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April 30, 2020

Ms. Lina Velasco, Director Planning & Building Services Dept. City of Richmond 450 Civic Center Plaza P.O. Box 4046 Richmond, CA 94804-1630

> Re: Comments on Draft Subsequent EIR for Point Molate Mixed-Use Development Project.

Dear Ms. Velasco:

I am writing on behalf of my clients: Citizens for East Shore Parks ("CESP"), Sustainability, Parks, Recycling, and Wildlife Legal Defense Fund ("SPRAWLDEF"), and the Point Molate Alliance ("PMA") to comment on the above-referenced Draft Subsequent EIR ("DSEIR"). I had previously submitted a comment letter in response to the Notice of Preparation for the SEIR.

To begin with, my clients object to the City's determination to move forward with the EIR process and the project approval process while the City, Contra Costa County, the State of California, and indeed the entire world are all in the throes of trying to cope with the worst pandemic in over one hundred years. That pandemic has severely handicapped citizens and organizations in attempting to review and comment on the DSEIR. Not only is it difficult or in some cases impossible to obtain the advice of experts who would ordinarily be available, but with the Bay Area, and indeed all of California, sentenced to lockdown under a shelter in place order, neither citizens nor consultants can access the project site to evaluate the accuracy of the DSEIR's analysis of current site conditions and potential project impacts. While we appreciate the City's action in agreeing to extend somewhat the comment period on the DSEIR, it remains unfair to the public to move the project and its environmental review forward while the shelter in place order remains in effect.

It is likely that the reason for the City's refusal to press the "pause" button is related to another problem with this environmental review process; one alluded to in my earlier scoping comment letter. Totally unmentioned in the DSEIR is that the City Council has entered into what my clients believe is an illegal settlement agreement with the project applicants; settling a federal lawsuit over the City's earlier rejection of the original casino-resort project, for which the current mixed use development project ("Modified Project") has now been substituted. That agreement was subsequently entered as a federal court judgment, a copy of which is attached hereto as Exhibit A. One part of that agreement essentially pre-approves portions of the proposed project. City staff and/or the City Attorney acknowledged that restriction in various public presentations during the project review process. Such a pre-approval flies in the face of CEQA's requirement that the environmental review process provide an objective, unbiased analysis of the project that fully discloses the project's potential environmental impacts and evaluates a reasonable range of feasible alternatives prior to making <u>any</u> decisions that would prejudice a fair approval process.

An additional obstruction to a fair hearing process is the settlement agreement's requirement that the City make its decision on approving the Modified Project in a tightly circumscribed timeframe. Further, the settlement exacts a draconian penalty from the City if the City fails to approve the project within that timeframe. These settlement provisions guarantee that the approval process for this project will not be a fair one. That in itself would violate California law. The City must repudiate those improper and coercive provisions before moving forward with its consideration of the project.

It is also unclear whether the City has properly consulted with all responsible and trustee agencies pursuant to Public Resources Code § 21080.3. In particular, it does not appear that the City notified the Contra Costa County Mosquito and Vector Control Agency, the Bay Area Regional Water Quality Control Board, the California Department of Fish & Wildlife, the U.S. Army Corps of Engineers [permit required under Rivers & Harbors Act], or the National Oceanic and Atmospheric Administration [consultation required under U.S. Endangered Species Act] of its intent to prepare this DSEIR and engaged in consultation prior to moving forward with preparation of the DSEIR. If that did not occur, such consultation must be undertaken and a revised DSEIR issued and circulated that includes evidence of that consultation and any resulting changes to the Project.

The DSEIR does acknowledge, as it must, that the Modified Project has a number of significant impacts. It states that these impacts are unavoidable, requiring that the City adopt a statement of overriding consideration if it intends to approve the Modified Project. However, the DSEIR is wrong. The impacts are not unavoidable.

While it may be true that at least some of the potentially significant impacts of the Modified Project are incapable of being mitigated to a level of insignificance, the DSEIR does not adequately address whether some, if not all, of those impacts could be avoided if the City chose to approve an alternative project. In particular, the Community Plan Alternative, a proposal submitted to the City by a coalition of community groups, would – if properly described and analyzed – avoid at least some, and potentially all of the Modified Project's significant impacts. That fact alone makes it improper for the City to approve the Modified Project under a statement of overriding considerations.

Under CEQA, an agency approving a project that will result in significant impacts must make findings that the alternatives presented in the EIR are infeasible. (Public Resources Code § 21081; CEQA Guidelines § 15091; *Protect Our Water v. County of Merced* (2003) 110 Cal.App.4th 362, 371.) The DSEIR fails to provide any substantial evidence showing that Alternative D, the Community Plan Alternative, is infeasible. Further, as will be explained further below and in a supporting letter from PMA, the EIR preparer analyzed a version of the Community Plan that does not comport with the proposal presented to it. Instead, the DSEIR artificially and improperly inflates the size of that alternative and of its impacts. When the Community Plan is properly considered, it does not have all the significant impacts identified for the Modified Project. Further, and unlike the Modified Project, the potentially significant impacts that it might have are all potentially feasibly mitigated to a level of insignificance.

In addition, the DSEIR's analysis of the Modified Project is defective both for failing to properly identify all of that Project's potentially significant impacts and for proposing as purportedly feasible and valid mitigation measures the preparation of future studies or plans, when it cannot be guaranteed that those studies or plans will ensure that the Modified Project's impacts will be mitigated to a level of insignificance. Nor does it set specific, enforceable standards that would ensure mitigation of the Project's potentially significant impacts.

Finally, the DSEIR improperly uses the prior casino/resort project as analyzed in the prior EIR (which was certified, but for which no project was ever approved) as the baseline for determining the significance of impacts identified in the DSEIR. Because this is a subsequent, rather than a supplemental EIR, and because no project was ever approved under the prior EIR, the use of this baseline is improper. Instead, the proper baseline for determining significant impacts should have been the existing conditions on the project site at the time the Notice of Preparation of this DSEIR was issued.

The remainder of this letter will address these deficiencies in the DSEIR in greater detail.

Definition of the Community Plan Alternative

My prior comment letter on the NOP for this EIR had attached a two-page summary outline of the Community Plan. Admittedly, this summary, which was itself based on a presentation given to the City the previous year, does not lay out the Community Plan in the same detail as are the developers' plans for their Modified Project. However, between the two-page summary and the prior presentation (a copy of the former and excerpts from the latter are attached hereto as Exhibits B and C respectively), the EIR preparers had sufficient information to develop a more fully defined alternative. Unfortunately, the EIR preparers, rather than working from the information provided or going back to the Community Plan's proposers for additional detail, inserted an unreasonable and unwarranted set of assumptions that is inconsistent with and prejudicial to the Community Plan as presented to the City.

The two-page summary specified that the plan would maintain the site's current open space areas as open space for park and recreational use, including playing fields, waterfront activities, picnic areas, campsites, and hiking and biking trails. In addition, the environmentally sensitive areas, including meadows, the south valley watershed, natural habitats, and the eelgrass beds and other marine resources, would be retained and protected.

Development would be restricted to the previously-developed Winehaven Village complex, which would be restored and reused <u>as resources permit</u>. Its restoration would include a mix of amenities including *such possible components* as a hotel/conference center, 68,000 sq.ft. of retail shops and restaurants, an education and research facility, a historic and cultural center, and other businesses and job generators. The key term here is "as resources permit." The limited resources available were expected to limit how much of the existing structures could be restored and opened for public use. Other portions might need to be "mothballed" for potential future use, or even demolished if their present decrepit condition did not allow for restoration or reuse. The inaccessibility of the site to the public precluded making more than an educated guess about how much was possible.

The DSEIR's Alternative D, however, assumes that all roughly 375,000 sq.ft. of existing Winehaven structures would be refurbished for reuse. That was a highly unrealistic assumption. A more reasonable assumption would be that available resources would allow a 150-room hotel and conference center, 68,000 sq.ft. of restaurants and retail shops, and perhaps a 50-75,000 sq.ft. combination research and education facility – perhaps akin to the aquaria in Monterey and San Francisco – to be developed/redeveloped within the buildings and footprint of the Winehaven Complex. The total developed square footage would be on the order of 300,000 sq.ft. – far short

of the 524,000 sq.ft. of development attributed to the Community Plan Alternative by the DSEIR. (See table 6-1 at p. 6-5 of the DSEIR.)

Analysis of Impacts for the Community Plan Alternative

Of course, The DSEIR's over 50% increase in the amount of developed area in the Community Plan Alternative would have consequences in the analysis of impacts. Unfortunately, the DSEIR provides only a qualitative analysis of the relative impacts of the various alternatives analyzed. Only the Modified Project was given a quantitative treatment that identified which impacts would remain significant even after mitigation. (See, Table 6-2 at p. 6-38.) Table 6.2 shows that the Modified Alternative would have significant air quality, Greenhouse Gas (GHG) emission, and traffic impacts. For each of these, the impacts from the Community Plan would be less, even with the DSEIR's overestimation of the amount of building space planned for reuse in Winehaven Village. However, a crucial piece of information was omitted – whether the impacts from the Community Plan Alternative could be mitigated to a level of insignificance.

To provide a fuller understanding of the Community Plan and its potential impacts, my clients sought an analysis of its expected traffic impacts from Mr. Tom Brohard, P.E. and a preliminary analysis of its air quality and greenhouse gas emissions impacts from Soil Water Air Protection Enterprise (SWAPE) consultants. They also sought an analysis of the alternative's economic effects from Hatch Associates, an economics consulting firm. Each of these analyses was based on the clarified scope of the Community Plan as laid out in this letter.

The traffic analysis is attached hereto as Exhibit D. The GHG emissions and air quality analysis is attached as Exhibit E. The final economic analysis has not yet been completed, but will be presented to the City once it is finalized. Even in its current incomplete form, however, the information in the economic analysis confirms that the Community Plan Alternative is feasible from a financial standpoint; i.e., it "pencils out" – it can be completed within a reasonable amount of time at a reasonable cost, is sustainable, and indeed provides a net economic benefit to the City. By comparison, Hatch's analysis of the Modified Project indicates that it would bring with it significant economic risks, and costs that, unless countered by reductions in City services to residents, could well bankrupt the City. These factors make the economic feasibility of the Modified Project questionable at best.

The qualitative analysis of the Community Plan included in the DSEIR's alternatives section, although insufficient and flawed by overestimating the development involved, nevertheless indicates that its impacts would be less than those of the Modified Project.

As already noted, the Modified Project would result in what the DSEIR is forced to acknowledge are significant impacts to traffic, air quality, and GHG emissions, even after mitigation. For the Modified Project's GHG emission impacts, the DSEIR's analysis indicates that while mitigation might theoretically be possible through the use of offsets, the size of the project and length of time for which mitigation would be needed are such as to make adequate mitigation infeasible. (DSEIR at pp. 4-2-52 to 53.) The Community Plan Alternative, with total development amounting to slightly less than half of the Modified Project (approx.. 309,000 sq.ft. vs. approx. 625,000 sq.ft.) and a considerably reduced total associated VMT, would, as the DSEIR was forced to acknowledge, have reduced impacts in all three categories.

Mr. Brohard's traffic analysis of the Community Plan Alternative¹ indicates that it would greatly reduce traffic generation and eliminate two of the four potentially significant traffic impacts attributable to the Modified Project. For the remaining two potentially significant impacts, Mr. Brohard's analysis indicates that, for the Community Plan, modest and low-cost pavement restriping mitigation measures would reduce those impacts to a level of insignificance. By contrast, traffic impacts for the Modified Project would remain significant.

The preliminary air quality and GHG emissions analyses done by SWAPE for the Modified Project and the Community Plan Alternative, while limited by the unavailability of detailed information, confirmed that the Community Plan's impacts were far less than for the Modified Project, because the trip generation rates and vehicle miles travelled would both be much lower than for the Modified Project. Their analysis also indicated that the DSEIR's analyses of both air quality and GHG emissions for the Modified Project, were defective and unreliable. Their recommendation was that, while the Community Plan's impacts were much lower than those of the Modified Project, both analyses needed to be redone before any trustworthy conclusions could be made about impacts. Nevertheless, because the Community Plan Alternative would not need water taxis or ferry service, it can already be stated that the Community Plan's cumulative CAP emissions (ROG and NOx) would no longer be significant. (See, Table 4.2-6 and 4.2-7.)

In sum, the Community Plan Alternative, as mitigated, could avoid the significant traffic impacts that the DSEIR identifies for the Modified Project. As for the air quality and GHG impacts, it appears that the DSEIR's analyses are so defective that they do not provide a basis for informed comment. Based on this evidence, it would be improper for the City to approve the Modified Project, because it cannot make the required CEQA findings for approval. As far as the air quality and GHG emissions impacts, the analyses need to be revised to correct the identified flaws, and to provide a quantitated analyses for the corrected Alternative D. The revised DSEIR needs to then be recirculated for review and comment.

Unaddressed Impacts in DSEIR

In addition to the significant impacts identified in the DSEIR, there are several other potentially significant impacts that the DSEIR either glosses over or fails entirely to identify.

1. Biological Impacts:

While the DSEIR acknowledges that the Coopers' hawk, a species on the state "watch list," might forage on the Project site, it calls the foraging habitat "marginal," solely because there is not much riparian habitat on the site. (DSEIR at p. 4.3-51.) However, Cooper's hawk foraging habitat is not so restricted. "Cooper's Hawks are forest and woodland birds, but our leafy suburbs seem nearly as good. These lanky hawks are a regular sight in parks, quiet neighborhoods, over fields, at backyard feeders, and even along busy streets if there are trees around." (Cornell University Lab

¹ As explained in Mr. Brohard's letter, he analyzed a project consisting of a 150 room hotel/conference center, 68,000 sq.ft. of restaurant/retail space, and a 73,000 sq.ft. education/research center. The latter was assumed to include 5,000 sq.ft. of administrative offices, 34,000 sq.ft. of research space, and 34,000 sq. ft of educational uses and exhibits (the closest fitting use listed in the Institute of Transportation Engineers (ITE) compilation of trip generation data was museum.)

of Ornithology website (https://www.allaboutbirds.org/guide/Coopers Hawk/lifehistory accessed on 4/29/2020 - copy attached as Exhibit F.) That webpage goes on to note that Cooper's hawks mainly eat birds, especially medium-sized birds such as mourning doves, rock pigeons, robins, jays, and quail. As noted in the comment letter from Dr. Tony Brake, a research scientist/ornithologist affiliated with Golden Gate Audubon Society who has spent a large amount of time studying the birds of Point Molate, Point Molate supports an abundant avian population, including multiple species that would serve as prey for Cooper's hawk. The Cornell Lab webpage also notes that, "Cooper's Hawks build nests in pines, oaks, Douglas-firs, beeches, spruces, and other tree species, often on flat ground rather than hillsides, and in dense woods. Nests are typically 25-50 feet high, often about two-thirds of the way up the tree in a crotch or on a horizontal branch." [emphasis added] As Dr. Brake's letter points out, there are abundant potential nesting sites at Point Molate, particularly in the eucalyptus groves on the site, and nests have been found as close as Miller-Knox Regional Park. approximately two miles away, as the crow [or hawk] flies. Since both annual grassland meadows and areas of coastal scrub, where Cooper's hawk prey would be found, are proposed for construction (see Figure 4.3-2), the EIR needs to be revised to discuss the potential loss of this habitat and its potential effect on Cooper's hawk populations. In addition, the EIR needs to discuss whether removal of eucalyptus trees (see, e.g., pp. 2-28, 2-40, 3-10, 4.3-14 [site contains 44.3 acres of eucalyptus woodlands], 4.3-16, 4.3-71 [23.9 acres located in planning or grading areas]) would impact potential nesting habitat. Indeed, the extensive vegetation removal proposed to accompany the site's extensive development under the Modified Project could require removal of much of the site's eucalyptus woodlands, the main potential nesting habitat. (See p. 4.7-45.) By contrast, the Community Plan alternative, with development restricted to Winehaven Village, would likely not require the same kind of drastic vegetation removal. The secondary impacts of the extensive tree cutting required to mitigate potential wildfire impacts under the extensive development contemplated in the Modified Project need to be identified and discussed in the EIR.

In addition to Cooper's hawk, several other important raptor species, including osprey, peregrine falcon, and merlin, have also been seen at or near the project. (Tony Brake comment letter.) The EIR needs to be revised to address and analyze the Modified Project's habitat, and specifically potential nesting habitat, impacts for these species as well.

The DSEIR acknowledges the importance of the high-guality eelgrass beds located just offshore of Point Molate, and the potentially significant impact that would result if those beds were damaged, either by construction, by aquatic activities, or by pollution cause by or during the site's extensive development. As mitigation, it proposes that an eelgrass monitoring plan be developed prior to the start of construction, and if monitoring shows a negative impact, a mitigation plan *then* be developed to address and mitigate the eelgrass damage. The mitigation plan would include various options, ranging from in-kind creation, restoration, or enhancement of habitat to out-of-kind mitigation. (DSEIR at pp. 4.3-91 to 92.) The combination of a future monitoring plan and a future mitigation plan are asserted to mitigate potential damage to the eelgrass resource to less-than-significant. (DSEIR at p. 4.3-74.) However, there can be little question that out-of-kind mitigation (e.g., through creation, restoration, or enhancement of a different biological resource) would not adequately mitigate the loss of eelgrass as a project impact. The very fact that out-of-kind mitigation needed to be included as an option in the future mitigation plan indicates that it cannot be said with certainty that the mitigation plan will be successful in mitigating project impacts on eelgrass to less-thansignificant. Consequently, under Sacramento Old City Assn. v. City Council (1991) 229

Cal.App.3d 1011, the use of a future study and future plan to mitigate potential eelgrass impacts is improper. The EIR needs to be revised to either identify and require present mitigation measures that would assure the mitigation of potential eelgrass impacts, or to acknowledge that the impacts on eelgrass must be considered as significant because of the uncertainty in mitigating potential future impacts. (It should be noted that under the Community Plan Alternative, where no ferry or water taxi service would be added and development would be restricted to the Winehaven Village area – far removed from the eelgrass beds, no significant direct or secondary impacts would occur.)

2. Energy Impacts:

The DSEIR acknowledges that the Modified Project would have potentially significant energy impacts. (DSEIR at p. 4.5-12.) In addition to construction-related energy impacts, including consumption of 34 million gallons of diesel fuel, roughly one million gallons of gasoline, and 3.7 million KWH of electric vehicle use, operation of the project would result in a large increase in VMT and an associated increase in the use of gasoline, diesel, or other automotive fuels, amounting to 3 million additional gallons of gasoline per year (or its equivalent). The DSEIR asserts that, because the project would include mitigation measures reducing total VMT through internal capture and a TDM program, it would not use vehicle fuel in a wasteful or inefficient manner. (DSEIR at p. 4.5-15.) However, just because the project with mitigation may be less inefficient or unwasteful than it would be without mitigation does not, *per se*, make it efficient or unwasteful.

In fact, based on the isolated nature of the project site, far from any public transit, it can, be inferred that most trips, including commuter trips, would be by private automobile.² Further, absent provision of strong incentives for carpooling (and none are included in the EIR), most trips would be inefficient single-occupancy vehicle trips. In addition, vehicle trips coming or going from the site would often encounter extensive congestion on route 580, especially during the peak travel hours, when most trips involving a residential project would occur. Based on these factors, the Modified Project can be predicted to use far more energy in transportation than a project that substituted other uses less likely to generate auto trips during peak commute hours, and with a length of trips more closely aligned with current vehicle trip characteristics in other parts of Richmond (e.g., like the Community Plan Alternative). In short, the DSEIR's conclusion that operation of the project would not use energy wastefully or inefficiently is unwarranted and unsupported. Either the project needs to be redesigned so that it generates less VMT and does so at other than peak commute hours, or the project's energy impacts should be considered significant.

3. Wildfire and disaster planning impacts.

As described in the DSEIR, the Modified Project would have potentially significant impacts in terms of both wildfire effects and disaster impacts. While it is true that under CEQA an EIR need not identify significant impacts of the existing environment on the project, it must discuss situations where the project, when considered in conjunction with the existing environment, worsens the severity of an impact. (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 388.) Here, the Modified Project's location is in a very high fire hazard severity zone and an area directly abutting a chemical plant (the Chevron

² While the DSEIR proposes that the pier be improved to allow water taxi and ferry operation, ferry trip generation would amount to only roughly 3% of residential trip generation. (See, DSEIR Appendix D, Table 4.)

refinery) where large quantities of hazardous chemical are stored and used. Consequently, there is an existing hazard due to the risk of wildfire or a hazardous chemical release.

The proposed Modified Project would exacerbate the hazard to the public from either a wildfire or a release of hazardous chemicals. It would force the Richmond Fire Department and other disaster response agencies (e.g., Richmond Police Dept., CHP, Chevron Fire Dept., other mutual aid responders) to divert equipment and personnel that could otherwise be deployed to deal with the emergency and its impacts on the larger community. Instead, they would first have to focus their efforts on coordinating the safe evacuation of residents from the Modified Project. Consequently, the EIR does have to address how it will reduce or avoid the hazards to Project residents in order to reduce the indirect impact of the Project on residents of nearby areas (and on emergency responders) due to the diversion of emergency responders from the duties they would otherwise be able to perform.

The DSEIR's mitigation for a fire or chemical disaster is to require the future preparation of an emergency action plan that would provide for the safe evacuation of Project residents in a disaster. However, the DSEIR only requires that such a plan be prepared before construction begins. (DSEIR at p. 4.7-53, MM 4.7-1.) This does not allow adequate public review before project approval. The DSEIR apparently assumes (as it also does elsewhere) that a future study or plan is adequate mitigation. However, as already pointed out, unlike the situation in Sacramento Old City Assn. v. City Council (1991) 229 Cal.App.3d 1011, given that the Project is located at a site with only one access route to and from the Project area, it is not at all self-evident that such a plan will be successful, not only in allowing the site's evacuation, but in mitigating any impacts on the ability of disaster responders to access the site and be effective in their response. Thus it cannot be assumed that such a plan will suffice to mitigate the risks from a wildfire, both to Project residents and to others living near to the project site, due to the diversion of emergency resources to evacuating the site and the difficulties such evacuation would create for emergency response personnel. Unless such mitigation can be assured, it is improper to put off addressing this impact to a future study. Further, the failure to provide such a plan prior to project approval precludes its timely review by the Richmond Fire Department and other emergency responders (e.g., Richmond Police Dept., California Highway Patrol, Chevron Fire Dept., Contra Costa County Emergency Medical Services, etc.). Because of this, neither the public nor decision makers will have adequate information to make an informed decision about whether to approve the Modified Project.

It should further be noted that in case of a toxic chemical release or wildfire at or near the Project site requiring the dispatch of emergency responders to the site, any injured emergency responders would not be able to gain rapid access to emergency medical facilities if the emergency happens during peak commute hours, when Highway 580 is often close to a stand-still. This would be a significant secondary impact caused by the Project. To address this impact, the EIR needs to be revised to require installation of a helipad and arrangements with an appropriate hospital with emergency and trauma facilities so that injured responders can be airlifted out.

4. Visual/Aesthetic/Cultural/Historical Impacts:

The four impact categories referenced in this topic are all interconnected. The visual, aesthetic, historic, and cultural value of the site in its current state includes the historic Winehaven Village buildings. That is also part of the cultural, religious, and

historic value of the site, as is its history both as a pre-Columbian Native American (Ohlone) settlement and burial ground and as a Chinese shrimp fishing camp.

The DSEIR presents numerous views of the current project site, including views from the Vallejo-San Francisco ferry, which passes close to the site. However, no renderings are provided showing how views from that ferry would be modified by the build-out of the Modified Project. The ferry, like a scenic highway, performs two functions. It performs the practical function of transporting passengers between its two endpoints – Vallejo and San Francisco. It also, like a scenic highway, offers scenic vistas during the journey. Consequently, while the CEQA Guidelines do not specifically address impacts to vistas along a ferry route, the same standards for significant visual/aesthetic impact should apply as for a scenic highway. Given that the project site is highly visible from the San Francisco/Vallejo ferry, the effect of the Modified Project on vistas seen from the ferry should be shown and discussed. If the Modified Project would significantly impact those vistas, as seems likely given the vistas shown in the DSEIR and the proposed location of project components, that should be considered a significant impact, and the EIR should discuss whether mitigation or avoidance is possible.

In addition, because components of the residential component of the Modified Project will be located in proximity to the Winehaven Village area, the consideration of impacts should not be limited to the physical boundaries of the historic district. Buildings located outside of that boundary could still have a significant adverse impact on the District and its component buildings depending on their size, visual nature, and proximity. The determination of potentially significant impacts on the District and its buildings must not be limited by an arbitrary physical boundary.

An additional concern is the impact the new construction will have on other existing visual, historic, religious, and cultural resources within the project site. The DSEIR attempts to deal with these impacts by laying out processes that will be followed if impacts are identified during construction. However, after-the-fact processes cannot necessarily be relied upon to mitigate those impacts. Further, reliance upon representatives of the Guidiville band of Native Americans to ensure mitigation of impacts on Native American historical, archaeological, cultural, and religious resources is improper and problematic. The Guidiville band is not native to the area.³ Its sole connection to the project site is that it is one of the project's proponents and beneficiaries. This creates a conflict of interest. Instead, local Native American (i.e., Ohlone) tribal representatives should have been consulted about the significance of, and potential impacts of the project on tribal resources at the project site. The DSEIR must be revised to include input from Ohlone tribal representatives, and the revised EIR recirculated for public review and comment.

5. Transportation Impacts:

The DSEIR analyzes transportation impacts from the Project primarily using a Level of Service (LOS) analysis of roadway segments, intersections, and interchanges. However, transportation impacts extend beyond simple LOS calculations. In terms of site accessibility, mere connection to the roadway network is insufficient to determine site accessibility. Accessibility for pedestrians, bicyclists, and public transit users also needs to be considered, and the DSEIR is deficient in this regard. In particular, the site

³ The Guidiville Indian Rancheria, also known as the Guidiville Band of Pomo Indians, is located in the vicinity of Ukiah in Mendocino County. (See, <u>https://www.facebook.com/pages/Guidiville-Indian-Rancheria/163453090351361</u>)

extends over a large area, but little attempt has been made to focus resources to make them pedestrian-accessible. Similarly, the site is remote from necessary retail sites such as grocery stores, hardware stores, pharmacies, and medical facilities upon which residents would rely on a regular basis. Yet little attention has been paid to providing convenient public transit access to those necessary facilities. As a result, additional private passenger auto vehicle miles will be added. It is not clear that those additional vehicle miles have been accounted for in the VMT inventory for the Modified Project. Those additional VMT, which would not be needed if the residential component had been located in a transit-rich are, are yet another reason to locate major residential development not at this site but instead at a more transit-accessible site like Downtown Richmond, where access to necessary resources would not have to be almost entirely by automobile. (See discussion of energy impacts.)

6. General Plan Inconsistency

CEQA requires that an EIR discuss a project's consistency with the jurisdiction's general plan. (CEQA Guidelines, § 15125(d).) The DSEIR includes a discussion, under Land Use and Planning, of the Modified Project and the Richmond General Plan 2030. The discussion concludes that, with adoption of mitigation measures, nothing in the Modified Project is inconsistent with the general plan. (DSEIR, Table 4.9-2.) The DSEIR's discussion is backed up by Appendix L, which purports to demonstrate the consistency. Consideration of the goals and policies included in the 2030 General Plan compared to the Modified Project's characteristics shows otherwise.

One of the most important goals in the General Plan is Goal LU 1, which calls for improving the urban fabric by crafting development strategies that emphasize highdensity, mixed-use *infill* development and take advantage of existing public infrastructure and public facilities. The Modified Project, by contrast, is not at all infill⁴. Instead, it is located in an isolated area with no other existing development and with little, if any, public infrastructure or facilities to support it. The discussion of that goal mentions a number of Richmond areas whose further infill development is supported by this goal. Point Molate is not one of them.

Policy LU 1.1 calls for providing higher-density and infill mixed-use development affordable to all incomes on vacant or underutilized parcels throughout the City. It goes further to emphasize higher-density, transit-oriented, and pedestrian-friendly development along key commercial corridors and key intersections. The Modified Project meets none of these criteria. None of the housing is affordable housing⁵; little of the housing is higher-density; nothing in the project is transit-oriented; and it is neither pedestrian-friendly nor located on a key commercial corridor or intersection. Indeed, the project also violates Goal LU 2 and Policy LU 2.1 by not providing "a safe place for people of all ages, ethnicities and abilities to live." As the Hatch economic analysis will show, the Modified Project will be financially inaccessible to a majority of Richmond residents. It would, instead, cater to middle to upper income households who can afford

⁴ Public Resources Code § 21061.3 defines an infill site as one meeting either of two sets of criteria. Point Molate meets neither set.

⁵ Appendix L states that, "A portion of the housing provided by the Modified Project would be affordable housing per the Inclusionary Housing Ordinance." However, the Inclusionary Housing Ordinance's requirement may be met by payment of an in lieu fee, and the Judgment/Settlement (attached hereto as Exhibit A), in Paragraph 8, explicitly allows for payment of an in lieu fee; meaning that there may be <u>no</u> affordable housing within the project.

to purchase a single-family home or condominium or rent an apartment at its relatively high prices.⁶

Contrary to Policy LU 2.4, it would require expenditures to develop infrastructure and public facilities in an area that not only is not underserved, but has no residents at all. Nor is it consistent with Goal LU 3, which calls to expanding economic opportunities in <u>existing</u> commercial and industrial areas. Nor would it attract new businesses to any of the areas identified in the goal as needing an infusion of commercial activity.

While at first glance the Modified Project might appear consistent with Policy LU 3.3 by redeveloping the Winehaven Village complex, it does so to benefit, not the tourist industry, but the small coterie of new residents who would live nearby. By contrast, the Community Plan Alternatives plans for Winehaven revitalization explicitly aim towards developing a museum and research facility, making it a destination for tourists and others interested in exploring the site's historic, cultural, and environmental resources.

As for Policy LU 3.4; while it might again at first glance seem consistent as it would encourage the reuse of vacant or blighted parcels, its public investment (which will be indirectly subsidized by the public if it is financed by tax-exempt bonds) is not in a major city center such as Downtown, Hilltop, or the Ford Peninsula, but in a remotely-located enclave.

Nor can this project be found consistent with Goal LU 4 by encouraging the "sensitive integration of the built and natural environment. Instead, it almost literally bulldozes its way through one of the more sensitive habitats along the Richmond shoreline. Indeed, under Policy LU 4.2, it does anything but "preserve open space areas along the shoreline, creeks, and in the hills to protect natural habitat." To say this project is consistent with the General Plan is nothing short of Orwellian, in the same category as claiming "War is Peace," "Freedom is slavery," and "Ignorance is Strength."

Further, the Modified Project is inconsistent with the General Plan's Policy LU 5.2 as applied to the San Pablo Peninsula, which calls for making the Peninsula a regional recreation destination, well connected to the rest of the City and accessible to the greater community. The Modified Project provides little contribution to any of these. The Modified Project is also inconsistent with policy LU 5.3 (land use compatibility), as it exacerbates, rather than reduces, the potential land use incompatibility between the site's environmental, historic, cultural, and religious resources and its use as a new, isolated upper middle class residential and commercial project.

Finally, as explained earlier in this letter, the Modified Project is fundamentally inconsistent with Goal LU 6 - sustainability, which calls for emphasizing putting new development near transit and in areas with existing transportation infrastructure to reduce the need for residents and employees to travel by automobile to access daily goods and by promoting the location of housing, jobs, and recreation uses close to transit lines. The Modified Project contributes to none of these desired directions. Instead, it creates a new isolated, autocentric, and fundamentally unsustainable growth area.

In short, the Modified Project may be different in many respects from the prior casino/resort project, but it is not any more consistent with the goals and policies of the Richmond General Plan, which were written and adopted to promote sustainable development, protect the environment and natural habitats, and reduce the City's

⁶ Those high prices would be necessitated in part by the high cost of creating the necessary new infrastructure, which would not be necessary of the development were located in Downtown Richmond.

collective carbon footprint. The Modified Project is fundamentally incompatible and inconsistent with all of those goals and, as the prior discussion of impacts and even the DSEIR show, will run contrary to general plan goals and policies intended to protect the environment and prevent environmental harm.

CONCLUSION

As explained above, the DSEIR is inadequate for a variety of reasons. The City needs to revise and recirculate the DSEIR to allow the public to review, understand, and comment on the full impact of this very impactful project and its feasible alternatives prior to the City's considering whether it merits approval.

Most Sincerely,

Stuart 4 Flashmon Stuart M. Flashman

cc: R. Cheasty, N. La Force, S. Dean, D. Tam, R. Wyn, C. Teltschick, P. Carman, D. Helvarg, P. Stello

Exhibit A



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1	In March 2012, plaintiffs Guidiville Rancheria of California (Tribe) and Upstream Point				
2	Molate LLC (Upstream) (together, Plaintiffs) commenced the above-captioned action (Action)				
3	against defendant City of Richmond (City). The controversy concerns a Land Disposition				
4	Agreement (LDA) and its amendments, between Upstream and the City, the subject of which was				
5	a proposed development of property located at the former Navy Fuel Depot Point Molate in				
6	Richmond, California.				
7	Following the signing of the LDA in 2004 and in accordance with the California				
8	Environmental Quality Act (CEQA), the Court finds that the City conducted a multi-year review				
9	of potential environmental impacts resulting from several proposed projects, including a project				
10	with residential units. ¹ In 2011, the City certified a final environmental impact report (EIR) for				
11	potential projects at Point Molate. No party challenged the EIR.				
12	In this Action, Plaintiffs allege, inter alia, that the City breached the LDA; the City denies				
13	Plaintiffs' claims.				
14	In accordance with the stipulated request of the Parties, and good cause appearing,				
15	IT IS HEREBY ORDERED, ADJUDGED, AND DECREED THAT:				
16	1. Under 28 U.S.C. §§ 1331 and 1362, the Court has jurisdiction over the Action and				
17	shall retain such jurisdiction to enforce this Judgment.				
18	2. The Court expressly finds and determines that the terms of this Judgment are fair,				
19	reasonable and in the public interest.				
20	DEFINITIONS				
21	3. "Judgment" shall mean this Amended Judgment, the Judgment dated April 12,				
22	2018, and all exhibits attached thereto.				
23					
24					
25	¹ The project with residential units analyzed in the 2011 Certified FIR is consistent with				
26	the City's previously approved Point Molate from the U.S. Navy to the City. The Reuse Plan				
27	expressly contemplates 670 residential units at Point Molate and Alternative D of the Certified 2011 EIR analyzed a project with more than 670 residential units				
28	$C_{\text{res}} = 0 \times 12 + 226 \times 00$				
I	[PROPOSED] AMENDED JUDGMENT sf-3884188				

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1	4. "Point Molate" or the "Property" shall mean the approximately 270 acres of
2	upland and 134 acres ² of tidal and submerged real property that was transferred to the City by the
3	United States Navy in or around September 2003, and the "Remainder Property" transferred to
4	the City by the Navy in or around September 2009.

5 5. "Development Areas" shall mean the four development areas shown on Figure 6,
6 Land Use Areas, Point Molate Reuse Plan (attached as Exhibit A) or any parcel subsequently
7 designated or subdivided from those four Development Areas subject to the provisions of
8 Paragraph 20.

6. "Point Molate Reuse Plan" shall mean the Reuse Plan prepared by a 45-member
Blue Ribbon Advisory Committee in or around March 1997, and adopted by the Richmond City
Council in 1997. In 2002, the U.S. Navy published a "Record of Decision for Disposal and Reuse
of the Fleet Industrial Supply Center, Naval Fuel Depot, Point Molate, CA" (67 Fed. Reg. 41967,
June 20, 2002) based on the Point Molate Reuse Plan, which included residential use as one of
three alternatives. A complete copy of the Point Molate Reuse Plan is attached as Exhibit B and
it is also available on the City's website at

- 16 <u>https://www.ci.richmond.ca.us/DocumentCenter/Home/View/7510.</u> The City shall maintain a
 17 hard copy of the Point Molate Reuse Plan for review by the public.
- 18
 7.
 "Certified EIR" shall mean the final Environmental Impact Report certified by the

19 City on or about March 8, 2011, which can be located at

20 <u>http://www.ci.richmond.ca.us/1863/Point-Molate-Resort-and-Casino</u>, and any and all errata,

- 21 addenda or other modifications thereto, and as the same may be amended, supplemented or
- 22 updated. The City shall maintain a hard copy of the Certified EIR for review by the public.
- 23 8. "Discretionary City Approvals" shall mean all discretionary approvals made by the
- 24 City necessary to entitle development and construction of the Development Areas. The
- 25 Discretionary City Approvals shall allow for a minimum of 670 residential units and further the
- 26

² Any variation of the total acreage shall not alter the Parties obligations regarding the Property, which the Parties understand to mean the total land transferred from the Navy to the City in 2003 and 2009.

1 goals of the Point Molate Reuse Plan, including preservation of open space and rehabilitation of 2 the Core Historic District (including Building 6). Those 670 residential units must comply with 3 the requirements of the City's inclusionary housing ordinance in effect at this time. That compliance can be met either by (i) providing within the City the percentage of below market 4 5 units presently specified in section 15.04.810.063 of the City's Municipal Code or (ii) paying an 6 in-lieu fee, which must equal the amounts presently applied to residential projects within the City. 7 Discretionary City Approvals includes any additional review and actions required under CEQA, 8 zoning changes, and general plan amendments, but excludes (1) design review permits and 9 certificates of appropriateness by the City; (2) ministerial permits provided by the City; and (3) 10 other approvals or permits provided by any entity other than the City, such as the United States 11 government, State of California, or regional agencies, such as the Bay Conservation Development Commission and the Regional Water Quality Control Board. The City shall diligently process 12 any required design review permits and certificates of appropriateness and ministerial permits to 13 be provided by the City; and City shall also diligently process and cooperate with all requests for 14 information that might be required for any other approvals or permits provided by any entity 15 16 other than the City, such as the United States government, State of California, or regional 17 agencies, such as the Bay Conservation Development Commission and the Regional Water Quality Control Board. 18

19

9.

"Effective Date" shall mean the date this Judgment is entered by the Court.

20 10. "Revenues" shall mean all amounts received or earned by City or Plaintiffs from 21 the sale or development or long-term leasing (more than one (1) year) of any portion of the 22 Development Areas, including, without limitation, any amounts received for (i) exclusive rights to negotiate, (ii) any purchase monies or purchase deposits paid, (iii) any option payments, (iv) 23 24 any amounts paid pursuant to a services agreement or any similar one-time payment, or recurring payments made to City or Plaintiffs by the purchaser(s), developer(s), builder(s) or any 25 subsequent owner of any portion of the Development Areas or (v) any reimbursement for costs or 26 27 expenses incurred pursuant to Paragraph 24. "Revenues" does not include grants, reimbursements paid to the City or to Plaintiffs by a third party (e.g., developer) for costs incurred 28 Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT -3-

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- in the pre-development phase other than costs incurred under Paragraph 24, short-term rental/use
 fees collected by the City prior to the sale of the Development Areas, property taxes or other
 taxes paid to the City and proceeds received from a financing district.
- 4 11. "Customary Fees" means fees paid to City for permits or similar customary
 5 administrative fees, cost-recovery fees, development fees and/or impact fees (e.g., traffic, school
 6 and in-lieu housing impact fees) in amounts routinely charged and similarly collected by the City
 7 on other projects.
- "Sale" or "Sold" or "Sell" or any similar term relating to the sale of the property 8 12. 9 that is the subject of this Judgment, shall mean close of escrow upon which purchase monies are 10 paid to City or Plaintiffs in exchange for which title to the portion of the property being sold in that transaction is simultaneously transferred to the buyer(s). The terms "Sale" or "Sold" or 11 12 "Sell" shall also include execution of a contract or agreement to sell any portion of the Development Areas so long as the sale of a substantial portion of any one of the Development 13 14 Areas is closed and title transferred within 48 months of the Effective Date, with the 15 understanding that such contracts/agreements are to facilitate phased developments and must remain in effect until the final parcel of the Development Area at issue is sold. 16
- 17 13. "Entitlement Costs" shall mean all costs incurred after the Effective Date, which
 directly concern the issuance of entitlements and compliance with CEQA, including, without
 limitation, the preparation of environmental review documents and costs similar to those
 Plaintiffs previously paid prior to completion of the Certified EIR. The City is responsible for
 Entitlement Costs and related legal fees.
- 14. "Pre-Development Costs" shall mean other costs incurred after the Effective Date,
 such as surveying and engineering consulting fees, and other costs associated with creating
 parcels, escrow fees, and title fees, and legal fees related to the disposition of the property,
 including, but not limited to, legal counsel for preparing and reviewing contracts and agreements,
 parcel maps, and subdividing and surveying the property.

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COMPLIANCE REQUIREMENTS

16. Within 6 months from the Effective Date, in accordance with CEQA and other applicable law, City shall consider Discretionary City Approvals, as defined in Paragraph 8 of this Judgment.

5 17. The Court anticipates and expects that City will receive and consider input from 6 the public with respect to the future development of Point Molate. Nothing herein shall prohibit 7 or limit the City from holding public workshops or receiving any other public input with respect 8 to any future development considered by City pursuant to this Judgment, including selection of a 9 master developer or developers.

10 18. Of the approximately 270 acres of upland area, the Point Molate Reuse Plan
11 designates approximately 30% as Development Areas and 70% as open space, the ratio of which
12 shall not change. In the Core Historic District (including Building 6), there are 374,572 square
13 feet of contributing structures (based on the list in Table 3.6-1 and Figure 3.6-6 from the Certified
14 EIR), all of which shall be preserved for adaptive reuse.

15 19. City may utilize the existing Certified EIR and prior studies pertaining to the
16 Property to the extent possible to comply with CEQA.

17 20. The Discretionary City Approvals may adjust lot lines as allowed and analyzed
18 under the Certified EIR, or otherwise to allow for construction of the residential units on different
19 portions of the Property than is set forth in the Point Molate Reuse Plan and may allow for more
20 than 670 residential units and non-residential use, insofar as this is consistent with the overall
21 open space preservation goals of the Point Molate Reuse Plan.

22 21. Within 30 months of the Effective Date or 24 months of the City issuing the last 23 Discretionary City Approval, whichever occurs earlier, City must market the Development Areas for sale to one or more qualified developer(s) or builder(s) using commercially reasonable efforts. 24 At the City's discretion, separate portions of the Development Areas may be sold to different 25 developers or builders to increase the sales price derived from the sale of the Development Areas. 26 27 With the consent of the Parties, which consent must be made by a writing signed by all Parties, Development Areas or parcels may be leased long term instead of being sold. Prior to the Sale of 28 -5-Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT

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the Development Areas, either Party may elect to have an independent, third-party that is selected 2 jointly by the Parties verify that the subject Sale is fair and reasonable and the product of an arms-3 length negotiation, and such verification shall be a condition precedent to completion of such Sale. The Parties shall share evenly the costs associated with any such verification. 4

5 22. Plaintiffs Tribe and Upstream, on the one hand, and City, on the other hand, will split all Net Revenues 50/50. 6

7 23. Within thirty (30) days of receiving any Revenues, City shall notify Upstream and the Tribe of the amount and source of such Revenues. Within sixty (60) days of receiving any 8 9 Revenues, City shall distribute 50% of any Net Revenues via wire transfer into a banking account 10 to be designated by Plaintiffs in writing within thirty (30) days of the Effective Date, or as may be designated in writing thereafter by Plaintiffs. 11

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24. City shall bear all expenses of maintaining and securing the Property, until the Development Areas are sold to a third party.

If the Northern Development Area, Southern Development Area, Central 14 25. Development Area, or any portions thereof, are not Sold within 30 months of the Effective Date 15 or 24 months of City approving the last Discretionary City Approval, whichever occurs first 16 ("City Sale Deadline"), Plaintiffs or either of them as designated by Upstream and the Tribe in 17 18 writing, shall have the option to buy such Development Area(s) or portions thereof for a purchase price of \$100 per Development Area or portion thereof. Plaintiffs' option to purchase the 19 Development Area shall include up to fifty percent of the land-side portion of the shoreline knoll 20 referenced in the Certified EIR. Promptly after Plaintiffs, or either them, exercise the option 21 granted herein, City shall be obligated to forthwith sell the parcels identified in the exercise of the 22 23 option, or portions thereof, to Plaintiffs, or either of them. Within thirty (30) days of the Effective Date. City shall cause a memorandum of this Judgment to be recorded on title to the Property, 24 which shall reference the above-referenced option of Upstream and Tribe. 25

26. For each parcel of the Development Area or portion thereof sold to Plaintiffs, upon 26 a sale by either of them of such parcel(s), Plaintiffs shall pay to the City fifty percent (50%) of the 27 Net Revenues received by Plaintiffs. Plaintiffs must sell any Development Area or portion 28 Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT -6-

Case: 4! 92162-701.326/27/CR 1 90 d Burth 674 49:00, EN tote 111/2 1/0.9, Page 8 of 20

thereof purchased pursuant to this Judgment within 5 years of the City's Sale Deadline or 4 years after the City makes a decision on any additional, discretionary City entitlements concerning any purchased portions, whichever is later, otherwise the Development Area(s) or portion(s) thereof revert back to the City, and the City shall pay Plaintiffs \$100 for each Development Area or portion thereof.³ If the City takes back property under this Paragraph, the Revenue sharing described in Paragraph 22 will still apply, and the City will have an on-going obligation to market and sell the remaining unsold portions of the Development Areas.

8 27. Within thirty (30) days of receiving any Revenue, Plaintiffs shall notify the City of
9 the amount and source of such Revenue. Within sixty (60) days of receiving any Revenues,
10 Plaintiffs shall distribute 50% of Net Revenue received by Plaintiffs to the City via wire transfer
11 into a banking account to be designated in writing by the City.

12 28. Upstream and Tribe, or either of them as designated by Upstream and the Tribe in
13 writing, and any of their transferees, may pursue development of the parcels in accordance with
14 the Discretionary City Approvals, or may seek additional or new entitlements for the
15 development of the parcels beyond the Discretionary City Approvals required by this Judgment
16 that City may or may not grant in its sole discretion. The Parties, and each of them, acknowledge
17 the Tribe, commencing in 2004 and ending in 2012, maintained an office in Building 123 at Point
18 Molate.

19

REPORTING REQUIREMENTS

20 29. Absent further order from the Court, the Parties shall provide a joint update to the
21 Court every 120 days regarding efforts to comply with the Judgment.

22

30. Within 30 days of a request made by Plaintiffs, or either of them, the City must

23 provide Upstream and Tribe a copy of any contracts, agreements or other documents providing

24

³ For purposes of paragraph 26, discretionary City entitlements include any additional review and actions required under CEQA, zoning changes, and general plan amendments but excludes (1) design review permits and certificates of appropriateness by the City; (2) ministerial permits provided by the City; and (3) other approvals or permits provided by any entity other than the City, such as the United States government, State of California, or regional agencies, such as the Bay Conservation Development Commission and the Regional Water Quality Control Board.

Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT for payment of Revenue to City with respect to any portion of the Property that is the subject of
 this Judgment.

3 31. The City must provide Plaintiffs a copy of any agreements the City executes for
4 sale of any portion of the Property, including the Development Areas, within fifteen (15) days of
5 the City Council's approval of such agreement(s).

6 32. The reporting requirements of this Judgment do not relieve City of any reporting
7 obligations required by any other federal, state or local law, regulation, permit or other
8 requirement.

9 33. Notwithstanding the foregoing, Upstream and Tribe may use and disclose any
10 information provided pursuant to this Judgment in any proceeding to enforce the provisions of
11 this Judgment and as otherwise permitted by law.

12

AUDITING OPTION

34. The City shall keep accurate and complete accounting records of all transactions 13 relating to the maintenance, entitlement, development, sale of, or receipt of funds relating to the 14 Property, including, without limitation, any records of Revenues or other monies paid to or 15 16 received by City relating to the Property, all accounting records, invoices, ledgers, cancelled checks, deposit slips, bank statements, original estimates, estimating work sheets, contracts or 17 contract amendments, change order files, insurance documents, memoranda and correspondence. 18 19 City shall establish and maintain a reasonable accounting system that enables City to readily identify City's costs, expenses, Revenues, and other monies paid to or received by City relating to 20 21 the Property.

35. Upon no less than 30 days' written notice, and no more than once a year during the 22 first five years after the Effective Date, Upstream and Tribe and their authorized representatives 23 24 may audit, examine and make copies of City's records kept by or under City's control relating to its performance under this Judgment, including, without limitation, records of all Revenues or 25 other monies paid to, received by, or committed to City relating to sale or development of the 26 27 Property. If an audit is requested, City, at Plaintiffs' expense, shall make its records available for examination and copying during regular business hours at City's offices or another location as 28 Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT -8-

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mutually agreed by the Parties. Excluded from any audit are records protected by federal, state,
 and local privilege laws, including any records that would fall under exemptions set forth in the
 California Public Records Act.

36. Costs of any audits conducted under the authority of this right to audit will be
borne by Upstream and Tribe unless the audit identifies City's failure to disburse more than
\$50,000 owed to Upstream and Tribe hereunder, in which case City shall reimburse Upstream
and Tribe for the costs of the audit.

8

COMPLIANCE WITH CEQA AND OTHER LAWS

37. The Parties acknowledge, and the Court expressly finds and orders, that this
Judgment is not an approval of a project, and the City is responsible for compliance with all
federal, state and local laws, regulations, and permits, relating to the Property, including
compliance with CEQA. This finding and order may be asserted by the Parties as a bar to any
suit challenging the validity of this Judgment.

38. The Parties agree that the Judgment does not grant any entitlements for
development at Point Molate, and that the City acknowledges it is required to comply with all
laws, statutes, or regulations, including compliance with CEQA, applicable to any future specific
entitlements or development at Point Molate that the City may consider.

18

RELEASE

19 39. Upon entry of this Judgment, Plaintiffs, and each of their respective executors, 20 representatives, heirs, successors, assigns, bankruptcy trustees, guardians, and all those who claim through them or who assert claims on their behalf, will be deemed to have completely released 21 22 and forever discharged City from any claim, right, demand, charge, complaint, action, cause of action, obligation, or liability of any and every kind, based on an alleged violation of the LDA or 23 its amendments, in connection with the sale and/or development of Point Molate, and all claims 24 for monetary, equitable, declaratory, injunctive, or any other form of relief, whether known or 25 26 unknown, suspected or unsuspected, under the law of any jurisdiction, which Plaintiffs ever had or now have, resulting from, arising out of, or in any way, directly or indirectly, connected with 27 the claims raised in the Action or in the California state court action entitled The City of 28 Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT -9*Richmond v. Upstream Point Molate, LLC*, filed in Contra Costa County Superior Court, Case
 No. C11-01834 ("State Court Action"), or claims which could have been raised in the Action or
 State Court Action based on or relating to the same facts.

- 40. Upon entry of this Judgment, City, and all those who claim through City or who 4 5 assert claims on behalf of City, will be deemed to have completely released and forever 6 discharged Plaintiffs, and each of their respective executors, representatives, heirs, successors, 7 assigns, bankruptcy trustees, guardians, and all those who claim through them or who assert claims on their behalf, from any claim, right, demand, charge, complaint, action, cause of action, 8 9 obligation, or liability of any and every kind, based on an alleged violation of the LDA or its 10 amendments, in connection with the sale and/or development of Point Molate, and all claims for monetary, equitable, declaratory, injunctive, or any other form of relief, whether known or 11 unknown, suspected or unsuspected, under the law of any jurisdiction, which the City ever had or 12 now has, resulting from, arising out of, or in any way, directly or indirectly, connected with the 13 14 claims raised in the Action or in the State Court Action, or claims which could have been raised 15 in the Action or State Court Action based on or relating to the same facts.
- 41. As of the Effective Date, all claims asserted in this Action shall be and hereby are
 dismissed with prejudice. The Parties further agree that they will dismiss with prejudice the
 claims asserted in the State Court Action.
- 19 42. The Parties, and each of them, each waive and release any and all provisions, 20 rights, and benefits conferred either (a) by section 1542 of the California Civil Code, or (b) by any law of any state or territory of the United States, or principle of common law, which is 21 similar, comparable, or equivalent to section 1542 of the California Civil Code, with respect to 22 the claims released pursuant to Section 4.1. Section 1542 of the California Civil Code reads: 23 Section 1542. General Release, extent. A general release does not extend to 24 25 claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his 26 settlement with the debtor. 27

Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT

1	The Parties, and each of them, may hereafter discover facts other than or different from			
2	those that they know or believe to be true with respect to the subject matter of the claims released			
3	pursuant to the terms of this Judgment, but the Parties, and each of them, expressly agree that,			
4	upon entry of the Judgment, they shall have waived and fully, finally, and forever settled and			
5	released any known or unknown, suspected or unsuspected, asserted or unasserted, contingent or			
6	non-contingent claim with respect to the claims released, whether or not concealed or hidden,			
7	without regard to subsequent discovery or existence of such different or additional facts.			
8	43. The Parties shall bear their own costs of this action, including attorneys' fees,			
9	except that the prevailing party in any action or proceeding to enforce the terms of this Judgment			
10	shall be entitled to recover, from the non-prevailing party, all reasonable costs, including			
11	reasonable attorney's fees.			
12	44. Nothing in this Judgment is intended to limit or expand the Tribe's right to			
13	continue to pursue its claims asserted in this Action against the Federal Defendants, which			
14	expressly are not resolved herein, or to pursue any lands be taken into trust by the United States			
15	for the benefit of the Tribe, for any lawful purposes. The Tribe will request to license City-owned			
16	or City-controlled property for Tribe use and the City will process that request in the normal			
17	course, in the same manner as other such requests are processed.			
18	NOTICES			
19	45. Unless otherwise specified in this Judgment, whenever notifications, submissions,			
20	or communications are required by this Judgment, they shall be made in writing and addressed as			
21	follows:			
22	As to Upstream by email: <u>Jim.Levine@upstream.us.com</u> ; and			
23	garet(a)okeefelaw.com			
24	As to Upstream by mail: Jim Levine			
25 26	2000 Powell Street, Suite 920 Emeryville, CA 94608 (510) 350-4101			
27	and Garet D. O'Keefe			
28	O'Keefe & O'Keefe LLP 1068 Cragmont Avenue			
	Case No. CV 12-1326-YGR -11- [PROPOSED] AMENDED JUDGMENT			

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1			Berkeley, CA 94708	
2	As to the Tuike he areail.		(510) 282-0519 (t)	
3	As to the Tribe be email:		scottcrowell@clotag.net	
4				
5	As to the Tribe by mail:		Guidiville Rancheria of California	
6			Talmage, CA 95481 Attention: Merlene Sanchez, Chairperson	
7		and	Scott Crowell	
8			Crowell Law Offices – Tribal Advocacy Group 1487 W. State Route 89A, Suite 8	
9			(425) 802-5369 (t)	
11	As to City by email:	agonz	alez@mofo.com	
12	and	aamezcua@mofo.com		
13		Bruce Rache	Goodmiller@ci.richmond.ca.us -I_Sommovilla@ci.richmond.ca.us	
14				
15	As to City by mail:	Arture	o González	
16		Morris 425 M	s Amezcua son & Foerster LLP Jarket Street	
17	and	San Fi	rancisco, CA 94105	
18	una	Bruce	Reed Goodmiller	
19		City A	Attorney's Office	
20		P.O. E	Box 4046	
21		Kieliii	10110 CA 94804-1050	
22	46. Any Party may, by written notice to the other Parties, change its designated notice			
23	recipient(s) or notice address provided above.			
24	47. Notices submitted pursuant to this Section shall be deemed submitted upon receipt			
25	unless otherwise provided in this Jud	lgment	or by agreement of the Parties in writing.	
26				
27				
28			10	
	Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT		-12-	

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RETENTION OF JURISDICTION

48. The Court shall retain jurisdiction over this Action to enforce the terms of this
Judgment. To avoid doubt, this Judgment applies to and is binding upon the Tribe and Upstream
and the City, and their respective heirs, successors, assigns and future councils for the City and
the Tribe. Consistent with settled law, any change in the composition of the City Council for the
City shall not alter the City's obligations under this Judgment.

49. This Judgment embodies the final, complete and exclusive agreement and
understanding among the Parties with respect to the agreement reflected in this Judgment and
supersedes all prior agreements and understandings, whether oral or written, concerning
settlement embodied herein. Other than deliverables that are subsequently submitted and
approved pursuant to this Judgment (if any), the Parties acknowledge that there are no
representations, agreements, or understandings relating to the disposition of the Action other than
those expressly contained in this Judgment.

14 15 November 21, 2019 Date: 16 17 ED STATES DISTRICT JUDGE 18 19 20 21 22 23 24 25 26 27 28

Case No. CV 12-1326-YGR [PROPOSED] AMENDED JUDGMENT



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1	FOR THE GUIDIVILLE RANCHERIA OF CALIFORNIA:
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4	MERLENE SANCHEZ Tribal Chairperson
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7	CROWELL LAW OFFICES – TRIBAL ADVOCACY GROUP
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10	Dated: November 7, 2019 By: Scott Crowell
11	Attorneys for Plaintiff Guidiville Band of Pomo Indians
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Case: 4: 22162-79.326/276291 DdBun 254 4930, File 111/21/99, Page 20 of 20



Exhibit B

THE CHANCE FOR RICHMOND TO DO SOMETHING GREAT

THE COMMUNITY PLAN

for Point Molate



The Community Plan

The Community Plan for Point Molate is the best legacy we can give to our children. It calls for a world class destination honoring Point Molate's unique environmental, historical, and recreational values.

Key Elements of The Community Plan

It calls for:

- the open space at Point Molate to be a park;
- recreational areas, playing fields, waterfront activities, cycling opportunities, picnic areas, camping locations, hiking:
- preservation of the eelgrass meadows, the south valley watershed, and natural habitats;
- the public beach to be more accessible, while protecting the eelgrass and marine life.

It calls for:

- restoration of Winehaven Village as resources permit with a mix of amenities, such as a hotel and conference center, 150-room and a 250-room hotel and 68,000 square feet of retail and restaurants, education and research facility, historic and cultural center, other businesses and job generators;
- sustainable green infrastructure design, such as a wastewater reuse management system; solar powered; self-sustained water delivery system; high LEED standards.
- costs and revenue be in balance economically;
- the design to be part of an inclusive community process, adopting community priorities;
- Point Molate to be developed as a community resource and a destination with regional, statewide, and national draw.

And, it calls for:

- making Point Molate accessible for all Richmond residents and disrupting patterns of exclusion that have characterized development in Richmond for far too long;
- honoring the residents of this region, from the Ohlone who have lived here for thousands of years, to the shipyard workers who migrated here from the South and Midwest, to the Chinese shrimpers, to the early winemakers, the Richmond residents who learned how to swim and fish at Point Molate, and the present residents.

Under this plan, most of Point Molate would be Parkland and open space.

Housing would be moved downtown where it is possible to build affordable and multi-income developments where public transportation, infrastructure and services already exist.

The concept of The Community Plan was developed by the Point Molate Alliance, incorporating community feedback during the City of Richmond's Visioning Process, and during outreach activities. The plan details will be based on citywide planning and input.

Why The Community Plan is the Best Approach

Is a model for wise land use planning, protection of habitat, and creation of needed recreational, educational and commercial opportunities for Richmond residents.

Helps mitigate climate change - acknowledges the reality of a changed climate by preserving land, eelgrass and environmental resources that store carbon, rather than destroying natural resources and contributing to the climate crisis.

Lowers fire danger at Point Molate, makes development financially manageable; and lowers risk for first responders.

Doesn't divert City resources, such as staff time of Richmond's planning department, away from work in areas where affordable housing is needed that will benefit Richmond, and doesn't drain the City's General Fund.

Brings the Richmond community together - strong community backing for this approach.
Exhibit C

POINT MOLATE

THE CHANCE FOR RICHMOND TO DO SOMETHING GREAT

"<u>THE COMMUNITY PLAN</u>"

presentation by the Point Molate Alliance

ptmolateplanning@gmail.com October 2018

Special Thanks to Steve Price of Urban Advantage

THE COMMUNITY PLAN

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The Community Plan (Plan C) calls for: the open space at Point Molate to be park, calls for playing fields, for watercraft recreation, cycling opportunities, picnic places, camping locations, hiking, and preservation of the eel grass beds and natural habitat at Point Molate.

And it calls for the public beach to be open and made more gorgeous, for the restoration of the historic Winehaven Village with full amenities, restaurants, a hotel and conference center, education facility, and other business and job generators.

It calls for moving the housing to downtown and for a thoughtful, open process to create a legacy for future generations.

We can have THE COMMUNITY PLAN.

THE COMMUNITY PLAN will allow the revitalization of Winehaven Village, restoring the historic buildings to commercial use, adding a hotel and conference center (shown - Sheraton Four Points footprint with 153 rooms) plus an educational facility, all within a bustling village, moving housing downtown, all while creating an extraordinary public park.

There are many details to work through - input from the entire community to be gathered.

Let's have the conversation to protect the park and open space for the public and provide the economic and job creating uses at the restored Winehaven Village.

Let's avoid the mistake of privatizing this public treasure. The fight for THE COMMUNITY PLAN is far from over.

Adopt THE COMMUNITY PLAN

1. Zone the South Valley and Bluffs for park land and recreation, a public resource for all residents.

2. Zone the Winehaven area as a commercial and historical area. Zone to encourage preservation of historic sites, development of economic enterprises, including hotel, education center.

3. Restrict the zoning at Point Molate such that the housing will be moved to downtown. Plan responsible housing development in Richmond, including affordable housing where infrastructure, transit, community services and businesses already exist.

Exhibit D

April 14, 2020

Tom Brohard and Associates

Ms. Roberta Wyn, Manager Citizens for East Shore Parks 1604 Solano Avenue Berkeley, California 94707

SUBJECT: Comparison Between the Citizen for East Shore Parks (CESP) Community Plan and the Point Molate Development (Modified Project) in the City of Richmond – Significant Traffic Impacts

Dear Ms. Wyn:

As requested, and as authorized on April 3, 2020, I, Tom Brohard, P.E., have compared forecast traffic impacts for the Point Molate Development (Modified Project) to those that are likely to occur with the Citizen for East Shore Parks (CESP) Community Plan.

I calculated trips using current land use assumptions and sizes provided by CESP for the Community Plan. For the comparison, I followed the format and utilized the same methodology as found in the February 17, 2020 Transportation Impact Analysis (TIA) for the Point Molate Development (Modified Project) in the City of Richmond. This document, prepared by Abrams Associates, served as the transportation and traffic analysis in the February 2020 Draft Subsequent Environmental Impact Report (DSEIR) prepared by Analytical Environmental Services.

The DSEIR reviewed five alternatives to the Modified Project. Alternative D, identified as the Community Plan, included 374,572 square feet of educational uses. According to CESP, the Community Plan is now envisioned to include 68,000 square feet of restaurant/retail uses, 5,000 square feet of small office, 34,000 square feet of research space, 34,000 square feet of museum, and the 150-room hotel with conference center.

The 374,572 square feet of educational uses in the DSEIR is 231,000 square feet larger than the restaurant/retail, research, small office, and museum use now envisioned. My analysis detailed in this letter uses more specific land uses, with that portion of the development totaling 141,000 square feet.

Page 6-28 of the DSEIR states "Alternative D would result in a lesser impact related to transportation in comparison..." and I certainly agree. While the TIA for the Modified Project found there would be six significant traffic impacts, my calculations disclosed that <u>implementation of the Community Plan with land</u> uses as now envisioned will result in only two significant traffic impacts, both of which can be easily mitigated by implementing very minor restriping measures as recommended in the TIA.

Education and Experience

Since receiving a Bachelor of Science in Engineering from Duke University in Durham, North Carolina in 1969, I have gained over 50 years of professional engineering experience. I am licensed as a Professional Civil Engineer both in California and Hawaii and as a Professional Traffic Engineer in California. I formed Tom Brohard and Associates in 2000 and recently served as the City Traffic Engineer for the City of Indio for 14 years and as Consulting Transportation Engineer for the City of San Fernando since 2003. I have extensive experience in traffic engineering and transportation planning. During my career in both the public and private sectors, I have reviewed numerous environmental documents and traffic studies for various projects as indicated on the enclosed resume.

Trip Generation Comparison

<u>Modified Project</u> - Trip generation calculations presented in the TIA for the Modified Project shown on Page 23 of the TIA were calculated for the following land use components:

- Retail and restaurants 40,000 square feet
- Office space 584,574 square feet
- Single family homes 274 units
- Low-rise apartments and townhomes (1 to 2 floors) 636 units
- Mid-rise apartments and condominiums 350 units
- Public ferry parking 100 parking spaces

Table 4 on Page 24 of the TIA provides daily, morning peak, and afternoon peak traffic forecasts using the land use components above and data published in the <u>Institute of Transportation Engineers "Trip Generation Manual, 10th Edition.</u>" The calculation of overall project trips includes a 25% "pass-by" reduction of retail and restaurant trips, a 20% internal trip reduction among the different land uses, and a 10% reduction for implementation of a Transportation Demand Management (TDM) Program. The net number of trips with the reductions in the TIA forecast for the Modified Project include:

- > 11,270 daily trips
- > 884 morning (AM) peak hour trips
- 980 afternoon (PM) peak hour trips

<u>Community Plan</u> - Based on my discussions with CESP members, the following land uses and sizes were provided for the Community Plan:

- Hotel with conference center 150 rooms
- Retail and restaurants 68,000 square feet

- Research facility 34,000 square feet
- Small office 5,000 square feet
- Museum 34,000 square feet

Enclosed is a spreadsheet that provides my calculations of daily and peak hour trips associated with the Community Plan. I too have used data published in the Institute of Transportation Engineers "Trip Generation Manual, 10th Edition." As in the TIA, my calculation of overall project trips includes a 25% "pass-by" reduction of retail and restaurant trips, a 20% internal trip reduction among the different land uses, and a 10% reduction for implementation of a Transportation Demand Management (TDM) Program. To provide a conservative analysis, the trip rates used for the hotel with conference center have assumed that all hotel rooms were occupied. The net number of off-site trips for the Community Plan, using the same trip reductions as assumed in the TIA, include:

- > 3,317 daily trips (29% of the Modified Project)
- 129 morning (AM) peak hour trips (15% of the Modified Project)
- 249 afternoon (PM) peak hour trips (25% of the Modified Project)

As indicated above and in the spreadsheet, the daily and the peak hour trips forecast for the Community Plan are a small percentage of the daily and peak hour trips calculated in the TIA for the Modified Project.

Significant Traffic Impact Comparison

Peak hour trips calculated for the Community Plan were then spread across the roadway network using the same trip distribution pattern as in the TIA to determine if significant traffic impacts would occur under Existing plus Project and under Cumulative plus Project conditions.

<u>Significant Traffic Impacts for the City of Richmond</u> - To determine if project traffic impacts are significant, I have used the same criteria as in the TIA with project traffic added. A significant traffic impact occurs as follows:

- At signalized intersections:
 - LOS D drops to LOS E or LOS F.
 - LOS E drops to LOS F.
 - Intersection volumes increase by more than 1% at LOS F.
- At unsignalized intersections, LOS D drops to LOS E or F.

Impacts for "Existing plus Project" Conditions - Table 5 on Pages 31 and 32 of the TIA, Existing compared to Existing plus Project conditions, shows four intersections (shaded) that meet or exceed the criteria and therefore experience significant traffic impacts with project traffic added. Delays are reported in terms of seconds per vehicle. Rather than rounding values down to "greater than 80.0"

seconds" as in Table 5, I have used the actual delay value on the individual calculation sheets in the Appendix.

Intersection #1 - Castro Street & I-580 WB Ramps/Chevron - PM

- Existing PM Peak Volume from Figure 5 is 2,900 vehicles
- > 1% of PM peak hour trips equals 25 trips
- Modified Project generates 70 PM peak hour trips (Figure 7)
- Community Plan generates 25% of Modified Project PM Peak Trips -70 trips times (25%) = 18 PM peak hour trips
- > 18 PM peak hour trips are less than 25 PM peak hour trips
- PM peak volumes increase by less than 1% at LOS F
- > Therefore, no significant traffic impact.

Intersection #24 - Blume Drive/I-80 WB Ramps & Richmond Parkway - AM

- From calculation sheets, exist AM delay is 74.2 seconds (LOS E); AM delay with project trips is 84.0 seconds (LOS F); difference is 9.8 seconds
- Extrapolated delay with Community Plan is (15%) (9.8) = 1.5 seconds
- 74.2 seconds + 1.5 seconds = 75.7 seconds of delay
- Delay with Community Plan increases from LOS E (74.2) to LOS E (75.7) but LOS remains at E
- > Therefore, no significant traffic impact.

Intersection #27 – Stenmark Drive & Dutra Materials - PM

- From calculation sheets, exist PM delay is 7.1 seconds (LOS A); PM delay with project trips is 19.5 seconds (LOS C)
- Intersection should not have been shaded in Table 5 for Modified Project
- Drop from LOS A to LOS C is not considered a significant traffic impact.

Intersection #29 - Richmond Parkway & Goodrick Avenue - PM

- From calculation sheets, exist PM delay is 75.7 seconds (LOS E); PM delay with project trips is 87.5 seconds (LOS F); difference is 11.8 seconds
- Extrapolated delay with Community Plan is (25%) (11.8) = 3.1 seconds
- 75.7 seconds + 3.0 seconds = 78.7 seconds of delay
- Delay with Community Plan increases from LOS E (75.7) to LOS E (78.7) but LOS remains at E
- > Therefore, no significant traffic impact.

There are no significant traffic impacts at these four intersections for Existing plus Project conditions for the Community Plan when those trips are distributed across the roadway network.

<u>Impacts for "Cumulative plus Project" Conditions</u> - Table 6 on Pages 37 and 38 of the TIA, Cumulative compared to Cumulative plus Project conditions, shows six intersections (shaded) that meet or exceed the criteria and therefore

experience significant traffic impacts with project traffic added. Delays are reported in terms of seconds per vehicle. Rather than rounding down to "greater than 80.0 seconds" as in Table 6, I have used the actual delay value on the individual calculation sheets in the Appendix.

Intersection #1 - Castro Street & I-580 WB Ramps/Chevron - PM

- Existing PM Peak Volume from Figure 9 is 3,268 vehicles
- 1% of PM peak hour trips equals 33 trips
- Modified Project generates 70 PM peak hour trips (Figure 7)
- Community Plan generates 25% of Modified Project PM Peak Trips -70 trips times (25%) = 18 PM peak hour trips
- > 18 PM peak hour trips are less than 33 PM peak hour trips
- PM peak volumes increase by less than 1% at LOS F
- Therefore, no significant traffic impact.

Intersection #21 – Richmond Parkway & Gertrude Avenue - PM

- Control is signalized, not side-street stop as shown in Table 6
- Existing PM Peak Volume from Figure 9 is 4,867 vehicles
- 1% of PM peak hour trips = 49 trips
- Modified Project generates 186 PM peak hour trips (Figure 7)
- Community Plan generates 25% of Modified Project PM Peak Trips -186 trips times (25%) = 47 PM peak hour trips
- > 47 PM peak hour trips are less than 49 PM peak hour trips
- PM peak volumes increase by less than 1% at LOS F
- > Therefore, no significant traffic impact.

Intersection #22 - Richmond Parkway & Parr Boulevard - AM

- From calculation sheets, exist AM delay is 54.6 seconds (LOS D); AM delay with project trips is 65.2 seconds (LOS E); difference is 10.6 seconds threshold between LOS D and LOS E is 55.0 seconds
- Extrapolated delay with Community Plan is (15%) (10.6) = 1.6 seconds
- 54.6 seconds + 1.6 seconds = 56.2 seconds of delay
- Delay with Community Plan increases from LOS D (54.6) to LOS E (56.2)
- Therefore, this remains a significant traffic impact.

Intersection #22 – Richmond Parkway & Parr Boulevard - PM

- From calculation sheets, exist PM delay is 66.1 seconds (LOS E); PM delay with project trips is 77.9 seconds (LOS E); difference is 11.8 seconds
- Extrapolated delay with Community Plan is (25%) (11.8) = 3.0 seconds
- 66.1 seconds + 3.0 seconds = 69.1 seconds of delay
- Delay with Community Plan increases from LOS E (66.1) to LOS E (69.1) but LOS remains at E
- Therefore, no significant traffic impact.

Intersection #23 - Richmond Parkway & San Pablo Avenue - AM

- Existing AM Peak Volume from Figure 9 is 5,241 vehicles
- > 1% of AM peak hour trips = 52 trips
- Modified Project generates 186 PM peak hour trips (Figure 7)
- Community Plan generates 15% of Modified Project PM Peak Trips -186 trips times (15%) = 28 AM peak hour trips
- > 28 AM peak hour trips are less than 52 AM peak hour trips
- AM peak volumes increase by less than 1% at LOS F
- > Therefore, no significant traffic impact.

Intersection #23 - Richmond Parkway & San Pablo Avenue - PM

- From calculation sheets, exist PM delay is 66.8 seconds (LOS E); PM delay with project trips is 69.3 seconds (LOS E); difference is 2.5 seconds
- Extrapolated delay with Community Plan is (25%) (2.5) = 0.6 seconds
- 66.8 seconds + 0.6 seconds = 67.4 seconds of delay
- Delay with Community Plan increases from LOS E (66.8) to LOS E (67.4) but LOS remains at E
- > Therefore, no significant traffic impact.

Intersection #24 – Blume Drive/I-80 WB Ramps & Richmond Parkway – AM

- Existing AM Peak Volume from Figure 9 is 4,632 vehicles
- > 1% of AM peak hour trips = 46 trips
- Modified Project generates 150 AM peak hour trips (Figure 7)
- Community Plan generates 15% of Modified Project AM Peak Trips -150 trips times (15%) = 23 PM peak hour trips
- > 23 AM peak hour trips < than 46 AM peak hour trips
- AM peak volumes increase by less than 1% at LOS F
- > Therefore, no significant traffic impact.

Intersection #24 - Blume Drive/I-80 WB Ramps & Richmond Parkway - PM

- From calculation sheets, exist PM delay is 62.0 seconds (LOS E); PM delay with project trips is 71.3 seconds (LOS E); difference is 9.3 seconds
- Extrapolated delay with Community Plan is (25%) (9.3) = 2.3 seconds
- 62.0 seconds + 2.3 seconds = 64.3 seconds of delay
- Delay with Community Plan increases from LOS E (62.0) to LOS E (64.3) but LOS remains at E
- > Therefore, no significant traffic impact.

Intersection #29 - Richmond Parkway & Goodrick Avenue - PM

- > Existing PM Peak Volume from Figure 9 is 4,154 vehicles
- > 1% of PM peak hour trips = 42 trips
- > Modified Project generates 186 PM peak hour trips (Figure 7)
- Community Plan generates 25% of Modified Project PM Peak Trips -186 trips times (25%) = 47 AM peak hour trips
- > 47 PM peak hour trips are greater than 42 PM peak hour trips

- PM peak volumes increase by more than 1% at LOS F
- > Therefore, this remains a significant traffic impact.

In the Cumulative plus Project analysis, two intersections remain with significant traffic impacts, but both can be easily mitigated as recommended in the TIA at very nominal cost as follows:

Intersection #22 – Richmond Parkway & Parr Boulevard – AM – At this intersection, the delay in the AM peak hour in the cumulative condition is 54.6 seconds per vehicle, LOS D. The threshold between LOS D and LOS E is 55.0 seconds. If the calculation of delay for the cumulative condition had been 55.1 seconds at LOS E, then there would not have been a significant impact for the Modified Project or for the Community Plan. Mitigation of the significant impact recommended in the TIA is to restripe the northbound and the southbound right turn lanes to allow through traffic and right turns from the outside lanes. From Google Earth photos, the existing roadway is wide enough to allow this restriping for both approaching and departing traffic and no widening of the roadway is necessary to implement this measure. The cost of the restriping and removal of existing "Right Lane Must Turn Right" signing and the right turn pavement arrows is nominal (less than \$20,000).

Intersection #29 – Richmond Parkway & Goodrick Avenue – PM – At this intersection, the delay in the cumulative condition is 132.5 seconds per vehicle, LOS F, rising to 145.0 seconds per vehicle, LOS F, with trips from the Modified Project added. Mitigation of the significant impact recommended in the TIA is to restripe the eastbound right turn only lane to a shared through/right turn lane. From Google Earth photos, the existing roadway is wide enough to allow this restriping for both approaching and departing traffic and no widening of the roadway is necessary to implement this measure. The cost of the restriping and removal of the right turn pavement arrows is nominal (less than \$10,000). While the necessary work is within the County, it could be easily accomplished under an encroachment permit issued by the County, removing the "unavoidable" portion of the impact.

If you have questions regarding these comments, please contact me.

Respectfully submitted,

Tom Brohard and Associates

Tom Brohard, PE Principal

Enclosures





Community Plan Assumed Land Uses and Associated Trips								
			Trip Rates		Trips			
Land Use	ITE Code	Size	Daily	AM Peak	PM Peak	Daily	AM Peak	PM Peak
Hotel	310	150	12.23	0.62	0.73	1,835	93	110
Retail	820	68	37.75	0.94	3.81	2,567	64	259
Sm. Office	712	5	16.19	1.92	2.45	81	10	12
Museum	580	34	11.26	0.28	0.18	383	10	6
Research	760	34	11.26	0.57	0.71	383	19	24
					Subtotals	5,248	195	411

Subtotals 5,248 195

Adjustments to Trips

	Retail Trips Pass By Reduction (25%)	642	16	65
	Subtotals	4,606	179	346
	Internal Trip Reduction (20%)	921	36	69
	Subtotals	3,685	144	277
	TDM Trip Reduction (10%)	369	14	28
Comm	nunity Plan Off Site Trip Generation	3,317	129	249
Propo	sed Project Trip Generation (SEIR)	11,270	884	980
P	ercentage of Proposed Project	29%	15%	25%

Tom Brohard, PE

Licenses:	1975 / Professional Engineer / California – Civil, No. 24577 1977 / Professional Engineer / California – Traffic, No. 724 2006 / Professional Engineer / Hawaii – Civil, No. 12321
Education:	1969 / BSE / Civil Engineering / Duke University
Experience:	50 Years
Memberships:	1977 / Institute of Transportation Engineers – Fellow, Life 1978 / Orange County Traffic Engineers Council - Chair 1982-1983 1981 / American Public Works Association – Life Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

0	Bellflower	
0	Bell Gardens	
0	Big Bear Lake	
0	Indio	
0	Huntington Beach	
0	Lawndale	
0	Los Alamitos	
0	Oceanside	
0	Paramount	
0	Rancho Palos Verdes	
0	Rolling Hills	
0	Rolling Hills Estates	
0	San Fernando	2004 - 2019
0	San Marcos	
0	Santa Ana	
0	Westlake Village	

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over \$10 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

Tom Brohard and Associates

In his 14 years of service to the City of Indio, Tom accomplished the following:

- Oversaw preparation and adoption of the 2008 Circulation Element Update of the General Plan including development of Year 2035 buildout traffic volumes, revised and simplified arterial roadway cross sections, and reduction in acceptable Level of Service criteria under certain conditions.
- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Jackson Street and on Monroe Street over I-10 as well as justifications for protectedpermissive left turn phasing at I-10 on-ramps, the first such installations in Caltrans District 8 in Riverside County; reviewed plans and provided assistance during construction of both \$2 million projects to install traffic signals and widen three of four ramps at these two interchanges under Caltrans encroachment permits.
- Reviewed traffic signal, signing, striping, and work area traffic control plans for the County's \$45 million I-10 Interchange Improvement Project at Jefferson Street.
- Reviewed traffic impact analyses for Project Study Reports evaluating different alternatives for buildout improvements of the I-10 Interchanges at Jefferson Street, Monroe Street, Jackson Street and Golf Center Parkway.
- Oversaw preparation of plans, specifications, and contract documents and provided construction assistance for over 70 traffic signal installations and modifications.
- Reviewed and approved over 2,000 work area traffic control plans as well as signing and striping plans for all City and developer funded roadway improvement projects.
- Oversaw preparation of a City-wide traffic safety study of conditions at all schools.
- Obtained \$47,000 grant from the California Office of Traffic Safety and implemented the City's Traffic Collision Database System. Annually reviews "Top 25" collision locations and provides traffic engineering recommendations to reduce collisions.
- Prepared over 1,500 work orders directing City forces to install, modify, and/or remove traffic signs, pavement and curb markings, and roadway striping.
- Oversaw preparation of engineering and traffic surveys to establish enforceable speed limits on over 500 street segments.
- Reviewed and approved traffic impact studies for more than 35 major projects and special events including the annual Coachella and Stagecoach Music Festivals.
- Developed and implemented the City's Golf Cart Transportation Program.

Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

Tom Brohard and Associates

Exhibit E



Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201 Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg. (949) 887-9013 mhagemann@swape.com

> Paul E. Rosenfeld, PhD (310) 795-2335 prosenfeld@swape.com

April 30, 2020

Stuart Flashman Law Offices of Stuart M. Flashman 5626 Ocean View Drive Oakland, CA 94618

Subject: Comments on the Point Molate Mixed-Use Development Project (SCH No. 2019070447)

Dear Mr. Flashman,

We have reviewed the February 2020 Draft Subsequent Environmental Impact Report ("DSEIR") and Tom Brohard and Associates Significant Traffic Impacts Letter ("Traffic Letter") for the Point Molate Mixed-Use Development Project ("Project") located in the City of Richmond ("City"). Alternative D in the DSEIR ("Community Plan") proposes the construction of 150 hotel rooms, with 20,000-SF of associated conference rooms, 68,000-SF of retail/restaurant, and 75,000-SF of research/educational space on the 412-acre Project site.

Our review concludes that the DSEIR fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated CEQA evaluation should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality & Greenhouse Gas

Failure to Evaluate Impacts from Project Emissions

The DSEIR claims that the Community Plan would result in less than significant air quality and greenhouse ("GHG") emissions as a result of "the Modified Project having a greater amount of construction activity, a greater population at operation, and mobile source and point source emissions than the alternative" (p. 6-24). The DSEIR goes on to state,

"Therefore, Alternative D [the Community Plan] would have a lesser impact on air quality and GHG emissions when compared to the Modified Project" (p. 6-24).

As the excerpt above demonstrates, the DSEIR claims that the Community Plan produces less air quality and GHG impacts than the Modified Project. However, the DSEIR fails to provide the adequate information and analysis in order to determine an impact conclusion for the Community Plan. This is incorrect for five reasons.

(1) Failure to Quantify the Community Plan's Impacts per CEQA Guidelines

First, the DSEIR failed to quantify the Community Plan's criteria air pollutant and GHG impacts. According to the Bay Area Air Quality Management District ("BAAQMD") Air Quality Guidelines:

"If, after proper analysis, the project or plan's air quality impacts are found to be below the significance thresholds, then the air quality impacts may be considered less than significant. If not, the Lead Agency should implement appropriate mitigation measures to reduce associated air quality impacts."¹

However, the DSEIR failed to conduct any analysis of the Community Plan's air quality emissions or compare the Project's emissions to the BAAQMD significance thresholds. Thus, the proposed Project is inconsistent with BAAQMD guidelines.

Furthermore, according to the California Environmental Quality Act ("CEQA") Guidelines Section 15064.4(a),

"(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- (1) Quantify greenhouse gas emissions resulting from a project; and/or
- (2) Rely on a qualitative analysis or performance based standards."

Thus, as the DSEIR fails to quantify GHG emissions resulting from the Community Plan or provide performance-based standards, the proposed Project is not consistent with CEQA. As a result, an updated air quality analysis, including an analysis of the Community Plan's criteria pollutant and GHG emissions, should be prepared in a Project-specific EIR.

(2) Failure to Evaluate Diesel Particulate Matter Health Risk Emissions

Second, review of the DSEIR demonstrates that the DSEIR failed to evaluate or mention the potential health risk impacts associated with the construction and operation of the Community Plan Alternative. Without a quantified health risk assessment ("HRA"), we cannot verify that Project-related impacts are less than significant.

¹ "California Environmental Quality Act Air Quality Guidelines." BAAQMD, adopted 2010, updated May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf?la=en, p. 1-6.

First, by failing to prepare a construction or operational HRA for existing sensitive receptors, the Project 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, as cited by the DSEIR (p. 4.2-36).² This guidance document describes the types of projects that warrant the preparation of an HRA. Construction of the Project will produce emissions of diesel particulate matter ("DPM"), a human carcinogen, through the exhaust stacks of construction equipment. The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.³ Although the Project documents fail to disclose the anticipated duration of construction, we can reasonably assume that it will last over two months, given the Project will require site preparation, grading, building construction, architectural coating for the new buildings, and paving throughout the site. Furthermore, once construction of the Project is complete, the Project will operate for a long period of time. During operation, the Project will generate vehicle and truck trips, which will produce additional exhaust emissions, thus continuing to expose nearby sensitive receptors to emissions. The OEHHA document recommends that exposure from projects lasting more than six 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").⁴ Even though the Project documents fail to provide the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration exceeds the 2-month and 6-month requirements set forth by OEHHA. Therefore, per OEHHA guidelines, we recommend that health risk impacts from Project construction and operation be evaluated in a CEQA analysis.

Second, by claiming a less than significant impact without conducting a quantified HRA for nearby, existing sensitive receptors as a result of Project construction and operation, the Project fails to comply with BAAQMD guidance. Specifically, according to the BAAQMD,

"BAAQMD's approach to developing a Threshold of Significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move us towards climate stabilization. If a project would generate GHG emissions above the threshold

² OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, http://bit.ly/2sAKySW.

³ OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, http://bit.ly/2sAKySW, p. 8-18.

⁴ OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, http://bit.ly/2sAKySW., p. 8-6, 8-15

level, it would be considered to contribute substantially to a cumulative impact, and would be considered significant."⁵

As such, the DSEIR should have compared the proposed Project's calculated excess health risk to the BAAQMD's specific numeric threshold of 10 in one million.⁶ Thus, the Project cannot conclude a less than significant health risk impact resulting from Project construction and operation without quantifying the Project's excess cancer risk to compare to the proper threshold, as recommended by the lead agency for the Project.

(3) Screening-Level Analysis Indicates Potentially Significant Impacts

Third, in an effort to accurately determine the proposed Project's construction and operational emissions, we prepared a SWAPE CalEEMod model for the Project, using the Project-specific information provided by the DSEIR. We included 150 hotel rooms, with 20,000-SF of associated conference rooms, 68,000-SF of retail/restaurant, and 75,000-SF of research/educational space. We adjusted the default trip rates to account for the estimated 3,317 total daily trips, per the Traffic Letter. As the DSEIR failed to provide additional information, we left all other values as defaults.

Our updated analysis demonstrates that the Project's construction-related VOC emissions exceed the 54 pounds per day (lbs/day) threshold set by the BAAQMD (see table below).⁷

Maximum Daily Construction Emissions (lbs/day)				
Model	VOC			
SWAPE	198.86			
BAAQMD Regional Threshold (lbs/day)	54			
Threshold Exceeded?	Yes			

When modeled, the Project's construction-related VOC emissions exceed the BAAQMD threshold of 54 lbs/day and thus, result in a potentially significant air quality impact that was not previously identified or addressed in the DSEIR. As a result, an updated EIR should be prepared to include an updated air model and analysis to adequately estimate the Project's construction and operational emissions and incorporate mitigation to reduce these emissions to a less than significant level.

Furthermore, applicable thresholds and modeling demonstrate that the proposed Project may result in a potentially significant GHG impact not previously identified or addressed by the DSEIR. The CalEEMod output files, modeled by SWAPE utilizing Project-specific information as disclosed in the DSEIR, quantify

⁵ "California Environmental Quality Act Air Quality Guidelines." BAAQMD, adopted 2010, updated May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-1.

⁶ "California Environmental Quality Act Air Quality Guidelines." BAAQMD, adopted 2010, updated May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-2, Table 2-1.

⁷ "California Environmental Quality Act Air Quality Guidelines." BAAQMD, adopted 2010, updated May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-2, Table 2-1.

the Project's emissions, approximately 4,862.52 MT $CO_2e/year$ of annual operational emissions (sum of area, energy, mobile, waste, and water-related emissions). When we compare the Project's operational GHG emissions to the BAAQMD bright-line threshold of 1,100 MT $CO_2e/year$,⁸ we find that the Project's GHG emissions exceed the threshold (see table below).

SWAPE Annual Greenhouse Gas Emissions				
Project Phase	Proposed Project (MT CO₂e/year)			
Area	0.01			
Energy	2,487.19			
Mobile	2,110.74			
Waste	80.88			
Water	183.71			
Total	4,862.52			
Threshold	1,100			
Exceed?	Yes			

As demonstrated in the table above, the proposed Project would generate approximately 4,862.52 MT CO₂e/year, which exceeds the BAAQMD's 1,100 MT CO₂e/year threshold (p. 4.2-39). Hence, a service population analysis is warranted. According to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."⁹ As the Project does not propose any residential land uses, we assumed that the Project will not result in any new residents. For the hotel, restaurant/retail, and research land uses, the DSEIR failed to provide the estimated number of employees. As a result, we used the United States Department of Energy's square foot per employee value ("SF/employee") of 1,124 for "Lodging," as well as the Institute of Transportation Engineer's SF/employee values of 134 for "Quality Restaurant (Sit Down)," 405 for "Research and Development Center," 1,250 for "Elementary School" (museum space), and 588 for "Neighborhood Retail".¹⁰ Thus, we estimate that the Project's number of employees would be 646, and the Project's service population would be 646.¹¹ When dividing the Project's GHG emissions by a service population value of 646 people, we find that the Project would emit approximately 7.53 MT CO₂e/SP/year.¹² The BAAQMD regularly utilizes a substantial progress population efficiency target goal of 2.6 MT CO₂e/SP/year for target year 2030.¹³ In addition, the DSEIR cites to the 2020 BAAQMD service

content/uploads/2012/03/CAPCOA-White-Paper.pdf.

⁸ "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-4.

⁹ CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-

¹⁰ "BUILDING AREA PER EMPLOYEE BY BUSINESS TYPE." May 2008, City of Davis, *available at:* https://www.cityofdavis.org/home/showdocument?id=4579.

¹¹ Calculated: number of residents + number of employees = 0 + 646 = 646.

¹² Calculated: $(4,862.52 \text{ MT CO}_2\text{e/year}) / (1,077 \text{ service population}) = (4.52 \text{ MT CO}_2\text{e/SP/year}).$

¹³ "Final White Paper Beyond 2020 and Newhall." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40; see also Santa Clara University

population efficiency threshold of 4.6 MT CO2e/SP/year (p. 4.2-39). Using these thresholds, we find that the Project would result in a potentially significant GHG impact (see table below).

SWAPE Annual Greenhouse Gas Emissions			
Project Phase	Proposed Project (MT CO₂e/year)		
Annual GHG Emissions	4862.52		
Service Population	646		
Service Population Efficiency	7.53		
2020 Threshold	4.6		
Exceed?	Yes		
Threshold	2.6		
Exceed?	Yes		

As the table above demonstrates, when the Project's emissions are modeled, the Project's total GHG emissions exceed both the "Substantial Progress" efficiency threshold for 2030 of 2.6 MT CO₂e/SP/year as well as the outdated 2020 service population efficiency threshold of 4.6 MT CO₂e/SP/year indicated by the DSEIR (4.2-39).

Thus, the Project may result in a significant GHG impact not previously assessed or identified in the DSEIR, although the DSEIR lacks Project-specific information and analysis for the Community Plan. As a result, an updated GHG analysis should be prepared in an updated Project-specific EIR and additional mitigation should be incorporated into the Project.

(4) Incorrect and Unsubstantiated Analysis of Modified Option 1 and 2 Emissions

Fourth, the DSEIR's model for the Modified Project is incorrect and underestimated. Specifically, the DSEIR's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2.¹⁴ 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.¹⁵ Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the

https://www.menlopark.org/DocumentCenter/View/10286/Ch03-05_GHG_Draft-EIR?bidId=

 $source/caleemod/01_user-39-s-guide 2016-3-2_15 november 2017.pdf?sfvrsn=4.$

¹⁵ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-

Housing Air Quality & Greenhouse Gas Assessment, October 2019, available at:

https://www.sanjoseca.gov/Home/ShowDocument?id=45718; see also Facebook Campus Expansion Project Draft Environmental Impact Report, City of Menlo Park, May 2016, available at:

¹⁴ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-

source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1, 9.

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 justification for the values selected.¹⁶

Review of the Project's air modeling demonstrates that the DSEIR underestimates emissions associated with Project activities. As previously stated, the DSEIR's air quality analysis relies on air pollutant emissions calculated using CalEEMod. When reviewing the Project's CalEEMod output files, provided as Appendix M to the DSEIR, we found that several of the values inputted into the model were not consistent with information disclosed in the DSEIR. As a result, the Project's construction and operational emissions are underestimated. An updated CEQA evaluation 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 Model All Required Parking Spaces

Review of the CalEEMod output files demonstrates that the model failed to include the total amount of required parking for the Modified Project, and as a result, the Modified Project's construction and operation emissions are underestimated.

According to the City's Parking Requirements,¹⁷ the Modified Project should include a minimum of 4,342.5 for Option 1 (Residential Heavy)¹⁸ and 3,951.64 spaces for Option 2 (Commercial Heavy)¹⁹. However, review of the Project's CalEEMod output files demonstrates that the models only included 100 parking spaces as 40,000-SF of "Unenclosed Parking Structure" (see excerpt below) (Appendix M, pp. 25, 141, 257, 374).

¹⁶ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-

source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, fn 1, p. 11, 12 – 13. 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.

¹⁷ Richmond, California, Municipal Code § 15.04.607.040

 ¹⁸ Calculated: ((20,000-SF retail) * (3 spaces per 1,000-SF)) + (2,040 dwelling units) x (2 spaces per unit)) + ((20,000-SF restaurant) * (5 spaces per 1,000-SF) + ((5,000-SF WWTP) * (0.5 spaces per 1,000-SF)) + (100 Public Ferry Parking Spaces) = 4,342.5 spaces.

¹⁹ Calculated: ((20,000-SF retail) * (3 spaces per 1,000-SF)) + (1,260 dwelling units) x (2 spaces per unit)) + ((20,000-SF restaurant) * (5 spaces per 1,000-SF) + ((5,000-SF WWTP) * (0.5 spaces per 1,000-SF)) + ((584,572-SF other commercial) * (2 spaces per 1,000-SF)) + (100 Public Ferry Parking Spaces) = 3,951.64.

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking Structure	100.00	Space	0.00	40,000.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
City Park	2.73	Acre	2.73	118,918.80	0
Quality Restaurant	10.00	1000sqft	0.12	10,000.00	0
Quality Restaurant	10.00	1000sqft	0.12	10,000.00	0
Apartments Low Rise	286.00	Dwelling Unit	8.97	286,000.00	818
Apartments Low Rise	350.00	Dwelling Unit	10.98	350,000.00	1001
Apartments Mid Rise	350.00	Dwelling Unit	4.62	350,000.00	1001
Apartments Mid Rise	473.00	Dwelling Unit	6.24	473,000.00	1353
Apartments Mid Rise	307.00	Dwelling Unit	4.05	307,000.00	878
Single Family Housing	274.00	Dwelling Unit	44.65	493,200.00	784
Convenience Market (24 Hour)	5.00	1000sqft	0.00	5,000.00	0
Regional Shopping Center	10.00	1000sqft	0.12	10,000.00	0
Regional Shopping Center	10.00	1000sqft	0.12	10,000.00	0

As you can see in the excerpt above, only 100 parking spaces were included in the models. According to the Project's Transportation Impact Assessment ("TIA"), these will be the 100 Public Ferry Parking Spaces (TIA, pp. 2). Thus, the model failed to include the total amount of parking spaces required by the City. This presents an issue, as 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.²⁰ 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 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.²¹ By including an underestimated amount of parking, the DSEIR fails to account for all of the emissions that would be produced during construction and operation of the Project. As a result, the Modified Project's emissions are underestimated and should not be relied upon to determine Community Plan significance.

Use of an Incorrect Land Use Size

According to the DSEIR, both Modified Projects 1 and 2 would include 193.1-acres of open space (p. 1-3). However, review of the Project's CalEEMod output files demonstrates that the model only included 32.73-acres of "City Park" land use (see excerpt below) (Appendix M, pp. 25, 141, 257, 374).

²⁰ "CalEEMod User's Guide." CAPCOA, November 2017, *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

²¹ "CalEEMod User's Guide, Appendix D." CAPCOA, September 2016, available at:

 $http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2$

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking Structure	100.00	Space	0.00	40,000.00	0
City Park	30.00	Acre	30.00	1,306,800.00	0
City Park	2.73	Acre	2.73	118,918.80	0
Quality Restaurant	10.00	1000sqft	0.12	10,000.00	0
Quality Restaurant	10.00	1000sqft	0.12	10,000.00	0
Apartments Low Rise	286.00	Dwelling Unit	<mark>8.9</mark> 7	286,000.00	818
Apartments Low Rise	350.00	Dwelling Unit	10.98	350,000.00	1001
Apartments Mid Rise	350.00	Dwelling Unit	4.62	350,000.00	1001
Apartments Mid Rise	473.00	Dwelling Unit	6.24	473,000.00	1353
Apartments Mid Rise	307.00	Dwelling Unit	4.05	307,000.00	878
Single Family Housing	274.00	Dwelling Unit	44.65	493,200.00	784
Convenience Market (24 Hour)	5.00	1000sqft	0.00	5,000.00	0
Regional Shopping Center	10.00	1000sqft	0.12	10,000.00	0
Regional Shopping Center	10.00	1000sqft	0.12	10,000.00	0

As you can see in the excerpt above, the amount of open space, modeled as "City Park," was underestimated by 160.37-acres. This presents an issue, as 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.²² 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 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.²³ By including an underestimated amount of "City Park", the model underestimates the Modified Project's construction and operational emissions. As a result, the model should not be relied upon to determine Community Plan significance.

Failure to Evaluate the Feasibility of Obtaining Tier 4 Final Equipment

Review of the CalEEMod output files demonstrates that the Modified Project's emissions were modeled assuming that construction equipment would be equipped with Tier 4 Final engines (see excerpt below) (Appendix M, pp. 27, 28, 143, 259, 260, 376, 377).

Table Name	Column Name	Default Value	New Value

²² "CalEEMod User's Guide." CAPCOA, November 2017, *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

²³ "CalEEMod User's Guide, Appendix D." CAPCOA, September 2016, available at:

http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

As you can see in the excerpt above, Modified Options 1 and 2 (Residential-Heavy and Commercial Heavy) were modeled assuming that construction equipment would be equipped with Tier 4 Final engines. Furthermore, review of the wastewater treatment plant CalEEMod output files demonstrates that the Project's emissions were modeled assuming that construction equipment would be equipped with Tier 4 Final engines (see excerpt below) (Appendix M, pp. 493).

Table Name Column Name		Default Value	New Value	
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00	
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00	

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

As you can see in the excerpt above, the wastewater treatment plant was modeled assuming that construction equipment would be equipped with Tier 4 Final engines. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.²⁴ Regarding construction equipment mitigation, the DSEIR states:

"Construction of the Modified Project is assumed to use all Tier 4 Final off-road equipment, except for paving equipment which are not widely available" (p. 4.2-35).

However, the DSEIR failed to evaluate the feasibility in obtaining Tier 4 equipment. Due to the limited amount of Tier 4 Final equipment available, the DSEIR should have assessed the feasibility in obtaining equipment with Tier 4 Final engines (see excerpt below).²⁵



Figure 4: 2014 Statewide All Fleet Sizes (Pieces of Equipment)

As demonstrated in the figure above, Tier 4 Final equipment only accounts for 4% of all off-road equipment currently available in California. Thus, emissions are modeled assuming that the Project will be able to obtain a full fleet of Tier 4 Final equipment, even though this equipment only accounts for 4% of available off-road equipment currently available in California. Therefore, the Modified Project's model represents the best-case scenario even though obtaining these types of equipment may not be

²⁴ CalEEMod User Guide, available at: http://www.caleemod.com/, p. 2, 9

²⁵ "San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects." August 2015, *available at:*

https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, p. 6.

feasible. As a result, the model may underestimate the Modified Project's construction-related emissions and should not be relied upon to determine Community Plan significance.

Use of Underestimated Trip Rates

According to the Project's TIA, the Modified Project is expected to generate 11,270 daily trips throughout operation (TIA, p. 24, Table 4). However, review of the Modified Project's CalEEMod output files demonstrates that the Weekday and Sunday trip rates for Modified Option 1 (Residential-Heavy), were underestimated (see excerpt below) (Appendix M, pp. 125, 241).

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,544.40	1,678.82	1421.42	3,570,732	3,570,732
Apartments Low Rise	1,890.00	2,054.50	1739.50	4,369,777	4,369,777
Apartments Mid Rise	1,375.50	1,319.50	1211.00	3,104,112	3,104,112
Apartments Mid Rise	1,858.89	1,783.21	1636.58	4,194,986	4,194,986
Apartments Mid Rise	1,206.51	1,157.39	1062.22	2,722,750	2,722,750
City Park	56.70	682.50	502.20	447,770	447,770
City Park	5.16	62.11	45.70	40,747	40,747
Convenience Market (24 Hour)	0.00	0.00	0.00		
Quality Restaurant	230.60	241.90	185.00	267,718	267,718
Quality Restaurant	230.60	241.90	185.00	267,718	267,718
Regional Shopping Center	230.60	269.80	136.30	390,511	390,511
Regional Shopping Center	230.60	269.80	136.30	390,511	390,511
Single Family Housing	1,893.34	1,970.06	1715.24	4,339,422	4,339,422
Unenclosed Parking Structure	202.00	202.00	202.00	153,839	153,839
Total	10,954.90	11,933.49	10,178.46	24,260,593	24,260,593

As you can see in the excerpt above, the total number of average weekday and Sunday trips were underestimated by 315.1 trips and 1,091.54 trips, respectively. Furthermore, review of the Modified Project's CalEEMod output files demonstrates that the Saturday and Sunday trip rates for Modified Option 2 (Commercial-Heavy), were underestimated as well (see excerpt below) (Appendix M, pp. 358, 475).

	Average Daily Trip Rate		Unmitigated	Mitigated	
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,814.40	1,972.32	1669.92	4,194,986	4,194,986
Apartments Low Rise	1,620.00	1,761.00	1491.00	3,745,523	3,745,523
Apartments Mid Rise	1,375.50	1,319.50	1211.00	3,104,112	3,104,112
City Park	56.70	682.50	502.20	447,770	447,770
City Park	5.16	62.11	45.70	40,747	40,747
Convenience Market (24 Hour)	0.00	0.00	0.00		
Office Park	2,088.42	301.38	138.28	3,896,052	3,896,052
Office Park	1,354.70	195.50	89.70	2,527,264	2,527,264
Quality Restaurant	230.60	241.90	185.00	267,718	267,718
Quality Restaurant	230.60	241.90	185.00	267,718	267,718
Regional Shopping Center	230.60	269.80	136.30	390,511	390,511
Regional Shopping Center	230.60	269.80	136.30	390,511	390,511
Single Family Housing	1,893.34	1,970.06	1715.24	4,339,422	4,339,422
Unenclosed Parking Structure	202.00	202.00	202.00	153,839	153,839
Total	11,332.62	9,489.77	7,707.64	23,766,173	23,766,173

As you can see in the excerpt above, the total number of average Saturday and Sunday trips were underestimated by 1,1780.23 trips and 3,562.36 trips, respectively. Thus, both the DSEIR's CalEEMod models for Modified Options 1 and 2 are inconsistent with the TIA, and the models may underestimate the Modified Project's mobile-related operational emissions. As a result, the models should not be relied upon to determine Community Plan significance.

Use of Incorrect Trip Purpose Percentages

Review of the Modified Project's CalEEMod output files demonstrates that the model double counts the number of pass-by trips expected to occur throughout operation. As a result, the Modified Project's mobile-source operational emissions are underestimated.

CalEEMod separates the operational trip purposes in three categories: primary, diverted, and pass-by trips. According to Appendix A of the CalEEMod User's Guide, the primary trips utilize the complete trip lengths associated with each trip type category. Diverted trips are assumed to take a slightly different path than a primary trip and are assumed to be 25% of the primary trip lengths. Pass-by trips are assumed to be 0.1 miles in length and are a result of no diversion from the primary route.²⁶ Review of the Modified Project's CalEEMod output files for both Modified Options 1 and 2 demonstrates that the trip purpose percentage was divided amongst the primary, diverted, and pass-by trip types for the Project's proposed retail and restaurant land uses (see excerpt below) (Appendix M, pp. 126, 242, 359, 476).

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Unenclosed Parking Structure	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61

However, as demonstrated in the DSEIR's Transportation Impact Analysis ("TIA"), pass-by trips for the proposed retail and restaurant land uses were already accounted for in the Project Trip Generation calculations (see excerpt below) (TIA, p. 24, Table 4).

²⁶ "CalEEMod User's Guide, Appendix A: Calculation Details for CalEEMod." *SCAQMD*, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 20

Land Use			AM Peak Hour			PM Peak Hour		
Land Ose	5120		In	Out	Total	In	Out	Total
Retail and Restaurant Trip Rates		42.7	0.60	0.36	0.96	1.78	1.93	3.71
Unadjusted Retail and Restaurant Trip Generation	40,000 sq. ft.	1,708	23	15	38	71	77	148
25% Reduction for Pass-By Trips		427	6	4	10	18	19	37
Net New Retail and Restaurant Trip Generation		1,281	17	11	28	53	58	111

PROJECT TRIP GENERATION CALCULATIONS

Therefore, the CalEEMod model should have divided the trip purpose between primary and diverted trips for the restaurant and retail land uses, as pass-by trips are already accounted for in the daily trip total. By spreading the trip purpose percentages amongst the three categories, the model is accounting for pass-by trips that have already been accounted for in the TIA. Because the Modified Project's CalEEMod model incorrectly allocates the Project's operational trips to the various categories of trip purposes, including pass-by, the emissions associated with these trips are underestimated. As a result, the Modified Project's emissions are underestimated and should not be relied upon to determine Community Plan significance.

Unsubstantiated Changes to Off-Road Equipment Horsepower Values, Load Factors, and Usage Hours Review of the Modified Project's CalEEMod output files demonstrates that the model included several manual changes to the Modified Project's off-road construction equipment usage hours, as well as a change to both a horsepower and a load factor (see excerpt below) (Appendix M, pp. 34, 150, 267, 384).

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	HorsePower	402.00	367.00
tblOffRoadEquipment	LoadFactor	0.38	0.48
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

As you can see in the excerpt above, the model included several changes to the Modified Project's anticipated off-road construction equipment. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.²⁷ According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Construction equipment list updated to match inputs provided by AES/developer" (Appendix M, pp. 26, 142, 258, 375). However, the DSEIR and associated documents fail to justify or mention the changes to usage hours, horsepower value, and load factor. Thus, we cannot verify these changes, and the model may underestimate the

²⁷ CalEEMod User Guide, available at: http://www.caleemod.com/, p. 2, 9

Modified Project's construction-related emissions. As a result, the model should not be relied upon to determine Community Plan significance.

Unsubstantiated Changes to CH₄, CO₂, and N₂O Intensity Factors

Review of the Modified Project's CalEEMod output files demonstrates that the model included several manual changes to the Modified Project's CH₄, CO₂, and N₂O intensity factors (see excerpt below) (Appendix M, pp. 34, 150, 267, 3840.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	641.35	248.57
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

As you can see in the excerpt above, the Modified Project's CH₄, CO₂, and N₂O intensity factors were manually altered in the model. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.²⁸ According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Project operational year = 2024. Updated electricity emission factors to incorporate RPS for 2024" (Appendix M, pp. 26, 142, 258, 375). However, this justification is insufficient for several reasons. First, the justification fails to provide a specific reduction percentage for each intensity factor or a source for "RPS for 2024." Second, assuming the justification is referring to the state's renewable portfolio standard ("RPS"), just because the state *has* a 50% renewable *goal* does not guarantee that it will be achieved. Furthermore, without a substantial justification, the Modified Project cannot claim that the statewide RPS *goal* will result in a project-level reduction of the Project's actual emissions. As a result, we cannot verify the model's use of the reduced CH₄, CO₂, and N₂O intensity factors and thus, the Modified Project's emissions are underestimated and should not be relied upon to determine Community Plan significance.

Unsubstantiated Changes to Vehicle Fleet Mix

The DSEIR's CalEEMod models for the Modified Project include several unsubstantiated changes to the fleet mix percentage values, and as a result, the models may underestimate the Modified Project's mobile-source operational emissions.

Review of the Modified Project's CalEEMod output files demonstrates that the fleet mix percentage values for Modified Option 1, Modified Option 2, and the wastewater treatment plant were manually altered from default values (Appendix M, pp. 30-33, 146-149, 262-266, 379-383, 493-494). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.²⁹ According to the "User Entered Comments & Non-Default Data" table for the wastewater treatment plant model, the justification provided for these changes is: "Fleet mix based on EMFAC 2017" (Appendix M, pp. 492). However, this justification is insufficient, as EMFAC 2017 refers to an entire database, not a specific set of fleet mix percentages values.³⁰ Thus, the "User Entered Comments & Non-Default Data" table or the

²⁸ CalEEMod User Guide, available at: http://www.caleemod.com/, p. 2, 9

²⁹ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9.

³⁰ "EMFAC2017 Web Database." CARB, available at: https://arb.ca.gov/emfac/2017/.

DEIR should have specified which input parameters were used to obtain the fleet mix percentages inputted in the model. Without specific input parameters, we cannot verify the altered vehicle emission factors, and the changes may be incorrect. Furthermore, no justification was provided in the "User Entered Comments & Non-Default Data" table for the changes to the fleet mix percentage values in the Modified Option 1 or Modified Option 2 models. As a result, we cannot verify the altered fleet mix percentages in the Modified Option 1, Modified Option 2, and wastewater treatment plant CalEEMod models.

This presents an issue, as CalEEMod uses the fleet mix percentages to calculate the Project's operational emissions associated with on-road vehicles.³¹ Thus, by including several unsubstantiated changes to the Modified Project's anticipated fleet mix, the models may underestimate the Modified Project's mobile-related operational emissions and should not be relied upon to determine Community Plan significance.

Unsubstantiated Change to Road Dust Silt Loading

Review of the Modified Project's CalEEMod output files demonstrates that the models included an unsubstantiated change to the anticipated road silt loading value (see excerpt below) (Appendix M, pp. 35, 151, 267, 384, 494).

Table Name	Column Name	Default Value	New Value
tblRoadDust	RoadSiltLoading	0.1	0.047

As you can see in the excerpt above, the road silt loading value was changed from 0.1 grams per square meter ("g/m²") to 0.047 g/m². As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.³² According to the "User Entered Comments & Non-Default Data" table in the wastewater treatment plant model, the justification provided for this is: "Updated silt loading factor for Contra Costa County from the CARB 2018 Miscellaneous Process Methodology 7.9 for Entrained Road Travel, Paved Road Dust" (Appendix M, pp. 492). Furthermore, according to the "User Entered Comments & Non-Default Data" tables for the Option 1 (Residential-Heavy) and Option 2 (Commercial-Heavy) models, the justifications provided for these changes are: "0.047 g/m2 sL" and "Road Silt Loading set to 0.047 g/m2," respectively (Appendix M, pp. 26, 142, 258, 375). However, these justifications are incorrect for two reasons.

First, review of the CARB 2018 *Miscellaneous Process Methodology 7.9* demonstrates that the local urban silt loading for Contra Costa County is $0.32 \text{ g/m}^{2.33}$ As such, the model's use of 0.047 g/m^{2} is incorrect and unsubstantiated.

Second, the CARB 2018 *Miscellaneous Process Methodology 7.9* utilized "California-specific roadway silt loading measurements" from four sources (p. 1). The four sources, however, are CARB's <u>1997</u> *Entrained Dust from Paved Road Travel, Emission Estimation Methodology Background Document*, UC Davis's <u>1996</u>

³¹ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 35.

³² CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9.

³³ "MISCELLANEOUS PROCESS METHODOLOGY 7.9 Entrained Road Travel, Paved Road Dust." CARB, March 2018, *available at:* https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf, p. 6, Table 3 & p. 21, Table 7.

*Final Report, Traffic Generated PM*₁₀ "Hot Spots" document, UC Davis's **1998** *Final Report, Wintertime Traffic Generated PM*₁₀ "Hot Spots" document, and the Midwest Research Institute's **1996** *Improvement of Specific Emission Factors (BACM Project No. 1), Final Report* document. As such, these documents are all over 20 years old. Considering that CalEEMod was most recently updated in 2016, the silt loading values recorded in CARB's 2018 *Miscellaneous Process Methodology 7.9* document would already have been included. Without a more recent source, we cannot verify the use of these altered road silt loading values.

This presents an issue, as the road silt loading values are used by CalEEMod to calculate fugitive emissions from paved and unpaved roads.³⁴ By including an unsubstantiated change to the Modified Project's road silt loading value, the models may underestimate the Modified Project's fugitive dust emissions and should not be relied upon to determine Community Plan significance.

Unsubstantiated Change to Consumer Product Emission Factor

Review of the Modified Option 1 and Modified Option 2 CalEEMod output files demonstrate that the consumer products' ROG ("VOC") emission factor was manually decreased from the default (see excerpt below) (Appendix M, pp. 28, 144, 260, 377).

Table Name	Column Name	Default Value	New Value
tblConsumerProducts	ROG_EF	2.14E-05	1.55E-05

As you can see in the excerpt above, the consumer products' ROG emission factor was reduced from the default 2.14E-05 pounds of ROG per square foot per day ("Ib ROG/SF/day") to 1.55E-05 lb ROG/SF/day in the Modified Options 1 and 2 CalEEMod models. Furthermore, review of the wastewater treatment plant CalEEMod output files demonstrates that the consumer products ROG emission factor was manually decreased from the default (see excerpt below) (Appendix M, pp. 493).

Table Name	Column Name	Default Value	New Value
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05

As you can see in the excerpt above, the consumer products ROG emission factor for the wastewater treatment plant was manually reduced from the default 2.14E-05 lb ROG/SF/day to 1.62E-05 lb ROG/SF/day.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified. ³⁵ According to the Modified Option 1 model's "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "VOC emission factors updated to be county-specific VOC factors" (Appendix M, pp. 26, 142). According to the Modified Option 2 model's "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "VOC emission factors to the second provided for this change is to the modified Option 2 model's "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "VOC emission factor for consumer products is the county specific VOC factor" (Appendix M, pp. 258, 375). Finally, according to the wastewater treatment plant model's "User Entered Comments & Non-Default Data" table, the

³⁴ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 39.

³⁵ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9.

justification provided for this change is: "Statewide consumer product emission factors for 2017. 2017 value calculated using the growth in California population and the 2008 total building square footage" (Appendix M, pp. 492). However, these justifications are insufficient, as they fail to provide a source or explanation for the calculations used to determine the updated "county-specific" VOC emission factors. As a result, we cannot verify these changes.

This presents an issue, as CalEEMod uses the VOC emission factors to calculate area-related operational emissions associated with the use of consumer products.³⁶ Thus, by including an unsubstantiated change to the Modified Project's consumer products ROG emission factor, the model may underestimate the Modified Project's area-related operational emissions and should not be relied upon to determine Community Plan significance.

Unsubstantiated Changes to Energy Use Values

The DSEIR's CalEEMod models included several unsubstantiated changes to the Modified Project's energy use values, and as a result, the models may underestimate the Modified Project's energy-related operational emissions.

Review of the Project's Option 1 (Residential-Heavy) and Option 2 (Commercial-Heavy) CalEEMod output files demonstrates that the lighting energy intensity, nontitle-24 electricity energy intensity, nontitle-24 natural gas energy intensity, title-24 electricity energy intensity and title-24 natural gas energy intensity were manually altered from their default values (see excerpt below) (Appendix M, pp. 28-29, 144-145, 260-261, 377-378).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	810.36	0.00
tblEnergyUse	LightingElect	741.44	698.33
tblEnergyUse	LightingElect	4.88	5.88
tblEnergyUse	LightingElect	5.34	5.61
tblEnergyUse	LightingElect	4.88	5.12
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	LightingElect	1.75	1.14
tblEnergyUse	NT24E	3,172.76	0.00
tblEnergyUse	NT24E	3,054.10	2,848.06
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24NG	2,615.00	2,216.09
tblEnergyUse	NT24NG	0.70	1.00
tblEnergyUse	NT24NG	128.02	128.00

³⁶ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 41, 42.

tblEnergyUse	NT24NG	0.70	1.00
tblEnergyUse	T24E	233.06	0.00
tblEnergyUse	T24E	426.45	385.82
tblEnergyUse	T24E	2.24	2.90
tblEnergyUse	T24E	2.67	2.90
tblEnergyUse	T24E	2.24	2.45
tblEnergyUse	T24E	217.68	0.00
tblEnergyUse	T24NG	17,734.50	16,901.46
tblEnergyUse	T24NG	6,115.43	6,625.17
tblEnergyUse	T24NG	3.90	5.00
tblEnergyUse	T24NG	39.90	41.30
tblEnergyUse	T24NG	3.90	4.48
tblEnergyUse	T24NG	39,708.76	35,976.35

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.³⁷ According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes to the Project's energy use values is: "2019 Title-24 energy reductions applied to energy intensity factors for non-historical buildings. Rooftop PV is required to match total energy usage for Low-rise and Single Family units" (Appendix M, pp. 26, 142, 258, 375). However, this justification is incorrect.

First, the DSEIR and associated documents fail to provide the specific reductions applied to the energy intensity factors. While the DSEIR states that buildings will use less energy due to the 2019 Title 24 requirements, the DSEIR and associated documents fail to address energy *intensity values*. As such, this is incorrect and fails to demonstrate that the proposed Project's *energy intensity values* would also be less.

Second, the DSEIR and associated documents fail to commit to the use of rooftop photovoltaic ("PV) systems for the Modified Project. Instead, the DSEIR states that the Modified Project will "[I]ocate mechanical equipment on the rooftop" to reduce noise (see mitigation measure 4.10-4) (p. 4.10-35). As such, not only does the proposed Project fail to commit to the use of rooftop PV systems, or Project solar generation whatsoever, but also describes mechanical equipment that will be located on roofs instead.

Third, while the DSEIR and "User Entered Comments & Non-Default Data" table discuss change to Title-24 energy values, the model includes several changes to <u>non-title24</u> values. As such, these changes are unsubstantiated and we are unable to verify them without a source.

This presents an issue, as the energy use values are used by CalEEMod to calculate the emissions associated with building electricity and non-hearth natural gas usage. ³⁸ By including several unsubstantiated changes to the Modified Project's energy use values, the models may underestimate

³⁷ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9.

³⁸ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 43.
the Modified Project's operational emissions and should not be relied upon to determine Community Plan significance.

Unsubstantiated Changes to Vehicle Emission Factors

The DSEIR's CalEEMod models include several unsubstantiated changes to the Modified Project's vehicle emission factors, and as a result, the model may underestimate the Modified Project's mobile-source operational emissions.

Review of the CalEEMod output files demonstrates that the vehicle emission factors for Modified Option 1, Modified Option 2, and the wastewater treatment plant were manually altered from their default values in the model (Appendix M, pp. 35-82, 151-198, 268-315, 385-432, 494-542). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.³⁹ According to the wastewater treatment plant model's "User Entered Comments & Non-Default Data" table, the justification provided for the vehicle emission factor changes is: "EMFAC 2017" (Appendix M, pp. 492). However, this justification is insufficient. As previously stated, EMFAC 2017 refers to an entire database, not a specific set vehicle emission factors.⁴⁰ Thus, "User Entered Comments & Non-Default Data" table or the DEIR should have specified which input parameters were used to obtain the vehicle emission factors, and the changes may be substantiated. Furthermore, no justification was provided in the "User Entered Comments & Non-Default Data" table for Modified Option 1 or Modified Option 2. As a result, we cannot verify the altered vehicle emission factors in the Modified Option 1, Modified Option 2, and wastewater treatment plant CalEEMod models.

This presents an issue, as CalEEMod uses the vehicle emission factors to calculate the Modified Project's operational emissions associated with on-road vehicles.⁴¹ Thus, by including several unsubstantiated changes to the Modified Project's anticipated vehicle emission factors, the models may underestimate the Modified Project's mobile-related operational emissions and should not be relied upon to determine Community Plan significance.

Unsubstantiated Changes to Stationary Generator Emission Factors

The DSEIR's CalEEMod models include several unsubstantiated changes to the Modified Project's stationary generator emission factors, and as a result, the model may underestimate the Modified Project's stationary-source operational emissions.

Review of the Modified Project's CalEEMod output files demonstrates that the Option 1 (Residential-Heavy) and Option 2 (Commercial-Heavy) models included changes to the emergency generator pump NO_X, PM₁₀, PM_{2.5}, ROG, and TOG emission factors (see excerpt below) (Appendix M, pp. 35, 151, 267, 268, 384, 385).

³⁹ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9.

⁴⁰ "EMFAC2017 Web Database." CARB, available at: https://arb.ca.gov/emfac/2017/.

⁴¹ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 35.

Table Name	Column Name	Default Value	New Value
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.3100e-004
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.3100e-004
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	3.3100e-004
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	3.3100e-004

Furthermore, review of the Modified Project's CalEEMod output files demonstrates that the wastewater treatment plant model also included changes to the emergency generator pump NO_X, PM₁₀, PM_{2.5}, ROG, and TOG emission factors (see excerpt below) (Appendix M, pp. 494).

Table Name	Column Name Default Value		New Value
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.3100e-004
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	3.3100e-004

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.⁴² According to the wastewater treatment plant model's "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Emergency Generators and Fire Pumps EF - Tier 4 emission factors for TOG, ROG, NOX, PM10 and PM2.5" (Appendix M, pp. 492).

Furthermore, the DSEIR goes on to state:

"Operation of the Modified Project may require up to two diesel-fired, 2,000 kilowatt (2,682 horsepower), Tier 4 emergency generators to support the residential and commercial centers" (p. 4.2-37).

However, the DSEIR also failed to specify whether Tier 4 Interim or Tier 4 Final equipment mitigation would be implemented. As the DSEIR failed to indicate whether the emergency generators would be equipped with Tier 4 Interim or Tier 4 Final mitigation, we cannot verify the updated emission factors. Furthermore, as discussed above, the DSEIR failed to evaluate the feasibility of obtaining Tier 4 equipment. Thus, we cannot verify these changes to the Project's emergency generator emission factors. Furthermore, review of the CalEEMod models for Modified Options 1 and 2 reveals that no justification was provided in the "User Entered Comments & Non-Default Data" tables. As a result, we

⁴² CalEEMod User Guide, available at: http://www.caleemod.com/, p. 2, 9

cannot verify these altered emergency generator emission factors in the Modified Option 1, Modified Option 2, and wastewater treatment plant CalEEMod models.

This presents an issue, as CalEEMod uses the emergency generator emission factors to calculate the stationary-source emissions associated with emergency generators.⁴³ Thus, by including unsubstantiated changes to the Modified Project's emergency generator emission factors, the models may underestimate the Modified Project's stationary-source operational emissions and should not be relied upon to determine Community Plan significance.

Unsubstantiated Changes to Outdoor Water Use Rates

Review of the Modified Project's CalEEMod output files demonstrates that the models underestimate the outdoor water use rate expected to occur throughout operation. As a result, the Modified Project's operational emissions are underestimated.

According to the DSEIR,

"The estimated average daily water demand for the Modified Project would be approximately 370,160 gpd (290,160 gpd indoor; <u>80,000 gpd outdoor</u>; Appendix E)" (emphasis added) (DSEIR, p. 4.14-24).

However, review of the CalEEMod output files reveals that the models included an artificial reduction of the Modified Project's outdoor water use rate to zero (see excerpt below) (Appendix M, pp. 83, 199, 316, 433).

Table Name	Column Name	Default Value	New Value
tblWater	OutdoorWaterUseRate	38,997,184.57	0.00

As you can see in the excerpt above, the Modified Project's outdoor water use rate was reduced to zero in the model. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.⁴⁴ However, review of the "User Entered Comments & Non-Default Data" table reveals that no justification was provided. In addition, the DSEIR and associated documents fail to address or substantiate this change. As such, we cannot verify the model's reduced outdoor water use rate, and the model may underestimate the proposed Project's water-related operational emissions and should not be relied upon to determine Community Plan significance.

Underestimated Indoor Water Use Rate

Review of the Modified Project's CalEEMod output files demonstrates that the models underestimate the indoor water use rate expected to occur throughout operation. As a result, the Modified Project's operational emissions are underestimated.

According to the DSEIR,

⁴³ "Appendix A Calculation Details for CalEEMod." *available at:* http://www.caleemod.com/, p. 53.

⁴⁴ CalEEMod User Guide, available at: http://www.caleemod.com/, p. 2, 9

"The estimated average daily water demand for the Modified Project would be up to approximately 0.37 million gallons per day (mgd) (0.29 mgd indoor; 0.08 mgd outdoor; Appendix E)" (p. 3-32).

As you can see in the excerpt above, the Modified Project is anticipated to use 0.29 mgd, or 105.85 million gallons per year (mgy).⁴⁵ According to the DSEIR, this water would be treated by an on-site wastewater treatment plan ("WWTP") to be installed and operated with the Modified Project. However, review of the CalEEMod output files for the WWTP reveals that the indoor water use rate was manually reduced to zero (see excerpt below) (Appendix M, pp. 542).

Table Name Column Name		Default Value	New Value
tblWater	IndoorWaterUseRate	1,308,875.00	0.00

As you can see in the excerpt above, the indoor water use rate for the WWTP CalEEMod model was artificially reduced to zero. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.⁴⁶ However, review of the "User Entered Comments & Non-Default Data" table reveals that the justification provided was: "Zero wastewater consumption" (Appendix M, pp. 492). However, just because the WWTP's *wastewater* consumption would be zero does not mean that the WWTP's *total indoor water use* rate would be zero. In addition, the DSEIR and associated documents fail to substantiate this reduction in indoor water use. As such, we cannot verify the model's reduced indoor water use rate, and the model may underestimate the Modified Project's water-related operational emissions and should not be relied upon to determine Community Plan significance.

Underestimated Solid Waste Generation Rate

Review of the Modified Project's CalEEMod output files demonstrates that the models underestimate the solid waste generation rate expected to occur throughout operation. As a result, the Modified Project's waste-related operational emissions are underestimated.

According to the DSEIR, Option 1 (Residential Heavy) is anticipated to generate approximately 12.6 tons/day of solid waste and Option 2 (Commercial Heavy) is anticipated to generate approximately 9.3 tons/day of solid waste (see excerpt below) (DSEIR, p. 3-39, Table 3-2).

⁴⁵ Calculated: (0.29 mgd) x (365 days/year) = 105.85 mgy

⁴⁶ CalEEMod User Guide, available at: http://www.caleemod.com/, p. 2, 9

	SOLID WASTE GENERATION							
Unit Type	Commercial- Heavy Development	Option 2 (Commercial- Heavy Option): Estimated Solid Waste	Residential- Heavy Development	Option 1 (Residential- Heavy Option): Estimated Solid Waste				
	Residential							
Dwelling Units ¹	1,260 units	15,410 pounds/day	2,040 units	24,949 pounds/day				
		Commercial		_				
Full-Service Restaurant ²	40,000 sq. ft.	200 pounds/day	40,000 sq. ft.	200 pounds/day				
Commercial ³	584,572 sq. ft.	2,923 pounds/day	0 sq. ft.	0 pounds/day				
Total: 18,533 pounds/day = 9.3 tons/dayTotal: 25,149 pounds/day = 12.6 tons/day								
Notes: ¹ Residential solid waste generation based on a factor of 12.23 pounds per household per day ² Restaurant solid waste generation based on a factor of 5 pounds per 1,000 sq. ft. per day ³ Commercial solid waste generation based on a factor of 5 pounds per 1,000 sq. ft. per day Source: CalRecycle 2019d								

TABLE 3-2 SOLID WASTE GENERATION

As you can see, Option 1 (Residential Heavy) is anticipated to generate approximately 12.6 tons/day of solid waste and Option 2 (Commercial Heavy) is anticipated to generate approximately 9.3 tons/day of solid waste. As such, Option 1 (Residential Heavy) is anticipated to generate approximately 4,599 tons/year of solid waste⁴⁷ and Option 2 (Commercial Heavy) is anticipated to generate approximately 3,394.5 tons/year of solid waste.⁴⁸

However, review of the Modified Project's CalEEMod output files reveals that the amount of solid waste included in the model is underestimated. Specifically, review of the Modified Project's CalEEMod output files for Option 1 (Residential-Heavy) reveals that the amount of solid waste is underestimated (see excerpt below) (Appendix M, pp. 139, 255).

⁴⁷ Calculated: (12.6 tons/day) x (365 days/year) = 4,599 tons/year

⁴⁸ Calculated: (9.3 tons/day) x (365 days/year) = 3,394.5 tons/year

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Apartments Low Rise	146.28	29.6935	1.7548	0.0000	73.5644
Apartments Mid Rise	259.9	52.7574	3.1179	0.0000	130.7041
City Park	1.405	0.2852	0.0169	0.0000	0.7066
Convenience Market (24 Hour)	7.515	1.5255	0.0902	0.0000	3.7793
Quality Restaurant	9.125	1.8523	0.1095	0.0000	4.5890
Regional Shopping Center	10.5	2.1314	0.1260	0.0000	5.2805
Single Family Housing	164.64	33.4204	1.9751	0.0000	82.7977
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		121.6657	7.1902	0.0000	301.4216

Furthermore, review of the Modified Project's CalEEMod output files for Option 2 (Commercial Heavy) reveals that the amount of solid waste is underestimated (see excerpt below) (Appendix M, pp. 372, 489).

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Apartments Low Rise	155.48	31.5610	1.8652	0.0000	78.1911
Apartments Mid Rise	80.5	16.3408	0.9657	0.0000	40.4836
City Park	1.405	0.2852	0.0169	0.0000	0.7066
Convenience Market (24 Hour)	7.515	1.5255	0.0902	0.0000	3.7793
Office Park	271.825	55.1780	3.2609	0.0000	136.7012
Quality Restaurant	9.125	1.8523	0.1095	0.0000	4.5890
Regional Shopping Center	10.5	2.1314	0.1260	0.0000	5.2805
Single Family Housing	164.64	33.4204	1.9751	0.0000	82.7977
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		142.2946	8.4094	0.0000	352.5290

As you can see in the excerpts above, the CalEEMod model for Option 1 (Residential Heavy) only includes 599.365 tons/year of solid waste and the CalEEMod model for Option 2 (Commercial Heavy) only includes 700.99 tons/year of solid waste. As such, the solid waste included in the model for Option 1 (Residential Heavy) is underestimated by 3,999.635 tons/year and the solid waste included in the model for Option 2 (Commercial Heavy) is underestimated by 2,693.51 tons/year. Therefore, the models are inconsistent with the information provided in the DSEIR for the Modified Project and should not be relied upon to determine Community Plan significance.

Unsubstantiated Application of Operational Mitigation Measures

Review of the Modified Project's CalEEMod output files demonstrates that the model incorrectly includes several water- and waste-related operational mitigation measures. As a result, the Modified Project's operational emissions may be underestimated, and the model should not be relied upon to determine Community Plan significance.

First, the Modified Project's CalEEMod output files reveal that the model included the following unsubstantiated water-related operational mitigation measure: "Use Reclaimed Water" (see excerpt below) (Appendix M, pp. 134, 367).

7.1 Mitigation Measures Water

Use Reclaimed Water Install Low Flow Bathroom Faucet Install Low Flow Kitchen Faucet Install Low Flow Toilet Install Low Flow Shower

Second, review of the Modified Project's CalEEMod output files demonstrates that the model included the following waste-related mitigation measures: "Institute Recycling and Composting Services" (see excerpt below) (Appendix M, pp. 136, 252, 369, 486).

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

However, the inclusion of the above-mentioned water- and waste-related operational mitigation measures is unsubstantiated. According to the CalEEMod User's Guide,

"The mitigation measures included in CalEEMod are largely based on the CAPCOA Quantifying Greenhouse Gas Mitigation Measures (http://www.capcoa.org/wpcontent/uploads/downloads/2010/09/CAPCOA-Quantification-Report-9-14-Final.pdf) document. The CAPCOA measure numbers are provided next to the mitigation measures in CalEEMod to assist the user in understanding each measure by referencing back to the CAPCOA document."⁴⁹

Review of CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* document demonstrates that the DSEIR fails to substantiate several of the mitigation measures included in the model (see table below).

⁴⁹ "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.caleemod.com/, p. 53.

CAPCOA's Quantifying Greenhouse Gas Mitigation Measures⁵⁰

Water Measures

Measure WSW-1 Use Reclaimed Water	Here, as previously mentioned, the CalEEMod User's Guide requires any changes to model			
 The following information needs to be provided by the Project Applicant: Reclaimed water use (million gallons) Total non-potable water use (million gallons) Baseline Method: GHG emissions = Waternon-potable total X Electricitybaseline x Utility Where: GHG emissions = MT CO2e Waternon-potable total = Total volume of non-potable water used (million gallons) Provided by Applicant Electricitybaseline = Electricity required to supply, treat, and distribute water (kWh/million gallons) Northern California Average: 3,500 kWh/million gallons Southern California Average: 11,111 kWh/million gallons Utility = Carbon intensity of Local Utility (CO2e/kWh) 	defaults be justified. ⁵¹ However, review of the CalEEMod output files reveals that the "User Entered Comments & Non-Default Data" table fails to address or substantiate this measure. Furthermore, mitigation measure AQ-1 states, "All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day <u>with reclaimed water</u> , if available " (emphasis added) (DSEIR, p. 2-9, Table 2-1). As you can see, the Modified Project fails to evaluate the feasibility of or commit to this measure. In addition, according to the CAPCOA guidance, the DSEIR should have disclosed the anticipated amount of reclaimed water and total non-potable water to be used on the Project site in order to take credit for this measure. Thus, the DSEIR fails to demonstrate consistency with the measure and as a result, its inclusion in the model is unsubstantiated and emissions may be underestimated.			
Waste Measures				
Measure SW-1 Institute Recycling and Composting Services "Current protocols for quantifying emissions reductions from diverted landfill waste developed by the USEPA and the California Center for Integrated Waste Management Board (CIWMB)	Here, the "User Entered Comments & Non- Default Data" table attempts to substantiate this measure by stating: "Applying 50% solid waste reduction measure" (Appendix M, pp. 26, 142, 258, 375). However, this fails to substantiate the reduction whatsoever. Furthermore, according to the DSEIR, "[t]he Modified Project will comply			

⁵⁰ "Quantifying Greenhouse Gas Mitigation Measures." CAPCOA, August 2010, available at:

http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.

⁵¹ CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

are based on life-cycle approaches, which reflect emissions and reductions in both the upstream and downstream processes around waste management. The Project Applicant should seek local agency guidance on comparing and/or combining operational emissions inventories and life cycle emissions inventories... To take credit for this measure, the Project Applicant would need to provide detailed and substantial evidence supporting the amount of waste reduced or diverted to recycling and composting due to the institution of extended recycling and composting services."

"USEPA's Waste Reduction Model (WARM) is used to quantify baseline emissions and emissions reductions from diverting landfill waste to composting or recycling. This webbased tool is available online... The required inputs are the tons of waste associated with one of three waste management practices: landfill (baseline scenario), recycled (mitigated scenario), combusted (not applicable in California), and composted (mitigated scenario)."

with *the City's* Zero Waste Ordinance resulting in a 50 percent diversion of solid waste from landfills" (emphasis added) (p. 2-8). However, this reduction applies to the City and fails to indicate any project-level reductions. The DSEIR goes on to state that "AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25 percent by 1995 and 50 percent by 2000" (p. 4.2-15). However, once again this fails to substantiate a *project-level* reduction in waste. As the 50 percent reduction was a goal for 2000, as stated in the DSEIR, it would already have been accounted for in the 2016 CalEEMod model. Finally, the DSEIR failed to utilize local agency guidance on how to quantify the reduction from any waste-related measures implemented on the Project site or the USEPA's Waste Reduction Model. We are also unable to verify the reductions, as the DSEIR fails to provide the landfill baseline scenario, recycled mitigated scenario, and composted mitigated scenario. The DSEIR also fails to indicate that the Modified Project will include any composting activities whatsoever. Thus, the DSEIR fails to demonstrate consistency with the measure and as a result, its inclusion in the model is unsubstantiated and emissions are underestimated.

As you can see in the table above, the DSEIR fails to justify several of the mitigation measures utilized in the Modified Project's CalEEMod models. As a result, the inclusion of these measures in the models is unsubstantiated and the model should not be relied upon to determine Community Plan significance.

(5) Incorrect Significant and Unavoidable GHG Impact Determination

Fifth and finally, the DSEIR incorrectly concludes that the Modified Project would result in a significant and unavoidable greenhouse gas ("GHG") impact. Specifically, the DSEIR states,

"[D]espite the fact that this EIR requires the Project proponent to purchase local credits to the extent available, and out-of-basin credits beyond that, to mitigate Modified Project emissions to

a less-than-significant level, this impact is being deemed significant and unavoidable—in an abundance of caution—due to the uncertainty regarding availability of offset credits" (p. 4.2-53).

However, while we agree that the Modified Project's GHG impact would be significant, the DSEIR's assertion that the Modified Project's GHG impact would be unavoidable and cannot be mitigated further is incorrect. In addition, by failing to model the Community Plan and instead relying on the model for the Modified Project, the DSEIR fails to demonstrate that the Community Plan will result in less than significant GHG impacts. Without substantial evidence to demonstrate that the Community Plan's GHG emissions would be less than significant, we have to rely upon the DSEIR's conclusion that the Modified Project (and thus, the Community Plan) would result in significant impacts. However, the DSEIR fails to require all feasible mitigation to reduce the Project's GHG impact to a less than significant level. According to CEQA Guidelines § 15096(g)(2),

"When an EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment."

As you can see, an impact can only be labeled as significant and unavoidable after all available, feasible mitigation measures are considered.⁵² Review of the Project's proposed mitigation measures, however, demonstrates that the DSEIR fails to implement all feasible mitigation. Therefore, the DSEIR's conclusion that impacts are significant and unavoidable is unsubstantiated. As a result, additional mitigation measures should be identified and incorporated in an updated EIR in order to reduce the Project's air quality impacts to the maximum extent possible. Until all feasible mitigation is reviewed and incorporated into the Project's design, impacts from GHG emissions should not be considered significant and unavoidable.

Feasible Mitigation Measures Available to Reduce Emissions

In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the Project from NEDC's *Diesel Emission Controls in Construction Projects*.⁵³ Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

⁵² "Final Draft Guidance for Assessing and Mitigating Air Quality Impacts." SVJUAPCD, February 2015, *available at:* http://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF, p. 115.

⁵³ "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

NEDC's Diesel Emission Controls in Construction Projects ⁵⁴					
Measures – Diesel Emission Control Technology					
a. Diesel Onroad Vehicles					
All diesel nonroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA					
onroad emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM					
emissions by a minimum of 85%.					
b. Diesel Generators					
All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.					
c. Diesel Nonroad Construction Equipment					
i. All nonroad diesel engines on site must be Tier 2 or higher. Tier 0 and Tier 1 engines are not allowed					
on site					
ii. All diesel nonroad construction equipment on site for more than 10 total days must have either (1)					
engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by					
EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines					
d Upon confirming that the discel vehicle, construction equipment, or generator has either an engine					
a. Opon commining that the deservence, construction equipment, or generator has either an engine meeting Tier 4 non-road emission standards or emission control technology, as specified above					
installed and functioning the developer will issue a compliance sticker. All diesel vehicles					
construction equipment and generators on site shall display the compliance sticker in a visible					
external location as designated by the developer					
e. Emission control technology shall be operated, maintained, and serviced as recommended by the					
emission control technology manufacturer.					
f. All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low					
sulfur diesel fuel (ULSD) or a biodiesel blend ⁵⁵ approved by the original engine manufacturer with					
sulfur content of 15 ppm or less.					
Measures – Idling Requirements					
During periods of inactivity, idling of diesel onroad vehicles and nonroad equipment shall be minimized					
and shall not exceed the time allowed under state and local laws.					
Measures – Additional Diesel Requirements					
a. Construction shall not proceed until the contractor submits a certified list of all diesel vehicles,					
construction equipment, and generators to be used on site. The list shall include the following:					
i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles					
or equipment.					
II. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer,					
engine model year, engine certification (lier rating), horsepower, engine serial number, and					
expected rule usage and nours of operation.					
m. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level and installation date and hour motor roading.					
on installation date					

⁵⁴ "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

⁵⁵ Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements:

http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf.

- b. If the contractor subsequently needs to bring on site equipment not on the list, the contractor shall submit written notification within 24 hours that attests the equipment complies with all contract conditions and provide information.
- c. All diesel equipment shall comply with all pertinent local, state, and federal regulations relative to exhaust emission controls and safety.
- d. The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.

Reporting

- a. For each onroad diesel vehicle, nonroad construction equipment, or generator, the contractor shall submit to the developer's representative a report prior to bringing said equipment on site that includes:
 - i. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number.
 - ii. The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level.
 - iii. The Certification Statement signed and printed on the contractor's letterhead.

b. The contractor shall submit to the developer's representative a monthly report that, for each onroad diesel vehicle, nonroad construction equipment, or generator onsite, includes:

- i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
- ii. Any problems with the equipment or emission controls.
- iii. Certified copies of fuel deliveries for the time period that identify:
 - 1. Source of supply
 - 2. Quantity of fuel
 - 3. Quality of fuel, including sulfur content (percent by weight)

Furthermore, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the Project from CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*, which attempt to reduce emissions.⁵⁶ Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

CAPCOA's Quantifying Greenhouse Gas Mitigation Measures⁵⁷

Measures – Energy

Building Energy Use

BE-1 Exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code) by X%

Range of Effectiveness: See document for specific improvement desired.

BE-2 Install Programmable Thermostat Timers

Range of Effectiveness: Best Management Practice – Influences building energy use for heating and cooling.

⁵⁶ http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

⁵⁷ "Quantifying Greenhouse Gas Mitigation Measures." California Air Pollution Control Officers Association (CAPCOA), August 2010, *available at:* http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, p.

BE-3 Obtain Third-party HVAC Commissioning and Verification of Energy Savings (to be grouped with BE-1)

Range of Effectiveness: Not applicable on its own. This measure enhances the effectiveness of BE-1.

BE-4 Install Energy Efficient Appliances

Range of Effectiveness: Residential 2-4% GHG emissions from electricity use. Grocery Stores: 17-22% of GHG emissions from electricity use. See document for other land use types.

BE-5 Install Energy Efficient Boilers

Range of Effectiveness: 1.2-18.4% of boiler GHG emissions.

Lighting

LE-1 Install Higher Efficacy Public Street and Area Lighting

Range of Effectiveness: 16-40% of outdoor lighting.

LE-2 Limit Outdoor Lighting Requirements

Range of Effectiveness: Best Management Practice, but may be quantified.

LE-3 Replace Traffic Lights with LED Traffic Lights

Range of Effectiveness: 90% of emissions associated with existing traffic lights.

Alternative Energy Generation

AE-1 Establish Onsite Renewable or Carbon-Neutral Energy Systems – Generic *Range of Effectiveness:* 0-100% of GHG emissions associated with electricity use.

AE-2 Establish Onsite Renewable Energy System – Solar Power

Range of Effectiveness: 0-100% of GHG emissions associated with electricity use.

AE-3 Establish Onsite Renewable Energy System – Wind Power

Range of Effectiveness: 0-100% of GHG emissions associated with electricity use.

AE-4 Utilize a Combined Heat and Power System

Range of Effectiveness: 0-46% of GHG emissions associated with electricity use.

AE-5 Establish Methane Recovery in Landfills

Range of Effectiveness: 73-77% reduction in GHG emissions from landfills without methane recovery.

AE-6 Establish Methane Recovery in Wastewater Treatment Plants

Range of Effectiveness: 95-97% reduction in GHG emissions from wastewater treatment plants without recovery.

Measures – Transportation

Land Use/Location

LUT-1 Increase Density

Range of Effectiveness: 0.8-30% vehicle miles traveled (VMT) reduction and therefore a 0.8-30% reduction in GHG emissions.

LUT-2 Increase Location Efficiency

Range of Effectiveness: 10% vehicle miles traveled (VMT) reduction and therefore 10-65% reduction in GHG emissions.

LUT-3 Increase Diversity of Urban and Suburban Developments (Mixed Use)

Range of Effectiveness: 9-30% vehicle miles traveled (VMT) and therefore 9-30% reduction in GHG emissions.

LUT-4 Increase Destination Accessibility

Range of Effectiveness: 6.7-20% vehicle miles traveled (VMT) reduction and therefore 6.7-20% reduction in GHG emissions.

LUT-5 Increase Transit Accessibility

Range of Effectiveness: 0.5-24.6% VMT reduction and therefore 0.5-24.6% reduction in GHG emissions.

LUT-6 Integrate Affordable and Below Market Rate Housing

Range of Effectiveness: 0.04-1.20% vehicle miles traveled (VMT) reduction and therefore 0.04-1.20% reduction in GHG emissions.

LUT-7 Orient Project Toward Non-Auto Corridor

Range of Effectiveness: Grouped strategy (see LUT-3).

LUT-8 Locate Project near Bike Path/Bike Lane

Range of Effectiveness: Grouped strategy (see LUT-4).

Neighborhood/Site Enhancements

SDT-1 Provide Pedestrian Network Improvements, such as:

- Compact, mixed-use communities
- Interconnected street network
- Narrower roadways and shorter block lengths
- Sidewalks
- Accessibility to transit and transit shelters
- Traffic calming measures and street trees
- Parks and public spaces
- Minimize pedestrian barriers

Range of Effectiveness: 0-2% vehicle miles traveled (VMT) reduction and therefore 0-2% reduction in GHG emissions.

SDT-2 Provide Traffic Calming Measures, such as:

- Marked crosswalks
- Count-down signal timers
- Curb extensions
- Speed tables
- Raised crosswalks
- Raised intersections
- Median islands
- Tight corner radii
- Roundabouts or mini-circles
- On-street parking
- Planter strips with trees
- Chicanes/chokers

Range of Effectiveness: 0.25-1% vehicle miles traveled (VMT) reduction and therefore 0.25-1% reduction in GHG emissions.

SDT-3 Implement a Neighborhood Electric Vehicle (NEV) Network.

Range of Effectiveness: 0.5-12.7% vehicle miles traveled (VMT) reduction since NEVs would result in a mode shift and therefore reduce the traditional vehicle VMT and GHG emissions. Range depends on the available NEV network and support facilities, NEV ownership levels, and the degree of shift from traditional.

SDT-4 Create Urban Non-Motorized Zones

Range of Effectiveness: Grouped strategy (see SDT-1).

SDT-5 Incorporate Bike Lane Street Design (on-site)

Range of Effectiveness: Grouped strategy (see LUT-9).

SDT-6 Provide Bike Parking in Non-Residential Projects

Range of Effectiveness: Grouped strategy (see LUT-9).

SDT-7 Provide Bike Parking with Multi-Unit Residential Projects

Range of Effectiveness: Grouped strategy (see SDT-3).

SDT-8 Provide Electric Vehicle Parking

Range of Effectiveness: Grouped strategy (see SDT-3).

SDT-9 Dedicate Land for Bike Trails

Range of Effectiveness: Grouped strategy (see LUT-9).

Parking Policy/Pricing

PDT-1 Limit Parking Supply through:

- Elimination (or reduction) of minimum parking requirements
- Creation of maximum parking requirements
- Provision of shared parking

Range of Effectiveness: 5-12.5% vehicle miles traveled (VMT) reduction and therefore 5-12.5% reduction in GHG emissions.

PDT-2 Unbundle Parking Costs from Property Cost

Range of Effectiveness: 2.6-13% vehicle miles traveled (VMT) reduction and therefore 2.6-13% reduction in GHG emissions.

PDT-3 Implement Market Price Public Parking (On-Street)

Range of Effectiveness: 2.8-5.5% vehicle miles traveled (VMT) reduction and therefore 2.8-5.5% reduction in GHG emissions.

PDT-4 Require Residential Area Parking Permits

Range of Effectiveness: Grouped strategy (see PPT-1, PPT-2, and PPT-3).

Commute Trip Reduction Programs

TRT-1 Implement Commute Trip Reduction (CTR) Program – Voluntary

- Carpooling encouragement
- Ride-matching assistance
- Preferential carpool parking
- Flexible work schedules for carpools
- Half time transportation coordinator
- Vanpool assistance
- Bicycle end-trip facilities (parking, showers and lockers)
- New employee orientation of trip reduction and alternative mode options
- Event promotions and publications
- Flexible work schedule for employees
- Transit subsidies
- Parking cash-out or priced parking
- Shuttles
- Emergency ride home

Range of Effectiveness: 1-6.2% commute vehicle miles traveled (VMT) reduction and therefore 1-6.2% reduction in commute trip GHG emissions.

TRT-2 Implement Commute Trip Reduction (CTR) Program – Required Implementation/Monitoring

- Established performance standards (e.g. trip reduction requirements)
- Required implementation
- Regular monitoring and reporting

Range of Effectiveness: 4.2-21% commute vehicle miles traveled (VMT) reduction and therefore 4.2-21% reduction in commute trip GHG emissions.

TRT-3 Provide Ride-Sharing Programs

- Designate a certain percentage of parking spaces for ride sharing vehicles
- Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
- Providing a web site or messaging board for coordinating rides
- Permanent transportation management association membership and funding requirement.

Range of Effectiveness: 1-15% commute vehicle miles traveled (VMT) reduction and therefore 1-15% reduction in commute trip GHG emissions.

TRT-4 Implement Subsidized or Discounted Transit Program

Range of Effectiveness: 0.3-20% commute vehicle miles traveled (VMT) reduction and therefore a 0.3-20% reduction in commute trip GHG emissions.

TRT-5 Provide Ent of Trip Facilities, including:

- Showers
- Secure bicycle lockers
- Changing spaces

Range of Effectiveness: Grouped strategy (see TRT-1 through TRT-3).

TRT-6 Encourage Telecommuting and Alternative Work Schedules, such as:

- Staggered starting times
- Flexible schedules
- Compressed work weeks

Range of Effectiveness: 0.07-5.5% commute vehicle miles traveled (VMT) reduction and therefore 0.07-5.5% reduction in commute trip GHG emissions.

TRT-7 Implement Commute Trip Reduction Marketing, such as:

- New employee orientation of trip reduction and alternative mode options
- Event promotions
- Publications

Range of Effectiveness: 0.8-4% commute vehicle miles traveled (VMT) reduction and therefore 0.8-4% reduction in commute trip GHG emissions.

TRT-8 Implement Preferential Parking Permit Program

Range of Effectiveness: Grouped strategy (see TRT-1 through TRT-3).

TRT-9 Implement Car-Sharing Program

Range of Effectiveness: 0.4-0.7% vehicle miles traveled (VMT) reduction and therefore 0.4-0.7% reduction in GHG emissions.

TRT-10 Implement School Pool Program

Range of Effectiveness: 7.2-15.8% in school vehicle miles traveled (VMT) reduction and therefore 7.2-15.8% reduction in school trip GHG emissions.

TRT-11 Provide Employer-Sponsored Vanpool/Shuttle

Range of Effectiveness: 0.3-13.4% commute vehicle miles traveled (VMT) reduction and therefore 0.3-13.4% reduction in commute trip GHG emissions.

TRT-12 Implement Bike-Sharing Programs

Range of Effectiveness: Grouped strategy (see SDT-5 and LUT-9).

TRT-13 Implement School Bus Program

Range of Effectiveness: 38-63% School VMT reduction and therefore 38-63% reduction in school trip GHG emissions.

TRT-14 Price Workplace Parking, such as:

- Explicitly charging for parking for its employees;
- Implementing above market rate pricing;
- Validating parking only for invited guests;
- Not providing employee parking and transportation allowances; and
- Educating employees about available alternatives.

Range of Effectiveness: 0.1-19.7% commute vehicle miles traveled (VMT) reduction and therefore 0.1-19.7% reduction in commute trip GHG emissions.

TRT-15 Implement Employee Parking "Cash-Out"

Range of Effectiveness: 0.06-7.7% commute vehicle miles traveled (VMT) reduction and therefore 0.6-7.7% reduction in commute trip GHG emissions.

Transit System Improvements

TST-1 Transit System Improvements, including:

- Grade-separated right-of-way, including bus only lanes (for buses, emergency vehicles, and sometimes taxis), and other Transit Priority measures. Some systems use guideways which automatically steer the bus on portions of the route.
- Frequent, high-capacity service
- High-quality vehicles that are easy to board, quiet, clean, and comfortable to ride.
- Pre-paid fare collection to minimize boarding delays.
- Integrated fare systems, allowing free or discounted transfers between routes and modes.
- Convenient user information and marketing programs.
- High quality bus stations with Transit Oriented Development in nearby areas.
- Modal integration, with BRT service coordinated with walking and cycling facilities, taxi services, intercity bus, rail transit, and other transportation services.

Range of Effectiveness: 0.02-3.2% vehicle miles traveled (VMT) reduction and therefore 0.02-3% reduction in GHG emissions.

TST-2 Implement Transit Access Improvements, such as:

- Sidewalk/crosswalk safety enhancements
- Bus shelter improvements

Range of Effectiveness: Grouped strategy (see TST-3 and TST-4)

TST-3 Expand Transit Network

Range of Effectiveness: 0.1-8.2% vehicle miles traveled (VMT) reduction and therefore 0.1-8.2% reduction in GHG emissions.

TST-4 Increase Transit Service Frequency/Speed

Range of Effectiveness: 0.02-2.5% vehicle miles traveled (VMT) reduction and therefore 0.02-2.5% reduction in GHG emissions.

TST-5 Provide Bike Parking Near Transit

Range of Effectiveness: Grouped strategy (see TST-3 and TST-4).

TST-6 Provide Local Shuttles

Range of Effectiveness: Grouped strategy (see TST-4 and TST-5).

Road Pricing/Management

RPT-1 Implement Area or Cordon Pricing

Range of Effectiveness: 7.9-22% vehicle miles traveled (VMT) reduction and therefore 7.9-22% reduction in GHG emissions.

RPT-2 Improve Traffic Flow, such as:

• Signalization improvements to reduce delay;

- Incident management to increase response time to breakdowns and collisions;
- Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions; and
- Speed management to reduce high free-flow speeds.

Range of Effectiveness: 0-45% reduction in GHG emissions.

RTP-3 Required Project Contributions to Transportation Infrastructure Improvement Projects

Range of Effectiveness: Grouped strategy (see RPT-2 and TST-1 through 7).

RTP-4 Install Park-and-Ride Lots

Range of Effectiveness: Grouped strategy (see RPT-1, TRT-11, TRT-3, and TST-1 through 6).

Vehicles

VT-1 Electrify Loading Docs and/or Require Idling-Reduction Systems

Range of Effectiveness: 26-71% reduction in TRU idling GHG emissions.

- VT-2 Utilize Alternative Fueled Vehicles, such as:
 - Biodiesel (B20)
 - Liquefied Natural Gas (LNG)
 - Compressed Natural Gas (CNG)

Range of Effectiveness: Reduction in GHG emissions varies depending on vehicle type, year, and associated fuel economy.

VT-3 Utilize Electric or Hybrid Vehicles

Range of Effectiveness: 0.4-20.3% reduction in GHG emissions.

Measures – Water

Water Supply

WSW-1 Use Reclaimed Water

Range of Effectiveness: Up to 40% in Northern California and up to 81% in Southern California.

WSW-2 Use Gray Water

Range of Effectiveness: Up to 100% of outdoor water GHG emissions if outdoor water use is replaced completely with graywater.

WSW-3 Use Locally Sourced Water Supply

Range of Effectiveness: 0-60% for Northern and Central California, 11-75% for Southern California.

Water Use

WUW-1 Install Low-Flow Water Fixtures

Range of Effectiveness: 20% of GHG emissions associated with indoor Residential water use; 17-31% of GHGH emissions associated with Non-Residential indoor water use.

WUW-2 Adopt a Water Conservation strategy

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. It is equal to the Percent Reduction in water commitment.

WUW-3 Design Water-Efficient Landscapes (see California Department of Water Resources Model Water Efficient Landscape Ordinance), such as:

- Reducing lawn sizes;
- Planting vegetation with minimal water needs, such as native species;
- Choosing vegetation appropriate for the climate of the project site;
- Choosing complimentary plants with similar water needs or which can provide each other with shade and/or water.

Range of Effectiveness: 0-70% reduction in GHG emissions from outdoor water use.

WUW-4 Use Water-Efficient Landscape Irrigation Systems ("Smart" irrigation control systems)

Range of Effectiveness: 6.1% reduction in GHG emissions from outdoor water.

WUW-5 Reduce Turf in Landscapes and Lawns

Range of Effectiveness: Varies and is equal to the percent commitment to turf reduction, assuming no other outdoor water use.

WUW-6 Plant Native or Drought-Resistant Trees and Vegetation

Range of Effectiveness: Best Management Practice; may be quantified if substantial evidence is available.

Measures – Area Landscaping

Landscaping Equipment

A-1 Prohibit Gas Powered Landscape Equipment

Range of Effectiveness: Best Management Practice, influences Area GHG emissions from landscape equipment. **A-2** Implement Lawnmower Exchange Program

Range of Effectiveness: Best Management Practice, influences Area GHG emissions from landscape equipment.

A-3 Electric Yard Equipment Compatibility

Range of Effectiveness: Best Management Practice, influences Area GHG emissions from landscape equipment. Not applicable on its own. This measure enhances effectiveness of A-1 and A-2.

Measures – Solid Waste

Solid Waste

SW-1 Institute Recycling and Composting Services

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice. **SW-2** Recycle Demolished Construction Material

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice.

Measures – Vegetation

Vegetation

V-1 Urban Tree Planting

Range of Effectiveness: CO₂ reduction varies by number of trees. VOC emissions may increase.

V-2 Create New Vegetated Open Space

Range of Effectiveness: Varies based on amount and type of land vegetated.

Measures – Construction

Construction

C-1 Use Alternative Fuels for Construction Equipment

Range of Effectiveness: 0-22% reduction in GHG emissions.

C-1 Urban Tree Planting

Range of Effectiveness: CO₂ reduction varies by number of trees. VOC emissions may increase.

C-2 Use Electric and Hybrid Construction Equipment

Range of Effectiveness: 2.5-80% of GHG emissions from equipment that is electric or hybrid if used 100% of the time.

C-3 Limit Construction Equipment Idling Beyond Regulation Requirements

Range of Effectiveness: Varies with the amount of Project Idling occurring and the amount reduced.

- C-4 Institute a Heavy-Duty Off-Road Vehicle Plan, including:
 - Construction vehicle inventory tracking system;

- Requiring hour meters on equipment;
- Document the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment; and
- Daily logging of the operating hours of the equipment.

Range of Effectiveness: Not applicable on its own. This measure ensures compliance with other mitigation measures.

C-5 Implement a Construction Vehicle Inventory Tracking System

Range of Effectiveness: Not applicable on its own. This measure ensures compliance with other mitigation measures.

Measures – Miscellaneous

Miscellaneous

Misc-1 Establish a Carbon Sequestration Project, such as:

- Geologic sequestration or carbon capture and storage techniques, in which CO₂ from point sources is captured and injected underground;
- Terrestrial sequestration in which ecosystems are established or preserved to serve as CO₂ sinks;
- Novel techniques involving advanced chemical or biological pathways; or
- Technologies yet to be discovered.

Range of Effectiveness: Varies depending on Project Applicant and projects selected. The GHG emissions reduction is subtracted from the overall baseline project emissions inventory.

Misc-2 Establish Off-Site Mitigation

Range of Effectiveness: Varies depending on Project Applicant and projects selected. The GHG emissions reduction is subtracted from the overall baseline project emissions inventory.

Misc-3 Use Local and Sustainable Building Materials

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice. **Misc-4** Require best Management Practices in Agriculture and Animal Operations

Misc-4 Require best Management Practices in Agriculture and Animal Opera Misc-5 Require Environmentally Responsible Purchasing, such as:

- Purchasing products with sustainable packaging;
- Purchasing post-consumer recycled copier paper, paper towels, and stationary;
- Purchasing and stocking communal kitchens with reusable dishes and utensils;
- Choosing sustainable cleaning supplies;
- Leasing equipment from manufacturers who will recycle the components at their end of life;
- Choosing ENERGY STAR appliances and Water Sense-certified water fixtures;
- Choosing electronic appliances with built in sleep-mode timers;
- Purchasing 'green power' (e.g. electricity generated from renewable or hydropower) from the utility; and
- Choosing locally-made and distributed products.

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice. Misc-6 Implement an Innovative Strategy for GHG Mitigation

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice.

Measures – General Plans

General Plans

GP-1 Fund Incentives for Energy Efficiency, such as:

• Retrofitting or designing new buildings, parking lots, streets, and public areas with energyefficient lighting;

- Retrofitting or designing new buildings with low-flow water fixtures and high-efficiency appliances;
- Retrofitting or purchasing new low-emissions equipment;
- Purchasing electric or hybrid vehicles;
- Investing in renewable energy systems

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice. **GP-2** Establish a Local Farmer's Market

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice. **GP-3** Establish Community Gardens

Range of Effectiveness: Varies depending on Project Applicant and strategies selected. Best Management Practice. **GP-4** Plant Urban Shade Trees

Range of Effectiveness: The reduction in GHG emissions is not quantifiable at this time, therefore this mitigation measure should be implemented as a Best Management Practice. If the study data were updated to account for Title 24 standards, the GHG emissions reductions could be quantified, but would vary based on location, building type, and building size.

GP-5 Implement Strategies to Reduce Urban Heat-Island Effect, such as:

- Planting urban shade trees;
- Installing reflective roofs; and
- Using light-colored or high-albedo pavements and surfaces.

Range of Effectiveness: The reduction in GHG emissions is not quantifiable at this time, therefore this mitigation measure should be implemented as a Best Management Practice. If the study data were updated to account for Title 24 standards, the GHG emissions reductions could be quantified, but would vary based on location, building type, and building size.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. A revised CEQA evaluation should be prepared to include all feasible mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised CEQA evaluation should also demonstrate commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties. Sincerely,

M Haven

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

Paul Rosupeld

Paul E. Rosenfeld, Ph.D.

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	150.00	Room	5.00	217,800.00	0
Hotel	20.00	Room	0.67	20,000.00	0
Quality Restaurant	68.00	1000sqft	1.56	68,000.00	0
Research & Development	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2024
Utility Company	Pacific Gas & Electric Con	npany			
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - 20,000-SF of hotel included to account for conference rooms associated with hotel.

Construction Phase -

Trips and VMT -

Grading -

Fleet Mix -

Vehicle Trips - Consistent with Traffic Letter

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	29,040.00	20,000.00
tblVehicleTrips	ST_TR	1.90	8.13
tblVehicleTrips	ST_TR	8.19	7.77
tblVehicleTrips	ST_TR	94.36	20.39
tblVehicleTrips	SU_TR	1.11	8.13
tblVehicleTrips	SU_TR	5.95	7.77
tblVehicleTrips	SU_TR	72.16	20.39
tblVehicleTrips	WD_TR	8.11	8.13
tblVehicleTrips	WD_TR	8.17	7.77
tblVehicleTrips	WD_TR	89.95	20.39

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2021	0.3444	3.3210	2.7218	6.4600e- 003	0.3797	0.1426	0.5224	0.1600	0.1333	0.2933	0.0000	578.1446	578.1446	0.0946	0.0000	580.5096
2022	2.0455	0.5545	0.5846	1.3500e- 003	0.0350	0.0227	0.0577	9.5000e- 003	0.0213	0.0308	0.0000	120.7858	120.7858	0.0193	0.0000	121.2686
Maximum	2.0455	3.3210	2.7218	6.4600e- 003	0.3797	0.1426	0.5224	0.1600	0.1333	0.2933	0.0000	578.1446	578.1446	0.0946	0.0000	580.5096

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	tons/yr										MT/yr						
2021	0.3444	3.3210	2.7218	6.4600e- 003	0.3797	0.1426	0.5224	0.1600	0.1333	0.2933	0.0000	578.1442	578.1442	0.0946	0.0000	580.5092	
2022	2.0455	0.5545	0.5846	1.3500e- 003	0.0350	0.0227	0.0577	9.5000e- 003	0.0213	0.0308	0.0000	120.7857	120.7857	0.0193	0.0000	121.2685	
Maximum	2.0455	3.3210	2.7218	6.4600e- 003	0.3797	0.1426	0.5224	0.1600	0.1333	0.2933	0.0000	578.1442	578.1442	0.0946	0.0000	580.5092	
	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e	
							rotai	1 1112.10	1 1112.10	Total							
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	1.2279	1.2279
2	4-1-2021	6-30-2021	0.9457	0.9457
3	7-1-2021	9-30-2021	0.8766	0.8766
4	10-1-2021	12-31-2021	0.8812	0.8812
5	1-1-2022	3-31-2022	1.1025	1.1025
6	4-1-2022	6-30-2022	1.5024	1.5024
		Highest	1.5024	1.5024

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Area	1.6860	3.0000e- 005	2.8700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.5900e- 003	5.5900e- 003	1.0000e- 005	0.0000	5.9600e- 003	
Energy	0.1184	1.0763	0.9041	6.4600e- 003		0.0818	0.0818		0.0818	0.0818	0.0000	2,475.122 1	2,475.122 1	0.0814	0.0337	2,487.192 1	
Mobile	0.6445	2.6092	6.4790	0.0230	2.1216	0.0183	2.1399	0.5692	0.0170	0.5862	0.0000	2,108.870 2	2,108.870 2	0.0747	0.0000	2,110.7384	
Waste	, , , , , ,					0.0000	0.0000		0.0000	0.0000	32.6470	0.0000	32.6470	1.9294	0.0000	80.8817	
Water	, , , , , ,					0.0000	0.0000		0.0000	0.0000	19.6157	99.1568	118.7725	2.0192	0.0485	183.7055	
Total	2.4489	3.6855	7.3860	0.0295	2.1216	0.1001	2.2217	0.5692	0.0988	0.6680	52.2628	4,683.154 7	4,735.417 4	4.1047	0.0822	4,862.523 6	

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2.2 Overall Operational

Mitigated Operational

	ROG	NO	x	со	SO2	Fugit PM	ive 10	Exhaust PM10	PM10 Total	Fugit PM	tive Exl 2.5 Pl	naust M2.5	PM2.5 Tota	l Bio-	CO2	NBio- CO2	Tota	CO2	CH4	N	20	CO2e	
Category							tons/	/yr										MT/yr					
Area	1.6860	3.000 005	0e- 2	2.8700e- 003	0.0000			1.0000e- 005	1.0000e- 005		1.0 (000e- 005	1.0000e- 005	0.0	0000	5.5900e- 003	5.59 0	00e- 1 03	.0000e 005	÷ 0.0	0000	5.9600e- 003	
Energy	0.1184	1.070	63 (0.9041	6.4600e- 003			0.0818	0.0818		0.	0818	0.0818	0.0	0000	2,475.122 1	2,47	5.122 1	0.0814	0.0)337	2,487.192 1	
Mobile	0.6445	2.60	92 (6.4790	0.0230	2.12	216	0.0183	2.1399	0.56	592 O.	0170	0.5862	0.0	0000	2,108.870 2	2,10	8.870 2	0.0747	0.0	0000	2,110.7384	
Waste								0.0000	0.0000	 	0.	0000	0.0000	32.	6470	0.0000	32.6	6470	1.9294	0.0	0000	80.8817	
Water								0.0000	0.0000	 	0.	0000	0.0000	19.	6157	99.1568	118.	7725	2.0192	0.0)485	183.7055	
Total	2.4489	3.68	55	7.3860	0.0295	2.12	216	0.1001	2.2217	0.56	692 O.	0988	0.6680	52.	2628	4,683.154 7	4,73	5.417 4	4.1047	0.0	822	4,862.523 6	
	ROG		NOx	C	o s	02	Fugiti PM1	ive Exh 0 PM	aust P //10 T	VI10 otal	Fugitive PM2.5	Exh PN	aust PM 12.5 To	2.5 otal	Bio- Co	D2 NBio	-CO2	Total CC	02	CH4	N2	0 CO	2e
Percent Reduction	0.00		0.00	0.4	00 0	.00	0.00	0 0.	00 0	0.00	0.00	0.	.00 0.	00	0.00	0.4	00	0.00		0.00	0.0	0 0.0)0

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
3	Bay Trail Grading	Grading	2/12/2021	3/11/2021	5	20	
4	Grading	Grading	3/12/2021	4/8/2021	5	20	
5	Building Construction	Building Construction	4/9/2021	2/24/2022	5	230	
6	Paving	Paving	2/25/2022	3/24/2022	5	20	
7	Architectural Coating	Architectural Coating	3/25/2022	4/21/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 571,200; Non-Residential Outdoor: 190,400; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Bay Trail Grading	Excavators	1	8.00	158	0.38
Bay Trail Grading	Graders	1	8.00	187	0.41
Bay Trail Grading	Rubber Tired Dozers	1	8.00	247	0.40
Bay Trail Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Bay Trail Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	152.00	62.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0317	0.3144	0.2157	3.9000e- 004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e- 003	0.0000	34.2400
Total	0.0317	0.3144	0.2157	3.9000e- 004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e- 003	0.0000	34.2400

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073
Total	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0317	0.3144	0.2157	3.9000e- 004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e- 003	0.0000	34.2400
Total	0.0317	0.3144	0.2157	3.9000e- 004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e- 003	0.0000	34.2400

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3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton				MT	/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073
Total	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e- 004		0.0102	0.0102		9.4000e- 003	9.4000e- 003	0.0000	16.7179	16.7179	5.4100e- 003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e- 004	0.0903	0.0102	0.1006	0.0497	9.4000e- 003	0.0591	0.0000	16.7179	16.7179	5.4100e- 003	0.0000	16.8530

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	1.9000e- 004	2.0600e- 003	1.0000e- 005	7.1000e- 004	0.0000	7.2000e- 004	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.6040	0.6040	1.0000e- 005	0.0000	0.6044
Total	2.8000e- 004	1.9000e- 004	2.0600e- 003	1.0000e- 005	7.1000e- 004	0.0000	7.2000e- 004	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.6040	0.6040	1.0000e- 005	0.0000	0.6044

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e- 004		0.0102	0.0102		9.4000e- 003	9.4000e- 003	0.0000	16.7178	16.7178	5.4100e- 003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e- 004	0.0903	0.0102	0.1006	0.0497	9.4000e- 003	0.0591	0.0000	16.7178	16.7178	5.4100e- 003	0.0000	16.8530

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton				МТ	'/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	1.9000e- 004	2.0600e- 003	1.0000e- 005	7.1000e- 004	0.0000	7.2000e- 004	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.6040	0.6040	1.0000e- 005	0.0000	0.6044
Total	2.8000e- 004	1.9000e- 004	2.0600e- 003	1.0000e- 005	7.1000e- 004	0.0000	7.2000e- 004	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.6040	0.6040	1.0000e- 005	0.0000	0.6044

3.4 Bay Trail Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr												MT	/yr		
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e- 004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2644
Total	0.0229	0.2474	0.1586	3.0000e- 004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2644

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3.4 Bay Trail Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073
Total	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust			1 1 1		0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e- 004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2643
Total	0.0229	0.2474	0.1586	3.0000e- 004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2643
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3.4 Bay Trail Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073
Total	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073

3.5 Grading - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	'/yr		
Fugitive Dust		1 1 1			0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e- 004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2644
Total	0.0229	0.2474	0.1586	3.0000e- 004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2644

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3.5 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073
Total	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust		1 1 1			0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e- 004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2643
Total	0.0229	0.2474	0.1586	3.0000e- 004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e- 003	0.0000	26.2643

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3.5 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073
Total	4.6000e- 004	3.2000e- 004	3.4400e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	1.0067	1.0067	2.0000e- 005	0.0000	1.0073

3.6 Building Construction - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.1815	1.6648	1.5829	2.5700e- 003		0.0916	0.0916		0.0861	0.0861	0.0000	221.2136	221.2136	0.0534	0.0000	222.5478
Total	0.1815	1.6648	1.5829	2.5700e- 003		0.0916	0.0916		0.0861	0.0861	0.0000	221.2136	221.2136	0.0534	0.0000	222.5478

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3.6 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0194	0.6120	0.1555	1.6000e- 003	0.0389	1.3700e- 003	0.0403	0.0113	1.3100e- 003	0.0126	0.0000	153.0606	153.0606	7.1100e- 003	0.0000	153.2382
Worker	0.0450	0.0314	0.3324	1.0800e- 003	0.1151	7.5000e- 004	0.1159	0.0306	6.9000e- 004	0.0313	0.0000	97.4204	97.4204	2.2100e- 003	0.0000	97.4757
Total	0.0643	0.6434	0.4879	2.6800e- 003	0.1541	2.1200e- 003	0.1562	0.0419	2.0000e- 003	0.0439	0.0000	250.4809	250.4809	9.3200e- 003	0.0000	250.7139

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	'/yr		
Off-Road	0.1815	1.6648	1.5829	2.5700e- 003	1	0.0916	0.0916		0.0861	0.0861	0.0000	221.2133	221.2133	0.0534	0.0000	222.5476
Total	0.1815	1.6648	1.5829	2.5700e- 003		0.0916	0.0916		0.0861	0.0861	0.0000	221.2133	221.2133	0.0534	0.0000	222.5476

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3.6 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0194	0.6120	0.1555	1.6000e- 003	0.0389	1.3700e- 003	0.0403	0.0113	1.3100e- 003	0.0126	0.0000	153.0606	153.0606	7.1100e- 003	0.0000	153.2382
Worker	0.0450	0.0314	0.3324	1.0800e- 003	0.1151	7.5000e- 004	0.1159	0.0306	6.9000e- 004	0.0313	0.0000	97.4204	97.4204	2.2100e- 003	0.0000	97.4757
Total	0.0643	0.6434	0.4879	2.6800e- 003	0.1541	2.1200e- 003	0.1562	0.0419	2.0000e- 003	0.0439	0.0000	250.4809	250.4809	9.3200e- 003	0.0000	250.7139

3.6 Building Construction - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							МТ	/yr		
Off-Road	0.0333	0.3045	0.3191	5.3000e- 004		0.0158	0.0158		0.0148	0.0148	0.0000	45.1864	45.1864	0.0108	0.0000	45.4571
Total	0.0333	0.3045	0.3191	5.3000e- 004		0.0158	0.0158		0.0148	0.0148	0.0000	45.1864	45.1864	0.0108	0.0000	45.4571

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3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6900e- 003	0.1180	0.0298	3.2000e- 004	7.9500e- 003	2.4000e- 004	8.1900e- 003	2.3000e- 003	2.3000e- 004	2.5300e- 003	0.0000	30.9571	30.9571	1.3800e- 003	0.0000	30.9915
Worker	8.5300e- 003	5.7500e- 003	0.0624	2.1000e- 004	0.0235	1.5000e- 004	0.0237	6.2500e- 003	1.4000e- 004	6.3900e- 003	0.0000	19.1535	19.1535	4.1000e- 004	0.0000	19.1637
Total	0.0122	0.1238	0.0921	5.3000e- 004	0.0315	3.9000e- 004	0.0319	8.5500e- 003	3.7000e- 004	8.9200e- 003	0.0000	50.1106	50.1106	1.7900e- 003	0.0000	50.1551

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0333	0.3045	0.3191	5.3000e- 004		0.0158	0.0158		0.0148	0.0148	0.0000	45.1864	45.1864	0.0108	0.0000	45.4570
Total	0.0333	0.3045	0.3191	5.3000e- 004		0.0158	0.0158		0.0148	0.0148	0.0000	45.1864	45.1864	0.0108	0.0000	45.4570

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3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6900e- 003	0.1180	0.0298	3.2000e- 004	7.9500e- 003	2.4000e- 004	8.1900e- 003	2.3000e- 003	2.3000e- 004	2.5300e- 003	0.0000	30.9571	30.9571	1.3800e- 003	0.0000	30.9915
Worker	8.5300e- 003	5.7500e- 003	0.0624	2.1000e- 004	0.0235	1.5000e- 004	0.0237	6.2500e- 003	1.4000e- 004	6.3900e- 003	0.0000	19.1535	19.1535	4.1000e- 004	0.0000	19.1637
Total	0.0122	0.1238	0.0921	5.3000e- 004	0.0315	3.9000e- 004	0.0319	8.5500e- 003	3.7000e- 004	8.9200e- 003	0.0000	50.1106	50.1106	1.7900e- 003	0.0000	50.1551

3.7 Paving - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0110	0.1113	0.1458	2.3000e- 004		5.6800e- 003	5.6800e- 003		5.2200e- 003	5.2200e- 003	0.0000	20.0276	20.0276	6.4800e- 003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0110	0.1113	0.1458	2.3000e- 004		5.6800e- 003	5.6800e- 003		5.2200e- 003	5.2200e- 003	0.0000	20.0276	20.0276	6.4800e- 003	0.0000	20.1895

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3.7 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e- 004	2.9000e- 004	3.1600e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	0.9693	0.9693	2.0000e- 005	0.0000	0.9698
Total	4.3000e- 004	2.9000e- 004	3.1600e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	0.9693	0.9693	2.0000e- 005	0.0000	0.9698

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0110	0.1113	0.1458	2.3000e- 004		5.6800e- 003	5.6800e- 003		5.2200e- 003	5.2200e- 003	0.0000	20.0275	20.0275	6.4800e- 003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0110	0.1113	0.1458	2.3000e- 004		5.6800e- 003	5.6800e- 003		5.2200e- 003	5.2200e- 003	0.0000	20.0275	20.0275	6.4800e- 003	0.0000	20.1895

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3.7 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e- 004	2.9000e- 004	3.1600e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	0.9693	0.9693	2.0000e- 005	0.0000	0.9698
Total	4.3000e- 004	2.9000e- 004	3.1600e- 003	1.0000e- 005	1.1900e- 003	1.0000e- 005	1.2000e- 003	3.2000e- 004	1.0000e- 005	3.2000e- 004	0.0000	0.9693	0.9693	2.0000e- 005	0.0000	0.9698

3.8 Architectural Coating - 2022

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Archit. Coating	1.9856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e- 003	0.0141	0.0181	3.0000e- 005		8.2000e- 004	8.2000e- 004		8.2000e- 004	8.2000e- 004	0.0000	2.5533	2.5533	1.7000e- 004	0.0000	2.5574
Total	1.9877	0.0141	0.0181	3.0000e- 005		8.2000e- 004	8.2000e- 004		8.2000e- 004	8.2000e- 004	0.0000	2.5533	2.5533	1.7000e- 004	0.0000	2.5574

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3.8 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e- 004	5.8000e- 004	6.3100e- 003	2.0000e- 005	2.3800e- 003	2.0000e- 005	2.3900e- 003	6.3000e- 004	1.0000e- 005	6.5000e- 004	0.0000	1.9386	1.9386	4.0000e- 005	0.0000	1.9396
Total	8.6000e- 004	5.8000e- 004	6.3100e- 003	2.0000e- 005	2.3800e- 003	2.0000e- 005	2.3900e- 003	6.3000e- 004	1.0000e- 005	6.5000e- 004	0.0000	1.9386	1.9386	4.0000e- 005	0.0000	1.9396

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Archit. Coating	1.9856	, , ,				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e- 003	0.0141	0.0181	3.0000e- 005		8.2000e- 004	8.2000e- 004		8.2000e- 004	8.2000e- 004	0.0000	2.5533	2.5533	1.7000e- 004	0.0000	2.5574
Total	1.9877	0.0141	0.0181	3.0000e- 005		8.2000e- 004	8.2000e- 004		8.2000e- 004	8.2000e- 004	0.0000	2.5533	2.5533	1.7000e- 004	0.0000	2.5574

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3.8 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	ī/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e- 004	5.8000e- 004	6.3100e- 003	2.0000e- 005	2.3800e- 003	2.0000e- 005	2.3900e- 003	6.3000e- 004	1.0000e- 005	6.5000e- 004	0.0000	1.9386	1.9386	4.0000e- 005	0.0000	1.9396
Total	8.6000e- 004	5.8000e- 004	6.3100e- 003	2.0000e- 005	2.3800e- 003	2.0000e- 005	2.3900e- 003	6.3000e- 004	1.0000e- 005	6.5000e- 004	0.0000	1.9386	1.9386	4.0000e- 005	0.0000	1.9396

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.6445	2.6092	6.4790	0.0230	2.1216	0.0183	2.1399	0.5692	0.0170	0.5862	0.0000	2,108.870 2	2,108.870 2	0.0747	0.0000	2,110.7384
Unmitigated	0.6445	2.6092	6.4790	0.0230	2.1216	0.0183	2.1399	0.5692	0.0170	0.5862	0.0000	2,108.870 2	2,108.870 2	0.0747	0.0000	2,110.738 4

4.2 Trip Summary Information

	Aver	age Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	609.75	609.75	609.75	1,528,184	1,528,184
Hotel	1,165.50	1,165.50	1165.50	2,214,369	2,214,369
Hotel	155.40	155.40	155.40	295,249	295,249
Quality Restaurant	1,386.52	1,386.52	1386.52	1,644,644	1,644,644
Total	3,317.17	3,317.17	3,317.17	5,682,447	5,682,447

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Hotel	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Quality Restaurant	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/yr										МТ	∵/yr					
Electricity Mitigated			1 1 1			0.0000	0.0000		0.0000	0.0000	0.0000	1,303.418 9	1,303.418 9	0.0589	0.0122	1,308.526 1
Electricity Unmitigated	r:	,				0.0000	0.0000		0.0000	0.0000	0.0000	1,303.418 9	1,303.418 9	0.0589	0.0122	1,308.526 1
NaturalGas Mitigated	0.1184	1.0763	0.9041	6.4600e- 003		0.0818	0.0818		0.0818	0.0818	0.0000	1,171.703 2	1,171.703 2	0.0225	0.0215	1,178.666 0
NaturalGas Unmitigated	0.1184	1.0763	0.9041	6.4600e- 003		0.0818	0.0818	 , , ,	0.0818	0.0818	0.0000	1,171.703 2	1,171.703 2	0.0225	0.0215	1,178.666 0

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5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr		tons/yr									MT	/yr				
Hotel	7.95188e +006	0.0429	0.3898	0.3274	2.3400e- 003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3425	424.3425	8.1300e- 003	7.7800e- 003	426.8642
Hotel	730200	3.9400e- 003	0.0358	0.0301	2.1000e- 004		2.7200e- 003	2.7200e- 003		2.7200e- 003	2.7200e- 003	0.0000	38.9663	38.9663	7.5000e- 004	7.1000e- 004	39.1978
Quality Restaurant	1.14186e +007	0.0616	0.5597	0.4702	3.3600e- 003		0.0425	0.0425		0.0425	0.0425	0.0000	609.3379	609.3379	0.0117	0.0112	612.9588
Research & Development	1.85625e +006	0.0100	0.0910	0.0764	5.5000e- 004		6.9200e- 003	6.9200e- 003		6.9200e- 003	6.9200e- 003	0.0000	99.0566	99.0566	1.9000e- 003	1.8200e- 003	99.6452
Total		0.1184	1.0763	0.9041	6.4600e- 003		0.0818	0.0818		0.0818	0.0818	0.0000	1,171.703 2	1,171.703 2	0.0225	0.0215	1,178.666 0

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr		tons/yr									MT	/yr				
Hotel	7.95188e +006	0.0429	0.3898	0.3274	2.3400e- 003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3425	424.3425	8.1300e- 003	7.7800e- 003	426.8642
Hotel	730200	3.9400e- 003	0.0358	0.0301	2.1000e- 004		2.7200e- 003	2.7200e- 003		2.7200e- 003	2.7200e- 003	0.0000	38.9663	38.9663	7.5000e- 004	7.1000e- 004	39.1978
Quality Restaurant	1.14186e +007	0.0616	0.5597	0.4702	3.3600e- 003		0.0425	0.0425		0.0425	0.0425	0.0000	609.3379	609.3379	0.0117	0.0112	612.9588
Research & Development	1.85625e +006	0.0100	0.0910	0.0764	5.5000e- 004		6.9200e- 003	6.9200e- 003		6.9200e- 003	6.9200e- 003	0.0000	99.0566	99.0566	1.9000e- 003	1.8200e- 003	99.6452
Total		0.1184	1.0763	0.9 <mark>041</mark>	6.4600e- 003		0.0818	0.0818		0.0818	0.0818	0.0000	1,171.703 2	1,171.703 2	0.0225	0.0215	1,178.666 0

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5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	7/yr	
Hotel	1.77943e +006	517.6554	0.0234	4.8400e- 003	519.6838
Hotel	163400	47.5349	2.1500e- 003	4.4000e- 004	47.7212
Quality Restaurant	1.97064e +006	573.2818	0.0259	5.3600e- 003	575.5281
Research & Development	567000	164.9468	7.4600e- 003	1.5400e- 003	165.5931
Total		1,303.418 9	0.0589	0.0122	1,308.526 1

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e			
Land Use	kWh/yr	/r MT/yr						
Hotel	1.77943e +006	517.6554	0.0234	4.8400e- 003	519.6838			
Hotel	163400	47.5349	2.1500e- 003	4.4000e- 004	47.7212			
Quality Restaurant	1.97064e +006	573.2818	0.0259	5.3600e- 003	575.5281			
Research & Development	567000	164.9468	7.4600e- 003	1.5400e- 003	165.5931			
Total		1,303.418 9	0.0589	0.0122	1,308.526 1			

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr											МТ	/yr			
Mitigated	1.6860	3.0000e- 005	2.8700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.5900e- 003	5.5900e- 003	1.0000e- 005	0.0000	5.9600e- 003
Unmitigated	1.6860	3.0000e- 005	2.8700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.5900e- 003	5.5900e- 003	1.0000e- 005	0.0000	5.9600e- 003

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr												МТ	'/yr		
Architectural Coating	0.1986					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e- 004	3.0000e- 005	2.8700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.5900e- 003	5.5900e- 003	1.0000e- 005	0.0000	5.9600e- 003
Total	1.6860	3.0000e- 005	2.8700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.5900e- 003	5.5900e- 003	1.0000e- 005	0.0000	5.9600e- 003

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory tons/yr											МТ	/yr				
Architectural Coating	0.1986		1 1 1			0.0000	0.0000	1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7000e- 004	3.0000e- 005	2.8700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.5900e- 003	5.5900e- 003	1.0000e- 005	0.0000	5.9600e- 003
Total	1.6860	3.0000e- 005	2.8700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e- 005	0.0000	5.5900e- 003	5.5900e- 003	1.0000e- 005	0.0000	5.9600e- 003

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		MT	Г/yr	
Mitigated	118.7725	2.0192	0.0485	183.7055
Unmitigated	118.7725	2.0192	0.0485	183.7055

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Hotel	4.31235 / 0.47915	8.6441	0.1409	3.3900e- 003	13.1744
Quality Restaurant	20.6403 / 1.31747	40.3800	0.6741	0.0162	62.0591
Research & Development	36.877 / 0	69.7484	1.2043	0.0289	108.4720
Total		118.7725	2.0192	0.0485	183.7055

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7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e			
Land Use	Mgal	gal MT/yr						
Hotel	4.31235 / 0.47915	8.6441	0.1409	3.3900e- 003	13.1744			
Quality Restaurant	20.6403 / 1.31747	40.3800	0.6741	0.0162	62.0591			
Research & Development	36.877 / 0	69.7484	1.2043	0.0289	108.4720			
Total		118.7725	2.0192	0.0485	183.7055			

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Point Molate - Community Plan Alternative - Contra Costa County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
		MT	ī/yr	
Mitigated	32.6470	1.9294	0.0000	80.8817
Unmitigated	32.6470	1.9294	0.0000	80.8817

8.2 Waste by Land Use

<u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Hotel	93.08	18.8944	1.1166	0.0000	46.8101
Quality Restaurant	62.05	12.5956	0.7444	0.0000	31.2050
Research & Development	5.7	1.1571	0.0684	0.0000	2.8665
Total		32.6470	1.9294	0.0000	80.8817

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Hotel	93.08	18.8944	1.1166	0.0000	46.8101
Quality Restaurant	62.05	12.5956	0.7444	0.0000	31.2050
Research & Development	5.7	1.1571	0.0684	0.0000	2.8665
Total		32.6470	1.9294	0.0000	80.8817

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

<u>Boilers</u>

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type N

Number

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11.0 Vegetation

Point Molate - Community Plan Alternative

Contra Costa County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	150.00	Room	5.00	217,800.00	0
Hotel	20.00	Room	0.67	20,000.00	0
Quality Restaurant	68.00	1000sqft	1.56	68,000.00	0
Research & Development	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2024
Utility Company	Pacific Gas & Electric Com	pany			
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity 0. (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

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Point Molate - Community Plan Alternative - Contra Costa County, Summer

Project Characteristics -

Land Use - 20,000-SF of hotel included to account for conference rooms associated with hotel.

Construction Phase -

Trips and VMT -

Grading -

Fleet Mix -

Vehicle Trips - Consistent with Traffic Letter

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	29,040.00	20,000.00
tblVehicleTrips	ST_TR	1.90	8.13
tblVehicleTrips	ST_TR	8.19	7.77
tblVehicleTrips	ST_TR	94.36	20.39
tblVehicleTrips	SU_TR	1.11	8.13
tblVehicleTrips	SU_TR	5.95	7.77
tblVehicleTrips	SU_TR	72.16	20.39
tblVehicleTrips	WD_TR	8.11	8.13
tblVehicleTrips	WD_TR	8.17	7.77
tblVehicleTrips	WD_TR	89.95	20.39

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/o	day							lb/c	lay		
2021	4.6814	49.5315	32.4856	0.0617	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,985.788 1	5,985.788 1	1.8632	0.0000	6,032.367 3
2022	198.8615	21.8745	21.3840	0.0555	1.6683	0.8290	2.4973	0.4520	0.7800	1.2320	0.0000	5,503.675 6	5,503.675 6	0.7165	0.0000	5,521.467 1
Maximum	198.8615	49.5315	32.4856	0.0617	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,985.788 1	5,985.788 1	1.8632	0.0000	6,032.367 3

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Tota	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year		lb/day											lb/	′day		
2021	4.6814	49.5315	32.4856	0.0617	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,985.788 1	5,985.788 1	1.8632	0.0000	6,032.367 3
2022	198.8615	21.8745	21.3840	0.0555	1.6683	0.8290	2.4973	0.4520	0.7800	1.2320	0.0000	5,503.675 6	5,503.675 6	0.7165	0.0000	5,521.467 1
Maximum	198.8615	49.5315	32.4856	0.0617	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,985.788 1	5,985.788 1	1.8632	0.0000	6,032.367 3
	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Point Molate - Community Plan Alternative - Contra Costa County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day											lb/c	lay		
Area	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Energy	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157
Mobile	4.3117	13.9914	37.0707	0.1351	12.0672	0.1003	12.1674	3.2280	0.0933	3.3213		13,654.62 59	13,654.62 59	0.4538		13,665.97 01
Total	14.2006	19.8893	42.0566	0.1705	12.0672	0.5486	12.6158	3.2280	0.5417	3.7696		20,731.85 41	20,731.85 41	0.5896	0.1298	20,785.25 88

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/o	day		
Area	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	-	0.0685	0.0685	1.8000e- 004		0.0730
Energy	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157
Mobile	4.3117	13.9914	37.0707	0.1351	12.0672	0.1003	12.1674	3.2280	0.0933	3.3213		13,654.62 59	13,654.62 59	0.4538		13,665.97 01
Total	14.2006	19.8893	42.0566	0.1705	12.0672	0.5486	12.6158	3.2280	0.5417	3.7696		20,731.85 41	20,731.85 41	0.5896	0.1298	20,785.25 88

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
3	Bay Trail Grading	Grading	2/12/2021	3/11/2021	5	20	
4	Grading	Grading	3/12/2021	4/8/2021	5	20	
5	Building Construction	Building Construction	4/9/2021	2/24/2022	5	230	
6	Paving	Paving	2/25/2022	3/24/2022	5	20	
7	Architectural Coating	Architectural Coating	3/25/2022	4/21/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 571,200; Non-Residential Outdoor: 190,400; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Point Molate - Community	Plan A	Alternative -	Contra	Costa	County,	Summer
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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Bay Trail Grading	Excavators	1	8.00	158	0.38
Bay Trail Grading	Graders	1	8.00	187	0.41
Bay Trail Grading	Rubber Tired Dozers	1	8.00	247	0.40
Bay Trail Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

F OILL MOIALE - COLLINULITY FIAN ALEMATIVE - COLLIA COSLA COULTY, SUITINE

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
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Bay Trail Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	152.00	62.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	lay		
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342
Total	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/d	lay		
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342
Total	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342

3.3 Site Preparation - 2021

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.656 9	3,685.656 9	1.1920		3,715.457 3

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lb/day										
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0604	0.0349	0.4624	1.4600e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		145.1587	145.1587	3.2900e- 003		145.2410
Total	0.0604	0.0349	0.4624	1.4600e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		145.1587	145.1587	3.2900e- 003		145.2410

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307		1 1 1	0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.656 9	3,685.656 9	1.1920		3,715.457 3

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
Category		lb/day											lb/day							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000				
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000				
Worker	0.0604	0.0349	0.4624	1.4600e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		145.1587	145.1587	3.2900e- 003		145.2410				
Total	0.0604	0.0349	0.4624	1.4600e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		145.1587	145.1587	3.2900e- 003		145.2410				

3.4 Bay Trail Grading - 2021

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.928 5	2,871.928 5	0.9288		2,895.149 5

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3.4 Bay Trail Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lb/day										
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342
Total	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5
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3.4 Bay Trail Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342
Total	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342

3.5 Grading - 2021

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.928 5	2,871.928 5	0.9288		2,895.149 5

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3.5 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342
Total	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Fugitive Dust		1 1 1 1			6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		1 1 1	0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5

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3.5 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342
Total	0.0504	0.0291	0.3853	1.2100e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		120.9656	120.9656	2.7400e- 003		121.0342

3.6 Building Construction - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	lay		
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3

3.6 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1984	6.3419	1.5186	0.0169	0.4197	0.0142	0.4338	0.1208	0.0136	0.1344		1,785.920 1	1,785.920 1	0.0788		1,787.890 6
Worker	0.5104	0.2946	3.9047	0.0123	1.2486	7.8300e- 003	1.2565	0.3312	7.2100e- 003	0.3384		1,225.784 2	1,225.784 2	0.0278		1,226.479 4
Total	0.7088	6.6365	5.4233	0.0292	1.6683	0.0220	1.6903	0.4520	0.0208	0.4728		3,011.704 3	3,011.704 3	0.1066		3,014.370 0

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/d	lay		
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

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3.6 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1984	6.3419	1.5186	0.0169	0.4197	0.0142	0.4338	0.1208	0.0136	0.1344		1,785.920 1	1,785.920 1	0.0788		1,787.890 6
Worker	0.5104	0.2946	3.9047	0.0123	1.2486	7.8300e- 003	1.2565	0.3312	7.2100e- 003	0.3384		1,225.784 2	1,225.784 2	0.0278		1,226.479 4
Total	0.7088	6.6365	5.4233	0.0292	1.6683	0.0220	1.6903	0.4520	0.0208	0.4728		3,011.704 3	3,011.704 3	0.1066		3,014.370 0

3.6 Building Construction - 2022

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/d	lay		
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090	;	0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2

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3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1851	5.9947	1.4240	0.0168	0.4197	0.0123	0.4320	0.1208	0.0118	0.1326		1,769.1130	1,769.113 0	0.0748		1,770.981 9
Worker	0.4740	0.2641	3.5966	0.0118	1.2486	7.6500e- 003	1.2563	0.3312	7.0500e- 003	0.3382		1,180.229 0	1,180.229 0	0.0250		1,180.853 0
Total	0.6590	6.2588	5.0206	0.0286	1.6683	0.0199	1.6882	0.4520	0.0188	0.4708		2,949.342 0	2,949.342 0	0.0997		2,951.834 9

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

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3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1851	5.9947	1.4240	0.0168	0.4197	0.0123	0.4320	0.1208	0.0118	0.1326		1,769.1130	1,769.1130	0.0748		1,770.981 9
Worker	0.4740	0.2641	3.5966	0.0118	1.2486	7.6500e- 003	1.2563	0.3312	7.0500e- 003	0.3382		1,180.229 0	1,180.229 0	0.0250		1,180.853 0
Total	0.6590	6.2588	5.0206	0.0286	1.6683	0.0199	1.6882	0.4520	0.0188	0.4708		2,949.342 0	2,949.342 0	0.0997		2,951.834 9

3.7 Paving - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

3.7 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0261	0.3549	1.1700e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		116.4700	116.4700	2.4600e- 003		116.5316
Total	0.0468	0.0261	0.3549	1.1700e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		116.4700	116.4700	2.4600e- 003		116.5316

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

3.7 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	Jay							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0261	0.3549	1.1700e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		116.4700	116.4700	2.4600e- 003		116.5316
Total	0.0468	0.0261	0.3549	1.1700e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		116.4700	116.4700	2.4600e- 003		116.5316

3.8 Architectural Coating - 2022

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Archit. Coating	198.5634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	198.7679	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

3.8 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0935	0.0521	0.7099	2.3400e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		232.9399	232.9399	4.9300e- 003		233.0631
Total	0.0935	0.0521	0.7099	2.3400e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		232.9399	232.9399	4.9300e- 003		233.0631

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Archit. Coating	198.5634	1 1 1	, , ,			0.0000	0.0000		0.0000	0.0000		1 1 1	0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	198.7679	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

3.8 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0935	0.0521	0.7099	2.3400e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		232.9399	232.9399	4.9300e- 003		233.0631
Total	0.0935	0.0521	0.7099	2.3400e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		232.9399	232.9399	4.9300e- 003		233.0631

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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Point Molate - Community Plan Alternative - Contra Costa County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Mitigated	4.3117	13.9914	37.0707	0.1351	12.0672	0.1003	12.1674	3.2280	0.0933	3.3213		13,654.62 59	13,654.62 59	0.4538		13,665.97 01
Unmitigated	4.3117	13.9914	37.0707	0.1351	12.0672	0.1003	12.1674	3.2280	0.0933	3.3213		13,654.62 59	13,654.62 59	0.4538		13,665.97 01

4.2 Trip Summary Information

	Aver	age Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	609.75	609.75	609.75	1,528,184	1,528,184
Hotel	1,165.50	1,165.50	1165.50	2,214,369	2,214,369
Hotel	155.40	155.40	155.40	295,249	295,249
Quality Restaurant	1,386.52	1,386.52	1386.52	1,644,644	1,644,644
Total	3,317.17	3,317.17	3,317.17	5,682,447	5,682,447

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Hotel	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Quality Restaurant	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
NaturalGas Mitigated	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157
NaturalGas Unmitigated	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/	day							lb/o	day		
Hotel	2000.55	0.0216	0.1961	0.1648	1.1800e- 003		0.0149	0.0149		0.0149	0.0149		235.3586	235.3586	4.5100e- 003	4.3100e- 003	236.7572
Hotel	21786	0.2350	2.1359	1.7941	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.055 0	2,563.055 0	0.0491	0.0470	2,578.285 9
Quality Restaurant	31283.7	0.3374	3.0670	2.5763	0.0184		0.2331	0.2331		0.2331	0.2331		3,680.438 4	3,680.438 4	0.0705	0.0675	3,702.309 4
Research & Development	5085.62	0.0548	0.4986	0.4188	2.9900e- 003		0.0379	0.0379		0.0379	0.0379		598.3078	598.3078	0.0115	0.0110	601.8633
Total		0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1297	7,119.215 7

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/e	day							lb/d	day		
Hotel	2.00055	0.0216	0.1961	0.1648	1.1800e- 003		0.0149	0.0149	1 1 1	0.0149	0.0149		235.3586	235.3586	4.5100e- 003	4.3100e- 003	236.7572
Hotel	21.786	0.2350	2.1359	1.7941	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.055 0	2,563.055 0	0.0491	0.0470	2,578.285 9
Quality Restaurant	31.2837	0.3374	3.0670	2.5763	0.0184		0.2331	0.2331		0.2331	0.2331		3,680.438 4	3,680.438 4	0.0705	0.0675	3,702.309 4
Research & Development	5.08562	0.0548	0.4986	0.4188	2.9900e- 003		0.0379	0.0379		0.0379	0.0379		598.3078	598.3078	0.0115	0.0110	601.8633
Total		0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1297	7,119.215 7

6.0 Area Detail

6.1 Mitigation Measures Area

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Point Molate - Community Plan Alternative - Contra Costa County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Mitigated	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Unmitigated	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004	 , , ,	1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/e	day							lb/o	day		
Architectural Coating	1.0880					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9500e- 003	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Total	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/o	day		
Architectural Coating	1.0880					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9500e- 003	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Total	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type Number Hours/Day Days/Year Horse Power Load Factor Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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Point Molate - Community Plan Alternative - Contra Costa County, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
<u>Boilers</u>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
User Defined Equipment						
Equipment Type	Number					
11.0 Vegetation						

Point Molate - Community Plan Alternative

Contra Costa County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	150.00	Room	5.00	217,800.00	0
Hotel	20.00	Room	0.67	20,000.00	0
Quality Restaurant	68.00	1000sqft	1.56	68,000.00	0
Research & Development	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2024
Utility Company	Pacific Gas & Electric Com	pany			
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity 0. (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

Project Characteristics -

Land Use - 20,000-SF of hotel included to account for conference rooms associated with hotel.

Construction Phase -

Trips and VMT -

Grading -

Fleet Mix -

Vehicle Trips - Consistent with Traffic Letter

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	29,040.00	20,000.00
tblVehicleTrips	ST_TR	1.90	8.13
tblVehicleTrips	ST_TR	8.19	7.77
tblVehicleTrips	ST_TR	94.36	20.39
tblVehicleTrips	SU_TR	1.11	8.13
tblVehicleTrips	SU_TR	5.95	7.77
tblVehicleTrips	SU_TR	72.16	20.39
tblVehicleTrips	WD_TR	8.11	8.13
tblVehicleTrips	WD_TR	8.17	7.77
tblVehicleTrips	WD_TR	89.95	20.39

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/d	day		
2021	4.6828	49.5450	32.4184	0.0615	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,963.053 7	5,963.053 7	1.8627	0.0000	6,009.621 4
2022	198.8630	21.9802	21.2795	0.0540	1.6683	0.8294	2.4977	0.4520	0.7804	1.2324	0.0000	5,347.249 8	5,347.249 8	0.7164	0.0000	5,365.159 1
Maximum	198.8630	49.5450	32.4184	0.0615	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,963.053 7	5,963.053 7	1.8627	0.0000	6,009.621 4

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Tota	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/	day							lbi	/day		
2021	4.6828	49.5450	32.4184	0.0615	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,963.053 7	5,963.053 7	1.8627	0.0000	6,009.621 4
2022	198.8630	21.9802	21.2795	0.0540	1.6683	0.8294	2.4977	0.4520	0.7804	1.2324	0.0000	5,347.249 8	5,347.249 8	0.7164	0.0000	5,365.159 1
Maximum	198.8630	49.5450	32.4184	0.0615	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	5,963.053 7	5,963.053 7	1.8627	0.0000	6,009.621 4
	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	lay							lb/c	lay		
Area	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Energy	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157
Mobile	3.4358	14.5808	37.6716	0.1247	12.0672	0.1009	12.1681	3.2280	0.0939	3.3219		12,607.73 05	12,607.73 05	0.4670		12,619.40 66
Total	13.3246	20.4787	42.6575	0.1601	12.0672	0.5492	12.6164	3.2280	0.5423	3.7702		19,684.95 87	19,684.95 87	0.6029	0.1298	19,738.69 53

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/o	day		
Area	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Energy	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157
Mobile	3.4358	14.5808	37.6716	0.1247	12.0672	0.1009	12.1681	3.2280	0.0939	3.3219		12,607.73 05	12,607.73 05	0.4670		12,619.40 66
Total	13.3246	20.4787	42.6575	0.1601	12.0672	0.5492	12.6164	3.2280	0.5423	3.7702		19,684.95 87	19,684.95 87	0.6029	0.1298	19,738.69 53

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
3	Bay Trail Grading	Grading	2/12/2021	3/11/2021	5	20	
4	Grading	Grading	3/12/2021	4/8/2021	5	20	
5	Building Construction	Building Construction	4/9/2021	2/24/2022	5	230	
6	Paving	Paving	2/25/2022	3/24/2022	5	20	
7	Architectural Coating	Architectural Coating	3/25/2022	4/21/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 571,200; Non-Residential Outdoor: 190,400; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

|--|

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Bay Trail Grading	Excavators	1	8.00	158	0.38
Bay Trail Grading	Graders	1	8.00	187	0.41
Bay Trail Grading	Rubber Tired Dozers	1	8.00	247	0.40
Bay Trail Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Bay Trail Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	152.00	62.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612
Total	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/d	lay		
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4

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3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612
Total	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612

3.3 Site Preparation - 2021

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.656 9	3,685.656 9	1.1920		3,715.457 3

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0430	0.4221	1.3200e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		131.5180	131.5180	3.0200e- 003		131.5935
Total	0.0613	0.0430	0.4221	1.3200e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		131.5180	131.5180	3.0200e- 003		131.5935

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust		, , ,			18.0663	0.0000	18.0663	9.9307	0.0000	9.9307		1 1 1	0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.656 9	3,685.656 9	1.1920		3,715.457 3

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	Jay							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0430	0.4221	1.3200e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		131.5180	131.5180	3.0200e- 003		131.5935
Total	0.0613	0.0430	0.4221	1.3200e- 003	0.1479	9.3000e- 004	0.1488	0.0392	8.5000e- 004	0.0401		131.5180	131.5180	3.0200e- 003		131.5935

3.4 Bay Trail Grading - 2021

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		1 1 1	0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.928 5	2,871.928 5	0.9288		2,895.149 5

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3.4 Bay Trail Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612
Total	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Fugitive Dust		1 1 1 1			6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		1 1 1	0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5

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3.4 Bay Trail Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612
Total	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612

3.5 Grading - 2021

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.928 5	2,871.928 5	0.9288		2,895.149 5

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3.5 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612
Total	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346	0.0000	2,871.928 5	2,871.928 5	0.9288		2,895.149 5

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3.5 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612
Total	0.0511	0.0358	0.3517	1.1000e- 003	0.1232	7.7000e- 004	0.1240	0.0327	7.1000e- 004	0.0334		109.5983	109.5983	2.5200e- 003		109.6612

3.6 Building Construction - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	lay		
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3

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3.6 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2104	6.3958	1.7559	0.0165	0.4197	0.0147	0.4343	0.1208	0.0140	0.1348		1,740.196 6	1,740.196 6	0.0861		1,742.348 7
Worker	0.5176	0.3632	3.5641	0.0111	1.2486	7.8300e- 003	1.2565	0.3312	7.2100e- 003	0.3384		1,110.5964	1,110.5964	0.0255		1,111.2337
Total	0.7279	6.7590	5.3200	0.0277	1.6683	0.0225	1.6908	0.4520	0.0212	0.4732		2,850.793 0	2,850.793 0	0.1116		2,853.582 5

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	Jay		
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

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3.6 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2104	6.3958	1.7559	0.0165	0.4197	0.0147	0.4343	0.1208	0.0140	0.1348		1,740.196 6	1,740.196 6	0.0861		1,742.348 7
Worker	0.5176	0.3632	3.5641	0.0111	1.2486	7.8300e- 003	1.2565	0.3312	7.2100e- 003	0.3384		1,110.5964	1,110.5964	0.0255		1,111.233 7
Total	0.7279	6.7590	5.3200	0.0277	1.6683	0.0225	1.6908	0.4520	0.0212	0.4732		2,850.793 0	2,850.793 0	0.1116		2,853.582 5

3.6 Building Construction - 2022

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/d	lay		
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090	;	0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2

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3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1962	6.0390	1.6469	0.0163	0.4197	0.0127	0.4324	0.1208	0.0122	0.1330		1,723.549 1	1,723.549 1	0.0816		1,725.589 3
Worker	0.4814	0.3255	3.2692	0.0107	1.2486	7.6500e- 003	1.2563	0.3312	7.0500e- 003	0.3382		1,069.367 1	1,069.367 1	0.0228		1,069.937 6
Total	0.6777	6.3645	4.9161	0.0271	1.6683	0.0204	1.6887	0.4520	0.0192	0.4712		2,792.916 2	2,792.916 2	0.1044		2,795.526 9

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
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Point Molate - Community Plan Alternative - Contra Costa County, Winter

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1962	6.0390	1.6469	0.0163	0.4197	0.0127	0.4324	0.1208	0.0122	0.1330		1,723.549 1	1,723.549 1	0.0816		1,725.589 3
Worker	0.4814	0.3255	3.2692	0.0107	1.2486	7.6500e- 003	1.2563	0.3312	7.0500e- 003	0.3382		1,069.367 1	1,069.367 1	0.0228		1,069.937 6
Total	0.6777	6.3645	4.9161	0.0271	1.6683	0.0204	1.6887	0.4520	0.0192	0.4712		2,792.916 2	2,792.916 2	0.1044		2,795.526 9

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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3.7 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0321	0.3226	1.0600e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		105.5296	105.5296	2.2500e- 003		105.5859
Total	0.0475	0.0321	0.3226	1.0600e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		105.5296	105.5296	2.2500e- 003		105.5859

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

3.7 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0321	0.3226	1.0600e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		105.5296	105.5296	2.2500e- 003		105.5859
Total	0.0475	0.0321	0.3226	1.0600e- 003	0.1232	7.5000e- 004	0.1240	0.0327	7.0000e- 004	0.0334		105.5296	105.5296	2.2500e- 003		105.5859

3.8 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Archit. Coating	198.5634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	198.7679	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

3.8 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0950	0.0642	0.6452	2.1200e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		211.0593	211.0593	4.5000e- 003		211.1719
Total	0.0950	0.0642	0.6452	2.1200e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		211.0593	211.0593	4.5000e- 003		211.1719

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Archit. Coating	198.5634	1 1 1	, , ,			0.0000	0.0000		0.0000	0.0000		1 1 1	0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	198.7679	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

3.8 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0950	0.0642	0.6452	2.1200e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		211.0593	211.0593	4.5000e- 003		211.1719
Total	0.0950	0.0642	0.6452	2.1200e- 003	0.2464	1.5100e- 003	0.2480	0.0654	1.3900e- 003	0.0668		211.0593	211.0593	4.5000e- 003		211.1719

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Mitigated	3.4358	14.5808	37.6716	0.1247	12.0672	0.1009	12.1681	3.2280	0.0939	3.3219		12,607.73 05	12,607.73 05	0.4670		12,619.40 66
Unmitigated	3.4358	14.5808	37.6716	0.1247	12.0672	0.1009	12.1681	3.2280	0.0939	3.3219		12,607.73 05	12,607.73 05	0.4670		12,619.40 66

4.2 Trip Summary Information

	Aver	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	609.75	609.75	609.75	1,528,184	1,528,184
Hotel	1,165.50	1,165.50	1165.50	2,214,369	2,214,369
Hotel	155.40	155.40	155.40	295,249	295,249
Quality Restaurant	1,386.52	1,386.52	1386.52	1,644,644	1,644,644
Total	3,317.17	3,317.17	3,317.17	5,682,447	5,682,447

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Hotel	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771
Quality Restaurant	0.594233	0.036933	0.184882	0.116155	0.014918	0.004973	0.010771	0.025002	0.001640	0.001706	0.005301	0.002715	0.000771

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
NaturalGas Mitigated	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157
NaturalGas Unmitigated	0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1298	7,119.2157

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5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/e	day							lb/o	day		
Hotel	2000.55	0.0216	0.1961	0.1648	1.1800e- 003		0.0149	0.0149		0.0149	0.0149		235.3586	235.3586	4.5100e- 003	4.3100e- 003	236.7572
Hotel	21786	0.2350	2.1359	1.7941	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.055 0	2,563.055 0	0.0491	0.0470	2,578.285 9
Quality Restaurant	31283.7	0.3374	3.0670	2.5763	0.0184		0.2331	0.2331		0.2331	0.2331		3,680.438 4	3,680.438 4	0.0705	0.0675	3,702.309 4
Research & Development	5085.62	0.0548	0.4986	0.4188	2.9900e- 003		0.0379	0.0379		0.0379	0.0379		598.3078	598.3078	0.0115	0.0110	601.8633
Total		0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1297	7,119.215 7

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/	day							lb/c	lay		
Hotel	2.00055	0.0216	0.1961	0.1648	1.1800e- 003		0.0149	0.0149	, , ,	0.0149	0.0149		235.3586	235.3586	4.5100e- 003	4.3100e- 003	236.7572
Hotel	21.786	0.2350	2.1359	1.7941	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.055 0	2,563.055 0	0.0491	0.0470	2,578.285 9
Quality Restaurant	31.2837	0.3374	3.0670	2.5763	0.0184		0.2331	0.2331		0.2331	0.2331		3,680.438 4	3,680.438 4	0.0705	0.0675	3,702.309 4
Research & Development	5.08562	0.0548	0.4986	0.4188	2.9900e- 003		0.0379	0.0379		0.0379	0.0379		598.3078	598.3078	0.0115	0.0110	601.8633
Total		0.6487	5.8976	4.9540	0.0354		0.4482	0.4482		0.4482	0.4482		7,077.159 7	7,077.159 7	0.1357	0.1297	7,119.215 7

6.0 Area Detail

6.1 Mitigation Measures Area

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Mitigated	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Unmitigated	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory		lb/day									lb/day					
Architectural Coating	1.0880					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9500e- 003	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Total	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory		lb/day									lb/day					
Architectural Coating	1.0880					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9500e- 003	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730
Total	9.2401	2.9000e- 004	0.0319	0.0000		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004		0.0685	0.0685	1.8000e- 004		0.0730

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type Number Hours/Day Days/Year Horse Power	Load Factor Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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Point Molate - Community Plan Alternative - Contra Costa County, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
<u>Boilers</u>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
User Defined Equipment						
Equipment Type	Number					
		-				
11.0 Vegetation						

Exhibit F

Cooper's Hawk Life History



Food

Cooper's Hawks mainly eat birds. Small birds are safer around Cooper's Hawks than medium-sized birds:

studies list European Starlings, Mourning Doves, and Rock Pigeons as common targets along with American Robins, several kinds of jays, Northern Flicker, and quail, pheasants, grouse, and chickens. Cooper's Hawks sometimes rob nests and also eat chipmunks, hares, mice, squirrels, and bats. Mammals are more common in diets of Cooper's Hawks in the West.

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Nesting

NEST PLACEMENT

Cooper's Hawks build nests in pines, oaks, Douglas-firs, beeches, spruces, and other tree species, often on flat

ground rather than hillsides, and in dense woods. Nests are typically 25-50 feet high, often about two-thirds of the way up the tree in a crotch or on a horizontal branch.

NEST DESCRIPTION

Males typically build the nest over a period of about two weeks, with just the slightest help from the female. Nests are piles of sticks roughly 27 inches in diameter and 6-17 inches high with a cup-shaped depression in the middle, 8 inches across and 4 inches deep. The cup is lined with bark flakes and, sometimes, green twigs.

NESTING FACTS

Clutch Size:

Cooper's Hawk Life History, All About Birds, Cornell Lab of Ornith...

https://www.allaboutbirds.org/guide/Coopers_Hawk/lifehistory

Number of Broods:	1 brood
Egg Length:	1.7-2.0 in (4.4-5.1 cm)
Egg Width:	1.4-1.6 in (3.5-4 cm)
Incubation Period:	30-36 days
Nestling Period:	27-34 days
Egg Description:	Pale blue to bluish white.
Condition at Hatching:	Covered in white down and weighing just 28 grams or 1 ounce, but able to crawl around nest.

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Behavior

Cooper's Hawks show the classic accipiter flight style: a few stiff wingbeats followed by short glides. But in pursuit of prey their flight becomes powerful, quick, and very agile, allowing the bird to thread its way through tree branches at top speed. Courting birds display by flying with slow wingbeats, then gliding with wings held in a V. Males make a bowing display to females after pairing and before beginning to build the nest.

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Conservation

Cooper's Hawk populations appear to have been stable between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a breeding population of 700,000, with 89% spending at least some part of the year in the U.S., 22% in Mexico, and 8% breeding in Canada. The species rates an 7 out of 20 on the Continental Concern Score. Cooper's Hawk is not on the <u>2016</u> <u>State of North America's Birds' Watch List</u> (http://www.stateofthebirds.org /2016?_hstc=75100365.e413e0c32f9a8ba57763d1780116b4c9.1586808461818.158680846181

<u>hssc=75100365.1.15881817993888</u> <u>hsfp=3028816898</u>). These hawk's stable and positive population trends are a turnaround from the mid-twentieth century, when use of the pesticide DDT and widespread shooting greatly reduced populations.

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Backyard Tips

If you put out seed for birds in your backyard, there's a chance you'll also attract the attention of a Cooper's Hawk. While f Ornith... https://www.allaboutbirds.org/guide/Coopers_Hawk/lifehistory catching smaller birds is just doing what comes naturally for a

Cooper's Hawk, many of us would prefer not to share the responsibility for the deaths. If a Cooper's Hawk takes up residence in your yard, you can take your feeders down for a few days and the hawk will move on.

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Credits

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