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CAPITAL OF SILICON VALLEY

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NOTICE OF ENVIRONMENTAL APPEAL

TO BE COMPLETED BY PLANNING STAFF

FILE NUMBER H17-023

TYPE OF ENVIRONMENTAL DETERMINATION (EIR, MND, EX) MND

RECEIPT # 1259112

AMOUNT $250.00

DATE 11/30/18

BY KMATHUR

TO BE COMPLETED BY PERSON FILING APPEAL

PLEASE REFER TO ENVIRONMENTAL APPEAL INSTRUCTIONS BEFORE COMPLETING THIS PAGE.

THE UNDERSIGNED RESPECTFULLY REQUESTS AN APPEAL FOR THE FOLLOWING ENVIRONMENTAL DETERMINATION: The approval of an initial study and mitigated negative declaration for the AC by Marriot – West San Jose project, File No. H17-023. The approval was made at the November 28, 2018 Planning Director's hearing (Agenda Item 3.a)

REASON(S) FOR APPEAL (For additional comments, please attach a separate sheet.): See attached.
Each of the issues raised in the attached comment letters including but not limited to 1) there is substantial evidence in the record of fair arguments that the Project's emissions of formaldehyde, air pollutants, toxic air contaminants, and GHGs, may have significant impacts requiring an EIR; and 2) the IS/MND of potential impacts of these emissions is not supported by substantial evidence.

PERSON FILING APPEAL

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PLEASE CALL THE APPOINTMENT DESK AT (408) 535-3555 FOR AN APPLICATION APPOINTMENT.

ATTACHMENT 1

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October 24, 2018 Via E-mail

Rosalynn Hughey, Director
Sylvia Do, Acting Deputy Director
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Re: AC by Marriott - West San Jose Project
(October 31, 2018 Director's Hearing, Agenda Item 4.a; Project File No. HI7-023)

Dear Director Hughey, Deputy Director Do, Mr. Rivera, and Ms. Mathur:

I am writing on behalf of the Laborers International Union of North America, Local Union 270 and its members living in and around the City of San Jose ("LIUNA") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the AC by Marriott - West San Jose Project ("Project") (Project File No. HI7-023). After reviewing the IS/MND, and with the assistance of expert review by environmental consulting firm SWAPE, the evidence indicates that there is a "fair argument" that the Project may have unmitigated adverse environmental impacts or, alternatively, the IS/MND is not supported by substantial evidence. SWAPE's comments (attached hereto as Exhibit A) as well as the comments below identify substantial evidence of a fair argument that the Project may have significant environmental impacts. Accordingly, an environmental impact report ("EIR") is required to analyze these impacts and to propose all feasible mitigation measures to reduce those impacts. We urge the Planning Director to decline to approve the IS/MND, and to instruct staff to prepare an EIR for the Project prior to any Project approvals.

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I. PROJECT BACKGROUND

The proposed Project includes the demolition of an existing gas station and the construction of an approximately 78,850 square feet hotel including 168 guest rooms, a restaurant and four floors of underground parking for 100 vehicles. Little information is provided regarding the restaurant but it would presumably be open to the public as well as guests and could generate significant use by non-guests. The Project's hotel use would generate about 1,400 vehicle trips per day. The MND hints at the possible use of parking at another nearby location should the proposed parking prove insufficient to handle the demand generated by the Project.

II. LEGAL STANDARD

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.

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 & Zischke, *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.

In addition, a negative declaration must accurately describe the proposed project and its environmental setting. *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180; CEQA Guidelines §15071(a). The initial study must "provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment." CEQA Guidelines § 15063(c)(5).

III. There is a Fair Argument that the Project May Have Unmitigated Adverse Environmental Impacts.

A. The MND's air quality analysis is not based on substantial evidence because it fails to address all uses that will attract traffic to the Project.

Based on the floor plans included in the materials, it appears that the proposed restaurant is slated for about one-fourth to one-third of the first floor of the building. Based on the 9,850 square feet of floor space identified for the first floor, the restaurant would correlate to about a 3,000 square feet restaurant. Like other restaurants located in hotels, the proposed restaurant would presumably be open to the public. Those additional visitors to the Project are not factored into either the traffic counts or the air modeling for the Project. As SWAPE's review identifies, "only the proposed hotel land use was inputted into the model, while the restaurant land use was omitted entirely from the model." SWAPE Comments, pp. 2, 4. As a result, the air emissions from the Project are underestimated and not based on substantial evidence. *Id.*

The air emissions are further underestimated by the use of a smaller building square footage in the CalEEMod inputs than is proposed. Rather than the 78,850 square feet building described in the IS/MND, the CalEEMod files use a 77,900 square feet building. This error also underestimates the air pollution emissions of the Project. SWAPE Comments, p. 2.

Highly significant emissions from the many truck trips necessary to haul away materials from the demolition of the existing gas station also are not calculated by the project's CalEEMod modeling. Although the IS/MND states that "estimated emissions associated with the demolition of the existing gas station and service station are included in the demolition phase of the project[,]" a review of the CalEEMod inputs shows that zero haul trips were input for that demolition activity. IS/MND, p. 43; *Id.*, App. B, p. 7. The inputs indicate that haul trips are estimated to be 20 miles in distance, but the number of trips would be zero. *Id.*, App. B, p. 7. Significant air pollution emissions are overlooked by this omission.

Lastly, the Transportation Demand Management Plan ("TDM Plan") and IS/MND both identify a parking contingency requiring the use of nearby off-street parking should the 100 spaces included in the subterranean garage prove to be inadequate. No specific off-street parking location is identified. Under the City's code, without a TDM plan and nearby bus routes, the Project would require 186 parking spaces. It thus seems reasonable to evaluate a worst case scenario contingency of providing up to 86 off-site spaces. Neither the air pollution nor traffic impacts of vehicles using the possible off-site parking locations is evaluated in the CalEEMod air modeling or the traffic impact analysis. As a result, the air emissions as well as the Project's traffic impacts are once again underestimated.

Because of these omissions and inaccuracies, the air pollution modeling result is not supported by substantial evidence. The applicant should rerun the modeling in order to ascertain the actual anticipated emissions from the Project's construction and operation.

B. There is substantial evidence of a fair argument that the Project may have significant health risk impacts from its emissions of toxic air contaminants.

People sensitive to toxic air contaminants virtually surround the proposed site. "The sensitive receptors nearest to the project include existing residences to the east and south/south west and the Sunflower Learning Center (pre-school and afterschool) to the west." IS/MND, p. 38. "The closest sensitive receptors to the project site are existing residences approximately 60 feet east of the project site." *Id.*, p. 104. Despite the numerous nearby receptors, the IS/MND cavalierly attempts to interpolate that the Project's emissions will not have any health impacts on nearby sensitive receptors from its claim that the Project will not exceed any BAAQMD significance thresholds. IS/MND, p. 38. The IS/MND's conclusion is not supported by a quantitative health risk assessment ("HRA"). *Id.*; SWAPE Comments, p. 4. Nor is there any quantitative assessment of toxic air contaminant emissions, including diesel particulate matter from the project. *Id.* As SWAPE points out:

> the Project Applicant cannot claim that the Project would result in a less than significant health risk impact without properly assessing the diesel particulate matter (DPM) emissions that will be emitted during Project activities. As a result, until the Project's construction and operational health risk impacts are adequately quantified and compared to applicable thresholds, the IS/MND cannot make any conclusions with regard to the Project's health risk impacts.

SWAPE Comments, p. 5. In order to fully disclose the potential health risks associated with the Project, an accurate health risk assessment for the entire Project consistent with guidelines published by the Office of Environmental Health Hazard Assessment

must be prepared. Currently, the IS/MND's conclusion that the Project will not result in any significant health risks is not supported by substantial evidence and a fair argument exists that the Project may have significant health risk impacts.

Based on the limited information provided by the IS/MND, a fair argument exists that the Project may have a significant health risk impact to nearby sensitive receptors. SWAPE has prepared a Level 2 health risk screening assessment ("HRSA") for the project. BAAQMD recommends a significance threshold of an increased cancer risk of 10 in one million and an increased cumulative cancer risk of 100 in a million from all local sources. Applying the U.S. Environmental Protection Agency's AERSCREEN model, as recommended by OEHHA and the California Air Pollution Control Officers Association, SWAPE calculates that construction and operation of the Project will result in cancer risks to infants, children, adults, during the third trimester of pregnancy, and nearby residents over the course of a 30-year residential lifetime of, respectively, 310 in one million, 170 in one million, 26 in one million, 16 in one million, and 510 in one million, well in excess of BAAQMD's threshold. SWAPE Comment, pp. 4-8. Based on this substantial screening evidence, a fair argument is present that the Project may have significant health risk impacts on nearby residents.

Likewise, contrary to CEQA, by adding TAC emissions to the immediate area, the Project cannot avoid evaluating the cumulative impacts of the Project including the adjacent Stevens Creek Boulevard's existing TAC emissions on the Project's nearby sensitive receptors. Given the health risks identified above and the fact that the Project itself may increase cancer risks by more than 100 in a million, the addition of TACs from the Project's construction and operation is considerable and may significantly contribute to the Project's cumulative adverse health risk impact including the existing impacts from traffic on Steven's Creek Boulevard and perhaps other adjacent TAC sources. Hence, the IS/MND's conclusion that the Project will not have cumulative health risk impact is not supported by substantial evidence and a fair argument exists that the Project will result in cumulative health risks.

By failing to assess the health risks to adjacent sensitive receptors, the Project also is inconsistent with the City's General plan. The General Plan addresses toxic air contaminants by establishing Goal MS-11 requiring the City to "[m]inimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, and particulate matter." To achieve this goal, the General Plan's Policy MS-11.1 states that the City must "[r]equire completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses" and require effective mitigation measures. The lack of any TAC modeling for the Project fails to protect the sensitive receptors adjacent to the project and is inconsistent with this goal and policy.

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C. A fair argument exists that the project may have significant GHG emissions because the Project fails to explain how it complies with requirements of the City's GHG Reduction Strategy and does not include solar panels or other strategies supposedly encouraged by the Strategy.

The IS/MND, despite acknowledging that the Project is projected to emit approximately 1,528 metric tons per year – well above the BAAQMD threshold of 1,100 metric tons of CO2e per year – claims that because the Project is consistent with the mandatory requirements of the City's GHG Reduction Strategy ("GHGRS"), it will not have any significant impacts from its GHG emissions. IS/MND, pp. 64-69. However, "[i]f there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project." 14 Cal. Admin Code § 15183.5(b)(2). The evidence that the Project is projected to exceed BAAQMD's numeric GHG threshold is substantial evidence that the Project may be cumulatively considerable despite its alleged compliance with the City's GHGRS. The Guidelines thus require the preparation of an EIR.

Moreover, "[a] plan for the reduction of greenhouse gas emissions should: … (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable.… 14 Cal. Admin Code § 15183.5(b)(1)(B). San Jose's GHGRS does not establish any such level.

In addition, "[a]n environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project." 14 Cal. Admin Code § 15183.5(b)(2). Going through the relevant GHG reduction strategies included in the City's plan and referenced in the IS/MND, there is no evidence that any of the referenced strategies are either requirements that apply to the Project or would result in any significant reduction in GHG emissions from the Project.

For example, the GHGRS calls for the City to "[p]lan for housing sufficient to house 100% of the Bay Area's future workers and residents from all income levels, without displacing current low-income residents." This strategy is not a requirement that applies to or is even relevant to this hotel project and does nothing to mitigate the Project's GHG emissions.

The IS/MND points to the GHGRS's requirement that the City "[r]educe vehicle miles traveled (VMT) per capita by 10%." The proposed hotel Project will increase the existing VMTs resulting from the gas station at the site. No reduction of VMTs from the

existing conditions will result from the Project. The IS/MND relies on the notion that the hotel project is infill development. IS/MND, p. 66. The IS/MND then points to the presence of four Santa Clara Valley Authority ("SCVA") bus stops within a quarter mile of the site. No evidence that hotel guests actually use public transit buses is provided in support of the IS/MND analysis. The notion that hotel guests for a Marriott hotel laden with luggage are likely to use buses rather than ride-share services or rental cars is not supported by any evidence and is counterintuitive. Certainly, SCVA must have data on its ridership, including what, if any, percent of riders are hotel guests. AC Marriott also has other existing hotels in the Bay area from which it also could have extracted information about the likelihood that guests would utilize bus transit at the proposed location. The assertion that bus options will in fact encourage any significant number of the hotel's guests to drive less is not substantiated with any evidence. Even if the hotel were to provide shuttles to nearby attractions, there is no evidence that the additional VMT required to get people to and from the hotel will be reduced at all.

A similar paucity of evidence undermines the IS/MND's reference to the TDM's strategy of "[i]ncreas[ing] location efficiency." IS/MND, p. 69. Again, the IS/MND relies on the unsubstantiated assumption that hotel guests will opt to use transit buses within a quarter of a mile of the Project in some significant numbers. *Id*. There is no evidence that any substantial number of guests would utilize that service. The IS/MND also notes the presence of a bike lane on Stevens Creek Boulevard. Again, few if any people arriving and departing the hotel or heading to business meetings are likely to ride a bike from the hotel, so there is no evidence that the presence of the bike lane would encourage in any meaningful way any transportation efficiencies associated with the project's location.

The GHGRS calls for the "Installation of solar panels or other clean energy power generation sources on development sites, especially over parking areas." *See* IS/MND, p. 68. Rather than installing solar panels, the Project merely proposes to "install solar ready zone areas on the roof which is an allocated space suitable for solar panels to be installed at a future date." *Id*. How is this half-step consistent with the installation of solar panels? In order to be consistent with the GHGRS and Section 15183.5(b)(2), there must be a binding commitment for the hotel to install solar panels. In order to mitigate the Project's GHG impacts, the panels should be operative by the conclusion of the Project's construction.

The GHGRS calls for the use of recycled water wherever feasible and cost-effective. *See* IS/MND, p. 68. Rather than explain whether or not recycled water is feasible and cost-effective, the Project and IS/MND simply state that recycled water is not proposed. *Id*. More is needed to erase this mandatory requirement of the City's GHGRS.

The GHGRS highlights the importance of car share programs. IS/MND, Appendix F (AC Hotel Transportation Demand Management Plan ["TDM"]), p. 12; IS/MND, p. 68. However, the Project's IS/MND leaves its possible car share program entirely

undeveloped. The IS/MND indicates that the hotel "will implement a carpool/vanpool or car-share program, carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool or car-share vehicles, and assign carpool, vanpool and car-share parking at the most desirable on-site locations at the ratio set forth in the proposed project's conditions of approval." It is impossible to tell what kind of program is envisioned or whether it would prove effective in a hotel context. The TDM actually identifies only five measures. These include providing bus passes to employees. TDM, p. 14. Certainly useful but not a large source of VMTs from the Project given that 18 employees are anticipated on site at any given time. *See* IS/MND, Appendix G, p. 35. The TDM also identifies a hotel shuttle for guests to points of interest and a bicycle program. TDM, p. 14. As noted above, how effective these measures may be is not supported by any evidence or analysis. Even the suggested hotel shuttle to and from major points of interest may or may not meaningfully reduce VMTs if use by guests is limited. The TDM also relies on having guests pay for parking. *Id.*, pp. 14-15. Lastly, the TDM includes a TDM coordinator at the hotel and identifies various third party trip planning services. *Id.*, p. 15. Although each of these measures is beneficial and could reduce the Project's expected VMTs by some unknown amount, there is no evidence to suggest it is likely that these measures will reduce the Project's increased VMTs in any meaningful way.

The GHGRS calls for plans to "[l]imit parking above code requirements." IS/MND, p. 68. The Project does limit parking to well below the spaces otherwise required by the Code – 100 versus 186 spaces. However, the TDM and IS/MND indicate that the hotel may arrange for parking at nearby lots. IS/MND, pp. 128-129. That contingency would effectively eliminate any benefit of requiring reduced parking on-site. Moreover, the TDM relies mostly on the presence of bus lines nearby. It is unrealistic for a hotel project to depend on guests visiting for a few days to meaningfully rely upon bus routes to travel to and from the hotel, especially when first arriving and departing with luggage.

The IS/MND relies on the requirement for the Project to comply with the City's Green Building ordinance. IS/MND, p. 66. The IS/MND lists several green building features to be applied by the project. *Id.*, p. 67. These include designated parking for clean air vehicles, underground parking reducing heat island effects, low water use fixtures, rainwater (grey water) use in landscaped areas, rainwater bio swales developed on- site, cooling roofing material shall be utilized reducing heat island effects, adhesives, sealants and caulks shall be low or no VOC and the dedicated solar ready zone will be provided on the roof. Although these measures may have incremental benefits (although actual solar panels are not guaranteed), there is no indication whether or how these measures will comply with the green building ordinance.

The City's Green Building Ordinance boils down to a requirement that certain categories of projects within San Jose achieve certain levels of LEED certification. San Jose Municipal Code, Chapter 17.84. LEED certification is not transparent to a reader of the IS/MND. The various LEED certification levels are based on a point system. The IS/MND does not explain the LEED point system. Nothing in the IS/MND explains what

features the Project would claim to justify whatever points may be available to the Project in the LEED system. In other words, it is completely opaque for the IS/MND to invoke the City's Private Sector Green Building Policy and Green Building Ordinance, which in turn invoke a LEED point system that is inaccessible to the reviewing public, as a logical explanation of how the Project's specific design elements and facilities will reduce GHG emissions.

The Private Sector Green Building Policy actually requires this Project to be certified LEED Silver. http://www.sanjoseca.gov/index.aspx?NID=3284 ("Commercial/Industrial Tier 2 - ≥ 25,000 square feet = LEED Silver"). Residential projects may rely on a mere LEED certification. San Jose Municipal Code § 17.84.104 ("'Commercial / industrial building' means all non-residential construction including construction of retail space, office space, and other commercial uses, regardless of the zoning scheme at the project's location"). *See also* § 17.84.112 ("'Large commercial building' means a non-residential building having a gross floor area of twenty-five thousand (25,000) square feet or more and is not a high-rise building"). Large commercial buildings are deemed Tier two projects under the Code. § 17.84.121 ("Tier two project" means a large commercial industrial building…"). "All tier two commercial industrial projects for which this chapter is applicable must receive the minimum green building certification of LEED Silver." § 17.84.220.

Even with that heightened LEED certification level, the City's ordinance does not guarantee that even a large commercial project such as the proposed Project will necessarily achieve LEED Silver because it provides for Project specific exemptions at the discretion of the Director of Planning. § 17.84.210. As a result, no one can be sure what compliance with the City's Green Building Ordinance may look like for this Project.

Accordingly, the IS/MND is entirely without evidentiary support and a fair argument exists that the Project may have significant GHG emission impacts.

D. CONCLUSION

For the foregoing reasons, the IS/MND for the Project should be withdrawn, an EIR 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

Michael R. Lozeau
Lozeau | Drury LLP

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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October 24, 2018

Michael Lozeau
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Subject: Comments on the AC by Marriott – West San Jose Project

Dear Mr. Lozeau,

We have reviewed the August 2018 Initial Study and Mitigated Negative Declaration (IS/MND) for the AC by Marriott – West San Jose Project ("Project") located in the City of San Jose ("City"). The Project proposes to demolish an existing gas station and convenience store in order to construct a 168-room hotel with 4 levels of subterranean parking, a restaurant, and associated on-site improvements including paving and landscaping across the 0.451-acre lot.

Our review concludes that the IS/MND fails to adequately evaluate the Project's Air Quality and Greenhouse Gas (GHG) impacts. As a result, emissions and health impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. A Draft Environmental Impact Report (DEIR) should be prepared to adequately assess and mitigate the potential health risk and GHG impacts the Project may have on the surrounding environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.1 ("CalEEMod").[1] CalEEMod provides recommended default values based on site specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (CEQA) requires that such changes be justified by substantial evidence.[2] Once all of the values are

[1] CalEEMod Model 2013.2.2 Website Archive, *available at:* http://www.aqmd.gov/caleemod/download-model-2013

[2] CalEEMod Model 2013.2.2 User's Guide, pp. 2, 9, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6

inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions, and make known which default values were changed as well as provide a justification for the values selected.[3]

When we reviewed the Project's CalEEMod output files, found in Appendix B, we found that several of the values inputted into the model were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are greatly underestimated. A DEIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Failure to Include All Land Use and Use Correct Land Use Sizes

Review of the Project's CalEEMod output files demonstrates that not all of the land uses proposed by the IS/MND were included in the Project's CalEEMod model. As a result, the Project's construction and operational emissions are underestimated.

According to the IS/MND, the Project "would have a total building area of approximately 78,850 square feet and would include 168 guestrooms, a lobby, fitness room, restaurant, meeting room, market, employee breakroom, and linen/laundry area" (pp. 16). However, review of the Project's CalEEMod output files, found in Appendix B, demonstrates that only the proposed hotel land use was inputted into the model, while the restaurant land use was omitted entirely from the model (Appendix B, pp. 1). Furthermore, the output files also demonstrate that the hotel land use size was underestimated within the model (see excerpt below) (Appendix B, pp. 1).

5696 Stevens Creek Blvd. Hotel - AC by Marriott
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	100.00	Space	0.00	49,590.00	0
Hotel	168.00	Room	0.42	77,900.00	0

As you can see in the excerpt above, the Project Applicant failed to include the proposed restaurant land use and underestimated the total floor surface area of the proposed hotel land use. As previously mentioned, the land use type and size features are used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations. [4] For example, the square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC

[3] CalEEMod Model 2013.2.2 User's Guide, pp. 7, 13, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6 (A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.)

[4] CalEEMod User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2, p. 17

emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts). Furthermore, CalEEMod assigns each land use type with its own set of energy usage emission factors.[5] By completely omitting the restaurant land use and by underestimating the hotel land use size within the model, the emissions that would be produced during construction and operation of the proposed restaurant are unaccounted for and the emissions generated by the proposed hotel are underestimated. As a result, the Project's emissions are greatly underestimated.

Failure to Account for Total Number of Hauling Truck Trips during Demolition Phase

The IS/MND's CalEEMod model completely fails to model the hauling truck trips that will be generated during the demolition phase of construction. As a result, the Project's construction emissions are underestimated.

According to the IS/MND, the Project site is currently developed with a Shell gas station and an auto-repair business (p. 19). The IS/MND also states that "as part of the implementation of the proposed project, the existing gas station and service station will be demolished" (pp. 52). Furthermore, the IS/MND states that "estimated emissions associated with the demolition of the existing gas station and service station are included in the demolition phase of the project" (pp. 43). However, review of the Project's CalEEMod output files demonstrates that IS/MND modeled emissions assuming that there would be zero hauling trips during the demolition phase of construction (see excerpt below) (Appendix B, pp. 7).

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	54.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

As demonstrated above, the Project's model fails to account for any of the hauling truck trips needed to haul all the debris resulting from demolition of the existing Shell station and auto-repair business. By failing to account for the total number of hauling truck trips expected to occur throughout Project construction, the IS/MND substantially underestimates the Project's construction-related emissions. As a result, the criteria air pollutant emissions provided in the IS/MND are incorrect and unreliable and should not be used to determine Project significance.

Incorrect Daily Vehicle Trip Estimation

[5] CalEEMod User's Guide, Appendix D, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2

Review of the Project's Traffic Impact/Operations Analysis (TIA) demonstrates that the Project Applicant failed to evaluate the trips generated from the restaurant land use. As a result, the TIA is incorrect and should not be used to determine the Project's operational emissions.

As previously mentioned, the Project proposed to construct a "hotel with 168 rooms, four (4) levels of subterranean parking, a restaurant, and associated on-site improvement" (p. 9). Review of the TIA demonstrates that the total operational daily vehicle trip estimation provided within the analysis only accounts for trips resulting from the hotel land use and fails to account for any trips resulting from the restaurant land use (see excerpt below) (Table 6, Appendix G, pp. 28).

Table 6
Trip Generation for Existing and Proposed Land Uses

Existing Land Uses[1]	Daily Trip Ends (ADTs)	AM Peak Hour			PM Peak Hour		
	Volume	Volume			Volume		
		In	Out	Total	In	Out	Total
Existing Use Gross Trips (A)	761	24	26	50	34	37	71

Proposed Land Use[2]	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
AC Hotel by Marriott (B)	168 Rooms	8.36/room	1404	0.47	59:41	47	32	79	0.60	51:49	51	50	101

	ADT	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Net New Trips (B) - (A)	643	23	6	29	17	13	30

1 = Data collected at existing driveways on February 20th and 21st, 2018 and averaged to determine existing use gross trips.

2: Rates from ITE Trip Generation (10th Edition, 2017)

As you can see in the excerpt above, vehicle trips generated by the proposed restaurant land use were not included in the total daily trips and, as a result, the Project's total daily operational vehicle trip estimation is incorrect. As a result, the operational mobile-source emissions associated with the Project are incorrect and should not be used to determine Project significance.

Failure to Evaluate All Potential Parking Land Use Requirements

Review of the IS/MND and the Project's Transportation Demand Management (TDM) Program, found in Appendix F, demonstrates that the Project Applicant failed to model all possible land uses in the Project's CalEEMod modeling. As a result, the Project's emissions are likely underestimated.

The Project Applicant proposes a TDM plan in order to reduce project parking demand to 46% below the City's minimum parking requirement (Appendix F, pp. 24). As a result, the Project Applicant proposes to construct 100 subterranean parking stalls (p. 128). The IS/MND states,

> "As noted above, the Applicant is requesting a reduction from the amount of onsite parking spaces required per Section 20.90.220 of San Jose Municipal Code. As part of this request, the Applicant has commissioned the preparation of a Transportation Demand Management (TDM) Plan (Appendix F), which evaluates the proposed reduction of onsite parking spaces. The project proposes to include one hundred (100) subterranean parking stalls, including stalls for standard

vehicles, clean air vehicles, ADA accessible, and motorcycle access. Page 16 of the TDM Plan notes that the proposed project will need to explore the possibility of entering into an agreement to utilize private off-street parking spaces on nights and weekends at a nearby land use (property), such as the existing and proposed office development on the north side of Stevens Creek Boulevard, in the event it is determined that that number parking spaces provided on-site (100 parking spaces does not meet demand" (p. 128-129).

The Project Applicant goes onto say, in the TDM, conducted by TJW Engineering, Inc.,

> "If all possible TDM measures are implemented and it is determined that the project still fails to meet the parking demand with the 100 on-site parking spaces provided, the project will need to explore the possibility of entering into an agreement to utilize private off-street parking on nights and weekends at a nearby land use, such as the existing and proposed office development on the north side of Stevens Creek Boulevard. The use of nearby private off-street spaces, if necessary, would not conflict with the goals of the TDM plan, since there currently is an abundance of available parking within these private lots, and would increase the utilization of an existing underutilized asset" (Appendix F, p. 16).

Therefore, the Project Applicant acknowledges that additional, off-site parking may be required. However, review of the Project's CalEEMod output files demonstrates that the Project Applicant only modeled emissions from the proposed 100 on-site parking uses (see excerpt below) (Appendix B, pp. 1).

5696 Stevens Creek Blvd. Hotel - AC by Marriott
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	100.00	Space	0.00	49,590.00	0
Hotel	168.00	Room	0.42	77,900.00	0

As a result, the Project Applicant fails to model emissions from all possible parking land uses. According to the CalEEMod User's Guide, parking lots create emissions from electricity use, architectural coating activities, and parking lot degreasers.[6] Therefore, since the Project may require additional, off-site parking that was not included in the CalEEMod model, Project's operational emissions are underestimated. The Project Applicant should have conducted the most conservative analysis, as is required by CEQA, and modeled all possible land uses. Prior to Project Approval, an updated air quality analysis should be conducted in a project-specific DEIR.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND concludes that the proposed Project would have a less than significant impact on the health of sensitive receptors near the Project site without conducting a quantitative health risk assessment

[6] CalEEMod User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2, p. 2

(HRA) for construction or operation (p. 38). The Project Applicant does not discuss the preparation of an HRA, nor is there any quantitative assessment of the potential toxic air contaminant (TAC) emissions that would be emitted during construction or operation. The IS/MND attempts to justify this conclusion by stating,

> "As discussed above, grading and construction of the project site would not create emissions that would exceed BAAQMD thresholds for any criteria pollutant. Therefore, the proposed project will not expose sensitive receptors to substantial pollutant concentrations, and will result in **a less than significant impact**" (p. 38).

This justification and subsequent significance determination, however, are incorrect, as the Project Applicant cannot claim that the Project would result in a less than significant health risk impact without properly assessing the diesel particulate matter (DPM) emissions that will be emitted during Project activities. As a result, until the Project's construction and operational health risk impacts are adequately quantified and compared to applicable thresholds, the IS/MND cannot make any conclusions with regard to the Project's health risk impacts.

By failing to prepare a construction or an operational HRA, the IS/MND is inconsistent with recommendations set forth by the Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations for health risk assessments in California. In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.[7] This guidance document describes the types of projects that warrant the preparation of a health risk assessment. Construction of the Project will produce emissions of DPM, a human carcinogen, through the exhaust stacks of construction equipment over a construction period of 18 months (p. 10, p. 36). The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[8] Therefore, per OEHHA guidelines, health risk impacts from Project construction should have been evaluated by the IS/MND. Furthermore, once construction of the Project is complete, the Project will generate 643 daily operational vehicle trips, which will generate additional exhaust emissions, thus continuing to expose nearby sensitive receptors to emissions (Appendix G, pp. 28). The OEHHA document recommends that exposure from projects lasting more than 6 months should be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR).[9] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, health risks from Project operation should have also been evaluated by the IS/MND, as a 30-year exposure duration vastly exceeds the 2-

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[7] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html

[8] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18

[9] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

month and 6-month requirements set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, an updated assessment of health risks to nearby sensitive receptors from construction and operation should be included in a revised CEQA evaluation for the Project. In an effort to demonstrate the potential risk posed by the Project to nearby sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described below, demonstrate that construction and operational DPM emissions may result in a potentially significant health risk impact that was not previously identified or evaluated within the IS/MND.

Updated Analysis Indicates Potentially Significant Impact

In an effort to demonstrate the potential risk posed by Project construction and operation to nearby sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described below, provide substantial evidence that the Project's construction and operational DPM emissions may result in a potentially significant health risk impact that was not previously identified.

In order to conduct our screening level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[10] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[11] and the California Air Pollution Control Officers Associated (CAPCOA)[12] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's health-related impact to sensitive receptors using the mitigated annual PM10 exhaust estimates from SWAPE's annual CalEEMod output files, attached to this report for reference. According to the IS/MND, the closest sensitive receptor is approximately 60 feet, or approximately 18 meters east of the Project site (p. 107). Consistent with recommendations set forth by OEHHA, we used a residential exposure duration of 30 years, starting from the 3rd trimester stage of life. We also assumed that construction and operation of the Project would occur in quick succession, with no gaps between each Project phase. The SWAPE CalEEMod model's annual emissions indicate that construction activities will generate approximately 159 pounds of DPM over the approximately 1.5-year construction period, or approximately 533 days. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation.

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{158.6\ lbs}{533\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.001562\ g/s}$$

[10] "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, *available at:* http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

[11] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

[12] "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

Using this equation, we estimated a construction emission rate of 0.001562 grams per second (g/s). The SWAPE's annual CalEEMod output files indicate that operational activities will generate approximately 50.6 pounds of DPM per year over the 28.5-years of operation. Applying the same equation used to estimate the construction DPM emission rate, we estimate the following emission rate for Project operation.

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{50.6\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.0007278\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.0007278 g/s. Construction and operational activity was simulated as a 0.416-acre rectangular area source in AERSCREEN, with dimensions of 41.5 meters by 40.6 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[13] For example, for the MEIR the single-hour concentration estimated by AERSCREEN for Project construction is approximately 13.73 µg/m^3 DPM at approximately 25 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 1.373 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration at the MEIR estimated by AERSCREEN is approximately 6.398 µg/m^3 DPM at approximately 25 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.6398 µg/m^3 for Project operation at the MEIR.

We calculated the excess cancer risk to the residential receptors located closest to the Project site using applicable HRA methodologies prescribed by OEHHA and the Bay Area Air Quality Management District (BAAQMD). Consistent with the construction schedule proposed by the IS/MND, the annualized average concentration for construction was used for the entire 3rd trimester of pregnancy (0.25 years) and the first 1.25 years of the infantile stage of life (0-2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remainder of the infantile stage of life, child stages of life (2 to 16 years) and adult stages of life (16 to 30 years). Consistent with OEHHA guidance, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.[14] According to the updated guidance, quantified cancer risk should be multiplied by a factor of ten during the 3rd trimester of pregnancy and the first two years of life (infant), and should be multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we

[13] http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf

[14] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

used 95th percentile breathing rates for infants.[15] Finally, according to BAAQMD guidance, we used a Fraction of Time At Home (FAH) Value of 0.85 for the 3rd trimester and infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.[16] We used a cancer potency factor of 1.1 $(mg/kg\text{-}day)^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)					
Activity	**Duration (years)**	**Concentration ($\mu g/m^3$)**	**Breathing Rate (L/kg-day)**	**ASF**	**Cancer Risk**
Construction	0.25	1.373	361	10	1.6E-05
3rd Trimester Duration	***0.25***			***3rd Trimester Exposure***	***1.6E-05***
Construction	1.25	1.373	1090	10	2.4E-04
Operation	0.75	0.6398	1090	10	6.7E-05
Infant Exposure Duration	***2.00***			***Infant Exposure***	***3.1E-04***
Operation	14.00	0.6398	572	3	1.7E-04
Child Exposure Duration	***14.00***			***Child Exposure***	***1.7E-04***
Operation	14.00	0.6398	261	1	2.6E-05
Adult Exposure Duration	***14.00***			***Adult Exposure***	***2.6E-05***
Lifetime Exposure Duration	**30.00**			**Lifetime Exposure**	**5.1E-04**

The excess cancer risk posed to adults, children, infants, and during the third trimester of pregnancy at the MEIR located approximately 25 meters away, over the course of Project construction and operation are approximately 26, 170, 310, and 16 in one million, respectively. Furthermore, the excess cancer risk over the course of a residential lifetime (30 years) at the MEIR is approximately 510 in one million. Consistent with OEHHA guidance, exposure was assumed to begin in the third trimester of pregnancy to provide the most conservative estimates of air quality hazards. All of the adult, child, infant, third trimester, and lifetime cancer risks exceed the BAAQMD threshold of 10 in one million.

It should be noted that our analysis represents a screening-level HRA, which is known to be more conservative, and tends to err on the side of health protection.[17] The purpose of a screening-level HRA, however, is to determine if a more refined HRA needs to be conducted. If the results of a screening-level health risk are above applicable thresholds, then the Project needs to conduct a more refined HRA that is more representative of site specific concentrations. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. As a result, a refined

[15] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[16] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

[17] http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf p. 1-5

HRA must be prepared to examine air quality impacts generated by Project construction and operation using site-specific meteorology and specific equipment usage schedules. A DEIR must be prepared to adequately evaluate the Project's health risk impact, and should include additional mitigation measures to reduce these impacts to a less-than-significant level.

Greenhouse Gas

Failure to Adequately Evaluate the Project's Greenhouse Gas Impacts

The IS/MND evaluates the Project's GHG emissions and concludes that the Project would emit a total of 1,528 metric tons of carbon dioxide equivalents per year (MT CO_2e/yr), which exceeds the BAAQMD's bright line threshold of 1,100 MT CO_2e/yr (p. 64, p. 65). The IS/MND, however, goes on to state that the Project will not result in a significant GHG impact because "the proposed project is consistent with the goals, targets, and policies in the City of San Jose GHG Reduction Strategy" (p. 64).

The Project Applicant lists the goals, targets, and policies of the City of San Jose GHG Reduction Strategy and asserts that the Project will be consistent with these measures (Table 9, p. 66). The IS/MND claims that because the Project is compliant with these GHG Reduction Strategy measures, the Project's GHG impact would be less than significant (p. 64). This conclusion, however, is incorrect, as the Project Applicant fails to include the measures listed in Table 9 as mitigation or as mandatory conditions of Project approval, thereby rendering these measures unenforceable. According Section 15183.5 *Tiering and Streamlining the Analysis of Greenhouse Gas Emissions* of the CEQA guidelines,

> "An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project."[18]

As stated above, CEQA requires the Project to identify which requirements apply to the Project and requires the IS/MND to make these requirements binding and enforceable to the Project. Review of the Greenhouse Gas Emissions section in the Initial Study Checklist demonstrates that the Project Applicant fails to implement any mitigation measures to reduce GHG emissions (p. 69). By failing to include the measures proposed in Table 9 as mitigation or mandatory conditions of approval, these measures are not enforceable. As a result, it is unclear what measures will actually be implemented once the Project is approved, and it is unclear whether implementation of these measures would satisfy requirement set forth by the GHG Reduction Strategy. Thus, the IS/MND cannot simply state that the Project is consistent with the City's GHG Reduction Strategy and conclude that the Project's GHG impact is less than significant as a result, as the IS/MND fails to actually demonstrate compliance with all of the applicable criteria disclosed in the City's GHG Reduction Strategy. The measures proposed in the Table 9 should have been included as mandatory conditions of approval or as mitigation in order to ensure that the proposed measures will be implemented once the Project is approved. By failing to do so, the GHG Reduction Strategy consistency analysis conducted by the IS/MND becomes an empty paper exercise, in

[18] https://govt.westlaw.com/calregs/Document/I872A68805F7511DFBF66AC2936A1B85A?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=%28sc.Default%29

which boxes are checked but the actual activities called for in those boxes do not occur. Until the Project includes these reduction measures as mitigation or mandatory conditions of approval, the Project is not consistent with the GHG Reduction Strategies and cannot claim that it is.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Hadley Nolan

ATTACHMENT 2

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Re: AC by Marriott - West San Jose Project
(October 31, 2018 Director's Hearing, Agenda Item 4.a; Project File No. HI7-023)

Dear Director Hughey, Deputy Director Do, Mr. Rivera, and Ms. Mathur:

Please accept the following supplemental comments submitted on behalf of Laborers International Union of North America, Local Union 270 and its members ("LIUNA") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the AC by Marriott - West San Jose Project ("Project") (Project File No. HI7-023). Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the Project, the IS/MND and relevant appendices regarding the Project's indoor air emissions. Indoor Environmental Engineering Comments (Oct. 29, 2018) (attached). 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.

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."

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that full-time workers at the AC by Marriott project will be exposed to a cancer risk from formaldehyde of approximately 18.4 per million. This is almost double the Bay Area Air Quality Management District (BAAQMD) CEQA significance threshold for airborne cancer risk of 10 per million. Mr. Offermann states:

> With respect to this project, AC by Marriott - West San Jose, 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, p. 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. 6-7. Mr. Offermann suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. Offermann Comments, pp. 6-7. Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. *Id*. Since the MND does not analyze this impact at all, none of these or other mitigation measures are considered.

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.

Mr. Offermann also notes that the high cancer risk that may be posed by the Project's indoor air emissions likely will be exacerbated by the additional cancer risk that exists from vehicle emissions from the adjacent Stevens Creek Boulevard and other nearby roadways. As the previous comments submitted by SWAPE point out, however, the applicant and City have not estimated the cumulative health risk impacts of the Project either on nearby sensitive receptors or future workers at the Project. *See* SWAPE Comment (Oct. 24, 2018). Consistent with SWAPE's observations, Mr. Offermann notes:

> The [IS/MND] does not assess the impact of existing or future traffic related emissions of $PM_{2.5}$ upon the outdoor or indoor air concentrations. The air quality analyses in this MND focuses only on the emissions (pounds/day) of air contaminants from construction and operation and compares these emissions to the requirements established by the Bay Area Air Quality Management District (BAAQMD). The MND contains no air dispersion calculations of the cumulative impact these project related emissions and existing emissions have upon the concentrations of air contaminants in the outdoor and indoor air that people inhale each day.

Offermann Comments, p. 6. Mr. Offermann identifies a rule adopted in San Francisco that identifies a level of PM2.5 that triggers the installation of air filter systems in new development. "The San Francisco Department of Public Health, 2014. Article 38, Enhanced Ventilation Required for Urban Infill Sensitive Use Developments, requires that air filtration, with a minimum efficiency of MERV 13 be installed to remove $PM_{2.5}$ from mechanically supplied outdoor air in all $PM_{2.5}$ impacted areas." Offermann Comments, p. 6. A PM2.5 impacted area includes "[a]ll areas within 500 feet of any freeway or high-traffic road way (defined as urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day), unless air dispersion modeling shows total (traffic and ambient) outdoor concentrations of less than an annual average of 10 $\mu g/m^3$ $PM_{2.5}$, are defined as $PM_{2.5}$ impacted areas." *Id.* Mr. Offermann concludes that:

> It is my experience that based on the high future traffic noise level of 79 dBA L_{dn}. (City of San Jose, 2018, Revised Public Review Draft Initial Study – Mitigative Negative Declaration, Table 14 - Predicted Future Traffic Noise Exposure) that the annual average concentration of $PM_{2.5}$ will be substantially higher than 10 $\mu g/m^3$, and warrant installation of MERV 13 air filters in all mechanically supplied outdoor air ventilation systems.

Id.

LIUNA has previously brought Mr. Offermann's indoor air pollution concerns to the attention of the City. During a Planning Commission hearing held on September 26,

2018 regarding a project proposed at 715 West Julian Street, Planning Department staff responded to the indoor air pollution concerns raised by LIUNA. During that hearing, staff claimed that a California Supreme Court decision – *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA*") – ruled that this type of air quality impact need not be addressed under CEQA because future residents of a mixed use project are part of the project and CEQA does not require evaluation of health or other impacts of a project on itself. To the extent staff again takes the position that future workers are not worthy of considering health protections under CEQA because they are part of the AC by Marriott project, staff's responses would be incorrect as a matter of law. Indeed, rather than support staff's response, the California Supreme Court in *CBIA* expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project ***must be addressed*** under CEQA.

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 Project. Employees will be users of the hotel. Currently, there is presumably little if any formaldehyde emissions at the site. Once the Project, 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.

For the above additional reasons, the IS/MND for the Project should be withdrawn, an EIR 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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ATTACHMENT

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Subject: Indoor Air Quality: AC by Marriott - West San Jose

Pages: 9

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, 2017), 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. Assuming this project will be built using typical materials and construction methods used in California, there is a fair argument that 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, 2017). There is a fair argument that this project will expose future residents to a significant airborne cancer risk of 180 per million, which is 18 times above the CEQA significance threshold. 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.

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, 2017). 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 NSRL 10 in a million cancer risk.

With respect to this project, AC by Marriott - West San Jose, 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.

Assuming that the hotel is 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.

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 AC by Marriott - West San Jose is located close to roads with moderate to high traffic, and as a result has been determined to be a sound impacted site according to the Revised Public Review Draft Initial Study – Mitigative Negative Declaration (City of San Jose, 2018), Table 14 – Predicted Future Traffic Noise Exposure, exterior noise levels of up to 79 dBA L_{dn} may occur at upper floor facades of the proposed building.

As a result of the high traffic related outdoor noise levels, the current project anticipates the need for mechanical supply of outdoor air ventilation air to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within residential interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the increased outdoor concentrations of $PM_{2.5}$. The Revised Public Review Draft Initial Study – Mitigative Negative Declaration (City of San Jose, 2018), does not assess the impact of existing or future traffic related emissions of $PM_{2.5}$ upon the outdoor or indoor air concentrations. The air quality analyses in this MND focuses only on the emissions (pounds/day) of air contaminants from construction and operation and compares these emissions to the requirements established by the Bay Area Air Quality Management District (BAAQMD). The MND contains no air dispersion calculations of the cumulative impact these project related emissions and existing emissions have upon the concentrations of air contaminants in the outdoor and indoor air that people inhale each day.

The San Francisco Department of Public Health, 2014. Article 38, Enhanced Ventilation Required for Urban Infill Sensitive Use Developments, requires that air filtration, with a minimum efficiency of MERV 13 be installed to remove $PM_{2.5}$ from mechanically supplied outdoor air in all $PM_{2.5}$ impacted areas. All areas within 500 feet of any freeway or high-traffic road way (defined as urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day), unless air dispersion modeling shows total (traffic and ambient) outdoor concentrations of less than an annual average of 10 $\mu g/m^3$ $PM_{2.5}$, are defined as $PM_{2.5}$ impacted areas.

It is my experience that based on the high future traffic noise level of 79 dBA L_{dn}. (City of San Jose, 2018, Revised Public Review Draft Initial Study – Mitigative Negative Declaration, Table 14 - Predicted Future Traffic Noise Exposure) that the annual average concentration of $PM_{2.5}$ will be substantially higher than 10 $\mu g/m^3$, and warrant installation of MERV 13 air filters 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).

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 a minimum efficiency of MERV 13 to filter the outdoor air entering the mechanical outdoor air supply system. 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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