site to the proposed project is the Oakland West monitoring site. At this air monitoring site, the measured $PM_{2.5}$ outdoor air concentrations for the most recent year of data in 2017, exceeded both the EPA maximum annual average concentration of 12 $\mu g/m^3$ and the EPA maximum 24-hour average of 35 $\mu g/m^3$ (BAAQMD, 2017b).

An air quality analyses should to be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient $PM_{2.5}$ removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected combination of high traffic and airport noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

- indoor formaldehyde concentrations
- outdoor air ventilation
- $PM_{2.5}$ outdoor air concentrations

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins (CARB, 2009). Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Formaldehyde

Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor air flow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the hotel management that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the hotel maintenance staff. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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EXHIBIT B

December 6, 2018

Mr. Michael Lozeau
Lozeau Drury
410 12th Street, Suite 250
Oakland, CA 94607

Subject: Marriott Residence Inn Project, Alameda

P18062

Dear Mr. Lozeau:

At your request, I have reviewed traffic matters associated with the Marriott Residence Inn Project (the "Project") in the City of Alameda (the "City") including, but not limited to, the Transportation Impact Analysis (the "TIA") prepared by Abrams Associates dated November 14, 2018.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California and over 50 years professional consulting engineering practice in the traffic and transportation industry. I have both prepared and performed adequacy reviews of numerous transportation and circulation sections of environmental impact reports prepared under the California Environmental Quality Act (CEQA). My professional resume is attached. Findings of my review are summarized below.

Focus of the Transportation Impact Analysis Is Too Limited

As a technical analysis document, the TIA's analysis methodology employed and the assumptions and execution of the methodology is satisfactory. The problem is that the analysis only focuses on intersections within the Harbor Bay Island portion of Alameda close to the Project site. It fails to consider potential traffic impacts on the major gateway intersections to Harbor Bay Island where there is large concentration of traffic and where traffic impacts would be more consequential than at the intersections the TIA studied. Four of the five intersections studied involve intersections of key circulation roads with minor cross streets with only the cross streets controlled by stop signs. Among the gateway intersections that should have been studied are Otis with Fernstein, Doolittle with Island / Otis, Doolittle with Harbor Bay Parkway, Doolittle with Hegenberger, Doolittle with Airport Access Road, Airport Access Road with 98th Avenue and Airport Access Road with Hegenberger.

Prior EIR Relied On Is Extremely Dated and Irrelevant

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We understand that the City is tiering environmental clearance of this Project on the 1974 Bay Farm Island EIR. That 44 year old EIR is stale and irrelevant especially with regard to the transportation network assumed. That network included a new freeway extending from somewhere south of Alameda along the west side of Bay Farm Island, bending west onto what was then known as the "Southern Crossing", a new crossing of San Francisco Bay between the Bay Bridge and the San Mateo-Hayward Bridge that would have its western terminus in Southeast San Francisco connecting to I-280 and US-101. Another branch of this assumed freeway would continue northwesterly along the west side of Alameda Island, then swing more northeasterly across the Island, the Estuary and into Oakland, connecting to I-880 and I-980. The network also assumed a westerly extension of Broadway from Alameda Island connecting on a new bridge connecting directly to Bay Farm Island. None of this major network is in place or in current planning.

Given that the assumed roadway network is so divergent from current reality and that the 1974 EIR traffic was forecast to only 1990, it is preposterous that the overall context of impact study is one of localized impact in the immediate project vicinity. Moreover, the current conditions on the major roads that exist and were considered in the 1974 EIR are likely to involve significant impacts that were never evident in the 1990 forecasts. Consequently, they must now be addressed as part of the discretionary review of this portion (the proposed hotel) of the larger project

Conclusion

The City and the Project need a more current and more complete EIR to evaluate the impacts of this and all other concurrent projects.

Sincerely,

Smith Engineering & Management
A California Corporation

Dan Smith Jr.

Daniel T. Smith Jr., P.E.
President

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Attachment 1
Resume of Daniel T. Smith Jr., P.E.

EXHIBIT C

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Andrew Thomas, Acting Director of Planning and Building
City of Alameda
2363 Santa Clara Avenue
Alameda, CA 94501

7 December 2018

RE: 2900 Harbor Bay Parkway, PLN18-0381

Dear Mr. Thomas,

I write to comment on the City of Alameda's (2018) Staff Report prepared for the proposed Marriott Alameda at 2900 Harbor Bay Parkway, PLN18-0381, which I understand would add 113,000 ft^2 of hotel floor space and 7,000 ft^2 of restaurant floor space in a 63-foot tall building on 5.5 acres of land. I also reviewed the earlier EIR and Addendum (City of Alameda 1973, 1989) cited in the Staff Report and a report of a recent biological survey (Monk & Associates 2018).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research is on animal density and distribution, habitat selection, habitat restoration, interactions between wildlife and human infrastructure and activities, conservation of rare and endangered species, and on the ecology of invading species. I have authored papers on special-status species issues, including "Using the best scientific data for endangered species conservation" (Smallwood et al. 1999) and "Suggested standards for science applied to conservation issues" (Smallwood et al. 2001). I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I served as Associate Editor of Biological Conservation and of wildlife biology's premier scientific journal, The Journal of Wildlife Management, and I served on the Editorial Board of Environmental Management.

I have performed wildlife surveys in California for thirty-three years. I studied the impacts of human activities and human infrastructure on wildlife, including on golden eagle, Swainson's hawk, burrowing owl, San Joaquin kangaroo rat, mountain lion, California tiger salamander, California red-legged frog, and other species. I have performed research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic, and I've performed wildlife surveys at many proposed project sites. I collaborate with colleagues worldwide on the underlying science and policy issues related to anthropogenic impacts on wildlife.

My CV is attached.

SITE VISIT

I visited the site of the proposed project from 12:45 to 14:00 hours on 16 November 2018 – a windless day during which smoke from the Camp Fire choked the sky. Using binoculars, I scanned for wildlife from the site's northern and western perimeter. The site was covered by grassland, and was lined by trees and shrubs. It supported many pocket gophers, which provide the habitat structure for many species of wildlife and which also serve as prey base for multiple species of raptor including. I saw 22 species of wildlife, including 5 species in or over the Bay just west of the site (Table 1). On the project site I saw many house finches (Photo 1), killdeer (Photo 2), mourning doves (Photo 3), white-crowned sparrows (Photo 4), and at least one Say's phoebe (Photo 5), among other species. In or over the Bay waters next to the site I saw brown pelicans (Photo 6), double-crested cormorants and horned grebes (Photo 7), and great egrets (Photo 8), among other species. The site is rich in wildlife species and abundance.

I also noticed that wildlife using Bay waters were concentrated along the shoreline of the project site, rather than at developed portions of Harbor Bay Isle to the north and south. It could be that wildlife using the Bay are selecting shoreline that borders open upland space. If this is the case, then an analysis of potential project impacts needs to consider barrier and displacement effects of a 5-story building on Bay wildlife.

An inescapable impression was the abundance of wildlife on site. High densities of mourning doves, house finches and killdeer crowded together on site. Everywhere I looked there were hordes of mourning doves pecking at the ground while walking along with house finches, white-crowned sparrows and killdeer, often flushing and relocating in reaction to people walking along the trails on the west side, often with leashed dogs.

Photo 1. *House finches crowd a branch at the site of the proposed Marriott Alameda, 16 November 2018.*

Table 1. *Species of wildlife I observed during 15:18 to 16:33 hours on 16 November 2018 at the site of the proposed Marriott Hotel at 2900 Harbor Bay Parkway, Alameda, along with the number of minutes before first detection.*

Species	***Scientific name***	**Status[1]**	**Note**	**Minutes to first detection**
Mallard	*Anas platyrhynchos*		Flyover	6
Bufflehead	*Bucephala albeola*		Bay waters	41
Horned grebe	*Podiceps auritus*		Bay waters	13
California brown pelican	*Pelacanus occicentalis californicus*	CFP	Bay waters	7
Double-crested cormorant	*Phalacrocorax auritus*	TWL	Bay waters	13
Great egret	*Casmerodius albus*		Bay waters	61
Black-crowned night-heron	*Nycticorax nycticorax*		Flyover	58
American coot	*Fulica americana*		Lagoon	75
Killdeer	*Charadrius vociferus*		On site	37
Herring gull	*Larus argentatus*		Flyover	3
Mourning dove	*Zenaida macroura*		On site	2
Say's phoebe	*Sayornis saya*		On site	38
Black phoebe	*Sayornis nigricans*		On site	15
American crow	*Corvus brachyrhynchos*		On site	1
European starling	*Sturnus vulgaris*	Exotic	On site	40
Yellow-rumped warbler	*Dendroica coronata*		On site	27
White-crowned sparrow	*Zonotrichia leucophrys*		On site	7
House finch	*Carpodacus mexicanus*		On site	5
American goldfinch	*Carduelis tristis*		On site	0
Harbor seal	*Phoca vitulina*		Bay waters	13
Botta's pocket gopher	*Thomomys bottae*		On site	2
Sierran tree frog	*Pseudacris sierra*		On site	17

[1] CFP = California Fully Protected, TWL = Taxa to Watch List (Shuford and Gardali 2008).

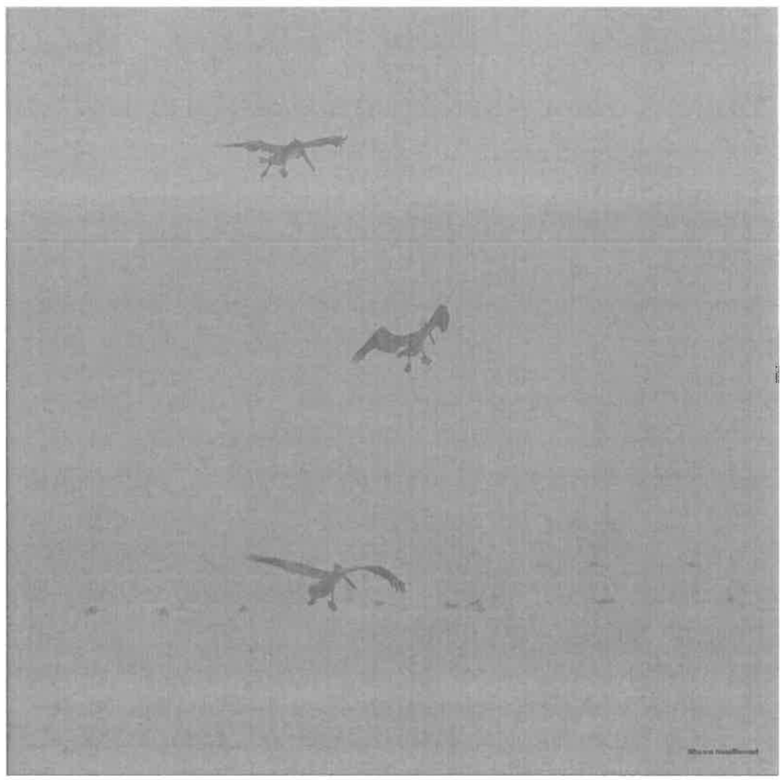
Photo 2. *Six of the many killdeer on site, 16 November 2018.*

Photo 3. *One of many mourning doves on site takes a break from foraging and socializing, 16 November 2018.*

Photo 4. *White-crowned sparrow breaks from foraging to warily regard my presence on the project site, 16 November 2018.*

Photo 5. *A Say's phoebe foraging on the project site, 16 November 2018.*

Photo 6. *Brown pelicans prepare to land on Bay waters on the west side of the proposed project site, 16 November 2018.*



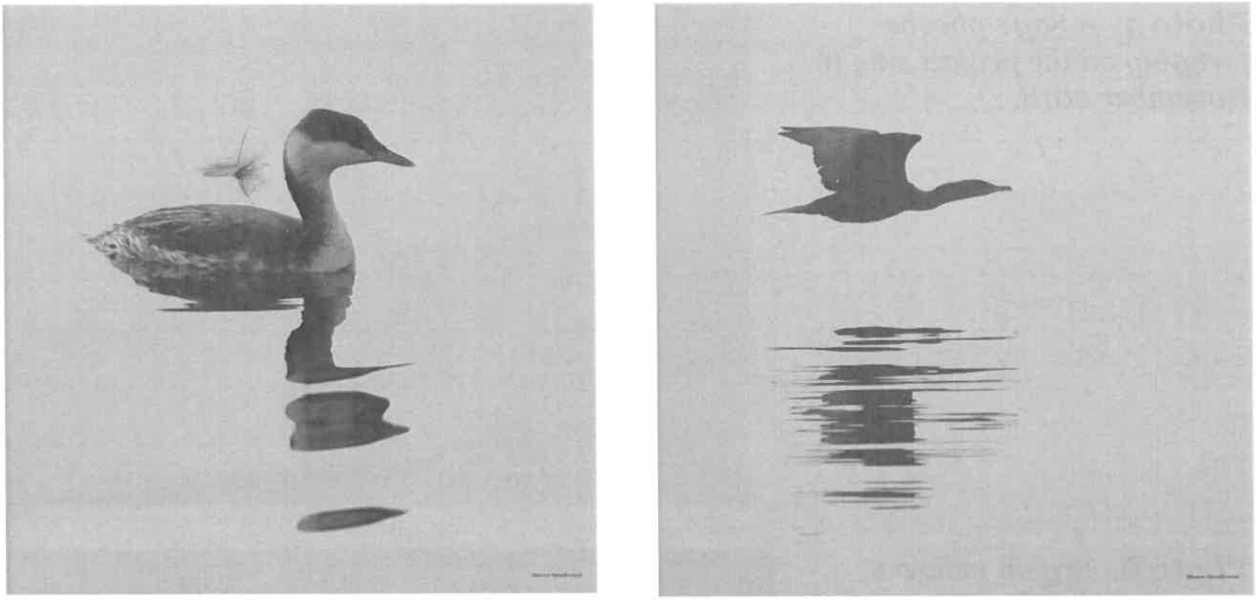


Photo 7. *Horned grebe (left and double-crested cormorant (right) use Bay waters on the west side of the project site.*

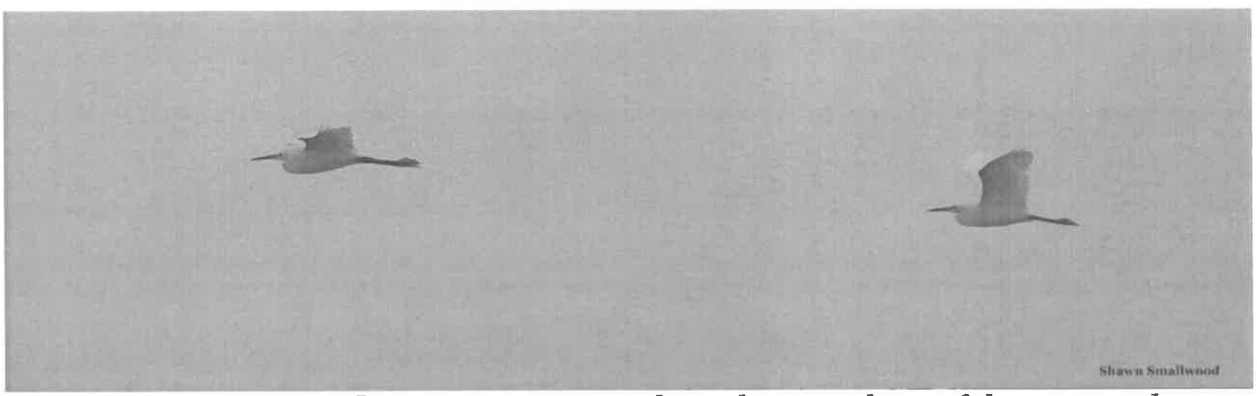


Photo 8. *Great egrets fly over Bay waters along the west shore of the proposed project site, 16 November 2018.*

BIOLOGICAL IMPACTS ASSESSMENT

According to the Staff Report, "*Pursuant to CEQA Guidelines Section 15162, there have been no significant changes in circumstances that require revisions to the previously certified Harbor Bay Isle Environmental Impact Report. The proposed project is not likely to cause substantial environmental damage or substantially and avoidably injure endangered, rare, or threatened fish or wildlife or their habitat.*" However, this statement is not true. In the following paragraphs I will address several substantial changes since the 1973 EIR: (1) Habitat fragmentation and habitat degradation displaced and ultimately destroyed thousands of shorebirds protected by the International Migratory Bird Treaty Act without any mitigation; (2) Many species of wildlife were since assigned special status or their status was updated; (3) Burrowing owls were relocated without long-term success; and (4) Bird collisions with windows have since emerged as a major mortality factor.

CHANGED CIRCUMSTANCE: UNMITIGATED HABITAT LOSS

The EIR grossly mischaracterized wildlife occurring in the project area prior to 1973 (City of Alameda 1973, 1989), which led to unmitigated impacts that would continue into and intensify with the proposed project. Appendix D of City of Alameda (1973) included a passage from an ornithological expert at the 1958 International Ornithological Congress characterizing the project area as harboring the largest concentration of shorebirds in the world, both in abundance and species diversity. That expert must have been Robert W. Storer, who presented a paper at that 1958 Congress held in Helsinki (Baldwind 1961). Storer (1951) reported his results of a yearlong bird survey on Bay Farm Island in 1948. He reported that Bay Farm Island was known for being one of the major shorebird concentrations in the San Francisco Bay Area, and on Bay Farm Island he reported highest concentrations of shorebirds at the site of the proposed Bay Harbor Isle project. Storer's survey consisted of 39 trips through the year while accompanied by other biologists whose names transcended along with his to legendary status in the fields of ornithology and wildlife ecology. Put simply, City of Alameda cast aside the findings of one of Ornithology's greatest contributors in order to falsely characterize the project area as of low value to birds; city of Alameda (1973) did not even mention Storer's name, let alone his papers. City of Alameda's Staff Report continues the EIR's misleading characterization of wildlife use of the site and of potential project impacts.

City of Alameda (1973) acknowledged many bird species had been detected in Christmas Bird Counts, but dismissed these counts as unrepresentative and likely diminished by heavy machine use. City of Alameda (1973) further dismissed potential impacts to birds by claiming that bird abundance was lower than expected for the vegetation cover on site. However, City of Alameda (1973) presented no level of bird abundance that would have met their expectation. Nor did City of Alameda (1973) present survey data in support of their claims about the status of birds on site; instead, vaguely referencing staging behavior on the site by "shorebirds." City of Alameda (1973) included no list of bird species seen on site, and otherwise provided no evidence of any kind refuting Storer's characterization of the site. One can claim no change from a falsely reported baseline, but City of Alameda cannot honestly claim no change from the conditions described by Storer (1951). Here, at the Harbar Bay Isle project, and because Storer (1951) documented shorebird use of the area prior to the 1973 EIR, we have one of the most devastating environmental impacts on wildlife ever documented under a CEQA review.

After all, whereas I saw about 30 shorebirds of 1 species (killdeer), the low count of birds among Storer's (1951) 39 survey visits was 3,639, and the high count was 41,900 birds of 17 species (23 species detected through the year 1948). Given the changes in the project area, today another count would yield a shorebird count much closer to zero than to even the low count in 1948. Things have most certainly changed since the EIR (City of Alameda 1973, 1989). One of the greatest concentrations of shorebirds in the world has been reduced to a desperate avian foothold upon a 5.5-acre patch of upland that bridges a constructed lagoon and the Bay.

City of Alameda's (1973:IV-204) analysis of project impacts on other types of wildlife consisted of vague characterizations of rabbits being controlled by dog attacks, and rodents making mischief by burrowing into canal banks but otherwise serving to feed "an occasional hawk." But this characterization carries as much credibility as did the characterization of birdlife in the project area. Many more than "an occasional hawk" would visit a site occupied by thousands of shorebirds.

The one part of the original analysis that I believe City of Alameda (1973:IV-207) got right, except for its characterization of habitat as "marginal," was the conclusion, "*As the amount of coastal natural area diminishes, the marginal environmental value of each remaining portion will increase.*" Based on my brief site visit, my impression is that many birds inhabit the site of the proposed project, and these birds therefore value the site – some of the last remaining coastal natural area of Bay Harbor Isle.

Since 1989, and except for the site of the proposed project and the Airport, upland habitat along the entire western shoreline of the Harbor Bay Isle project area was converted to residential and commercial uses (Figure 1). Like a game of musical chairs, each development project left wildlife with one less parcel to find foraging and breeding opportunities or to find refuge during migration or dispersal. And now the only "chair" left is the site of the proposed project. As the only upland habitat remaining along western Harbor Bay Isle, many special-status species have been documented making use of it (Table 2). The music stopped for the last time, leaving wildlife this one last chair while City of Alameda Staff claim that nothing has changed since 1989. In truth, a great deal has changed since the 1973/1989 EIR, including the extent of wildlife habitat remaining in the area, the number of species assigned special status for their increasing rarity and jeopardy, and the number of special-status species documented on the site of the proposed project.

Overwhelmingly demonstrating the inadequacy of the 1973/1989 EIR, at least 42 special-status species of birds have been documented at the site of the proposed project (Table 2). None of these species were addressed in the 1989 EIR. And for none of these species did the 1989 EIR analyze project-specific or cumulative impacts. But then again, not all of these species had been assigned special status in 1989, thus highlighting another change since 1989. As Alameda authorized the destruction of all but the last patch of wildlife habitat, and as other Bay Area communities did likewise, more species declined to the point of warranting listing of one type of special status or another, but all types indicating deep concern for the future of the species.

Five of 23 species of shorebird detected on site by Storer (1951) are now assigned special status. Of the 23 shorebird species seen on site by Storer (1951), I detected only one of them – killdeer. However, other species of shorebird might use the site, and detection surveys would be needed to conclude otherwise.

Figure 1. *Site of the proposed project (red polygon) amidst bay shore that was open space in 1993 (left) and converted to residential and commercial space by 2018 (right).*

In my review of the EIR Addendum, I found no evidence of detection surveys having been performed for burrowing owl or any other species of wildlife since 2013, but without seeing the 2013 burrowing owl survey report, I cannot conclude whether the 2013 survey achieved the standards of the CDFW (2012) guidelines. Monk & Associates (2018) surveyed the site on 10 September 2018, but that survey was a preconstruction survey, not a detection survey. Detection surveys are designed for supporting species absence determinations, whereas preconstruction surveys are intended to follow up on detection surveys just prior to construction; preconstruction surveys are intended to detect the readily detectable animals that might have arrived at a project site since the detection surveys and to salvage nests or individual animals before the tractor blade scrapes them away. Preconstruction surveys are not designed for supporting absence determinations.

CHANGED CIRCUMSTANCE: NEW SPECIAL-STATUS LISTINGS

City of Alameda's (2018) conclusions of potential project impacts on special-status species lack support in timely detection surveys. As habitat continued to be fragmented by residential, commercial and industrial development in the project area, the importance of the remaining habitat patch has grown. I found documented evidence of 42 special-status bird species in the area, and geographic ranges of 5 special-status species of bats overlap the site (Table 2). The listing status of the majority of these species was either initiated or updated since the 1973/1989 EIR (Table 2). Even for animals not breeding at the project site, the site's value for stop-over refuge, staging, and foraging has increased since the last time when any wildlife biologists performed detection surveys at the site. Protocol-level detection surveys are needed before any final decisions are made about the use of the site.

CHANGED CIRCUMSTANCE: BURROWING OWLS

The 1989 EIR addressed burrowing owl as the only special-status species of wildlife warranting CEQA review at the time. According to the 1989 EIR, burrowing owls in the project area were successfully relocated. However, the 1989 EIR neglected to report the relocation site, the number of owls relocated, nor the criteria used for determining relocation success. Given the record of burrowing owl relocations over the past several decades, I am skeptical of the success claimed in the 1989 EIR. Available evidence indicates burrowing owls have declined to their last 1-2 successful breeding pairs in western Alameda County (Trulio et al. 2018). Ironically, the only species for which mitigation was attempted in the 1989 EIR have since been extirpated from all but one site across western Alameda County, and even at that one site the species is essentially extirpated, with only 1 to 2 pairs remaining in 2018.

The East Bay is visited by winter migrant burrowing owls from Idaho and possibly Canada. Migrants are known to over-winter in Cesar Chavez Park and a few other small patches of habitat in the East Bay Area (https://goldengateaudubon.org/conservation/burrowing-owls/). Given the extensive unmitigated habitat fragmentation that has progressed since the 1973/1989 EIR, every remaining patch of habitat qualifies as a likely stop-over site or over-wintering migration site for migratory burrowing owls. Unfortunately, the Monk & Associates (2018) preconstruction survey was not performed during the winter migration period, so it would have missed any winter migrants visiting the site. I will add that the Monk & Associates (2018) survey also missed the burrowing owl breeding season, although I have on rare occasions seen burrowing owls breeding into early fall.

Table 2. *Species reported on eBird (https://eBird.org) on or near the proposed project site, and species of shorebird previously seen in the project area by Storer (1951).*

Species	Scientific name	Status[1], Year of listing	Occurrence potential
Pallid bat	*Antrozous pallidus*	SSC	Unknown, but likely
Western red bat	*Lasiurus blossevillii*	SSC	Unknown, but likely
Fringed myotis	*Myotis thysanodes*	WBWG	Unknown, but likely
Long-eared myotis	*Myotis evotis*	WBWG	Unknown, but likely
Small-footed myotis	*Myotis cililabrum*	WBWG	Unknown, but likely
Brant	*Branta bernicla*	SSC2, 2008	eBird posts nearby
Aleutian cackling goose	*Branta hutchinsonii leucopareia*	TWL, 2008	eBird posts nearby
California brown pelican	*Pelacanus occicentalis californicus*	CFP	
Double-crested cormorant	*Phalacrocorax auritus*	TWL, 2008	eBird posts on site
Long-billed curlew	*Numenius americanus*	TWL, BCC, 2008	eBird posts on site; Storer
Whimbrel	*Numenius phaeopus*	BCC, 2008	eBird posts nearby; Storer
California gull	*Larus californicus*	TWL, 2008	eBird posts on site
Caspian tern	*Hydropogne caspia*	TWL, 2008	eBird posts on site
Black oystercatcher	*Haematopus bachmani*	BCC, 2008	eBird posts on site
Marbled godwit	*Limosa fedoa*	BCC, 2008	eBird posts on site; Storer
Red knot	*Calidris canutus*	BCC, 2008	eBird posts on site; Storer
Short-billed dowitcher	*Limnodromus griseus*	BCC, 2008	eBird posts on site; Storer
Osprey	*Pandion haliaetus*	TWL, CDFW 3503.5	eBird posts on site
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CE, CFP	eBird posts nearby
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP	eBird posts nearby
Red-tailed hawk	*Buteo jamaicensis*	CDFW 3503.5	eBird posts on site
Red-shouldered hawk	*Buteo lineatus*	CDFW 3503.5	eBird posts nearby
Sharp-shinned hawk	*Accipiter striatus*	CDFW 3503.5, TWL	eBird posts nearby
Cooper's hawk	*Accipiter cooperi*	CDFW 3503.5, TWL	eBird posts on site
Northern harrier	*Circus cyaneus*	SSC3, CDFW 3503.5	eBird posts on site
White-tailed kite	*Elanus leucurus*	CFP, TWL, CDFW 3503.5	eBird posts on site
American kestrel	*Falco sparverius*	CDFW 3503.5	eBird posts on site
Merlin	*Falco columbarius*	CDFW 3503.5, TWL	eBird posts nearby
Prairie falcon	*Falco mexicanus*	CDFW 3503.5, TWL	eBird posts nearby

Species	Scientific name	Status[1], Year of listing	Occurrence potential
Peregrine falcon	*Falco peregrinus*	CE, CFP, BCC	eBird posts nearby
Burrowing owl	*Athene cunicularia*	BCC, SSC2, CDFW 3503.5	eBird posts nearby
Great-horned owl	*Bubo virginianus*	CDFW 3503.5	eBird posts nearby
Short-eared owl	*Asio flammeus*	CDFW 3503.5	eBird posts nearby
Western screech-owl	*Megascops kennicotti*	CDFW 3503.5	eBird posts nearby
Barn owl	*Tyto alba*	CDFW 3503.5,	eBird posts nearby
Vaux's swift	*Chaetura vauxi*	SCC2, 2008	eBird posts nearby
Allen's hummingbird	*Calypte*	BCC, 2008	eBird posts nearby
Nuttall's woodpecker	*Picoides nuttallii*	BCC, 2008	eBird posts on site
Olive-sided flycatcher	*Contopus cooperi*	SSC2, 2008	eBird posts on site
Yellow-billed magpie	*Pica nuttalli*	BCC, 2008	eBird posts nearby
Oak titmouse	*Baeolophus inornatus*	BCC, 2008	eBird posts on site
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2, 2008	eBird posts on site
Yellow warbler	*Setophaga petechia*	SSC2, BCC, 2008	eBird posts nearby
San Francisco common yellowthroat	*Geothlypis trichas sinuosa*	SSC3, BCC, 2008	eBird posts on site
Bryant's savannah sparrow	*Passerculus sandwichensis alaudinus*	SSC3, 2008	eBird posts on site
Alameda song sparrow	*Melospiza melodia pusillula*	SSC2, BCC, 2008	eBird posts on site
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, 2018	eBird posts nearby

[1] Listed as BCC = U.S. Fish and Wildlife Service Bird Species of Conservation Concern, CE = California endangered, CT = California threatened, CFP = California Fully Protected (CDFG Code 4700), CDFW 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), TWL = Taxa to Watch List (Shuford and Gardali 2008), and WBWG = priority listing by Western Bat Working Group.

Wildlife Movement

The Staff Report (City of Alameda 2018) provides no analysis of the project's potential impacts on wildlife movement in the region, thereby neglecting to address a key CEQA issue. Not only would the project remove what must now be critically important stop-over habitat (Runge et al. 2014, Taylor et al. 2011, Warnock 2010), but it would replace the open space with a building posing as another barrier to movement through the area by migratory or dispersing volant wildlife. The earlier EIR (City of Alameda 1973, 1989) also neglected to address the project's impact on wildlife movement in the region. An EIR is needed for addressing the project's impacts on wildlife movement in the region.

Artificial Light

Neither the earlier EIR (City of Alameda 1973, 1989) nor the Staff Report (City of Alameda (2018) addressed the project's impacts on wildlife that would be caused by the addition of artificial lighting. Artificial lighting causes a variety of substantial impacts on a variety of wildlife species (Rich and Longcore 2006). At the site of the proposed project I am particularly concerned about the project's lighting impacts on wildlife residing in Bay waters, including harbor seals, California brown pelicans, double-crested cormorants, and other species. Added lighting could cause displacement or altered activity patterns of at least some species. An EIR should be prepared to address potential lighting impacts on Bay wildlife, and how those impacts could be mitigated.

CHANGED CIRCUMSTANCE: WINDOW COLLISIONS

Neither the Staff Report (2018) nor the 1973/1989 EIR analyze potential impacts to birds caused by the hotel's glass windows. That window impacts were not addressed was not surprising because most of what is known about the adverse effects of windows on birds has been learned since 1989. The very first serious study of bird collisions with windows was completed a number of years after the EIR was certified (Johnson and Hudson 1976). The first estimate of a nationwide toll of windows on birds was published in 1990 (Klem 1990). Since then many papers have been published on research and mitigation, which I will summarize below.

According to City of Alameda (2018), the building's design would include large panes of clear-glazed windows above the main entrance and at storefronts, and it would include windows with every room. Since 1973/1989 there has been abundant research on the bird collision threat posed by birds, the factors involved, and possible ways to mitigate the threat. An EIR needs to be prepared to address this potential impact and how to mitigate it. Below is a discussion of the issue, ranging from interpreting available impact estimates to collision factors and mitigation.

Glass-façades of buildings intercept and kill many birds. At Washington State University, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a three-story glass walkway (no fatality adjustments attempted). At that rate, and not attempting to adjust the fatality estimate for the proportion of fatalities not found, 2,186 birds were likely killed over the 50 years since the start of their study, and that's at a relatively small building façade (Photo 5). Even if the searchers found a third of the actual collision victims, which would be a generous assumption in my experience, the number of birds likely killed by this walkway over the last 50 years would be 6,559. And this is just for one glass-sided walkway between two college campus buildings.

***Photo 5**. A walkway connecting two buildings at Washington State University where one of the earliest studies of bird collision mortality found 85 bird fatalities per year prior to marking windows (254 bird deaths per year adjusted for the proportion of carcasses likely not found). Given that the window markers have long since disappeared, this walkway has likely killed at least 12,700 birds since 1968, and continues to kill birds. Notice that the transparent glass on both sides of the walkway gives the impression of unimpeded airspace that can be navigated safely by birds familiar with flying between tree branches. Also note the reflected images of trees, which can mislead birds into seeing safe perch sites. Further note the distances of ornamental trees, which allow birds taking off from those trees to reach full speed upon arrival at the windows.*

Window collisions are often characterized as either the second or third largest source or human-caused bird mortality. The numbers behind these characterizations are often attributed to Klem's (1990) and Dunn's (1993) estimates of about 100 million to 1 billion bird fatalities in the USA, or more recently Loss et al.'s (2014) estimate of 365-988 million bird fatalities in the USA or Calvert et al.'s (2013) and Machtans et al.'s (2013) estimates of 22.4 million and 25 million bird fatalities in Canada, respectively. However, these estimates and their interpretation warrant examination because they were based on opportunistic sampling, volunteer study participation, and fatality monitoring by more inexperienced than experienced searchers.

Klem's (1990) estimate was based on speculation that 1 to 10 birds are killed per building per year, and this speculated range was extended to the number of buildings estimated by the US Census Bureau in 1986. Klem's speculation was supported by fatality monitoring at only two houses, one in Illinois and the other in New York. Also, the basis of his fatality rate extension has changed greatly since 1986. Whereas his estimate served the need to alert the public of the possible magnitude of the bird-window collision issue, it was highly uncertain at the time and undoubtedly outdated more than three decades hence. Indeed, by 2010 Klem (2010) characterized the upper end of his estimated range – 1 billion bird fatalities – as conservative. Furthermore, the estimate lumped species together as if all birds are the same and the loss of all birds to windows has the same level of impact.

Homes with birdfeeders are associated with higher rates of window collisions than are homes without birdfeeders (Kummer and Bayne 2015, Kummer et al. 2016a), so the developed area might pose even greater hazard to birds if it includes numerous birdfeeders. Another factor potentially biasing national or North American estimates low was revealed by Bracey et al.'s (2016) finding that trained fatality searchers found 2.6× the number of fatalities found by homeowners on the days when both trained searchers and homeowners searched around homes. The difference in carcass detection was 30.4-fold when involving carcasses volitionally placed by Bracey et al. (2016) in blind detection trials. This much larger difference in trial carcass detection rates likely resulted because their placements did not include the sounds that typically alert homeowners to actual window collisions, but this explanation also raises the question of how often homeowner participants with such studies miss detecting window-caused fatalities because they did not hear the collisions.

By the time Loss et al. (2014) performed their effort to estimate annual USA bird-window fatalities, many more fatality monitoring studies had been reported or were underway. Loss et al. (2014) were able to incorporate many more fatality rates based on scientific monitoring, and they were more careful about which fatality rates to include. However, they included estimates based on fatality monitoring by homeowners, which in one study were found to detect only 38% of the available window fatalities (Bracey et al. 2016). Loss et al. (2014) excluded all fatality records lacking a dead bird in hand, such as injured birds or feather or blood spots on windows. Loss et al.'s (2014) fatality metric was the number of fatalities per building (where in this context a building can include a house, low-rise, or high-rise structure), but they assumed that this metric was based on window collisions. Because most of the bird-window collision studies were limited to migration seasons, Loss et al. (2014) developed an admittedly assumption-laden correction factor for making annual estimates. Also, only 2 of the studies included adjustments for carcass persistence and searcher detection error, and it was unclear how and to what degree fatality rates were adjusted for these factors. Although Loss et al. (2014) attempted to account for some biases as well as for large sources of uncertainty mostly resulting from an opportunistic rather than systematic sampling data source, their estimated annual fatality rate across the USA was highly uncertain and vulnerable to multiple biases, most of which would have resulted in fatality estimates biased low.

In my review of bird-window collision monitoring, I found that the search radius around homes and buildings was very narrow, usually 2 meters. Based on my experience with bird collisions in other contexts, I would expect that a large portion of bird-window collision victims would end up farther than 2 m from the windows, especially when the windows are higher up on tall buildings. In my experience, searcher detection rates tend to be low for small birds deposited on ground with vegetation cover or woodchips or other types of organic matter. Also, vertebrate scavengers entrain on anthropogenic sources of mortality and quickly remove many of the carcasses, thereby preventing the fatality searcher from detecting these fatalities. Adjusting fatality rates for these factors – search radius bias, searcher detection error, and carcass persistence rates – would greatly increase nationwide estimates of bird-window collision fatalities.

The existing conditions – the developed area – is undoubtedly killing many birds each year. Not only are windows killing many birds, but so too are house cats, feral cats, electric distribution lines, electric power poles, and autos. This said, the proposed project will add a level of impact that is entirely missing from the CEQA review. Constructing a five-story building will not only take aerial habitat from birds, but it will also interfere with the movement of birds in the region and it will result in large numbers of annual window collision fatalities.

Buildings can intercept many nocturnal migrants as well as birds flying in daylight. As mentioned above, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a four-story glass walkway at Washington State University (no adjustments attempted). Somerlot (2003) found 21 bird fatalities among 13 buildings on a university campus within only 61 days. Monitoring twice per week, Hager at al. (2008) found 215 bird fatalities of 48 species, or 55 birds/building/year, and at another site they found 142 bird fatalities of 37 species for 24 birds/building/year. Gelb and Delacretaz (2009) recorded 5,400 bird fatalities under buildings in New York City, based on a decade of monitoring only during migration periods, and some of the high-rises were associated with hundreds of fatalities each. Klem et al. (2009) monitored 73 building façades in New York City during 114 days of two migratory periods, tallying 549 collision victims, nearly 5 birds per day. Borden et al. (2010) surveyed a 1.8 km route 3 times per week during 12-month period and found 271 bird fatalities of 50 species. Parkins et al. (2015) found 35 bird fatalities of 16 species within only 45 days of monitoring under 4 building façades. From 24 days of survey over a 48 day span, Porter and Huang (2015) found 47 fatalities under 8 buildings on a university campus. Sabo et al. (2016) found 27 bird fatalities over 61 days of searches under 31 windows. In San Francisco, Kahle et al. (2016) found 355 collision victims within 1,762 days under a 5-story building. Ocampo-Peñuela et al. (2016) searched the perimeters of 6 buildings on a university campus, finding 86 fatalities after 63 days of surveys. One of these buildings produced 61 of the 86 fatalities, and another building with collision-deterrent glass caused only 2 of the fatalities, thereby indicating a wide range in impacts likely influenced by various factors. There is ample evidence available to support my prediction that the proposed project will result in many collision fatalities of birds.

Project Impact Prediction

Predicting the number of bird collisions at a new project is challenging because the study of window collisions remains in its early stages. Researchers have yet to agree on a collision rate metric. Some have reported findings as collisions per building per year and some as collisions per building per day. Some have reported findings as collisions per m^2 of window. The problem with the temporal factor in the collision rate metrics has been monitoring time spans varying from a few days to 10 years, and even in the case of the 10-year span, monitoring was largely restricted to spring and fall migration seasons. Short-term monitoring during one or two seasons of the year cannot represent a 'year,' but monitoring has rarely spanned a full year. Using 'buildings' in the metric treats buildings as all the same size, when we know they are not. Using square meters of glass in the metric treats glass as the only barrier upon which birds collide against a building's façade, when we know it is not. It also treats all glass as equal, even though we know that collision risk varies by type of glass as well as multiple factors related to contextual settings.

Without the benefit of more advanced understanding of window collision factors, my prediction of project impacts will be uncertain. Klem's (1990) often-cited national estimate of avian collision rate relied on an assumed average collision rate of 1 to 10 birds per building per year, but studies since then have all reported higher rates of collisions 12 to 352 birds per building per year. The more recent studies, however, were likely performed at buildings known or suspected to cause many collisions, so could be biased. By the time of these comments I had reviewed and processed results of bird collision monitoring at 13 buildings and façades for which bird collisions per m^2 of glass per year could be calculated and averaged. These averaged 0.199 bird deaths per m^2 of glass per year (95% CI: 0.004-1.240). Looking over the proposed building's design, I estimated the building would include 1,694 m^2 of glass windows, which applied to the mean fatality rate would predict **337 bird deaths per year (95% CI: 7-2,101)** at the building. After 50 years the toll from this average annual fatality rate would be 16,850 bird deaths, with an empirically founded upper-end possibility of 105,050 deaths. As mentioned earlier, the accuracy of this prediction would depend on factors known or hypothesized to affect window collision rates, and it could be mitigated to a much reduced rate. In the comments that follow I will discuss these window collision factors and mitigation.

Window Collision Factors

Below is a list of collision factors I found in the scientific literature. Following this list are specific notes and findings taken from the literature and my own experience.

(1) Inherent hazard of a structure in the airspace used for nocturnal migration or other flights
(2) Window transparency, falsely revealing passage through structure or to indoor plants
(3) Window reflectance, falsely depicting vegetation, competitors, or open airspace

(4) Black hole or passage effect
(5) Window or façade extent, or proportion of façade consisting of window or other reflective surface
(6) Size of window
(7) Type of glass
(8) Lighting, which is correlated with window extent and building operations
(9) Height of structure (collision mechanisms shift with height above ground)
(10) Orientation of façade with respect to winds and solar exposure
(11) Structural layout causing confusion and entrapment
(12) Context in terms of urban-rural gradient, or surrounding extent of impervious surface vs vegetation
(13) Height, structure, and extent of vegetation grown near home or building
(14) Presence of birdfeeders or other attractants
(15) Relative abundance
(16) Season of the year
(17) Ecology, demography and behavior
(18) Predatory attacks or cues provoking fear of attack
(19) Aggressive social interactions

(1) Inherent hazard of structure in airspace.—Not all of a structure's collision risk can be attributed to windows. Overing (1938) reported 576 birds collided with the Washington Monument in 90 minutes on one night, 12 September 1937. The average annual fatality count had been 328 birds from 1932 through 1936. Gelb and Delacretaz (2009) and Klem et al. (2009) also reported finding collision victims at buildings lacking windows, although many fewer than they found at buildings fitted with widows. The takeaway is that any building going up at the project site would likely kill birds, although the impacts of a glass-sided building would likely be much greater.

(2) Window transparency.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the transparency of glass used in windows on the buildings (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred where transparent windows revealed interior vegetation.

(3) Window reflectance.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the reflectance of glass used in windows on the buildings (Klem 1989). Reflectance can deceptively depict open airspace, vegetation as habitat destination, or competitive rivals as self-images (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred toward the lower parts of buildings where large glass exteriors reflected outdoor vegetation. Klem et al. (2009) and Borden et al. (2010) also found that reflected outdoor vegetation associated positively with collisions. Depictions of the proposed building include palm trees likely to be reflected in the windows.

(4) Black hole or passage effect.—Although this factor was not often mentioned in the bird-window collision literature, it was suggested in Sheppard and Phillips (2015). The

black hole or passage effect is the deceptive appearance of a cavity or darkened ledge that certain species of bird typically approach with speed when seeking roosting sites. The deception is achieved when shadows from awnings or the interior light conditions give the appearance of cavities or protected ledges. This factor appears potentially to be nuanced variations on transparency or reflectance or possibly an interaction effect of both of these factors.

(5) Window or façade extent.—Klem et al. (2009), Borden et al. (2010), Hager et al. (2013), and Ocampo-Peñuela et al. (2016) reported increased collision fatalities at buildings with larger reflective façades or higher proportions of façades composed of windows. However, Porter and Huang (2015) found a negative relationship between fatalities found and proportion of façade that was glazed. Some of the proposed windows appear to be quite large and extensive.

(6) Size of window.—According to Kahle et al. (2016), collision rates were higher on large-pane windows compared to small-pane windows.

(7) Type of glass.—Klem et al. (2009) found that collision fatalities associated with the type of glass used on buildings. Otherwise, little attention has been directed towards the types of glass in buildings.

(8) Lighting.—Parkins et al. (2015) found that light emission from buildings correlated positively with percent glass on the façade, suggesting that lighting is linked to the extent of windows. Zink and Eckles (2010) reported fatality reductions, including an 80% reduction at a Chicago high-rise, upon the initiation of the Lights-out Program. However, Zink and Eckles (2010) provided no information on their search effort, such as the number of searches or search interval or search area around each building.

(9) Height of structure.—I found little if any hypothesis-testing related to building height, including whether another suite of factors might relate to collision victims of high-rises. Are migrants more commonly the victims of high-rises or of smaller buildings?

(10) Orientation of façade.—Some studies tested façade orientation, but not convincingly. Confounding factors such as the extent and types of windows would require large sample sizes of collision victims to parse out the variation so that some portion of it could be attributed to orientation of façade. Whether certain orientations cause disproportionately stronger or more realistic-appearing reflections ought to be testable through measurement, but counting dead birds under façades of different orientations would help.

(11) Structural layout.—Bird-safe building guidelines have illustrated examples of structural layouts associated with high rates of bird-window collisions, but little attention has been directed towards hazardous structural layouts in the scientific literature. An exception was Johnson and Hudson (1976), who found high collision rates at 3 stories of glassed-in walkways atop an open breezeway, located on a break in

slope with trees on one side of the structure and open sky on the other, Washington State University.

(12) Context in urban-rural gradient.—Numbers of fatalities found in monitoring have associated negatively with increasing developed area surrounding the building (Hager et al. 2013), and positively with more rural settings (Kummer et al. 2016a). Based on what is known, I cannot at this time predict whether the project's location would contribute more or less to the collision risk already posed by the proposed extent of windows and nearness to trees and wetlands.

(13) Height, structure and extent of vegetation near building.—Correlations have sometimes been found between collision rates and the presence or extent of vegetation near windows (Hager et al. 2008, Borden et al. 2010, Kummer et al. 2016a, Ocampo-Peñuela et al. 2016). However, Porter and Huang (2015) found a negative relationship between fatalities found and vegetation cover near the building. In my experience, what probably matters most is the distance from the building that vegetation occurs. If the vegetation that is used by birds is very close to a glass façade, then birds coming from that glass will be less likely to attain sufficient speed upon arrival at the façade to result in a fatal injury. Too far away and there is probably no relationship. But 30 to 50 m away, birds alighting from vegetation can attain lethal speeds by the time they arrive at the windows.

(14) Presence of birdfeeders.—Dunn (1993) reported a weak correlation ($r = 0.13$, $P < 0.001$) between number of birds killed by home windows and the number of birds counted at feeders. However, Kummer and Bayne (2015) found that experimental installment of birdfeeders at homes increased bird collisions with windows 1.84-fold.

(15) Relative abundance.—Collision rates have often been assumed to increase with local density or relative abundance (Klem 1989), and positive correlations have been measured (Dunn 1993, Hager et al. 2008). However, Hager and Craig (2014) found a negative correlation between fatality rates and relative abundance near buildings.

(16) Season of the year.—Borden et al. (2010) found 90% of collision fatalities during spring and fall migration periods. The significance of this finding is magnified by 7-day carcass persistence rates of 0.45 and 0.35 in spring and fall, rates which were considerably lower than during winter and summer (Hager et al. 2012). In other words, the concentration of fatalities during migration seasons would increase after applying seasonally-explicit adjustments for carcass persistence. Fatalities caused by collisions into the glass façades of the project's buildings would likely be concentrated in fall and spring migration periods.

(17) Ecology, demography and behavior.—Klem (1989) noted that certain types of birds were not found as common window-caused fatalities, including soaring hawks and waterbirds. Cusa et al. (2015) found that species colliding with buildings surrounded by higher levels of urban greenery were foliage gleaners, and species colliding with buildings surrounded by higher levels of urbanization were ground foragers. Sabo et al.

(2016) found no difference in age class, but did find that migrants are more susceptible to collision than resident birds.

(18) Predatory attacks.—Panic flights caused by raptors were mentioned in 16% of window strike reports in Dunn's (1993) study. I have witnessed Cooper's hawks chasing birds into windows, including house finches next door to my home and a northern mocking bird chased directly into my office window. Predatory birds likely to collide with the project's windows would include Peregrine falcon, red-shouldered hawk, Cooper's hawk, and sharp-shinned hawk.

(19) Aggressive social interactions.—I found no hypothesis-testing of the roles of aggressive social interactions in the literature other than the occasional anecdotal account of birds attacking their self-images reflected from windows. However, I have witnessed birds chasing each other and sometimes these chases resulting in one of the birds hitting a window.

Window Collision Solutions

Given the magnitude of bird-window collision impacts, there are obviously great opportunities for reducing and minimizing these impacts going forward. Existing structures can be modified or retrofitted to reduce impacts, and proposed new structures can be more carefully sited and designed to minimize impacts. However, the costs of some of these measures can be high and can vary greatly, but most importantly the efficacies of many of these measures remain uncertain. Both the costs and effectiveness of all of these measures can be better understood through experimentation and careful scientific investigation. Post-construction fatality monitoring should be an essential feature of any new building project. Below is a listing of mitigation options, along with some notes and findings from the literature.

(1) Retrofitting to reduce impacts

(1A) Marking windows
(1B) Managing outdoor landscape vegetation
(1C) Managing indoor landscape vegetation
(1D) Managing nocturnal lighting

(1A) Marking windows.—Whereas Klem (1990) found no deterrent effect from decals on windows, Johnson and Hudson (1976) reported a fatality reduction of about 69% after placing decals on windows. In an experiment of opportunity, Ocampo-Peñuela et al. (2016) found only 2 of 86 fatalities at one of 6 buildings – the only building with windows treated with a bird deterrent film. At the building with fritted glass, bird collisions were 82% lower than at other buildings with untreated windows. Kahle et al. (2016) added external window shades to some windowed façades to reduce fatalities 82% and 95%. Many external and internal glass markers have been tested experimentally, some showing no effect and some showing strong deterrent effects (Klem 1989, 1990, 2009, 2011; Klem and Saenger 2013; Rössler et al. 2015).

(2) Siting and Designing to minimize impacts
(2A) Deciding on location of structure
(2B) Deciding on façade and orientation
(2C) Selecting type and sizes of windows
(2D) Designing to minimize transparency through two parallel façades
(2E) Designing to minimize views of interior plants
(2F) Landscaping to increase distances between windows and trees and shrubs

Guidelines on Building Design

If the project goes forward, it should at a minimum adhere to available guidelines on building design intended to minimize collision hazards to birds. The American Bird Conservancy (ABC) produced an excellent set of guidelines recommending actions to: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al. 2007). The ABC document and both the New York and San Francisco documents provide excellent alerting of potential bird-collision hazards as well as many visual examples. The San Francisco Planning Department's (2011) building design guidelines are more comprehensive than those of New York City, but they could have gone further. For example, the San Francisco guidelines probably should have also covered scientific monitoring of impacts as well as compensatory mitigation for impacts that could not be avoided, minimized or reduced.

City of Alameda has developed its own guidelines on bird-safe building standards, which is a helpful step forward. These standards have yet to be adopted, but City of Alameda deserves credit for developing standards. Hopefully, the standards can be modified a bit to further improve efficacy. For example, they assume that glazed windows are safe, but I have not seen sufficient evidence to confirm this assumption. Also, the minimum window size standard ought to be reduced or eliminated, and so should the minimum percentage of façade composed of glass. Another needed modification would be the addition of fatality monitoring provisions requiring at least one year of scientific monitoring by qualified biologists and public reporting of results. A provision is also needed for funding care and rehabilitation of injured birds. Multiple studies I reviewed reported finding injured birds, including one that reported a third of all collision victims having been injured and alive.

The proposed building's north and south façades would come very close to meeting the ordinance's minimum standard for percentage of the façade composed of glass, but a predicted toll of 337 (95% CI: 7-2,101) bird deaths per year (see earlier comment) should compel compliance with the ordinance even if the percentage glass on a façade falls short of the current draft standard. Otherwise, every window on the proposed building would exceed the minimum 12-ft^2 extent, so all of the windows would fall under the ordinance. Provisions of the ordinance should be enforced wit this proposed project. The evidence shows that window collisions can be substantially reduced through mitigation measures.

CUMULATIVE IMPACTS

City of Alameda (2018) did not address the project's potential cumulative effects on wildlife, nor did the previous EIR (City of Alameda 1973, 1989). A cumulative effects analysis is mandatory, according to the CEQA Guidelines.

MITIGATION

City of Alameda (2018) proposes no mitigation for impacts to special-status species of wildlife. The only mitigation in the earlier EIR (City of Alameda 1973, 1989) was (1) the side-benefit of a constructed lagoon, the primary purpose of which was for providing residents with open space and recreation, and (2) a vague mention of burrowing owl translocation, which I assume failed because only 1 to 2 pairs of burrowing owls remained in western Alameda County in 2018. No mitigation is proposed for any of the 47 special-status species in Table 2.

RECOMMENDED MEASURES

Detection Surveys

Detection surveys are needed to inform a project decision, as well as preconstruction take-avoidance surveys and the formulation of appropriate mitigation measures. For example, to comply with the CDFW (2012) burrowing owl breeding-season survey guidelines, at least four surveys are needed during the breeding season, each separated by 3 weeks and according to specific schedule attributes. Protocol-level detection surveys have been developed for most special-status species of wildlife, some of which overlap to various degrees in methodology. Without detection surveys, absence determinations lack foundation.

Wildlife Movement

City of Alameda (2018) provides no mitigation for adverse impacts on regional movement of wildlife. At a minimum, substantial compensatory mitigation is needed in response to the project's impacts on wildlife movement, including impacts on birds using the site as stop-over or staging habitat during migration. The proposed project site composes the last patch of open space available to birds on long-distance dispersal or migration flights on this portion of Harbor Bay Isle.

Artificial Lighting

A mitigation objective should be minimization of nighttime light pollution on the Bay side of the project. Compensatory mitigation could also include steps to reduce artificial lighting elsewhere along Harbor Bay Parkway.

Window Collisions

Transparency and reflectance increase collision risk, but there are materials available to minimize the effects of transparency and reflectance, including the glass itself. Landscaping around buildings can also affect collision risk, but risks can be minimized by carefully planning the landscaping. Interior lighting also increases risk to nocturnal migrants, but the effects of interior lighting is readily mitigated by minimizing use of lights as well as the lighting of any interior landscaping. I recommend consulting available guidelines on minimizing impacts to wildlife caused by windows. For example, the American Bird Conservancy produced an excellent set of guidelines recommending: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al. 2007). Based on these guidelines, I recommend that City of Alameda revise and adopt its own ordinance on bird-safe building designs, and that the proposed project be subject to the City's ordinance.

Fund Wildlife Rehabilitation Facilities

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries will likely be caused by window collisions, collisions with cars driven to and from the site by hotel guests, and attacks by dogs walked by hotel guests. But the project's impacts can also be offset by funding the treatment of injuries to animals caused by other buildings, electric lines, cars, and cats.

Thank you for your attention,

Shawn Smallwood

Shawn Smallwood, Ph.D.

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White-crowned sparrow (left) and house finch (right) on site

Mourning doves on site