### **LAW OFFICE OF JORDAN R. SISSON**

#### LAND USE, ENVIRONMENTAL & MUNICIPAL LAW

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April 18, 2023

#### **VIA EMAIL:**

City Council
c/o City Clerk (cityclerk@longbeach.gov)
Amy Harbin (amy.harbin@longbeach.gov)
City of Long Beach
411 W. Ocean Boulevard
Long Beach, CA 90802

RE: Item 25, Link Logistics Warehouse Project (5910 Cherry Avenue); Application No. 2207-30 (SPR22-078); Council File No. 23-0104

Dear Hon. City Council:

This office represents appellants Kirk Davis and Laurie Angel (collectively "**Appellants**") in the ("**Appeal**") of the City of Long Beach ("**City**") Planning Commission approval of a proposed new 303,972 square-foot warehouse ("**Project**") at the above-referenced address ("**Site**") proposed by Yemi Alade of Link Logistics ("**Applicant**").

First, <u>Appellants understand that the Applicant has already withdrawn their application for the Project, thereby revoking the Site Plan Review ("SPR") entitlement and mooting a need for the Appeal hearing tonight.</u>
(See Planning email to Appellants dated April 14, 2023 [attached hereto as <u>Exhibit A</u>].) As such, Appellants have justifiably relied on the City's position to limit its participation in tonight's City Council meeting. The City is estopped from changing its position mid-course to resurrect the entitlements and holding an Appeal tonight.

In the event of any future planning/building permit/entitlement application involving the Site, Appellants respectfully request all notices concerning any land use/zoning actions and/or determinations involving the California Environmental Quality Act ("CEQA") as required under applicable law. (See e.g., Pub. Res. Code §§ 21092.2, 21167(f); Gov. Code § 65092.) <u>Please send notice by electronic and regular mail to (i) Mr. Davis, (ii) Ms. Angel, and (iii) this office</u> (address already on file).

Out of an abundance of caution, the following comments are provided regarding the now-withdrawn Project, which Appellants ask to be included in the administrative record for the Project.

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<sup>&</sup>lt;sup>1</sup> See e.g., Shuer v. County of San Diego (2004) 117 Cal.App.4th 476, 487 ("We find, however, that the sum total of county's actions ... negligently led [the plaintiff] to conclude that she had no administrative recourse. That being the case, county is estopped from asserting in its demurrer that [the plaintiff] failed to exhaust her administrative remedies."); Feduniak v. California Coastal Com. (2007) 148 Cal.App.4th 1346, 1372 ("[C]ourts will not hesitate to estop the government from asserting a procedural barrier, such as the statute of limitations or a failure to exhaust remedies, as a defense to claims against it, where the government's affirmative conduct caused the claimant's failure to comply with the procedural requirement."); J.H. McKnight Ranch, Inc. v. Franchise Tax Bd. (2003) 110 Cal.App.4th 978, 991.



Second, we strongly disagree with the City's position that the Project is not subject to the CEQA. This position is premised on a novel interpretation of McCorkle Eastside Neighborhood Grp. v. City of St. Helena (2019) 31 Cal. App. 5th 80 ("McCorkle"). Under the Long Beach Municipal Code ("LBMC" or "Code") § 21.25, SPR clearly includes consideration of environmental impacts under CEQA. (See e.g., Id., subds., .501 [SPR purposes includes "to ensure the maintenance, restoration, enhancement and protection of the environment." Emphasis added], .506 [findings include issues related to impacts on trees, traffic, green building standards, land use consistency that are relevant to CEQA], .508 [actions by the City include consideration of whether project meets LEED certification], .509 [environmental review for SPR "may" include categorical exemptions].)

Additionally, California courts have held Long Beach's SPR is a discretionary approval. (See e.g., See Long Beach Sav. & Loan Ass'n v. Long Beach Redevelopment Agency (1986) 188 Cal. App. 3d 249, 263 n.13 ("... site plan review is a discretionary act under CEQA" [citing Pub. Res. Code § 21080].) The fact that the City is proposing conditions to address environmental impacts<sup>2</sup> is manifest of the discretionary nature of SPR, whereby the City using its discretion to "use its own judgment ... by the public official as to the wisdom or manner of carrying out the project ...." (Protecting Our Water & Envi'l Res. v. County of Stanislaus (2020) 10 Cal.5th 479, 489.) Nor is there any evidence showing any long-held City interpretation that SPR is not subject to CEQA. (See e.g., California Renters Legal Advocacy & Education Fund v. City of San Mateo (2021) 68 Cal.App.5th 820, 843 [principle of deference does not apply where City staff has no consistent interpretation]; Yamaha Corp. of America v. State Bd. of Equalization (1988) 19 Cal.4th 1, 13 [vacillating position warrant no deference].)

Furthermore, McCorkle is entirely distinguishable from the case at bar. While McCorkle involved approval of a residential project in the wake of state housing mandates (McCorkle, 31 Cal. App. 5th at 85), here there is no state mandate streamlining this warehouse Project. While McCorkle involved a city substantively amending its municipal code the year before the housing project heard (id. at 85-87), here the City's SPR provisions have not been substantially amended, which have been in place since 1988. While McCorkle involved a city ordinance that "expressly precluded [that city] from disapproving a proposal for non-design related reasons" (id. at 87), here no explicit preclusion is provided under the Code. It would seem that the City's novel interpretation of McCorkle is but a recent pattern of practice of allowing warehouse projects to evade CEQA review.<sup>3</sup>

<u>Third, this Project does not qualify for a class 32 exemption due to impacts on air quality, hazards, noise, traffic, vehicle miles traveled, and greenhouse gas emissions</u>—as fully discussed in the enclosed expert comment letters (attached hereto as <u>Exhibits B through D</u>), which are incorporated into this appeal in their entirety.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> See also presentation materials, https://www.dropbox.com/s/4d6kve7jihdepvy/Appeal%20to%205910% 20Cherry%20Site%20Plan%20Review%20V4%202.7.23%20.pptx?dl=0.



<sup>&</sup>lt;sup>2</sup> See Staff Report (2/7/23), PDF p. 10 ("In response to the technical reports, <u>conditions of approval are recommended to</u> (Attachment F–Conditions of Approval) <u>address noise from trucks and construction activities on nearby residences</u>, improved landscaping throughout the site to assist with site drainage, soil management, and <u>fugitive dust containment during construction to reduce impacts on adjacent properties</u> and treatment of archeological resources unearthed by construction activities to preserve Native American artifacts." [Emphasis added]), https://longbeach.legistar.com/View.ashx?M=F&ID=11882901&GUID=AEA223A5-553A-47DC-8518-FDF7D72F073A.

<sup>&</sup>lt;sup>3</sup> See e.g., Link to 5860 Paramount Blvd Warehouse, https://longbeach.legistar.com/LegislationDetail.aspx?ID= 5888398&GUID=CE3CFBAC-58AC-47B6-950A-ECB5FA159DBC&Options=&Search=; 2400 Artesia Warehouse, https://longbeach.legistar.com/LegislationDetail.aspx?ID=4123523&GUID=8FB4718A-CFE5-4F2B-884E-D9A482176B05&Options=&Search=.

In closing, Appellants understand the Project's SPR application has been withdrawn and no Appeal hearing will be held. As discussed above, the SPR review process provides the City substantial discretion to address environmental concerns like those discussed herein. Appellants urge the City to use that discretion to ensure adequate CEQA review, including considering additional mitigation measures—like those specifically recommended in the attached expert comment letters. Please place this letter and the attached/hyperlinked documents in the Project's administrative record.

Lastly, Appellants thank the City staff for their time and respectfully request notification for any future application involving this Site.

Sincerely,

Jordan R. Sisson

Attorney for Appellants

#### Attachments:

Exhibit A: Amy Harbin Email to Appellants (4/14/23)<sup>5</sup>

Exhibit B: Expert Forrest & Associates Noise Comment Letter (3/30/23)<sup>6</sup>
Exhibit C: Expert Urban Systems Associated Traffic Comment Letter (4/5/23)<sup>7</sup>

Exhibit D: Expert SWAPE Air/GHG Comment Letter (4/3/23)8

<sup>&</sup>lt;sup>5</sup> https://www.dropbox.com/s/0te97z23jovrcwr/A Email.pdf?dl=0.

<sup>&</sup>lt;sup>6</sup> https://www.dropbox.com/s/3l2ficen3tjim8j/B\_DLA%20Noise%20Report\_Cherry%20Ave%20Warehouse%20Project%202-6-2023%20%207am-s-s.pdf?dl=0.

<sup>&</sup>lt;sup>7</sup> https://www.dropbox.com/s/qrb1cnxv42gt4j2/C\_5910%20Cherry\_%20Long%20Beach\_Transportation%20Comments.pdf?dl=0.

https://www.dropbox.com/s/I848hw6l9grk6pj/D\_2023.04.03\_CherryAve\_Commentletter\_Final.pdf?dl=0.

#### jordan@jrsissonlaw.com

From: Kirk Davis lionkirkd@gmail.com>
Sent: Friday, April 14, 2023 5:33 PM
To: jordan@jrsissonlaw.com

Cc: Laurie Angel

**Subject:** Fwd: Withdrawal Of Application -- 5910 Cherry Avenue

FYI

Sent from my iPhone

#### Begin forwarded message:

From: Amy Harbin <Amy.Harbin@longbeach.gov>

**Date:** April 14, 2023 at 4:30:31 PM PDT

To: lionkirkd@gmail.com, Laurie Angel <lcangel201@gmail.com>

Cc: Alexis Oropeza <Alexis.Oropeza@longbeach.gov>, Alison Spindler-Ruiz

<Alison.Spindler-Ruiz@longbeach.gov>

Subject: Withdrawal Of Application -- 5910 Cherry Avenue

Good afternoon Kirk and Laurie,

As the Appellants of the project at the above address, I'm writing to let you know that the Applicants have withdrawn their application for the project thereby revoking the site plan entitlement and mooting a need for the hearing. However, since the withdrawal was not received in time to have been included on the supplemental agenda, the withdrawal will be addressed on the floor of the meeting on Tuesday.

Thank you and please let me know if you have any questions.

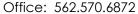
Amy

#### Amy L. Harbin, AICP

Planner

#### Long Beach Development Services | Planning

411 W. Ocean Blvd., 3<sup>rd</sup> Fl. | Long Beach, CA 90802





#### Dale La Forest & Associates

Design, Planning & Environmental Consulting 101 E. Alma Street, Suite 100-A; Mt. Shasta, CA 96067 Phone: (530) 918-8625 E-Mail: dlaforest@gmail.com

March 30, 2023

Jordan R. Sisson Law Office of Jordan R. Sisson 3993 Orange St., Ste. 201 Riverside, CA 92501 jordan@jrsissonlaw.com Office: 951-405-8127

### Report of Potential Noise Impacts of Cherry Avenue Warehouse Project

5910 Cherry Avenue, Long Beach, CA Application No. 2207-30 (SPR 22-078)

Dear Mr. Sisson:

At your request, I have prepared this report in response to the Project application and Categorical Exemption Request ("CE Request") for the Cherry Avenue Warehouse ("Project"), including the cursory noise discussion in a Noise Study attachment pertaining to the Project's potentially significant noise impacts. My qualifications are attached hereto as "Attachment 1".

This report shows that the Project's noise impacts will be significantly adverse under the California Environmental Quality Act, Pub. Res. Code § 21000 *et seq.*, ("CEQA") and will exceed permissible CEQA standards set by the City of Long Beach ("City") and other authorities.

During this Project's construction period, its construction noise levels will undoubtedly exceed the City's noise standards. During its subsequent operation as a large warehouse, the Project will also subject neighboring residences to excessive noise levels.

Because construction and operational noise impacts will likely exceed applicable significant thresholds under the CEQA Guidelines, the Long Beach Municipal Code ("Code" or "LBMC"), and the City's General Plan, the use of a categorical exemption is inappropriate per 14 Cal. Code. Regs. § 15000 *et seq.* (the "CEQA Guidelines").

Hence, the City should require the Project applicant to prepare a more demanding CEQA review, such as an environmental impact report ("EIR") or mitigated negative declaration ("MND") to consider feasible mitigation measures.

Figure 1
Photo of dozens of homes and some businesses across Cherry Avenue from Project site.



#### I. EXECUTIVE SUMMARY

As explained herein in this report, I have made the following conclusions about the Cherry Avenue Warehouse Project. (Section references are to my narrative discussion *infra* in this letter):

**Section II** (pp. 5-6):<sup>1</sup> The City and Applicant agreed to Project-specific noise mitigation in Conditions of Approval (COA-20 and COA-58) that directly conflicts with CEQA's absolute bar against mitigation measures for categorical exemptions. Thus, by its own practice, the City appears to admit that there is a fair argument that the Project will cause potentially significant noise impacts. The close proximity and age of adjacent homes west of Cherry Avenue constitutes an unusual circumstance related to construction noise impacts, which supports the conclusion that a categorical exemption is inappropriate for the Project.

Even the City's proposed Conditions of Approval will not adequately reduce the warehouse's noise impacts to a less-than-significant level. Condition #20 regarding nighttime noise levels and trucking use is too vague and ineffective. Condition #58 which requires the property be maintained in a quiet condition and maintained so as not to be detrimental to adjacent properties and occupant is also too vague to be effective.

**Section III** (pp. 6-10) The Project will generate noise levels that exceed many of the applicable thresholds of significance, and will therefore create significant noise impacts to its neighbors. These noise standards are described in this section.

<sup>&</sup>lt;sup>1</sup> Herein, page citations are either to the document's stated pagination (referenced by "p. ##") or to the pages' location within the referenced PDF document (referenced by "PDF-- ##"). Websites and documents cited herein were accessed in February, 2023 and copies of which will be made available to City officials if requested.

**Section IV** (pp. 11-13) The threshold of significance for construction noise should be 70 dBA  $L_{eq}$  in the daytime and 65 dBA  $L_{eq}$  at nighttime to avoid significant noise impacts, not the excessive daytime 80 dBA  $L_{eq}$  standard and 70 dBA  $L_{eq}$  nighttime standard employed by the Project's Noise Study.

**Section V.1** (pp. 15-17) The proposed nighttime construction of the concrete slab pour activities would generate significant noise impact at neighboring homes. Those maximum nighttime construction noise levels at a nearest residence of 76.5 dBA  $L_{max}$  would exceed the City's maximum 65 dBA  $L_{max}$  nighttime threshold of significance (LBMC § 8.80.150(B)(5)).

**Section V.2** (pp. 17-18) Average nighttime construction noise levels of 72 dBA  $L_{eq}$  at nearest residence 220 feet away would exceed the City's 45 dBA  $L_{50}$  threshold of significance. (LBMC § 8.80.150(B)(1)). Similarly, at more than a dozen homes up to 400 feet away from the concrete slab pour work, nighttime average construction noise levels in excess of 67 dBA  $L_{eq}$  would also exceed the City's maximum 45 dBA  $L_{50}$  threshold of significance.

Section V.3 (pp. 18-19) In interior rooms of nearby homes during the Project's concrete slab pour work, nighttime construction noise levels of 52 dBA  $L_{eq}$  would exceed the City's maximum 35 dBA  $L_{eq}$  nighttime interior noise level threshold of significance (LBMC § 8.80.170(A), Table C). Even at more distant homes up to 400 feet away if not blocked by intervening structures, their interior room noise levels could reach 47 dBA  $L_{eq}$  at nighttime and also exceed the 35 dBA  $L_{eq}$  threshold. Those same construction noise levels if that work is conducted in the daytime would exceed the City's daytime threshold of 45 dBA  $L_{eq}$  (LBMC § 8.80.170(A)). They would also exceed the General Plan's maximum acceptable indoor noise standards of 45 dBA  $L_{dn}$  (daytime) and 35 dBA  $L_{dn}$  (nighttime), (Noise Element, p. 137, Table 11).

**Section V.4** (p. 19) The magnitude of the *increase* in noise levels at the nearest homes would be significant during nighttime concrete pour activities. The existing average noise level at the nearest homes is about 65.3 dBA L<sub>eq</sub> at nighttime. That construction noise heard at those homes could add about 72.5 dBA L<sub>eq</sub>, resulting in over a 7 dB *increase* during nighttime construction on the concrete pour activities. That increase is significant because it would exceed the 1.5 dBA threshold identified for conditions at these homes where ambient is greater than 65 dBA L<sub>eq</sub> (FICON; also Noise Study, p. 21, Table 4-1).

**Section V.5** (pp. 20-21) Concrete pour activities could generate a 24-hour day-night average noise level of 78.5 dBA L<sub>dn</sub> at the nearest home, and 73.3 dBA L<sub>dn</sub> or more at more distant dozens of homes within 400 feet of the concrete pour location. Those noise levels would exceed the threshold of significance for 24-hour day-night average noise levels is 70 dBA L<sub>dn</sub>. (OPR, General Plan Guidelines, 2003) A noise level louder than that is considered to be "normally unacceptable" for the nearby residences. This Project could generate noise levels of 78.5 dBA L<sub>dn</sub> at the nearest home, and 73.3 dBA L<sub>dn</sub> or more at more distant dozens of homes within 400 feet of the concrete pour location. Exceedance of this standard would be a significant noise impact. Even if no concrete pour work or other construction was done at nighttime, meaning that construction work would only occur in the daytime hours, the 24-hour day-night average noise level could be over 70 dBA L<sub>dn</sub> at the nearest house 220 feet from the concrete pour location and would thus be a significant noise impact.

**Section VI** (pp. 22-23): Backup alarms mandated on heavy equipment and trucks could create noise levels at the nearest home of about 83 dBA  $L_{max}$  (when adjusted with a 5 dB penalty for a pure tone per LBMC § 8.18.160). The City's maximum daytime noise standard is 70 dBA  $L_{max}$ . Backup alarms could exceed this threshold by 13 dB, resulting in a significant noise impact.

Section VII (pp. 24-25): Project trucking would expose the adjacent Los Angeles County's Department of Animal Care and Control building to noise levels from passing heavy trucks in its driveway about 160 feet from this building to maximum noise levels of about 85 dBA  $L_{max}$ . The City's threshold of significance for *maximum* noise level exposure for such a commercial building is 75 dBA  $L_{max}$ . The 10 dBA exceedance of this threshold indicates a significant noise impact at that commercial property.

**Section VIII** (pp. 26-28): The 50-foot tall massive western wall of the warehouse will increase traffic noise levels by about 2 dBA at homes west of Cherry Avenue by reflecting existing and – Project-added traffic noise toward those homes. Because these homes are already exposed to traffic noise levels in excess of the City's 65 dBA standard for residential uses, any Project-related increase in noise levels greater than 1.5 dB is considered a significant noise impact (FICON; Noise Study pp. 19-20; CalTrans, FHA).

**Section IX** (pp. 28-29): The City's maximum exterior noise standard for homes west of Cherry Avenue at nighttime is 65 dBA  $L_{max}$  (LBMC § 8.80.150(B)(5)). The possible use of mechanical sweeper/vacuums in the parking lot and driveways west of the warehouse could generate noise levels at the nearest homes up to 200 feet away from such pavement cleaning of 67.5 dBA  $L_{max}$ , thus exceeding the nighttime threshold of significance and creating a significant noise impact at some homes.

**Section X** (p. 30): The Project's Noise Study is incomplete, inaccurate, entirely conclusory, is based on insufficient measurement locations, and likely contains artificially-inflated ambient noise levels due to errors in the noise level measurements that were taken and their inconsistent exceedance of noise level data in the General Plan Noise Element. The noise discussion utterly fails to meet the evaluation standards set by the City's Noise Ordinance or other public agencies, nor is consistent with other noise studies conducted within the City.

Section XI (pp. 31-36): The Project applicant fails to demonstrate that all technically feasible noise attenuation measures are incorporated into the Project, and relies on the City's Noise Ordinance as a substitute to the significance thresholds provided under the City's and other applicable noise standards. The Project's paltry noise analysis failed to provide any meaningful information to allow the City to adequately consider standard mitigation measures provided under applicable CEQA guidance documents, many of which have been incorporated into numerous City projects via enforceable Conditions of Approval. This constitutes a sharp deviation of the City's practice for similarly-situated projects and must be corrected in a CEQA-compliant MND or EIR—just like other projects of this nature.

## II. CEQA DOES NOT ALLOW PROJECT-SPECIFIC MITIGATION MEASURES WHEN CONSIDERING THE ADEQUACY OF A CATEGORICAL EXEMPTION

As an initial observation, it must be noted that the Cherry Avenue Warehouse Project is proposing two Project-specific Conditions of Approval ("COAs") to directly or indirectly mitigate noise impacts. That is an admission that there is a fair argument that the Project may cause significant noise impacts and, therefore, a categorical exemption is inappropriate for this Project.

The proposed COA-20 and COA-58 relate to noise impacts and compliance with the City's Noise Ordinance. While the City should be applauded for trying to ameliorate the Project's noise impacts, these COAs have not been vetted by the public nor tethered to an adequate noise analysis as required by CEQA. Furthermore, CEQA does not allow an agency to use project-specific mitigation measures, like these two noise-related COAs restricting noise levels from outdoor common areas, to reduce a project impacts as a means to qualify for a categorical exemption and avoid a more demanding CEQA review.<sup>2</sup> Even if the Project utilized an MND, which it did not, CEQA requires a lead agency to recirculate the MND if additional mitigation measures are subsequently added after the MND's initial circulation in order to publicly-vet the adequacy of the new mitigation measures.<sup>3</sup>

As discussed herein, substantial evidence shows operational impacts will be significant and, therefore, mitigation measures should be considered pursuant to a CEQA-compliant MND or EIR being prepared; which is consistent with the Long Beach General Plan's Noise Element ("Noise Element") that clearly states that "... the City has adopted a policy of requiring Environmental Impact Studies to be conducted for all City projects ... include[ing] private projects for which a building permit or other entitlement for use is required." <sup>4</sup>

As recognized by one court, lead agencies are not required to evaluate mitigation measures during its preliminary review of projects and therefore not appropriate in the context of categorical exemptions; instead consideration of mitigation measures is reserved (as relevant here) for MNDs subject to CEQA's fair argument standard whereby "[i]f there is a disagreement between experts over the significance of an effect . . . the lead agency shall treat the effect as significant "Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster (1997) 52 Cal.App.4<sup>th</sup> 1165, 1200-1201 (citing CEQA Guidelines § 15064(h)(2)).

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<sup>&</sup>lt;sup>2</sup> See e.g., Salmon Protection & Watershed Network v. County of Marin (2004) 125 Cal.App.4th 1098, 1102, 1108 (stating while "mitigation measures may support a negative declaration but not a categorical exemption ... Reliance upon mitigation measures (whether included in the application or later adopted) involves an evaluative process of assessing those mitigation measures and weighing them against potential environmental impacts, and that process must be conducted under established CEQA standards and procedures for EIR's or negative declarations."); Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster (1997) 52 Cal.App.4th 1165, 1200 ("In determining whether the significant effect exception to a categorical exemption exists, '[i]t is the possibility of a significant effect . . . which is at issue, not a determination of the actual effect, which would be the subject of a negative declaration or an EIR. Appellants cannot escape the law by taking a minor step in mitigation and then find themselves exempt from the exception to the exemption.' [Citation].")

<sup>&</sup>lt;sup>3</sup> See Gentry v. Murrieta (1995) 36 Cal.App.4th 1359, 1380 ("if there was substantial evidence to support a fair argument that the Project would have a significant effect... then the City could not adopt new mitigation conditions aimed at this effect without recirculating its proposed negative declaration. Nevertheless, the City added mitigation condition... without recirculating. In so doing, it abused its discretion.").

<sup>&</sup>lt;sup>4</sup> Noise Element, p. 130, <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3051">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3051</a>

## III. OPERATIONAL AND CONSTRUCTION NOISE IMPACTS WILL BE SIGNIFICANT WITH THESE APPLICABLE NOISE STANDARDS:

#### **Applicable Operational Noise Standards**

To demonstrate the various ways the Cherry Avenue Warehouse's operational noise impacts will be significant, one must consider the various thresholds applicable to this Project.

#### CEQA Guidelines Appendix G

First, under Appendix G to the State CEQA Guidelines,<sup>5</sup> a project's noise impact is normally significant if:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- A substantial permanent increase in ambient<sup>6</sup> noise levels in the project vicinity above levels existing without the project; or A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

### Long Beach General Plan Noise Element

Second, under the City's General Plan Noise Element, Recommendation 4 and 4.4 provides (emphasis added) that "[n]o future development shall be allowed which is *incompatible* with the existing or future noise environment [,]" where any development is considered "*incompatible* with its noise environment if *any of the standards or criteria listed* in [the Noise Element] are exceeded." Among the standards/criteria listed in the Noise Element "to protect public health and well-being," include the maximum limits summarized in **Table 1** on the following page, which the Noise Element states (emphasis original) "*MUST* be utilized along with other relevant data."

<sup>&</sup>lt;sup>5</sup> California Natural Resources, Appendix G-Environmental Checklist Form, http://resources.ca.gov/ceqa/guidelines/Appendix G.html.

Ambient Noise is defined in the City's General Plan. See Noise Element, supra fn. 3, p. 195 ("the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purposes of this [proposed model noise] ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of at least 15 minutes without inclusion of noise from occasional or occasional and transient sources, at the location and time of day near that at which a comparison is to be made."); see also p. 223 (providing similar definition).

Noise Element, *supra* fn. 3, p. 145.

<sup>&</sup>lt;sup>8</sup> *Ibid.*, p. 136-139.

Table 1: Long Beach General Plan Noise Element Recommended Criteria for Maximum Acceptable Noise Levels in A-Weighted Decibels (dBA)

	Outdoor			Indoor
Land Use Type <sup>(a)</sup>	Maximum Single Hourly Peak	L <sub>10</sub> (b)	L <sub>50</sub> (c)	$L_{dn}^{(d)}$
Residential 7 am - 10 pm (Daytime)	70	55	45	45
Residential 10 pm -7 am (Nighttime)	60	45	35	35

#### Notes:

- a. Homes and apartments fall under the residential category of the Noise Element.
- b. Noise Levels exceeded ten percent of the time.
- c. Noise levels exceeded fifty percent of the time.
- d. Day-night average sound level. The 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to nighttime levels.

Source: General Plan Noise Element, pp. 136-139, Table 11

Therefore, under the Noise Element, the Project's noise impact is significant if at residential land uses:

- Outdoor noise levels exceed 70 dBA L<sub>max</sub> (daytime) or 60 dBA L<sub>max</sub> (nighttime).
- Outdoor noise levels exceed 45 dBA L<sub>50</sub> (daytime) or 35 dBA L<sub>50</sub> (nighttime).
- Indoors noise levels exceed 45 dBA L<sub>dn</sub> (daytime) or 35 dBA L<sub>dn</sub> (nighttime).
- Average maximum noise levels outside the nearest building at the window of the occupied room closest to the Project site boundary exceeds 70 dBA in areas away from main roads and sources of industrial noise, or exceeds 75 dBA in areas near main roads and heavy industries (General Plan Noise Element, p. 95).

#### **Long Beach Municipal Code**

Third, under Chapter 8.80 of the LBMC (governing environmental noise), the Project site is located within Receiving Land Use District Two, but also adjacent to residential land uses in District One, and subject to the exterior and interior noise limits as summarized in Table 2 below:

Table 2: Long Beach Noise Standards for Residential – District One, and Commercial Land Uses - District Two (Before 5 dB reduction for speech/music per LBMC § 8.80)

Land Use	Exterior		Interior		
District	<b>Exterior Noise Level</b>	<b>Exterior Noise Level</b>	Interior Noise Level	Interior Noise Level	
District	(Leq) 7 am to 10 pm	(Leq) 10 pm to 7 am	(Leq) 7 am to 10 pm	(Leq) 10 pm to 7 am	
District One	50	45	45	35	
District Two	60	55	45	35	

**Note**: No person shall operate or cause to be operated any source of sound at any location within the incorporated limits of the City or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measures from any other property to exceed:

- 1. The noise standard for that land use district as specified in the above Table for a cumulative period of more than thirty (30) minutes in any hour; or
- 2. The noise standard plus five (5) decibels for a cumulative period of more than fifteen (15) minutes in any hour; or
- 3. The noise standard plus ten (10) decibels for a cumulative period of more than five (5) minutes in any hour; or
- 4. The noise standard plus fifteen (15) decibels for a cumulative period of more than one (1) minute in any hour; or
- 5. The noise standard plus twenty (20) decibels or the maximum measured ambient, for any period of time.

Source: City of Long Beach Municipal Code, Section 8.80.160 and Section 8.80.170. 1977.

**5 dBA Reduction for Impulsive Noise, Repetitive Speech or Music**: However, to protect against the increased human disturbance potential of some sound characteristics, the Code requires a reduction in the City's exterior and interior noise limits of 5 dB for repeated impulsive noise, music, or speech. As proposed, the Project could include speech and possibly music from car stereos in outdoor parking lot areas located to the west of the warehouse building that could continue for more than 5 minutes in any hour, and directly affect the homes west of Cherry Avenue from the Project Site.

Therefore, under the Code and consistent with City's past practice, <sup>10</sup> the Project's noise impact is significant if the homes west of Cherry Avenue experience noise levels that exceed:

- General exterior noise limit of 60 dBA L<sub>eq</sub> (daytime) or 55 dBA L<sub>eq</sub> (nighttime), or
- Exterior noise limit for impulsive noise, music and speech of 55 dBA L<sub>eq</sub> (daytime) or 50 dBA L<sub>eq</sub> (nighttime).

#### **Applicable Construction Noise Standards**

Fourth, the applicable construction noise standards are derived from the City's and other agencies' thresholds of significance for construction noise, as well as the standards proposed by the City and the applicant discussed in the Project's Noise Study, which include:

- General exterior noise limit of 70 dBA L<sub>eq</sub> (daytime) or 65 dBA L<sub>eq</sub> (nighttime), or
- Maximum construction noise level of 65 dBA L<sub>max</sub> at homes (Noise Study, p. 43), or
- Average nighttime construction noise level of 45 dBA L<sub>50</sub> at neighboring homes (Noise Study, p. 45, Table 8-4: threshold of 45 dBA L<sub>eq</sub>), or
- Interior noise limit of 35 dBA L<sub>eq</sub> at nighttime (LBMC § 8.18.170(A)), or
- 24-hour day-night weighted average of 70 dBA L<sub>dn</sub>. (Calif. General Plan Guidelines)

### Past Practice by the City of Long Beach

Fifth, based on past environmental reviews where the City served as the lead agency, <sup>11</sup> the Project's noise impact would be significant if:

See LBMC § 8.80.160 (for exterior noise limits: "In the event that alleged offensive noise contains a steady audible tone such as a whine, screech, or hum, or is a <u>repetitive noise</u> such as hammering or riveting or <u>contains music or speech conveying informational content</u>, the standard limits ... <u>shall be reduced by five (5) decibels.</u>") (emphasis added); see also LBMC § 8.80.180 (containing same language for interior noise limits).
 See 100 E. Ocean Blvd. Project (Oct. 2018) MND, p. 121 [fn. 68],

https://web.archive.org/web/20190202022910/http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=7268;

See e.g., 207 Seaside Way Project (Mar. 2015) MND, p. 85, <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=4949">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=4949</a>; 442 W. Ocean Blvd. Project (Mar. 2015) MND, p. 83, <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=4956">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=4956</a>; Oceanaire Apartment Project (Mar. 2015) MND, p. 85, <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=4978">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=4978</a>; 100 E. Ocean Blvd. Project (Oct. 2018) MND, p. 122,

https://web.archive.org/web/20190202022910/http:/www.lbds.info/civica/filebank/blobdload.asp?BlobID=7268; Second + PCH Development Project (Mar. 2011) EIR, pp. IV.I:17-18,

- Operational noise increase existing ambient noise levels at adjacent sensitive receptors by 5 dBA or more; but where existing ambient noise levels at some affected sensitive receptors exceed 65 dBA L<sub>eq</sub>, an increase of 1.5 dBA or more would be significant.
- Cumulative operational noise levels would increase 3 dB or more over existing conditions and the resulting noise level exceeds applicable exterior standard at a sensitive use;
- If noise levels would cause a sensitive land uses, like a residences, to exceed the desirable exterior noise exposure of 65 dBA Community Noise Equivalent Level (CNEL); or
- The project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category identified in Table 7 below.

### Project's Exterior Parking Lot and Loading Dock Area Activity

This Cherry Avenue Warehouse Project will include various operational noise sources typical for the use and maintenance of a warehouse building (e.g., fixed mechanical and HVAC equipment, parking facilities, parking lot mechanical pavement cleaning, loading docks, backup alarms, parking and off-site roadway traffic, etc.). No restrictions prohibit these activities beyond compliance with the City's noise standards (i.e., COA-20).

However, as discussed herein, noise from these outdoor activities will significantly impact neighboring residences west of Cherry Avenue (as depicted on **Figure 2**).

Unlike other projects reviewed by the City, the *Project applicant has not submitted sufficient noise measurements of existing ambient noise levels or evidence that compliance with the City's noise standard (COA-20) is even possible.* Such measurements and analysis are critical if the City is to protect nearby residential neighbors from adverse sleep-disturbing impacts from new warehouse noise sources. Absent meaningful and credible noise measurements, the LBMC's general and music/speech-specific ambient noise levels must be presumed.

http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3375; Staybridge Suites Hotel (Nov. 2016) MND, p. 53, http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=6245; Shoreline Gateway East Tower Project (Aug. 2016) Final EIR Addendum-Noise Study, pp. 12-13,

Figure 2: Neighborhood Plan (Showing Proximity to Neighboring Residences)



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# IV. Threshold of Significance for Construction Noise Should be 70 dBA $L_{eq}$ in the Daytime to Avoid Significant Noise Impacts

The Project's Noise Study chooses a threshold of significance for construction noise that is not sufficiently protective of the nearby residential neighbors. The Noise Study sets an excessively high threshold of significance for daytime construction noise of  $80~dBA~L_{eq}$  and nighttime construction noise of  $70~dBA~L_{eq}$ . That daytime noise level is also inconsistent with the standards in the Long Beach General Plan Noise Element on page 95 which sets a lower  $70~or~75~dBA~L_{eq}$  daytime noise standard, while discussing construction noise:

"... average **maximum** noise levels outside the nearest building at the window of the occupied room closest to the site boundary, should not exceed: **70 dBA in areas away from main roads** and sources of industrial noise; 75 dBA in areas near main roads and heavy industries." (Emphasis added)

Using an 80 dBA L<sub>eq</sub> threshold that is inconsistent with the Long Beach General Plan noise standards would violate CEQA which requires such inconsistencies to be disclosed, and they have not been. Even these General Plan's noise standards may be insufficient for evaluating this Project's construction noise impacts if construction were to occur at night as the Noise Study predicts. See: *King & Gardiner Farms* (2020) 45 Cal.App.5th 814, 881-882 (holding that "conformity with a general plan does not insulate a project from EIR review where it can be fairly argued that the project will generate significant environmental effects.")

But ignoring those General Plan noise standards, the preparer of the Noise Study, on p. 39, erroneously claims that the City of Long Beach General Plan does not establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. But the Noise Element on page 95 actually does, as discussed above. So more favorable to the client's concern for less regulation than to the public's need for peace and quiet, the Noise Study instead uses a daytime exterior construction noise level of 80 dBA  $L_{eq}$  at residential properties that it borrows from the Federal Assessment Manual. There is substantial evidence that an 80 dBA  $L_{eq}$  threshold is insufficiently protective for this Project and CEQA requires evaluation and application of stricter standards when applicable. The City's Noise Element standards are certainly applicable. Quieter construction noise standards used in other California communities also are evidence of the need to protect residents from loud noise levels being permitted up to 80 dBA  $L_{eq}$ .

The preparers of this Project's Noise Study, Urban Crossroads, have used  $70 \text{ dBA L}_{eq}$  as a daytime construction noise threshold of significance for the development of other large warehouse projects. One such noise study they prepared was for a 316,082 square foot warehouse in Riverside County

<sup>&</sup>lt;sup>12</sup> See *Berkeley Keep Jets Over the Bay Committee v. Board of Port Cmrs.* (2001) 91 Cal.App.4th 1334, 1380, [CEQA did not define "significant noise impacts simply in terms of whether a project would violate applicable local, state, or federal noise standards"]); see *Sierra Watch v. County of Placer* (2021) 69 Cal.App.5th 86, 107 ("a threshold of significance cannot be applied in a way that would foreclose the consideration of other substantial evidence tending to show the environmental effect to which the threshold relates might be significant."). See: *Save Our Capitol! v. Dept. of General Services* (January 18, 2023, C096617) \_\_\_ Cal.App.5th \_\_\_, at p. 43 (similarly holding "[a] regulatory standard [cannot] be applied so as to foreclose consideration of substantial evidence showing a significant environmental impact from a project.")

where they used **70 dBA**  $L_{eq}$  as a daytime construction noise threshold.<sup>13</sup> Another noise study they prepared was for a 296,297 square foot warehouse building and a smaller 88,746 square foot warehouse building in the City of Fontana using a construction threshold of significance of 70 CNEL in the daytime and 65 CNEL at nighttime.<sup>14</sup>

To evaluate how significantly a project may disturb its neighbors, one step is to consider how intrusive its noise will be compared to the ambient or *background* noise levels without the project. A noise source that is starkly audible above the background noise level is more annoying and harmful to residential neighbors. The L<sub>90</sub> measurement near Cherry Avenue (lowest average minimum level) is considered to represent the background noise without the prominent traffic noise sources that are not uniformly loud. Homes measured at location "L5" are already exposed to background noise levels in the daytime that, for half the time, are less than 60 dBA L<sub>90</sub>. 15

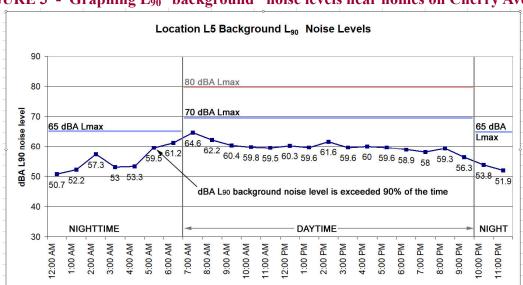


FIGURE 3 - Graphing L<sub>90</sub> "background" noise levels near homes on Cherry Avenue

**Figure 3** above is a graph of the background noise levels near homes west of Cherry Avenue at noise measurement location "L5." <sup>16</sup> This graph is useful in considering how much additional noise the Project might create that would be clearly audible at times above the background noise

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<sup>13</sup> See the noise study for a 316,082 square foot warehouse by Urban Crossroads for the Harvill and Rider Project's Mitigated Negative Declaration dated April 28, 2021 and approved by Riverside County, on pages 5-82 to 5-83, which states regarding construction noise: "However, to ensure a more conservative analysis herein, a threshold of 70 dBA L<sub>eq</sub> is utilized, which is consistent with the 70 dBA CNEL standard for noise-sensitive uses contained in the County's General Plan." This MND will be made available to the City if requested and it is available online at <a href="https://planning.rctlma.org/Portals/14/Harvill%20and%20Rider%20MND.pdf">https://planning.rctlma.org/Portals/14/Harvill%20and%20Rider%20MND.pdf</a>

See Urban Crossroads' Noise Study for the North Fontana Industrial Complex (Acacia) for a 296,297 square foot warehouse building and another smaller warehouse building in the City of Fontana, April 13, 2022, at page 19, Table 4-1, Significance Criteria Summary: 70 CNEL in the daytime and 65 CNEL at nighttime. (A 70 CNEL limit is similar to a 70 dBA L<sub>eq</sub> standard.) This noise study will be made available to the City if requested and it is available online at <a href="https://www.fontana.org/DocumentCenter/View/40374/SBC-Appendix-J2">https://www.fontana.org/DocumentCenter/View/40374/SBC-Appendix-J2</a> Acacia-Noise-Study

<sup>&</sup>lt;sup>15</sup> See Noise Study, PDF-1039, Wednesday, April 13, 2022 at noise level measurement location L5 - Located west of the Project site near single-family residence at 1919 East Hungerford Street. Also see **Figure 3** for a graph of these measured noise levels.

<sup>&</sup>lt;sup>16</sup> ibid.

level without exceeding a threshold of significance if the Noise Study's choice of 80 dBA  $L_{eq}$  is used. If 80 dBA  $L_{max}$  is used as a threshold of significance, neighbors could be exposed to much louder daytime construction noise levels at times as much as 24 dBA greater than background levels with no relief.

The consideration of background noise levels is important when selecting a threshold of significance. The 90th percentile-exceeded noise level,  $L_{90}$ , is a metric that indicates the single noise level that is exceeded during 90% of a measurement period, although the actual instantaneous noise levels fluctuate continuously. The  $L_{90}$  noise level helps quantify the acoustical character of an environment, such as "rural area," "urban area," or "noisy neighborhood" because it represents the residual (i.e., ambient) noise between individual noise events, such as a truck pass-by or aircraft over flight.

The  $L_{90}$  noise level is often near the low end of the instantaneous noise levels during a measurement period. Brief, intermittent and loud sources, such as an aircraft flyover, car doors closing, bird chirps, dog barks, car horns, truck pass-by, etc., will influence the  $L_{eq}$  of the measurement period but typically not the  $L_{90}$ , even though these other noise sources may be briefly audible and louder than the a noise source of interest during the same measurement period. If a person was only listening to one continuously operating noise source, such as a large fan, the  $L_{eq}$  and  $L_{90}$  noise levels at that location would be approximately equal.

So in conclusion, substantial evidence demonstrates that the Noise Study's 80 dBA  $L_{eq}$  threshold for construction noise does not adequately protect the neighborhood, especially when the City's General Plan sets a 70 dBA  $L_{eq}$  threshold "in areas away from main roads" where homes farther away from Cherry Avenue are located. The 70 dBA  $L_{eq}$  threshold used by Urban Crossroads in its other noise studies should inform the City of Long Beach that 70 dBA  $L_{eq}$  is the proper standard for CEQA review of this Project.





Table 4 – Distances from Nearby Homes to Warehouse and to Western Parking Lot

Home	Address	Distance to Warehouse	Distance to Parking Lot
A	5951 Cherry Avenue	240'	210'
В	5949 Cherry Avenue	220'	170'
С	5945 Cherry Avenue	220'	160'
D	5943 Cherry Avenue	230'	170'
Е	5931 Cherry Avenue	220'	150'
F	5918 Gardenia Ave.	300'	230'
G	5905 Cherry Avenue	260'	190'

## V. NIGHTTIME CONSTRUCTION DURING CONCRETE SLAB POUR FOR WAREHOUSE BUILDING WOULD CREATE SIGNIFICANT NOISE IMPACTS

The Project's Noise Study<sup>17</sup> states that construction and pouring of the building's concrete slab will occur at nighttime.<sup>18</sup> But the Noise Study (pages 43 to 45) seriously underestimates how loud that nighttime construction noise will be at the nearest residences. The construction noise levels of such concrete pour activities would exceed the City's noise standards at dozens of nearby homes. See **Figures 2 and 4** above for the locations of these noise-affected nearest homes.

### V.1 <u>The Maximum Noise Level of Proposed Construction Would Create a Significant Noise Impact</u>

For example, the City's threshold of significance for nighttime construction noise from pouring this concrete is a *maximum* of 65 dBA  $L_{max}$  at neighboring homes. <sup>19</sup> This is a noise level that, even if brief and lasting less than 1 minute, would constitute a significant noise impact. But that noise level would be significant at times at the nearest residence when it would be greater than 76.5 dBA  $L_{max}$ .

20000020			E	Exterior Noise Level Standard (dBA) <sup>1</sup>			
Jurisdiction	Land Use	Time Period	L <sub>50</sub> (30 mins)	L <sub>25</sub> (15 mins)	L <sub>8</sub> (5 mins)	L <sub>2</sub> (1 min)	L <sub>max</sub> (<1 min)
City of	District 1	7:00 a.m. to 10:00 p.m.	50	55	60	65	70
Long Beach <sup>2</sup>	District 1	10:00 p.m. to 7:00 a.m.	45	50	55	60	65

TABLE 3-1: OPERATIONAL NOISE STANDARDS

The Noise Study presents these noise standards in its Table 3-1. It uses this Table 3-1 to identify a different noise standard for construction noise during the concrete pouring activities of 45 dBA  $L_{50}$  for an *average* noise level, where the construction noise level at nearby homes would exceed 45 dBA for more than 30 minutes in an hour. But the Noise Study identifies no other noise threshold of significance for *maximum* noise levels. It is the very loudest construction noise maximum level that is most disturbing to nearby residents. Those maximum volume sounds are clearly heard above the background or ambient conditions, and are the most disturbing when so loud. Accordingly, use of a threshold of significance of 65 dBA  $L_{max}$  for a maximum construction noise level is equally valid.

That noise level of  $65 \text{ dBA} L_{max}$  would be exceeded though by even one type of heavy equipment being used for the concrete pour. A single concrete mixer truck operated near the proposed

<sup>&</sup>lt;sup>2</sup>The percent noise level is the level exceeded "n" percent of the time. L<sub>22</sub> is the noise level exceeded 25% of the time.

<sup>&</sup>lt;sup>2</sup>Chapter 8.80 of the City of Long Beach Municipal Code (Appendix 3.1).

<sup>&</sup>lt;sup>17</sup> The Project's Noise Study, by Urban Crossroads, is found at the **Attachment E** (Notice of Exemption Associated Technical Reports), PDF-pages 945 to 1058, titled: "Cherry Avenue Warehouse Noise Impact Analysis," dated May 6, 2022.

<sup>&</sup>lt;sup>18</sup> See Noise Study, p. 43. (Attachment E, PDF-993)

<sup>&</sup>lt;sup>19</sup> See Noise Study, p. 15, Table 3-1, 10pm- 7am: 65 dBA L<sub>max</sub> noise standard. (Attachment E, PDF-965)

building slab will generate noise level as loud as  $89 \text{ dBA L}_{max}$  at 50 feet. Alternatively, concrete is not always delivered to the site in a concrete mixer truck from a distant concrete batch plant. Sometimes a portable concrete batch plant is located onsite when pouring large areas of concrete slabs. Such a portable concrete batch plant, if located onsite temporarily near the proposed warehouse's location, could generate a louder noise level of about  $96 \text{ dBA L}_{max}$  at a distance of 50 feet.  $^{21}$ 

Figure 5 – Proximity between Construction Equipment or Parking and Nearby Homes



At a distance of 400 feet from the warehouse location where dozens of homes exist west of Cherry Avenue, the maximum noise level of just one concrete mixer truck's operation would be as great as about 71 dBA  $L_{max}$  and would exceed the nighttime maximum noise standards of 65 dBA  $L_{max}$ . Even more disturbing, at the nearest home<sup>23</sup> at only about 220 feet from the warehouse building's concrete floor slab, that maximum noise level would be about 76 dBA  $L_{max}$  and would

concrete floor slab for the warehouse building.

<sup>&</sup>lt;sup>20</sup> See: County of Ventura, <u>Construction Noise Threshold Criteria and Control Plan</u> (2010), "Typical Construction Equipment Noise" (Type: Concrete mixer truck: **89 dBA** L<sub>max</sub> maximum noise level at 50 feet), available online at: <a href="https://docs.vcrma.org/images/pdf/planning/ceqa/Construction\_Noise\_Thresholds.pdf">https://docs.vcrma.org/images/pdf/planning/ceqa/Construction\_Noise\_Thresholds.pdf</a> This table of typical construction equipment noise levels is presented in **Appendix A** attached to this report.

Calculation: Noise level attenuation due to distance is calculated as reduced by about 6 dB for each doubling of distance from a point source. One can calculate a dB level at different distances when there is a known dB level for a known distance by the following equation:  $dB_2 = dB_1 - 10 \times A \times LOG(d_2/d_1)$  where:

LOG = logarithm, base 10,

A = dB drop-off rate coefficient (in this Project's case, a = 2.0 for a 6 dB drop off rate (point source, no atmospheric absorption)).

 $dB_1 = dB$  level at know distance from source,  $d_1$ 

 $dB_2 = dB$  level at another distance from source,  $d_2$ 

 $d_1$  = known distance from source for known decibel level  $dB_1$ 

 $d_2$  = second distance from source for which known decibel level estimate (dB<sub>2</sub>) is desired In this case, at a location 400' (d<sub>2</sub>) from the property line, where dB<sub>1</sub> = 89 dBA at 50' (d<sub>1</sub>),

 $dB_2 = dB_1 - 10 \text{ x A x LOG}(d_2/d_1) = 89 - 10 \text{ x } 2.0 \text{ x LOG}(400'/50') = 89 - 20 \text{ x } (-0.90) = <u>71 dBA L_{max}</u>.$ Home "C" at 5945 Cherry Avenue is about 220 feet from the proposed warehouse building, measured using the Project site plan and Google Maps. Heavy equipment might operate even closer to that home when pouring the

exceed the 65 dBA L<sub>max</sub> nighttime standard and even the daytime noise standard of 70 dBA L<sub>max</sub>.<sup>24</sup> Therefore such maximum noise levels from construction noise during the concrete pours would create significant noise impacts for dozens of nearby homes. (See Figures 2, 4 and 5 above for location of these nearby homes.)

With multiple equipment<sup>25</sup> operated simultaneously during other Project construction work, the noise impact to neighboring residents would be even greater. For example during demolition and site work at a distance of 50 feet, dozers have been measured at 90 dBA L<sub>max</sub> and excavators at 92 dBA L<sub>max</sub>. (See **Appendix A** [Typical Construction Equipment Noise].)

<b>EQUIPMENT</b>	MAX. NOISE	USAGE RATE	AVERAGE NOISE
Dozer	90 dBA L <sub>max</sub>	used 40% of an hour	$86.0 \text{ dBA L}_{eq}$
Excavator	92 dBA L <sub>max</sub>	used 40% of an hour	88.0 dBA L <sub>eq</sub>
Jackhammer	$88.9 \text{ dBA } L_{max}$	used 20% of an hour	81.9 dBA L <sub>eq</sub>
(noise levels logari	thmically added fo	or total): TOTAL:	$90.7 \text{ dBA L}_{eq}$ at 50 feet.

Accordingly, the Noise Study fails to disclose how loud the Project's maximum noise levels would be when measured at neighboring homes, which would be loud enough to create significant noise impacts during the nighttime and the daytime.

### V.2 The Average Noise Level of Proposed Construction Would Also Create a Significant **Noise Impact**

The Noise Study states the City's threshold of significance for nighttime construction noise from pouring this concrete is an average of 45 dBA L<sub>50</sub> when measured at the exterior of neighboring homes. <sup>26</sup> That is a noise level that is exceeded for more than 50% of the time.

But the average noise levels generated by a concrete mixer truck operating at nighttime at the edge of the warehouse slab could be greater than 72 dBA L<sub>eq</sub> at the nearest homes which about 220 feet away or less, depending upon where equipment is staged and operated. (See Figure 4 illustrating the possible operation of some heavy equipment in the western parking lot closer to these homes.) That exceedance of the City's standards by as much as 27 dBA represents a significant noise impact to the closest residential neighbors.

A single concrete mixer truck operated near the proposed warehouse building slab will generate an *average* noise level of about 85 dBA  $L_{eq}$  at 50 feet. With two nearby homes each located about

<sup>&</sup>lt;sup>24</sup> Calculation as per footnote above: at 5945 Cherry Avenue, the noise level from the operation of a concrete mixer truck at a location 220' ( $d_2$ ) from the warehouse building, where  $dB_1 = 89 dBA L_{max}$  at 50' ( $d_1$ ),

 $dB_2 = dB_1 - 10 \text{ x A x LOG}(d_2/d_1) = 89 - 10 \text{ x } 2.0 \text{ x LOG}(220^{1/50^{1}}) = 89 - 20 \text{ x } (-0.64) = \frac{76 \text{ dBA } L_{max}}{2.0 \text{ x LOG}(220^{1/50^{1}})} = 89 - 20 \text{ x } (-0.64) = \frac{10 \text{ max}}{2.0 \text{ max}} = \frac{10 \text{ max}}{2.0 \text{ m$ <sup>25</sup> The Noise Study identifies multiple equipment use in pouring concrete for the building floor slab and foundation: "The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling."

<sup>&</sup>lt;sup>26</sup> See Noise Study, p. 45. (Attachment E, PDF-995) Table 8-4 "Nighttime Concrete Pour Noise Level Compliance",

Nighttime Threshold of 45 dBA L<sub>eq</sub>.

27 See: County of Ventura, Construction Noise Threshold Criteria and Control Plan (2010), page 4: "Typical Construction Equipment Noise" (Type: Concrete mixer truck: 85 dBA Leq (average) noise level at 50 feet), available

220 feet from the warehouse's concrete floor slab, that concrete mixer truck noise would attenuate by distance to about 72 dBA  $L_{eq}$  which significantly exceeds the permissible threshold of significance at nighttime of 45 dBA  $L_{50}$ . <sup>28</sup>

That noise impact would be greater at these homes if more than one piece of heavy equipment is operated simultaneously on the site, or if the equipment is operated at what would become the parking lot immediately west of the warehouse's floor slab.

For the several dozen homes located within 400 feet of the warehouse's concrete slab pour work, their residents also could be exposed to excessive noise levels of approximately 67 dBA  $L_{eq}$  or more on average during the nighttime. They too could experience significant noise impacts since that concrete pour noise level would exceed the 45 dBA  $L_{eq}$  nighttime threshold at their homes.

### V.3 <u>Interior Noise Levels Inside Homes Would Be Excessive Creating Significant Noise</u> <u>Impacts</u>

The Noise Study fails to evaluate how loud the interior rooms of nearby homes would be during this Project's construction. The interior noise levels within some of these homes could be excessively loud at night due to Project's nighttime concrete pour activities. The City's Noise Ordinance, § 8.18.170(A), establishes a 35 dBA nighttime noise limit inside residences as their maximum allowable interior noise level. But that noise level is likely to be exceeded if a home is exposed to exterior noise levels at nighttime greater than 55 dBA  $L_{eq}$  from this Project's concrete pour activities. That exceedance would likely occur because interior rooms with closed, double-glazed windows can reduce exterior noise levels only by about 20 dBA. (See Table 3 below). (Calculation: If exterior noise level is greater than 55 dBA – 20 dBA = then the interior noise level will be greater than 35 dBA). Many neighboring homes will be exposed to more than 55 dBA of nighttime concrete pour activity noise, creating a significant noise impact.

Table 3

online at: <a href="https://docs.vcrma.org/images/pdf/planning/ceqa/Construction\_Noise\_Thresholds.pdf">https://docs.vcrma.org/images/pdf/planning/ceqa/Construction\_Noise\_Thresholds.pdf</a>. Also attached as **Appendix A** to this report.

Note that different descriptors are used in the Noise Study. An equivalent continuous (average) noise level represented by  $L_{eq}$  can be approximately the same as an average noise level represented by  $L_{50}$  when noise source does not varying in loudness, and the real world difference is small enough that the exceedance of the 45 dBA L50 limit remains starkly obvious.

#### **Building Noise Reduction Factors**

Building Type	Window Condition	Noise Reduction Due to Exterior of the Structure (dB(A))
All	Open	10
Light Frame	Ordinary Sash (closed)	20
	Storm Windows	25
Masangra	Single Glazed	25
Masonry	Double Glazed	35

Source: Federal Highway Administration, Highway Traffic Noise: Analysis and Abatement Guidance. December 2011.

As mentioned above, operation of just a single concrete mixer truck pouring the building foundation can generate noise levels at the exterior wall of the nearest home 220 feet away of about 72 dBA  $L_{eq}$ . With a 20 dBA noise level reduction provided by the home's wall assembly including closed windows, the interior noise level could be 52 dBA  $L_{eq}$ .

Even homes as far away as 400 feet from the Project's construction work could be exposed to exterior noise levels of approximately 67 dBA  $L_{eq}$  if intervening buildings do not block a significant amount of noise. With a 20 dBA reduction when windows are closed, the interiors of such more distant homes could exceed 47 dBA  $L_{eq}$ . Those noise levels would certainly exceed the City's maximum interior limit of 35 dBA  $L_{eq}$  during concrete pour operations and create significant noise impacts.

### V.4 <u>The Temporary Increase in Noise Levels During Construction Would Also Create a</u> Significant Noise Impact

CEQA requires the City to inform the public about how much of an *increase* in a project's noise levels that nearby homes will be exposed to. But the Project's Noise Study, pages 43 - 45, utterly fails to describe the magnitude of the increase in noise levels these neighbors will hear during concrete mixer truck or slab pouring construction activities. This failure is serious because the increase in noise levels at nearby homes caused by nighttime concrete pouring operation will be significant.

If the ambient (existing) noise level at the closest homes "that share acoustical equivalence" in the Noise Study averaged about 65.3 dBA L<sub>eq</sub> at nighttime, <sup>31</sup> the increase in noise levels would be

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<sup>&</sup>lt;sup>29</sup> Calculation: 67 dBA - 20 dB = 47 dBA.

<sup>&</sup>lt;sup>30</sup> CEQA mandates the *magnitude of such an increase* be disclosed. ("A lead agency "should consider both the increase in noise levels and the absolute noise level associated with a project." (*Keep Our Mountains Quiet v. County of Santa Clara* (2015) 236 Cal.App.4th 714, 732).); *see also King and Gardiner Farms, LLC v. County of Kern et al.* (2020) 45 Cal.App.5th 814, 887 (same quote).

<sup>31</sup> See Noise Study, p. 24, Table 5-1 Ambient Noise Level Measurements, Location L5, Nighttime: 65.3 dBA L<sub>eq</sub>. Inexplicably, the Noise Study provides no ambient noise level measurements for any of the several homes fronting on Cherry Avenue directly across the street from the proposed warehouse. Instead it uses the phrase "that share acoustical equivalence" to imply the noise level at these homes. Those are the homes that would be most severely

significant. As shown above, the average construction noise during concrete slab work at those closest homes 220 feet from the warehouse building would be about 72.5 dBA  $L_{eq}$ . The Noise Study, p. 19, identifies even a 1.5 dBA increase in community noise to be significant when the existing ambient noise levels without the Project already exceed 65 dBA, so that increase of 7.2 dBA would be clearly significant.<sup>32</sup>

### V.5 <u>The Project's 24-hour Average Construction Noise Level That Includes Night Work</u> Could Exceed Permissible City Noise Standards, Even if Night Work Prohibited.

A common standard for determining the significance of noise impacts is the Day-Night Noise Level (" $L_{dn}$ "). That is the average A-weighted noise level during a 24-hour day, obtained after the addition of 10 decibels to sound levels measured in the night between 10:00 p.m. and 7:00 a.m. The day-night average standard was adopted by the EPA for developing criteria for the evaluation of community noise exposure, and it is used by California. In this Project's nearby residential neighborhood, the 24-hour day-night average noise standard is **70 dBA**  $L_{dn}$ . That is an applicable threshold of significance because noise levels greater than 70 dBA  $L_{dn}$  are considered to be "normally unacceptable" for residences.<sup>34</sup>

The Noise Study identifies that construction activities may occur during foundation work for all hours, day and night. If construction work emits an average of 85 dBA  $L_{eq}$  at a 50-foot distance non-stop (for example, the noise level of a single bulldozer), the day-night average noise level would be **91.4 dBA**  $L_{dn}$  as shown below. It would be even greater when several pieces of heavy equipment are working simultaneously.

To calculate the dBA  $L_{dn}$  day-night average in this case, a level of 85.0 dBA  $L_{eq}$  is assigned to each of the Project's 15 daytime construction hours from 7:00 am to 10:00 pm, and a nighttime construction noise level also of 85.0 dBA  $L_{eq}$  is assumed for each of the remaining 9 hours.

affected by construction noise. Measurement location "L5" is described being near a home at 1919 E. Hungerford Street which is located about 100 feet away from Cherry Avenue at a distance which may not be representative of the traffic noise levels of the closest homes. Moreover, that measurement location L5 is partially shielded acoustically by buildings to its east that front on Cherry Avenue. As such, this comment letter is based on the noise measurement data at L5 that the Noise Study provides even if it is questionable.

<sup>33</sup> The Long Beach General Plan Noise Element, p. 138, states that "L<sub>dn</sub> is the recommended day-njght average sound level not to be exceeded in a 24-hour period."

 $<sup>^{32}</sup>$  Calculation: 72.5 - 65.3 = 7.2 dB increase.

<sup>&</sup>lt;sup>34</sup> General Plan Guidelines, Office of Planning and Research, California, Oct. 2003, page 250, Figure 2: 70 dBA L<sub>dn</sub>. Noise levels above 70 dBA L<sub>dn</sub> are considered "normally unacceptable," meaning that "new construction should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design." <a href="https://www.ca-ilg.org/sites/main/files/file-attachments/resources">https://www.ca-ilg.org/sites/main/files/file-attachments/resources</a> General Plan Guidelines 2003.pdf?1350954879

(where \* = multiplication; EXP = power function;  $L_d = L_{eq}$  for the 15-hour daytime period from 7 am -10 pm (85 dBA  $L_{eq}$ );  $L_n = L_{eq}$  for the 9-hour nighttime period from 10:00 pm -7:00 am: (85 dBA  $L_{eq}$ )

Then at the nearest residence about 220 feet away, that 24 hour day-night average construction noise level would diminish to 78.5 dBA  $L_{dn}$ . Or at a distance up to 400 feet from such construction work where numerous homes exist west of Cherry Avenue, the day-night average noise level would be about 73.3 dBA  $L_{dn}$ . At both distances the noise impact of 24-hour construction work would be significant since greater than the 70 dBA L<sub>dn</sub> threshold.

The Project's 24-hour Average Construction Noise Levels Even Without Night Work Could Also Exceed the City's Noise Standards.

If all the construction work is limited just to daytime hours, with no Project noise at nighttime from 10:00 p.m. to 7:00 a.m., the day-night average noise level would still be significant at some homes and greater than the 70 dBA L<sub>dn</sub> threshold of significance. The dBA L<sub>dn</sub> noise level would be about 83 dBA L<sub>dn</sub> at 50 feet:

```
L_{dn} = 10*LOG[(1/24)*(15*[10EXP(0.1*L_d)] + 9*[10EXP(0.1*(L_n + 10))])] = 10*LOG[(1/24)*(10*[10EXP(0.1*(L_n + 10))] + 9*[10EXP(0.1*(L_n + 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83.0 dBA L<sub>dn</sub> (at a 50 foot distance)
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(where \* = multiplication; EXP = power function;  $L_d = L_{eq}$  for the 15-hour daytime period from 7 am -10 pm (85 dBA  $L_{eq}$ );  $L_n = L_{eq}$  for the 9-hour nighttime period from 10:00 pm -7:00 am: (0 dBA  $L_{eq}$ )

Then at a home 220 feet away from the northwest corner of the warehouse building, that 83.0 dBA  $L_{dn}$  noise level would reduce by distance to 70.1 dBA  $L_{dn}$ . That exterior day-night average noise level which would be greater than 70.0 dBA L<sub>dn</sub> is considered normally unacceptable by federal and City standards. With the addition of other construction equipment noise from simultaneous use, and at distances on the Project site even closer potentially to the nearest home than 220 feet, the exceedance of this 70 dBA L<sub>dn</sub> threshold could be even greater. Therefore even daytime construction work, with no work at all at nighttime, and without more noise mitigations, would have a significant noise impact to some homes west of Cherry Avenue.

The U.S. EPA considers a home's outdoor areas exposed to greater than 55 dBA L<sub>dn</sub> to interfere with activity and risk peoples' health (EPA 1974, Information on levels of environmental noise, p. 40, Table 4).

<sup>&</sup>lt;sup>35</sup> Calculation: At 5945 Cherry Avenue, Home "C", the exterior noise level resulting from the Project's construction work 220' ( $d_2$ ) from that house, where the noise level is  $dB_1 = 91.4 dBA L_{dn}$  at 50' ( $d_1$ ):

 $dB_2 = dB_1 - 10 \text{ x A x LOG}(d_2/d_1) = 91.4 - 10 \text{ x 2.0 x LOG}(220^{1}/50^{1}) = 91.4 - 20 \text{ x } (-0.64) = \frac{78.5 \text{ dBA } L_{dn}}{20 \text{ m}}$ 

#### VI. NOISE STUDY FAILS TO ANALYZE SIGNIFICANT BACKUP ALARM NOISE LEVELS.

The Noise Study fails to disclose that loud noise from heavy equipment backup warning beepers that would be used could be very audible at some homes near this Project site. Backup alarms or beepers are a frequent source of complaints from neighbors, even when used only during the daytime. Backup alarms must generate a noise level at least 5 to 10 dBA above the background noise in the vicinity of the rear of the machine where a person would be warned by the alarm. Thus, they are significantly louder than the site excavation and grading equipment's noise. Yet the Noise Study fails to disclose backup alarms would be used, and fails to describe their decibel rating or suggest placing any limits on their loudness.

Backup alarms typically produce from 97 to 112 decibels at four feet, <sup>38</sup> which attenuates to about 75 to 91 dBA at 50 feet, <sup>39</sup> and can even be heard at the distances where the nearest neighbors live. At those noise levels, their use would exceed the City's maximum limit of 70 dBA L<sub>max</sub> at 50 feet as measured at those homes. These backup alarms beep about once per second at a penetrating frequency of about 1,100 Hertz designed to be easily heard by most people.

Because these alarms have a narrow frequency or tone, the City's Noise Ordinance requires a 5 dB adjustment be added to their measured noise levels. 40 Also, the State of California Model Community Noise Control Ordinance<sup>41</sup> provides a more technical definition of tonal noise as the following: A pure tone shall exist if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies of 500 Hz. And above, by 8 dB for center frequencies between 160 and 400 Hz, and by 15 dB for center frequencies less than or equal to 125 Hz. Therefore, any noise source considered to consist of a pure tone(s) will be subject to a 5 dB penalty. Backup warning alarms emit pure tones. The City must apply that 5 dB penalty when assessing these alarms' noise impacts on neighbors.

A single backup warning beeper emitting 91 dBA L<sub>max</sub> at 50 feet could be louder than 78 dBA L<sub>max</sub> at homes 220 feet away. (Calculated being 6 dB quieter for each doubling of distance.) Noise levels of 78 dBA L<sub>max</sub> could be over 20 dBA greater than the daytime background noise level of less than 60 dBA Leq. That large difference would make the backup alarms very intrusive at nearby homes. That noise level would greatly exceed a maximum 5 dB

<sup>40</sup> See LBMC § 8.18.160.

<sup>&</sup>lt;sup>38</sup> Source of back-up alarm noise levels from alarm manufactured by Pollak, #41-761, "Manually adjustable Back-up Alarm," rated at 112, 107, 97 dB.

Noise level attenuation due to distance is calculated as reduced by about 6 dB for each doubling of distance.

<sup>&</sup>lt;sup>41</sup> California Office of Noise Control, California Department of Health. *Model Community Noise Control Ordinance*. p. 21, April 1977

increase standard used commonly throughout California. When a 5 dB penalty for its pure tone characteristic is included, the significant impact of backup beeper noise would be greater yet at 83 dBA  $L_{max}$  at the nearest homes. That increase in noise level of 13 dB greater than the City's maximum standard with backup alarm use would create a significant noise impact to the nearest residents.

The Noise Study is inadequate for failing to consider that such backup alarms will be used during construction work at least for the site preparation and the building foundation's and exterior walls' concrete pour activities.

## VII. THE PROJECT'S NOISE IMPACT ON A NEIGHBORING COMMERCIAL BUILDING WOULD BE SIGNIFICANT

This Project would generate noise levels in excess of the City's noise standards at its neighboring commercial building immediately to the south. The Los Angeles County's Department of Animal Care and Control building is located about 250 feet south of the Project's proposed warehouse building. The Project's main, southern driveway for trucking and cars would be located between these two buildings, as close as about 160 feet to the County's building. But the Noise Study does not evaluate this Project's potentially serious noise impact during construction and later operations upon that nearby commercial building.

The City's threshold of significance for *average* daytime operational noise when measured at a neighboring commercial building is 60 dBA  $L_{eq}$ . The *maximum* noise level exposure threshold for such a commercial building is 75 dBA  $L_{max}$ .



FIGURE 6 - Commercial Building Exposed to Loud Warehouse Project Noise

During construction and during warehouse operations, the Project's southern driveway nearest this County building would likely be used for truck traffic when hauling materials and when being accessed by workers. A single heavy truck loaded with construction or warehouse materials can, while passing by and accelerating at the end of the driveway, generate an average noise level of approximately 88 dBA  $L_{eq}$  and a maximum noise level of about 95 dBA  $L_{max}$  at 50 feet. At 160 feet to the County's building, such heavy trucking noise is attenuated by distance to about 85 dBA  $L_{max}$ . That noise level of 85 dBA  $L_{max}$  or louder when truck movements occur in the driveway on the southwestern area of the Project's site would exceed the maximum measured daytime ambient noise level of 79.3 dBA  $L_{max}$  by over 5 dBA. In other words, such heavy

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<sup>&</sup>lt;sup>42</sup> See Long Beach General Plan Noise Element, p. 137, Table 11.

<sup>&</sup>lt;sup>43</sup> See County of Ventura Construction Noise Threshold Criteria, Figure 2, Typical Construction Equipment Noise. <sup>44</sup> Calculation: The maximum noise level from the passing of a loaded heavy truck at a distance of 160 feet (d<sub>2</sub>) from the County's building south of the warehouse driveway, where dB<sub>1</sub> = 95 dBA L<sub>max</sub> at 50' (d<sub>1</sub>),

 $dB_2 = dB_1 - 10 \text{ x A x LOG}(d_2/d_1) = 95 - 10 \text{ x } 2.0 \text{ x LOG}(160'/50') = 95 - 20 \text{ x } (-0.50) = 85 dBA L_{max}$ .

As Noise Study, PDF-1038, 24-Hour Noise Level Measurement Summary for Location L4 near 5881 Cherry Avenue (Intercity Fellowship Hall) at 10:00 a.m. (79.3 dBA L<sub>max</sub>)

delivery and semi-truck passings that close to this existing County building and in much greater numbers than currently occur, along with additional reflected noise from the warehouse's tall walls, and loading dock noise, would be audible and intrusive to employees and animals there.

More importantly, such truck noise would significantly exceed the City's allowable noise standards. Other site work activities closer than 160 feet would produce even louder noise levels at this commercial building, especially when more than a single piece of heavy construction equipment is operated simultaneously. The Project applicant is not proposing to install any temporary noise barrier to protect this County building that houses animals that can also be disturbed by loud construction noise. Nor is any permanent noise wall being proposed to shield some of the operational noise from such truck passings and other loading dock noise sources. That noise level there of 85 dBA  $L_{max}$  from truck passings would exceed the City's daytime threshold of significance of 75 dBA  $L_{max}$  and, therefore, is considered significant as a noise impact.

# VIII. Massive Warehouse Will Create Significant Noise Level Increases at Homes West of Cherry Avenue by Reflecting Traffic Noise to the West

The Project's Noise Study entirely fails to acknowledge and analyze the severity of the noise impact to many existing homes that will occur from a large 50-foot tall warehouse that will be built over 400 feet long on the east side of Cherry Avenue. The west wall of such a huge warehouse, the height of a four-story building, will reflect existing and new traffic noise and new parking lot noise to the west where dozens of homes exist nearby. The resulting noise level increase just due to the sound energy that reflects from this building wall toward many nearby homes will be significant.

The existing project site does *not* currently have such a large building wall to reflect traffic noise:

FIGURE 7
VIEW OF PROJECT WAREHOUSE SITE AS SEEN FROM A RESIDENCE WEST OF CHERRY AVE.



But as proposed, a new and very large warehouse building's western wall would tend to reflect Cherry Avenue traffic noise in a western direction toward homes across the street:

FIGURE 8
SIMULATION OF PROJECT WAREHOUSE AS SEEN FROM A RESIDENCE WEST OF CHERRY AVE.



The Project's Noise Study measured existing noise levels near Cherry Avenue at about 67.8 dBA  $L_{eq}$  during the daytime and 65.3 dBA  $L_{eq}$  at nighttime. The 24-hour weighted day-night average of those measurements is approximately 72.5 dBA  $L_{dn}$ .

Then, the Noise Study's Table 4.1 describes a threshold of significance for an *increase* in noise levels during operations caused by the Project of  $1.5 \, dBA \, L_{eq}$  when the ambient noise level is greater than 65 dBA  $L_{eq}$ . That shows noise level measurements closest to the middle of the Project warehouse's western wall are greater than 65 dBA  $L_{eq}$ . Accordingly, if traffic noise levels increase at nearby homes by  $1.5 \, dBA \, L_{eq}$  or more, that would constitute a significant noise impact.

Vehicular traffic on Cherry Avenue is one of the main noise sources in the existing neighborhood. It is well known that:

"In some cases, external building facades can influence reflected noise levels affecting adjacent buildings. This is primarily a problem where high-rise buildings are proposed, and the effect is most evident in urban areas, where an urban canyon may be created." \*48

#### According to CalTrans:

"A smooth, hard barrier surface, such as masonry or concrete, is considered almost perfectly reflective (i.e., almost all sound striking the barrier is reflected back toward the source and beyond). A barrier surface material that is porous, with many voids, is said to be absorptive (i.e., little or no sound is reflected back). The amount of energy absorbed by a barrier surface material is expressed as an absorption coefficient value ranging from 0 (100% reflective) to 1 (100% absorptive). A perfect reflective barrier, ( = 0) will reflect back virtually all noise energy (assuming a transmission loss of 30 dBA or more) toward the opposite side of a highway. If the difference in path length between the direct and reflected noise paths to the opposite (unprotected) side of a highway is ignored, the maximum expected increase in noise will be 3 dBA." <sup>49</sup>

see

<sup>&</sup>lt;sup>46</sup> See Noise Study, p. 24, Table 5-1: <u>24-Hour Ambient Noise Level Measurements</u>, at noise measurement location **L5**, west of the Project site near single-family residence: Energy Average Noise Level: 67.8 dBA L<sub>eq</sub> (daytime); 65.3 dBA L<sub>eq</sub> (nighttime.)

<sup>&</sup>lt;sup>47</sup> Calculation: To calculate the dBA  $L_{dn}$  day-night weighted average for Cherry Avenue near the warehouse site, a level of 67.8 dBA  $L_{eq}$  is assigned to each of the 15 daytime hours from 7:00 am to 10:00 pm, and a nighttime noise level also of 65.3 dBA  $L_{eq}$  for each of the remaining 9 nighttime hours.

 $L_{dn} = 10*LOG[(1/24)*(15*[10EXP(0.1*L_d)] + 9*[10EXP(0.1*(L_n + 10))])] = \textbf{72.5 dBA L}_{dn}$  (where \* = multiplication; EXP = power function;  $L_d = L_{eq}$  for the 15-hour daytime period from 7 am – 10 pm (67.8)

dBA  $L_{eq}$ );  $L_n = L_{eq}$  for the 9-hour nighttime period from 10:00 pm - 7:00 am: (65.3 dBA  $L_{eq}$ )

Michael Brandman Associates (9/29/2011) DEIR Noise Section for Proposed City of Elk Grove Sphere of Influence Amendment, p. 3.12:4,

http://www.saclafco.org/SphereofInfluenceInformation/Documents/elkgrovesoi/proposedsoi\_amenddeir/sac\_029402.pdf; see also 1020 S. Figueroa St. (DCP Case No. ENV-2015-1159-EIR) DEIR, p. 4.2:2 (noting "A receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall reflects noise back to the receptor, thereby compounding the noise."),

http://planning.lacity.org/eir/1020SoFigueroa/DEIR/4 G Noise.pdf; 1211 W. Pico Blvd. (DCP Case No. ENV-2011-0585-EIR) DEIR, p. IV.E:2, https://planning.lacity.org/eir/ConventionCntr/DEIR/files/IV.E%20Noise.pdf.

<sup>49</sup> CalTrans (Sep. 2013) Technical Noise Supplement. Part 1, p. 1:1 (prepared to provide technical background information on transportation-related noise in general and highway traffic noise in particular), <a href="https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtcref/ch2.6/2014-12-19">https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtcref/ch2.6/2014-12-19</a> Caltrans TrafficNoiseAnalysisProtocol Part1.pdf;

According to research from traffic engineering tests conducted elsewhere, when applied to this Cherry Avenue Warehouse Project, the reflected traffic noise that bounces from its building's large western facade will add about 2 dBA to the directly-radiated Cherry Avenue traffic noise levels those nearby homes are currently exposed to. This warehouse's western wall will be only about 100 feet from traffic lanes on Cherry Avenue. The facade-reflected noise will not be attenuated by any barrier at some homes. A 2 dBA noise level increase would be greater than the appropriate 1.5 dBA threshold of significance when existing noise levels are greater than 65 dBA L<sub>eq</sub> and is therefore a significant noise impact.

The Project's cumulative noise impacts will be even greater when considering the other sources of noise the residential neighbors west of Cherry Avenue will be exposed to. That includes vehicle noise from additional traffic the warehouse operations will generate, mechanical equipment noise, and parking lot noise. So not only will this warehouse Project expose some residential neighbors to excessive noise levels that the warehouse operation generates, it additionally will expose neighbors to significantly greater noise levels originating from nearby traffic and reflecting from its tall western wall.

# IX. Parking Lot and Driveway Mechanical Sweeper Use May Create Significant Noise Impacts at Some Homes West of Cherry Avenue.

The Project may occasionally employ a motorized, mechanical sweeper/vacuum to clean its large parking lot and driveway pavement areas. But that equipment can be very loud and could cause a significant noise impact to some nearby residents west of Cherry Avenue during its use. (See **Figure 4** for illustration of the distances from the western parking lot to the closest homes.)

The Noise Study never evaluates the potential noise impacts that such mechanical sweepers can cause at nighttime when parking lots are more likely to be unobstructed by parked cars. No noise mitigation or Condition of Approval was proposed to restrict such nighttime pavement cleaning. The Noise Study states that that the City of Long Beach's nighttime maximum noise standard during project operations is 65 dBA  $L_{max}$ . Measurements of these mechanical sweepers/pavement vacuums predict they can generate a maximum of 71 dBA  $L_{max}$  at a distance of 100 feet. Some street sweepers are even louder. Based on that measurement data, at a distance of

also id., Part 2, p. 2:37, https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtcref/ch2.6/2014-12-19 Caltrans TrafficNoiseAnalysisProtocol\_Part2.pdf.

See Noise Control Engineering Journal (Jan. 2014) Traffic Noise and Vehicle Movement at a Controlled Intersection, p. 13 (stating that: "It was found that the facade reflection correction was equal to 2 dB ... The value of 2 dB for the facade reflection correction is a reasonable value. It is 1 dB lower than the value of 3 dB corresponding to incoherent summation of equal-amplitude direct and reflected sound waves. The value of 2 dB for the correction implies that the reflected sound is about 2 dB weaker than the direct sound, since the incoherent sum of 0 dB and –2 dB is 2 dB. The 2 dB attenuation of the reflected sound is caused by two effects: i) absorption of sound energy by the facade, and ii) partial screening of the sound field by the parapet."), attached hereto as "Attachment 6".

Distance of 100 feet estimated from Project's Site Plan.

See Noise Study, p. 15, Table 3-1, Operational Noise Standards, 10 p.m. to 7 a.m., standard is 65 dBA L<sub>max</sub>.
 See the *Environmental Noise Assessment* for the Galt Walmart EIR in the City of Galt, CA, November 23, 2009, which states on page 30: "Based upon noise measurements of mechanical parking lot sweeping/vacuuming, noise levels from parking lot cleaning are approximately 62 dB L<sub>eq</sub> and 71 dB L<sub>max</sub> at a distance of 100 feet from the center

about 150 feet from the Project's Cherry Avenue side western parking lot and northern driveway to the nearest home across the street at 5945 Cherry Avenue, that sweeper noise level would be about  $67.5~dBA~L_{max}$ . That noise level exceeds the City's 65 dBA  $L_{max}$  nighttime standard and would therefore create a significant noise impact. Some other homes could also be exposed to excessive sweeper noise levels that exceed the City's 65 dBA  $L_{max}$  limit up to about 200 feet away.

Such mechanical sweeper noise would be clearly audible and disturbing at some homes as well. With the background noise level  $^{56}$  at nighttime sometimes being about 51 dBA  $L_{90}$ , the sweeper noise at 67.5 dBA  $L_{max}$  would be about 16 dBA louder than the background noise level then. That represents a significant *increase* in noise level due to this project, another type of significant noise impact.

Neighbors are likely to experience significant sleep-disturbance from such intrusive noise at night. That noise level from sweeper use at the exterior of this nearest house west of Cherry Avenue would also generate interior noise levels inside this house greater than the City's maximum limit of 35 dBA per LBMC § 8.18.170(A).<sup>57</sup> With closed windows reducing the exterior noise level by about 20 dB, the interior noise level in the house during sweeper operations could be 47.5 dBA L<sub>max</sub>, loud enough to wake residents and 12.5 dB greater than the City's maximum interior limit of 35 dBA.

of the parking lot cleaning activities." This study will be made available to City officials if requested, and it is also available online at: <a href="https://www.cityofgalt.org/home/showdocument?id=2781">https://www.cityofgalt.org/home/showdocument?id=2781</a>

<sup>&</sup>lt;sup>54</sup> See *Park Habitat Project Nighttime Construction Noise Assessment*, San José, California, July 7, 2021; page 11, Street Sweeper: 80 dBA L<sub>max</sub> at 50 feet, (which reduces by distance to about **74 dBA L<sub>max</sub> at 100 feet**.) This report is available online at: https://www.sanjoseca.gov/home/showpublisheddocument/77667/637685200947630000

<sup>&</sup>lt;sup>55</sup> Calculation: at the home at 5945 Cherry Avenue, the noise level from the operation of a mechanical sweeper/pavement vacuum at a location in the parking lot 150' (d<sub>2</sub>) from the home, where dB<sub>1</sub> = 71 dBA L<sub>max</sub> at 100' (d<sub>1</sub>), dB<sub>2</sub> = dB<sub>1</sub> - 10 x A x LOG(d<sub>2</sub>/d<sub>1</sub>) = 71 - 10 x 2.0 x LOG(150'/100') = 71 - 20 x (-0.64) =  $67.5 \, dBA \, L_{max}$ .

<sup>&</sup>lt;sup>56</sup> See **Figure 2** above with a Location L5 Background L<sub>90</sub> Noise Level of 50.7 dBA L<sub>90</sub> at midnight.

### X. DEFICIENCIES WITH PROJECT'S NOISE STUDY

The Project's Noise Study prepared by Urban Crossroads, Inc. is incomplete, inaccurate, and entirely conclusory, The Noise Study fails to describe the factors used in estimating the concrete slab pour work. Merely referencing some other project's noise measurements obtained at 27334 San Bernardino in the City of Redlands is inadequate under CEQA. It provides no way for the public to independently assess the veracity of such distant and also vague evidence. The Noise Study's calculation factors in Appendix 8-2 ("CadmaA" model input data) are missing essential information that would allow the public to verify the calculations. For example, none of the buildings' locations used in the calculation model are shown on any map in the Noise Study that would allow someone to check those calculations.

The Noise Study's calculations also depend upon a noise test for that Redlands concrete slab pour project with no explanation of how its purported measurement of  $100.3~dBA~L_w$  (a sound power level) is used in any agency's regulations and expressed in decibels such as  $dBA~L_{eq}$ . As such, this cryptic study violates CEQA by making obscure the analytic data and reasoning that would allow the public to independently review the Noise Study's conclusions.

The Noise Study uses *average* noise levels, but never analyzes if such concrete construction noise would exceed the City's *maximum* allowed noise levels. It is those maximum noise levels that are most starkly troublesome and sleep-disturbing to nearby residents since those peak levels will be clearly audible above the ambient noise levels in their neighborhood.

The Noise Study also fails to identify on any map all the nearest homes which could be exposed to this Project's noise. Because construction noise from concrete mixer trucks that includes backup warning horns can be so loud at night, some neighboring residents west of Cherry Avenue could be significantly disturbed. If those noise levels at their homes exceed 65 dBA L<sub>max</sub> at night, that construction work would create a significant noise impact. <sup>58</sup>

The Noise Study provides no analysis of the noise contribution to the surrounding community that will result from the addition of this warehouse Project's additional heavy truck traffic and other vehicles along major routes of travel. No traffic study is provided with traffic flow direction so that the public can assess the significance of such increased traffic noise on roads that are already excessively noisy.

The Noise Study does not indicate if the tilt-up exterior concrete walls of the warehouse will be constructed on-site or delivered from elsewhere, a factor that can affect the construction noise levels.

The Noise Study entirely fails to evaluate the potential for the Project to create significant noise impacts to the interior noise level of nearby buildings and homes.

The noise study fails to describe sufficiently where the noise level measurements were obtained and whether the noise meters were calibrated during these measurements.

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<sup>&</sup>lt;sup>58</sup> A threshold of significance for nighttime construction work is 65 dBA L<sub>max</sub>. Source: LBMC § 8.80.150(B)(5).

# XI. ADDITIONAL MITIGATION MEASURES ARE NECESSARY PURSUANT TO AN ADEQUATE MND OR EIR

Critical to the MND/EIR review process is the consideration of mitigation measures ("MMs") and project design features ("PDFs") to reduce a project's impact to less than significant, which can subsequently be made enforceable as mandatory COAs. Here, because the Project was reviewed per a categorical exemption, MMs were not analyzed or vetted by the public and, therefore, any ad hoc noise-related COAs imposed by the City at this stage would be untethered to reasoned analysis. This is a sharp deviation of the City's practice for similar projects, where it considers various standard MMs and PDFs that serve to directly or indirectly reduce a project's noise impacts below the City's thresholds of significance, which are entirely missing from the Project's current COAs. Among these operational noise-related MMs/PDFs/COAs considered for other nearby projects and/or hotel developments within the City<sup>59</sup>—but missing from the Project's COAs—include:

### **CONSTRUCTION NOISE**

MM-1 <u>TEMPORARY NOISE BARRIER</u><sup>60</sup> (with noise barrier also on driveway closure gates)

A 12-foot-tall temporary noise barrier shall be installed along the western Project site boundary, and extending a minimum of 100 feet to the east along both the northern and southern property lines starting from Cherry Avenue, for the duration of Project construction. The temporary noise barrier shall have a solid face from top to bottom and shall meet the following minimum standards:

a) The temporary noise barrier shall provide a minimum transmission loss of 20 dBA (Federal Highway Administration, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to a construction site perimeter fence or equivalent temporary fence posts or barrier materials;

 $\frac{\text{http://www.sbcounty.gov/Uploads/LUS/Environmental/Alere\%20Property\%20Group/Slover\%20and\%20Cactus\%20}{\text{Avenue\%20Warehouse\%20-\%20Public\%20Review\%20Draft\%20EIR\%20(November\%202019).pdf}}$ 

See e.g., Second + PCH Development Project (Mar. 2011) EIR, pp. IV.I:312, <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3375">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3375</a>; Belmont Pool Revitalization Project (Apr. 2016) Draft EIR, pp. 4.10:16, 19-21, 25, <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5781">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5781</a>; Midtown Specific Plan (Mar. 2016) Final EIR, p. 4:22 (MM N-5), <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5765">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5765</a>; Civic Center Project (Oct. 2015) Final Supplemental EIR, pp. 9:38-39 (MMs DT Noise-5-7, and SEIR Noise 2(b)), <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5574">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5574</a>; Golden Shore Master Plan Project (Jan. 2010) Final EIR, pp. V:14- (MMs G-5, G-6), <a href="http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3330">http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3330</a>;

<sup>&</sup>lt;sup>60</sup> Mitigation measures MM-1 to MM-5 are from the 2019 Draft EIR for the Slover/Cactus Avenue Warehouse Project in the County of San Bernardino, Pages S-22 to S-23. Note: MM-1 is modified by adding 100-foot long side barriers and driveway gate noise barriers. Urban Crossroads prepared this Project's noise impact analysis. The Draft EIR is available online at:

- b) The noise barrier must be maintained, and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired; and
- c) The noise control barrier and associated elements shall be completely removed upon the conclusion of the construction activity.
- MM-2 Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer's standards.
- MM-3 Construction contractors shall place all stationary construction equipment so that all emitted noise is generated and directed toward the center of the site and away from the noise sensitive receivers nearest the Project site.
- MM-4 Construction contractors shall locate equipment staging areas on the Project site in locations that will create the greatest feasible distance between construction related noise sources and noise sensitive receivers nearest the Project site.
- MM-5 Construction contractors shall ensure that delivery trucks use designated truck route(s).
- MM-6 <u>CONSTRUCTION NOISE LIMITS</u>: As measured at nearby sensitive receptors, the maximum construction noise levels shall not exceed 70 dBA L<sub>eq-1 hr.</sub> during the daytime, and 65 dBA L<sub>eq-1 hr.</sub> at nighttime.
  - For construction noise that has an impulsive character or pure tones, these maximum noise levels will be adjusted with a 5 dB lowered limit pursuant to the California Model Noise Ordinance which includes a 5 dB penalty for noise of certain character, namely, noise that contains "a steady, audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering or riveting, or contains music or speech." [CNMO at p. 21]
- MM-7 Prohibit amplified sound system noise or loudspeaker use during construction activities.
- MM-8 Prohibit backup alarms on heavy equipment, and instead using warning devices that cannot be heard from nearby residential properties to the west of Cherry Avenue.
- MM-9 Require construction activities to be placed as far as possible from the nearest off-site land uses.
- MM-10 Require construction and demolition activities to be scheduled to avoid operating several loud pieces of equipment simultaneously; alternatively, to reduce the overall length of the construction period, combine noisy operations to occur in the same time period if it will not be significantly greater than if operations were performed separately.
- MM-11 Require the replacement of noisy equipment with quieter equipment, such as utilizing vibratory pile driver instead of conventional pile driver (or even prohibit the use of driven (impact) pile systems altogether), using rubber-tired equipment rather than track

- equipment, or using quieted and enclosed air compressors with properly working mufflers on all engines.
- MM-12 Require construction contractor to avoid using vibratory rollers and packers near sensitive areas of the southern side of the site near the County's Department of Animal Care and Control building.
- MM-13 Require construction staging areas to be as far from sensitive receptors as reasonably possible.
- MM-14 Require all construction truck traffic to be restricted to daytime hours only and to truck routes approved by the Department of Building and Safety, which shall avoid residential areas and other noise-sensitive receptors.
- MM-15 Require flexible sound control curtains to be placed around all drilling apparatuses, drill rigs, and jackhammers when in use and more extensive noise control barriers protecting the nearest residential structures west of Cherry Avenue.
- MM-16 Require power construction equipment operated at the project site to be equipped with effective state-of-the-art noise control devices (e.g., equipment mufflers, enclosures, and barriers) with contractors maintaining all sound-reducing devices and restrictions throughout the construction period and keeping documentation showing compliance.
- MM-17 Require contractors to use either plug-in electric or solar powered on-site generators to the extent feasible.
- MM-18 Require grading and construction contractors to use equipment that generates lower vibration levels such as rubber-tired equipment rather than metal-tracked equipment, such as a combination loader/excavator for light-duty construction operations.
- MM-19 Install low-noise asphalt pavement only within the property.
- MM-20 Two weeks before the commencement of construction at the Project Site, require notification to be provided to the immediate surrounding off-site properties located within 500 ft of the Project site that discloses the construction schedule, including the various types of activities and equipment that would be occurring throughout the construction period. A noise disturbance coordinator and hotline telephone number shall be provided to enable the public to call and address construction-related issues. The disturbance coordinator should be responsible for responding to any local complaints about construction noise. The disturbance coordinator should determine the cause of the noise complaint (e.g., starting too early, bad muffler) and should be required to implement reasonable measures to reduce noise levels.
- MM-21 Require a list of all mitigation measures restricting construction activity to be posted at the Project Site on a sign legible at a distance of 50 ft and all construction personnel shall be instructed as to the nature of the noise and vibration mitigation measures.

MM-22 Require a noise monitoring/control plan that includes absolute noise limits for classes of equipment, noise limits at lot lines of specific noise sensitive properties, specific noise control treatments to be utilized (such as the above-mentioned measures), and a designated compliance officer to respond to promptly respond to complaints and take immediate correction action if limits/restrictions are not complied with.

### GROUND-BORNE VIBRATION-RELATED CONSTRUCTION ACTIVITIES:

MM-23 Prior to approval of grading plans and/or prior to issuance of demolition, grading and building permits, the Applicant shall retain a Professional Structural Engineer with experience in structural vibration analysis and monitoring to perform the following tasks:

- Review the Project plans for demolition and construction.
- Survey the Project site, including geological testing, if required.
- Prepare and submit a report to the Director of Planning and Community Development to include but not be limited to the following:
  - Description of existing conditions at the nearby County's Department of Animal Care and Control building;
  - Vibration level limits based on building conditions, soil conditions, and planned demolition and construction methods to ensure vibration levels below the potential for damage to the County's Department of Animal Care and Control building;
  - Specific measures to be taken during construction to ensure the specified vibration level limits are not exceeded; and
  - If considered appropriate, a monitoring plan is to be implemented during demolition and construction that includes post-construction and post-demolition surveys of the County's Department of Animal Care and Control building.

Examples of measures that may be specified for implementation during demolition or construction include, but are not limited to:

- Prohibition of certain types of impact equipment such as a pile driver;
- Requirement for lighter tracked or wheeled equipment;
- The specification that demolition occur by non-impact methods, such as sawing concrete;
- The specification that phasing operations avoid simultaneous vibration sources; and
- Installation of vibration-measuring devices to guide decision making for subsequent activities.

### **OPERATIONAL NOISE**

MM-24 Perform a full traffic study to evaluate the impact of this Project's off-site trucking along the major routes of travel. Include traffic routing restrictions to forbid Project traffic in residential areas and restrain trucks and vehicles from clogging up important commuting routes used for busses and other vehicles.

- MM-25 Limit diesel trucks or equipment idling to 3 minutes and post signs regarding the idling restriction.
- MM-26 Prohibit trucks with refrigeration units or refrigeration trailers from operating onsite where such refrigeration equipment would be audible to neighboring residents or nearby property owners.
- MM-27 Limit access in and out of the facility to the hours of 6 a.m. to 10 p.m.
- MM-28 Prohibit mechanical sweeper use in the Cherry Avenue side parking lot at nighttime to eliminate its noise that will reflect off of the tall warehouse walls and will also directly reach homes west of Cherry Avenue.
- MM-29 Prohibit backup alarms on heavy equipment and forklifts, and instead using warning devices that cannot be heard from nearby residential properties to the west of Cherry Avenue.
- MM-30 Clearly post on the facility and on the city website how the public can make complaints of facility truck traffic outside of hours excessive dust, fumes, or odors as well as report parking issues.
- MM-31 Prohibit the use of any mechanical equipment, exterior fans or HVAC equipment that is audible to residents living west of Cherry Avenue at any time of the day. Rooftops with HVAC units shall include an architectural parapet to reduce noise levels. The parapet shall be constructed along the edges of the structures' roofs. The parapet shall be at least one foot higher than the tallest rooftop equipment. No gaps or perforations shall be constructed in the parapet.
- MM-32 Limit the use of the site to prohibit potential noise generating uses that otherwise are allowed by right within the zone classification of the project site.
- MM-33 Prohibition of amplified sounds in outdoor spaces and/or meet specified dBA levels.

  Orienting any public address systems onsite away from sensitive receptors and setting system volume at a level not readily audible past the property line
- MM-34 Before the issuance of a Certificate of Occupancy, require the sound levels to be measured consistent with documentation of the measurements being submitted to the Department of City Planning for the file to demonstrate specified noise levels are not exceeded at the property line.
- MM-35 Post signs indicating that all parking and maintenance of trucks must be conducted within designated on-site areas and not within the surrounding community or public streets.

MM-36 Provide nearest residences affected by this Project's significant construction and operational noise impacts with sound-resistant windows and doors and/or upgraded ventilation systems as a noise mitigation measure.

Require the placement of loading and unloading areas so that Project building and features shield nearby residential and commercial land uses from loud noise generated by parking lot, loading dock and delivery activities. If necessary, additional sound barriers shall be constructed adjacent to the nearby commercial building to protect occupants from excessive noise.

Sound-Rated Windows and Glass Doors Near Commercial Use: If adequate noise barrier walls are not provided to the south of the warehouse building, the applicant shall offer and pay for sound-rated windows and glass doors at the County's building to the south. Windows shall be at least STC 35 to ensure that this Project's warehouse activities do not result in interior noise levels at the County's building exceeding 35 dBA.

#### **CONCLUSION**

As discussed above, the Project applicant has failed to provide basic information required for the City to adequately assess the true impacts of this Project. As a result, construction and operational noise impacts were never adequately analyzed. Review of these unresolved noise impacts clearly demonstrates a categorical exemption is inappropriate for the Project's CEQA review. This inapplicability is further supported by the fact that the City incorporated some Project-specific noise mitigation measures without public scrutiny that CEQA affords.

Moreover, feasible mitigation measures are available and need to be considered pursuant to a CEQA-compliant MND or EIR— just like similar projects reviewed by the City.

Sincerely,

Dale La Forest

Professional Planner, Designer, INCE Associate (Institute of Noise Control Engineering)

Dale La Forest & Associates

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Attachment 1: Statement of Qualifications, Dale La Forest & Associates Appendix A: Typical Construction Equipment Noise, County of Ventura Appendix B: Existing Google Earth "Photographs" of Project Neighborhood

# ATTACHMENT 1 Statement of Qualifications

Dale La Forest & Associates Design, Planning & Environmental Consulting 101 E. Alma Street, Suite 100-A Mt. Shasta, CA 96067 (530) 918-8625

### INTRODUCTION

Dale La Forest & Associates provides commercial and residential design services, acoustical consulting, environmental review, project planning permitting for government approvals and multi-disciplinary environmental studies for government and private industry and citizens groups.

### HIGHLIGHTS

Dale La Forest has over 47 years experience in California environmental and land use planning. He has assisted numerous citizens groups, developers and interested parties in reviewing proposed projects for compliance with planning and environmental regulations in their communities.

During the last 27 years, he has also prepared expert acoustical studies for various development projects and reviewed and commented upon dozens of noise studies prepared by others.

Dale La Forest's design, planning and environmental review experience is supported by a group of consulting planning, architectural / landscape architectural, and engineering professionals selected for their professional yet pragmatic approaches to their specialties. Teams are organized on a project-by-project basis to address project-specific issues.

### EXPERIENCE

1975 – 2023 DESIGNER & PLANNER — <u>Dale La Forest & Associates</u>; Mt. Shasta, CA. Design of commercial, residential, subdivision planning projects and environmental and acoustical consulting for commercial and industrial firms and for the public.

Dale La Forest, Designer, INCE Associate (Institute of Noise Control Engineering)

### EDUCATION

1966 – 1973 **University of Michigan,** College of Architecture and Planning - Bachelor of Architecture, 1973; and Masters studies in architecture and planning.

## ACOUSTICAL RESEARCH PROJECTS

3/17/21	Pacific Edge Hotel Remodel Project, MND, City of Laguna Beach, CA
1/25/21	Hyatt House Hotel Project, C.E., Los Angeles, CA
8/15/20	Redhills Bioenergy Project, MND, Lake County, CA
8/28/19	CitizenM Hotel Project, DEIR, Los Angeles, CA
4/15/19	Mart South Hotel Conversion Project, C.E., Los Angeles, CA
2/27/19	Citizens News Project MND, Los Angeles, CA
2/11/19	2005 James Wood Hotel Project MND, Los Angeles, CA
2/4/19	Breakers Hotel Project C.E., Long Beach, CA
1/23/19	Residence at 1888 N. Lucile Ave. MND, Los Angeles, CA
12/5/18	100 E. Sunset Bridge Housing C.E., Los Angeles, CA
11/6/18	Dewey Hotel Project C.E., Los Angeles, CA
2/12/18	Residence at 17642 Tramonto Dr., Los Angeles, CA
11/16/17	Crystal Geyser Water Company EIR, Mt Shasta, CA
8/18/17	Freeze Car Wash Project MND, Mt. Shasta, CA
3/13/17	Roseburg Water Line Project MND, Mt. Shasta, CA
1/19/17	Residence at 2056 Mandeville Canyon Rd., Los Angeles, CA
8/31/16	Austin Quarry Project EIR, Madera County, CA
10/20/15	Syar Napa Quarry Expansion Project EIR, Napa
9/30/13	Shasta Dam Raising Draft EIS, Shasta County, CA
9/30/13	Livermore Walmart Project, Livermore, CA
8/27/13	Talmage Interchange Reconstruction Project MND, Ukiah, CA
6/10/13	Townhouse Project MND, Mt. Shasta, CA
3/15/13	Costco Wholesale Store DEIR, Ukiah, CA
3/14/13	Jaxon Enterprises Asphalt Plant IS/MND, Shasta County, CA
3/14/13	Amdun LLC Asphalt Plant IS/MND, Shasta County, CA
1/30/13	Grist Creek Aggregates Project IS/MND, Mendocino County, CA
9/24/12	Austin Quarry Draft EIR, Madera County, CA
8/26/12	Tesoro Viejo Specific Plan Revised EIR, Madera County, CA
10/10/11	Eagle Peak Asphalt Batch plant MND, Callahan, CA
6/12/11	Walmart Expansion Project EIR, Poway, CA
2/20/11	McCloud Springs Ranch Subdivision MND, Siskiyou County, CA
1/4/11	Comingdeer Asphalt Batch Plant MND, Redding, CA
10/1/10	Biogreen Cogeneration Power Plant, La Pine, OR
7/13/10	Chapin Concrete Batch Plant MND, Volta, CA
1/25/10	Walmart Supercenter Draft EIR, Galt, CA
1/11/10	Doctor's Park MND, Mt. Shasta, CA
9/22/09	Livingston Concrete EIR, Placer County, CA
6/10/09	Poonkinney Quarry MND, Mendocino County, CA
5/11/09	Orchard Subdivision MND, City of Mt. Shasta, CA
1/2/09	McCloud Springs Ranch Subdivision MND, Siskiyou County, CA
10/8/02	Shasta Mountain Lodge Hotel 2 (Springhill Dr.), MND, Mt. Shasta, CA
10/10/95	Shasta Mountain Lodge Hotel 1 (Mt. Shasta Blvd.), MND, Mt. Shasta, CA

### Appendix A

### Typical Equipment Noise, Construction Phases and Use Factors Figure A-1. Typical Construction Equipment Noise

Equipment Type Noise Source	Dominant Noise Components <sup>1</sup>	50-Foot Noise Level (L <sub>eq</sub> ) dBA <sup>2, 3</sup>	Noise Level Range (L <sub>p</sub> ) dBA <sup>2,3</sup>	50-Foot Maximum Noise Level (L <sub>max</sub> ) dBA <sup>23</sup>
Air Compressor (portable) <sup>4</sup>	E, C, H, I	81	76-89	89
Air Compressor (stationary)	E, C, H, I	82	76-89	89
Auger, Drilled Shaft Rig	E, C, F, I, W	82	76-89	89
Backhoe	E, C, F, I, H, W	85	81-90	90
Bar Bender	E, P, W	82	78-88	85
Chain Saw	E, W, C	85	72-88	88
Compactor	E, C, F, I, W	82	81-85	85
Concrete Batch Plant	W, E, C	92	80-96	96
Concrete Mixer (small trailer)	W, E, C	67	65-68	68
Concrete Mixer Truck	E, C, F, W, T	85	69-89	89
Concrete Pump Trailer	E, C, H	82	74-84	84
Concrete Vibrator	W, E, C	76	68-81	81
Crane, Derrick	E, C, F, I, T	88	79-90	90
Crane, Mobile	E, C, F, I, T	83	80-85	85
Dozer (Bulldozer)	E, C, F, I, H	80	77-90	90
Excavator	E, C, F, I, H, W	87	83-92	92
Forklift	E, C, I, W	84	81-86	86
Front End Loader	E, C, F, I, H	79	77-90	90
Generator	E, C	78	71-87	87
Gradall	E, C, F, I, W	82	78-85	85
Grader	E, C, F, I, W	85	79-89	89
Grinder	W	80	75-82	82
Hydraulic Hammer	W, E, C, H	102	99-105	105
Impact Wrench	W, P	85	75-85	85
Jack Hammer	P, W, E, C	82	75-88	88
Paver	E, D, F, I	89	82-92	92
Pile Driver (Impact/ Sonic/ Hydraulic)	W, P, E	101/96/65	94-107 / 90-99 / 65	107 / 99 / 65
Pavement Breaker	W, E, P	82	75-85	85
Pneumatic Tool	P, W, E, C	85	78-88	88
Pump	E, C	76	68-80	80
Rock Drill	W, E, P	98	83-99	99
Roller	E, C, F, I, W	74	70-83	83
Sand Blaster	W, E, C, H, I	85	80-87	87
Saw, Electric	W	78	59-80	80
Scraper	E, C, F, I, W	88	82-91	91
Shovel	E, C, F, I, W	82	77-90	90
Tamper	W, E, C	86	85-88	88
Tractor	E, C, F, I, W	82	77-90	90
Trencher		83	81-85	85
Trucks (Under Load)	E, C, F, I, T	88	81-95	95
Water Truck	W, E, C, F, I, T	90	89-94	94
Other Equipment with Diesel	E, C, F, I	82	75-88	88 T=Transmission, W=Work to

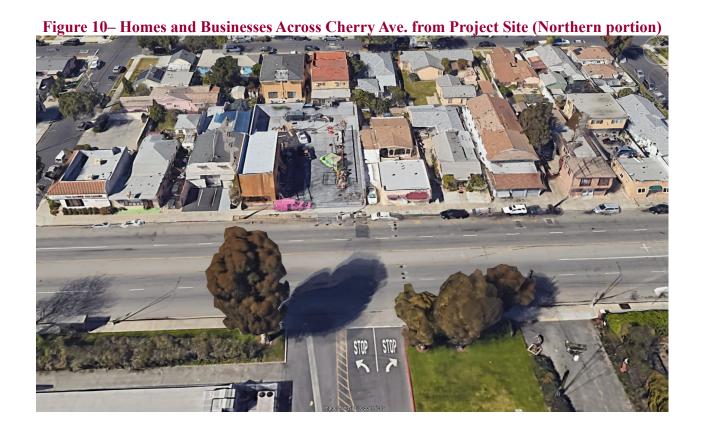
**Appendix A:** County of Ventura, Construction Noise Threshold Criteria (2010) https://docs.vcrma.org/images/pdf/planning/ceqa/Construction Noise Thresholds.pdf

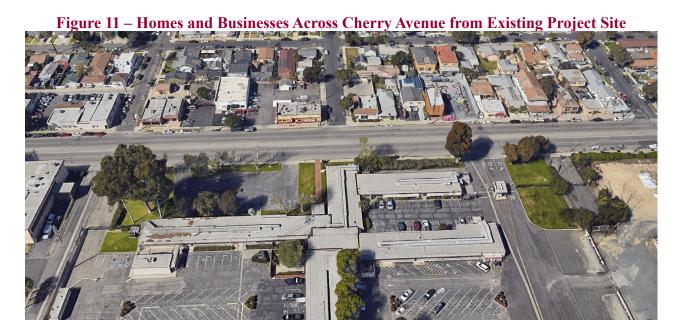
Note 2. Table based on EPA studies and measured data from various construction equipment and manufacturer's data.

Note 3. Equipment noise levels are at 50 feet from individual construction equipment and with no other noise contributors. Note 4. Portable air compressor rated at 75 cfm or greater and operating at greater than 50 psi.

### Appendix B - Existing Google Earth "Photographs" of Project Neighborhood

Figure 9 – Homes and Businesses Across Cherry Avenue from Project Site (Southern portion)





Note: Figures 9 and 10 above are essentially segmented enlargements of the upper half of this Figure 11.

### URBAN SYSTEMS ASSOCIATES, INC.

PLANNING & TRAFFIC ENGINEERING, MARKETING & PROJECT SUPPORT CONSULTANTS TO INDUSTRY AND GOVERNMENT

# **MEMO**

ATTN: Jordan Sisson

Law Office of Jordan R. Sisson

E-Mail: ▼

jordan@jrsissonlaw.com

FROM: Justin P. Schlaefli, PE TE

TOTAL PAGES (Including Cover):

\_ \_ \_

DATE: April 5, 2023

SUBJECT:

TIME: 10:15:32

JOB NUMBER: N/A

API 13, 2023 AM

5910 Cherry Ave- Transportation and VMT Comments

#### **Confidential Communications**

This transmittal is intended for the recipient named above. Unless otherwise expressly indicated, this entire communication is confidential and privileged information. If you are not the intended recipient, do not disclose, copy, distribute or use this information. If you received this transmission in error, please notify us immediately by telephone, at our expense and destroy the information.

I have reviewed the information provided on the City of Long Beach website concerning analysis of the proposed 303,972-square-foot concrete, tilt-up industrial warehouse building, including 9,000-square-feet of office space at 5900/5910 Cherry Avenue in Long Beach. After reviewing the file, I conclude that the analysis of transportation impacts of the project is inconclusive.

Specifically, the project was analyzed as a traditional Land Use 155 (High Cube Warehouse Non-Sort) with up to 15% cold storage warehouse. Trip generation assumptions are fundamental to all conclusions related to transportation including Vehicle Miles Traveled (VMT) and level of service (LOS) impacts and mitigation. Therefore, it is critical for screening and analysis purposes to properly analyze trip generation for a project site. Within the warehouse category, there have been substantial changes in the past several years as supply-chain and logistics models have evolved with e-commerce and other variables. As a result, traditional warehouse which had relatively low trip generation is no longer common for larger warehouse projects (exceeding 200,000 sf). This has led to shifts in industry standard references such as ITE, Trip Generation as well as localized studies such as NAIOP and South Coast AQMD. Primary findings from some of these studies include the following from an October 2016 study of high-cube warehouse trip generation:

"The HCW market continues to evolve as individual tenants/owners implement different ecommerce business plans. For example, some deliver goods to the customer within two days and others deliver orders to the nearest store for customer pick-up. As business plans and technology continue to evolve, these should continue to be monitored. Although the tenant or its planned operations are often unknown at the time of site development review, for the purpose of estimating vehicle trip generation, it may be as important to know the tenant as much as other facility factors",

 $(\underline{https://www.ite.org/pub/?id} = \underline{a3e6679a\%2De3a8\%2Dbf38\%2D7f29\%2D2961becdd498}).$ 

Due to the wide variation in trip rates noted, it is recommended that a site either commit to a particular category of user and/or evaluate the worst-case allowable under zoning and entitlements. If this process were followed, a worst-case analysis would lead to additional analysis and would not be screened out of providing either VMT or

LOS analysis under the City's guidelines. It is noted that a proposed condition of approval for the subject project involves trip generation monitoring:

### TRAFFIC AND TRANSPORTATION

y. Applicant shall provide a trip generation and trip distribution analysis. Based on these studies, a traffic impact analysis may be required. Any conditions generated by the analysis shall be made a part of these conditions.

It is recommended that this trip generation and trip distribution analysis not be delayed or deferred for the proposed project. In addition, <u>either limitations on use consistent with the trip generation analyzed for the project in advance of hearing should be imposed or the worst-case scenario, consistent with entitlements should be utilized in determining whether a project is screened out of additional analysis. This is critical to understanding the full impacts of a proposed project.</u>

Furthermore, the Project's VMT analysis's conclusion that the project meets the Small Project Low Trip Generator screening criteria is incorrect. This determination is premised on the project resulting in a net increase of 448 vehicle trip-ends per day and below the 500 average daily trip (ADT) threshold under the City of Long Beach Traffic Impact Analysis Guidelines (June 2020) (City Guidelines). However, there are several flaws with this analysis.

First, nowhere does the City Guidelines mention industrial uses as being eligible for the small project screening criteria (see City Guidelines, p. 5). The logic of this small project criteria is echoed in the Governor's Office of Planning and Research released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (OPR Technical Advisory). OPR's screening threshold of 110 daily trips is premised on relatively small projects of 10,000 square feet, including general office building, single tenant office building, office park, and business parks (see OPR Technical Advisory, p. 12). Here, the project replaces 32,815 square feet of existing office/building uses into a 303,972 square foot warehouse development for a <u>net 271,157 square</u> foot increase in uses—well above 10,000 square feet and any common understanding of a typical small project.

Second, the City's small project threshold is 500 ADTs—not 500 vehicle trip ends (see City Guidelines, pp. 4-5.) The VMT analysis 448 daily vehicle trip ends are based on the difference between the proposed 564 actual vehicle trips (i.e., 470 passenger car trips + 94 truck trips) and existing 116 actual vehicle trips (i.e., 112 passenger car trips + 4 truck trips). This analysis *fails to convert the truck trips into passenger care equivalent* (*PCE*), as mentioned in the City Guidelines (p. 16) indicating a "PCE factor of 2.0 should be used for all heavyduty trucks." This is what the Project did for its LOS analysis, which clearly indicates that existing uses generate 120 PCE daily trips compared to the proposed warehouse generating 658 PCE daily trips—for a net increase in 538 PCE daily trips,<sup>3</sup> which exceeds the 500 ADT threshold.

Please refer to the attached resume for my credentials and information.

 $<sup>^{1}\,\</sup>underline{\text{https://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/environmental-planning/tiaguidelines}.$ 

https://opr.ca.gov/docs/20190122-743 Technical Advisory.pdf.

<sup>&</sup>lt;sup>3</sup> See Urban Crossroads Cherry Avenue Warehouse Traffic Assessment (Mar. 30, 2022), Tbl. 4.



### **EDUCATION AND LICENSES**

Bachelor of Science, Civil Engineering
San Diego State University 2005
Master of Civil Engineering
Norwich University 2007
Registered Civil Engineer
California RCE# 74670, 2009
Registered Traffic Engineer
California RTE# 2564, 2010
IMSA Level II Signal Technician—Field
Certified Fiber Optic Technician

#### **EXPERIENCE**

Urban Systems Associates Inc.Engineering Technician, Project Manager,
Senior Project Manager
Contract City Traffic EngineerCalimesa, Wildomar, Rialto & Hesperia
National Academy of Sciences,
Transportation Research Board
Traffic Advisory CommitteeCounty of San Diego

### **PROJECT EXPERIENCE**

CV Sync- CVAG City of Chula Vista Adaptive System Lusk Boulevard Adaptive System (Design/Build) Main Street Corridor Signal Improvement and Synchronization Program (Design/Build) City of Hesperia Riverwalk Master Plan Camino Del Rio Mixed-Use As-Needed ITS Services City of Hesperia Contract Traffic Engineering Services
City of Hesperia
City of Wildomar City of Rialto City of Calimesa ViaSat Pedestrian Signal Signal Synchronization System-Coachella Valley Association of Gov. El Corazon Roundabouts-**Sudberry Properties** Citywide Engineering & Traffic Survey Ciry of Coachella

#### SPECIAL SKILLS

Environmental Impact Assessment (Transportation)
Civil & Traffic Engineering
Project Management
Construction Management
Business Management
Expert Witness
Access Evaluation
Parking Evaluation
Traffic Simulation/Forecasting
Roundabout Analysis
Geographic Information System (GIS)
Traffic Operations
ITS/Adaptive Traffic Control Systems
Traffic Signal Timing
Construction Management

## Justin P. Schlaefli

### **President**



### Responsibilities/ Qualifications

Mr. Schlaefli is President of Urban Systems Associates. He is responsible for managing projects on a day-to-day basis as well as interfacing with other project team members and decision makers/ government staff. He has over seventeen years of experience specializing in Transportation Planning, Construction, Traffic Engineering and Traffic Operations. He has experience working on both public sector projects as well as private sector development. His experience ranges from conducting traffic studies to specialized access analysis, parking studies, trip generation studies, traffic micro-simulation, signal operations, traffic control and design/selection of ITS solutions. In addition, Mr. Schlaefli has served as a subject matter expert in court, for the State of California and for vendors in the transportation industry. Mr. Schlaefli has also served as adjunct faculty at San Diego State University teaching our next generation of Transportation Engineers.

Mr. Schlaefli's unique experience includes creating Urban Systems' industry-leading Signal Lab. This Lab is designed to test and integrate the latest technology and is intended to assist Urban Systems in solving some of the most complex traffic operations challenges. In addition to creating the Signal Lab, Mr. Schlaefli has field experience leading design/build teams and serving as a Resident Engineer involved in the upgrade and synchronization of almost 150 traffic signals. Additionally, Mr. Schlaefli has served as Contract Traffic Engineer for multiple municipalities. This diverse and wide-ranging experience in the office, the field and the lab keeps Urban Systems at the forefront of the transportation industry.



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April 3, 2023

Jordan Sisson Law Office of Gideon Kracov 801 S. Grand Ave., 11<sup>th</sup> Floor Los Angeles, CA 90017

Subject: Comments on the Cherry Avenue Warehouse Project

Dear Mr. Sisson,

We have reviewed the October 2022 Staff Report for the Cherry Avenue Warehouse ("Project") located in the City of Long Beach ("City"). The Project proposes to construct a 303,972-square-foot ("SF") warehouse, 9,000-SF of office space, and 559 parking spaces on the 14.16-acre site.

Our review concludes that the Staff Report 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. A full CEQA analysis should be prepared to adequately assess and mitigate the potential hazards, hazardous materials, air quality, health risk, and greenhouse gas impacts that the project may have on the environment.

### **Air Quality**

### Unsubstantiated Input Parameters Used to Estimate Project Emissions

The Air Quality Impact Analysis ("AQIA"), included in Attachment E to the Staff Report, relies on emissions calculated with California Emissions Estimator Model ("CalEEMod") Version 2020.4.0 (AQIA, p. 39). ¹ CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such

<sup>&</sup>lt;sup>1</sup> "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <a href="http://www.aqmd.gov/caleemod/download-model">http://www.aqmd.gov/caleemod/download-model</a>.

changes be justified by substantial evidence. 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 reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in the AQIA and the Greenhouse Gas Analysis ("GHG Analysis") within Attachment E to the Staff Report, we found that several model inputs are not consistent with information disclosed in the Staff Report. As a result, the Project's construction and operational emissions may be underestimated. A full CEQA analysis should be prepared to include an updated air quality analysis that adequately evaluates the impacts that operation of the Project will have on local and regional air quality.

### Failure to Substantiate Potential Cold Storage Requirements

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Construction – Unmitigated)" and "Cherry Avenue Warehouse (High-Cube Cold Storage Operations)" models include a portion of the proposed warehouse space as refrigerated (see excerpt below) (Attachment E, pp. 147, 182, 285, 299, 439, 530).

### "Cherry Avenue Warehouse (Construction - Unmitigated)"

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Refrigerated Warehouse-No Rail	45.60	1000sqft	1.05	45,596.00
Unrefrigerated Warehouse-No Rail	258.38	1000sqft	5.93	258,376.00
Other Asphalt Surfaces	261.15	1000sqft	6.00	261,149.00
Parking Lot	338.00	Space	1.18	51,714.00

### "Cherry Avenue Warehouse (High-Cube Cold Storage Operations)"

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Refrigerated Warehouse-No Rail	45.60	1000sqft	1.05	45,596.00
User Defined Industrial	45.60	User Defined Unit	0.00	0.00

As demonstrated above, the models include only 45,596-SF of the proposed warehouse space as refrigerated. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.<sup>2</sup> According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is:

"Total Project area is 14.16 acres" (Attachment E, pp. 147, 182, 439).

Furthermore, regarding the amount of cold storage required for the proposed warehouse, the Traffic Assessment ("TA"), included in Attachment E to the Staff Report, states:

<sup>&</sup>lt;sup>2</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 1, 14.

"For the purposes of this assessment, the Project will be evaluated assuming 15% cold storage and 85% high-cube fulfillment (non-sort)" (Attachment E, pp. 1).

However, the claim that only 15% of the proposed warehouse would be used as cold storage is unsubstantiated, as the Staff Report and associated documents fail to justify or provide a source for this assumption whatsoever.

Furthermore, the Staff Report and associated documents fail to identity or reference the future tenants of the Project site. As the future tenants of the Project site are currently unknown, such tenants may require additional cold storage for operation. Absent additional information, we cannot verify that the inclusion of only 45,596-SF of refrigerated warehouse space is an accurate representation of the expected cold-storage requirements.

This presents an issue, as refrigerated warehouses release more criteria air pollutant and GHG emissions when compared to unrefrigerated land uses for three reasons. First, warehouses equipped with cold storage, such as refrigerators and freezers, are known to consume more energy when compared to warehouses without cold storage.<sup>3</sup> Second, warehouses equipped with cold storage typically require refrigerated trucks, which are known to idle for much longer when compared to unrefrigerated hauling trucks.<sup>4</sup> Lastly, according to a July 2014 *Warehouse Truck Trip Study Data Results and Usage* presentation prepared by the South Coast Air Quality Management District ("SCAQMD"), hauling trucks that require refrigeration result in greater truck trip rates when compared to non-refrigerated hauling trucks.<sup>5</sup> Furthermore, as discussed by SCAQMD, "CEQA requires the use of 'conservative analysis' to afford 'fullest possible protection of the environment."<sup>6</sup> As such, the AQIA must provide substantial evidence for the inclusion of only 15% of the total warehouse as cold storage space. Otherwise, an updated model should be prepared to include the entire warehouse land use as refrigerated in order account for the additional emissions that refrigeration requirements may generate.

By failing to account for all potential cold storage requirements, the model may underestimate the Project's construction-related and operational emissions and should not be relied upon to determine Project significance. A full CEQA analysis should be prepared to account for the possibility of additional cold storage needs by future tenants.

<sup>&</sup>lt;sup>3</sup> "Warehouses." Business Energy Advisor, available at: https://ouc.bizenergyadvisor.com/article/warehouses.

<sup>&</sup>lt;sup>4</sup> "Estimation of Fuel Use by Idling Commercial Trucks." Transportation Research Record Journal of the Transportation Research Board, January 2006, p. 8, available at:

https://www.researchgate.net/publication/245561735 Estimation of Fuel Use by Idling Commercial Trucks. 
<sup>5</sup> "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Mobile Source Committee, July 2014, available at: <a href="http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-war

<sup>&</sup>lt;sup>6</sup> "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Inland Empire Logistics Council, June 2014, *available at*: <a href="http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/final-ielc\_6-19-2014.pdf?sfvrsn=2">http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/final-ielc\_6-19-2014.pdf?sfvrsn=2</a>.

### Underestimated Parking Land Use Size

#### According to the Staff Report:

"The plans demonstrate that additional parking could be provided for future site and building reconfigurations ensuring consistency with the NI PlaceType and allowing flexibility to accommodate more jobs-dense uses on the site. The project has demonstrated that the ability to convert building area and reconfigure parking areas to accommodate the NI PlaceType parking ratio of three spaces per 1,000-square feet of building area and the ability to retrofit the building for smaller scale light industrial and creative uses. *This would allow for 559 stalls*, mostly configured within the building and some reconfiguration of the exterior parking stalls" (emphasis added) (p. 3)

As such, the model should have included a 559 parking spaces. However, review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Construction – Unmitigated)" and "Cherry Avenue Warehouse (High-Cube Fulfillment Operations)" models include only 338 parking spaces (see excerpt below) (Attachment E, pp. 147, 182, 251, 267, 439, 506).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Unrefrigerated Warehouse-No Rail	258.38	1000sqft	5.93	258,376.00
User Defined Industrial	258.38	User Defined Unit	0.00	0.00
Parking Lot	338.00	Space	1.19	51,714.00
Other Asphalt Surfaces	261.15	1000sqft	6.00	261,149.00

As demonstrated above, the amount of parking spaces included in the models is underestimated by 221 spaces. This underestimation presents an issue, as the square footage of parking land uses is used for certain calculations such as determining the area to be painted and stripped (i.e., VOC emissions from architectural coatings) and area to include lighting (i.e., energy impacts). By underestimating the proposed parking land use size, the models may underestimate the Project's construction-related and operational emissions and should not be relied upon to determine Project significance.

### Unsubstantiated Reductions to Architectural Coating Emission Factors

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Construction – Unmitigated)" model includes reductions to the default architectural coating emission factors (see excerpt below) (Attachment E, pp. 148, 183, 440).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

As demonstrated above, the nonresidential exterior and interior architectural coating emission factors are reduced from the default values of 100- to 50-grams per liter ("g/L"). As previously mentioned, the

<sup>&</sup>lt;sup>7</sup> Calculated: (559 total vehicle stalls) – (338 modeled stalls) = 221 underestimated stalls.

<sup>&</sup>lt;sup>8</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 29.

CalEEMod User's Guide requires any changes to model defaults be justified.<sup>9</sup> According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is:

"Rule 1113" (Attachment E, pp. 148, 183, 440).

Furthermore, regarding rules and regulations that would apply to the proposed project, the AQIA states:

"SCAQMD RULE 1113 This rule serves to limit the Volatile Organic Compound (VOC) content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects [...]

Although the Project would comply with the above regulatory requirements, it should be noted that emission reductions associated with Rules 401, 402, 1301, and 2305 cannot be quantified in the California Emissions Estimator Model (CalEEMod) and are therefore not reflected in the emissions presented herein. Conversely, Rule 403 (Fugitive Dust) (2) and Rule 1113 (Architectural Coatings) (3) can be modeled in CalEEMod. As such, credit for Rule 403 and Rule 1113 have been taken in the analysis." (p. 2, 3).

However, these reductions remain unsubstantiated, as we cannot verify the accuracy of the revised architectural coating emission factors based on SCAQMD Rule 1113 alone. The SCAQMD Rule 1113 Table of Standards provides the required VOC limits (grams of VOC per liter of coating) for 57 different coating categories. <sup>10</sup> The VOC limits for each coating varies from a minimum value of 50 g/L to a maximum value of 730 g/L. As such, we cannot verify that SCAQMD Rule 1113 substantiates reductions to the default coating values without more information regarding what category of coating will be used. As the Staff Report and associated documents fail to explicitly require the use of a specific type of coating which would adhere to a specific VOC limit, we are unable to verify the model's revised emission factors.

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive organic gas/volatile organic compound ("ROG"/"VOC") emissions. <sup>11</sup> By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project's construction-related ROG/VOC emissions and should not be relied upon to determine Project significance.

#### *Unsubstantiated Changes to Individual Construction Phase Lengths*

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Construction – Unmitigated)" model includes several changes to the default individual construction phase lengths (see excerpt below) (Attachment E, pp. 148, 183, 440).

<sup>&</sup>lt;sup>9</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 1, 14.

<sup>&</sup>lt;sup>10</sup> SCAQMD Rule 1113 Advisory Notice." SCAQMD, February 2016, *available at:* <a href="http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=24">http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=24</a>, p. 1113-14, Table of Standards 1.

<sup>&</sup>lt;sup>11</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 35, 40.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	30.00	35.00
tblConstructionPhase	NumDays	300.00	191.00
tblConstructionPhase	NumDays	20.00	40.00

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Attachment E, pp. 154, 189, 445, 446).

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
1	Demolition/Crushing	Demolition	1/15/2023	2/17/2023	5	25
2	Site Preparation	Site Preparation	2/18/2023	3/3/2023	5	10
3	Grading	Grading	3/4/2023	4/21/2023	5	35
4	Building Construction	Building Construction	4/22/2023	1/15/2024	5	191
5	Paving	Paving	12/19/2023	1/15/2024	5	20
6	Architectural Coating	Architectural Coating	11/21/2023	1/15/2024	5	40

As demonstrated above, the demolition phase is increased by 25%, from the default value of 20 to 25 days; the grading phase is increased by 17%, from the default value of 30 to 35 days; the building construction phase is decreased by 36%, from the default values of 300 to 191 days; and the architectural coating phase is increased by 100%, from the default value of 20 to 40 days. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified. According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is:

"Construction anticipated to begin in January 2023 and end January 2024" (Attachment E, pp. 147, 182, 439).

Furthermore, regarding the Project's anticipated construction schedule, the AQIA provides the following table (see excerpt below) (Attachment E, p. 41).

Construction Activity	Start Date	End Date	Days
Demolition/Crushing	01/15/2023	02/17/2023	25
Site Preparation	02/18/2023	03/03/2023	10
Grading	03/04/2023	04/21/2023	35
Building Construction	04/22/2023	01/15/2024	191
Paving	12/19/2023	01/15/2024	20
Architectural Coating	11/21/2023	01/15/2024	40

<sup>&</sup>lt;sup>12</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 1, 14.

However, the changes to the induvial construction phase lengths remain unsubstantiated. While the AQIA indicates the total construction duration, the Staff Report fails to provide a source for the above table to justify the *individual* construction phase lengths. This is incorrect, as according to the CalEEMod User's Guide:

"CalEEMod was also designed to allow the user to change the defaults to reflect site- or projectspecific information, when available, provided that the information is supported by substantial evidence as required by CEQA." <sup>13</sup>

As such, until additional information becomes available that substantiates the revised *individual* construction phase lengths, we are unable to verify the changes included in the model. Instead, the model should have proportionately altered all phase lengths to match the proposed construction duration of one year.<sup>14</sup>

These unsubstantiated changes present an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).<sup>15</sup>

<u>Demolition</u> involves removing buildings or structures.

<u>Site Preparation</u> involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

<u>Grading</u> involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

<u>Architectural Coating</u> involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

<u>Paving</u> involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

By disproportionately altering and extending some of the individual construction phase lengths without proper justification, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. Therefore, the model may underestimate the peak daily emissions associated with some phases of construction and should not be relied upon to determine Project significance.

<sup>&</sup>lt;sup>13</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 13, 14.

<sup>&</sup>lt;sup>14</sup> See Attachment A for proportionally altered construction phases.

<sup>&</sup>lt;sup>15</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 32.

### Unsubstantiated Reductions to Demolition Hauling Trips

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Construction – Unmitigated)" model includes a change to the default demolition hauling trips (see excerpt below) (Attachment E, pp. 149, 184, 441).

Table Name	Column Name	Default Value	New Value
tblTripsAndVMT	HaulingTripNumber	1,730.00	0.00

As a result of these changes, the models include zero hauling trips for the demolition phase of construction (see excerpt below) (Attachment E, pp. 155, 189, 445, 456).

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number
Demolition/Crushing	7	18.00	10.00	0.00
Site Preparation	7	18.00	4.00	0.00
Grading	8	20.00	14.00	0.00
Building Construction	16	259.00	74.00	0.00
Paving	6	15.00	0.00	0.00
Architectural Coating	1	52.00	0.00	0.00

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified. According to the "User Entered Comments and Non-Default Data" table, the justification provided for these changes is:

"Vendor Trips adjusted based on CalEEMod Defaults for Building Construction and number of days for Demolition/Crushing, Site Preparation, Grading, and Building Construction" (Attachment E, pp. 148, 183, 440).

However, this is insufficient, as the justification fails to discuss the reductions to the hauling trip numbers. Furthermore, according to the AQIA:

"The site is currently developed with existing asphalt/concrete and buildings which will be demolished. Demolition of the existing asphalt/concrete and buildings will result in approximately 17,500 total tons of material that would be demolished, crushed, and stockpiled on-site to be used as fill" (p. 39).

However, these changes remain unsubstantiated, as the AQIA fails to provide any further information regarding the intended use of the materials generated during demolition. While the AQIA claims that the material would be "stockpiled on-site to be used as fill," we cannot verify that *all* of the material

<sup>&</sup>lt;sup>16</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 1, 14.

would be used as fill. As such, some of the demolition material may eventually need to be exported off site, thus generating hauling trips. By reducing the model's construction hauling trip numbers to zero, the model may underestimate the hauling trips required during demolition of the existing buildings.

This potential underestimation presents an issue, as CalEEMod uses the number of hauling trips to estimate the construction-related emissions associated with on-road vehicles. <sup>17</sup> By failing to include any hauling trips for the demolition phase of construction, the model may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

### Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions, we prepared an updated CalEEMod model, using the Project-specific information provided by the Staff Report. In our updated model, we omitted the unsubstantiated changes to the architectural and area coating emission factors and hauling trip numbers; proportionately altered the individual construction phase lengths; and included the correct number of parking spaces.<sup>18</sup>

Our updated analysis estimates that the Project's construction-related VOC emissions would exceed the applicable South Coast Air Quality Management District ("SCAQMD") threshold of 75-pounds per day ("lbs/day"), as referenced by the AQIA (p. 42, Table 3-5) (see table below).<sup>19</sup>

SWAPE Criteria Air Pol	lutant Emissions
Construction	VOC
Construction	(lbs/day)
AQIA	43.92
SWAPE	227.61
% Increase	418%
SCAQMD Threshold	75
Exceeds?	Yes

As you can see in the table above, the Project's construction-related VOC emissions, as estimated by SWAPE, increase by approximately 418% and exceed the applicable SCAQMD significance threshold. Thus, our updated model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the Staff Report. As a result, a full CEQA analysis should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

<sup>&</sup>lt;sup>17</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <a href="https://www.aqmd.gov/caleemod/user's-guide">https://www.aqmd.gov/caleemod/user's-guide</a>, p. 34.

<sup>&</sup>lt;sup>18</sup> See Attachment B for updated air modeling.

<sup>&</sup>lt;sup>19</sup> "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, April 2019, *available at*: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

### Diesel Particulate Matter Emissions Inadequately Evaluated

The Mobile Source Health Risk Assessment ("HRA Report"), included within Attachment E to the Staff Report, concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified construction and operational health risk assessments ("HRAs"). Specifically, the HRA Report estimates that the maximum incremental cancer risk posed to nearby, existing residential sensitive receptors associated with exposure to diesel particulate matter ("DPM") emissions during Project construction would be 3.24 in one million, which would not exceed the SCAQMD significance threshold of 10 in one million (p. 3, Table ES-1).

TABLE ES-1: SUMMARY OF CONSTRUCTION CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
2 Year Exposure	Maximum Exposed Sensitive Receptor	3.24	10	NO
Time Period	Time Period Location		Significance Threshold	Exceeds Significance Threshold
Annual Average	Maximum Exposed Sensitive Receptor		1.0	NO

Furthermore, the HRA Report estimates that the maximum incremental cancer risk posed to nearby, existing residential sensitive receptors associated with exposure to DPM emissions during operation would be 0.93 in one million, which would also not exceed the SCAQMD significance threshold of 10 in one million (p. 3, Table ES-2).

TABLE ES-2: SUMMARY OF OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	0.93	10	NO
25 Year Exposure	Maximum Exposed Worker Receptor	0.50	10	NO
9 Year Exposure	Maximum Exposed Individual School Child	0.03	10	NO
Time Period	Time Period Location		Significance Threshold	Exceeds Significance Threshold
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO
Annual Average	Maximum Exposed Worker Receptor	≤0.01	1.0	NO
Annual Average Maximum Exposed Individual School Child		≤0.01	1.0	NO

However, the HRA Report's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

First, the Staff Report's construction HRA is incorrect, as it relies upon emissions estimates from a flawed air model, as discussed above. Specifically, the HRA Report states:

"The emissions calculations for the construction HRA component are based on an assumed mix of construction equipment and hauling activity as presented in the Cherry Avenue Warehouse Air Quality Impact Analysis ("technical study") prepared by Urban Crossroads, Inc. (4)" (p. 10).

As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the AQIA within Attachment E to the Staff Report, we found that several of the values inputted into the model are not consistent with information disclosed in the Staff Report. As a result, the HRA utilizes an underestimated DPM concentration to calculate the health risk associated with Project construction. As such, the HRA Report's construction cancer risk should not be relied upon to determine Project significance.

Second, the construction and operational HRAs utilize incorrect Fraction of Time At Home ("FAH") values. Specifically, the HRAs utilize a FAH value of 0.85 for the third trimester (age -0.25 to 0) and infant (age 0 to 2) receptors, and an FAH value of 0.72 for the child receptors (age 2 to 16) (see excerpt below) (p. 19, Table 2-6; p. 20, Table 2-7).

TABLE 2-6: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (CONSTRUCTION ACTIVITY)

Age	Daily	Age	Exposure	Fraction	Exposure	Exposure
	Breathing	Specific	Duration	of Time	Frequency	Time
	Rate (L/kg-	Factor	(years)	at Home	(days/year)	(hours/day)
	day)					
0 to 2	1,090	10	1.00	0.85	261	8

TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)

Age	Daily	Age	Exposure	Fraction	Exposure	Exposure
	Breathing	Specific	Duration	of Time	Frequency	Time
	Rate (L/kg-	Factor	(years)	at Home	(days/year)	(hours/day)
	day)					
-0.25 to 0	361	10	0.25	0.85	350	24
0 to 2	1,090	10	2	0.85	350	24
2 to 16	572	3	14	0.72	350	24
16 to 30	261	1	14	0.73	350	24

However, the FAH values used for the third trimester, infant, and childhood receptors are incorrect, as SCAQMD guidance clearly states:

"For Tiers 1, 2, and 3 screening purposes, the FAH is assumed to be 1 for ages third trimester to 16. As a default, children are assumed to attend a daycare or school in close proximity to their home and no discount should be taken for time spent outside of the area affected by the facility's emissions. People older than age 16 are assumed to spend only 73 percent of their time at home."<sup>20</sup>

Per SCAQMD guidance, the HRA Report should have used an FAH of 1 for the third trimester, infant, and child receptors. Thus, by utilizing incorrect FAH values, the HRA Report underestimates the cancer risk posed to nearby, existing sensitive receptors as a result of Project construction and operation.

Third, while the HRA Report includes two HRAs evaluating the health risk impacts to nearby, existing receptors as a result of Project construction and operation, the HRA Report fails to evaluate the combined lifetime cancer risk to nearby receptors as a result of Project construction and operation together. According to OEHHA guidance, "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location." <sup>21</sup> However, the HRA Report fails to sum the total cancer risks in order to evaluate the combined cancer risk over the course of the Project's total construction and operation. This is incorrect and, as such, an updated analysis should quantify and sum the Project's construction and operational cancer risks to compare to the SCAQMD threshold of 10 in one million.

### Disproportionate Health Risk Impacts of Warehouses on Surrounding Communities

Upon review of the Staff Report and associated documents, we have determined that the development of the proposed Project would result in disproportionate health risk impacts on community members living, working, and going to school within the immediate area of the Project site. According to SCAQMD:

"Those living within a half mile of warehouses are more likely to include communities of color, have health impacts such as higher rates of asthma and heart attacks, and a greater environmental burden."<sup>22</sup>

In particular, the SCAQMD found that more than 2.4 million people live within a half mile radius of at least one warehouse, and that those areas not only experience increased rates of asthma and heart attacks, but are also disproportionately Black and Latino communities below the poverty line.<sup>23</sup> Another study similarly indicates that "neighborhoods with lower household income levels and higher percentages of minorities are expected to have higher probabilities of containing warehousing

<sup>&</sup>lt;sup>20</sup> "Risk Assessment Procedures." SCAQMD, August 2017, available at: <a href="http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures">http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures</a> 2017 080717.pdf, p. 7.

<sup>&</sup>lt;sup>21</sup> "Guidance Manual for preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 8-4.

<sup>&</sup>lt;sup>22</sup> "South Coast AQMD Governing Board Adopts Warehouse Indirect Source Rule." SCAQMD, May 2021, *available at:* http://www.agmd.gov/docs/default-source/news-archive/2021/board-adopts-waisr-may7-2021.pdf?sfvrsn=9.

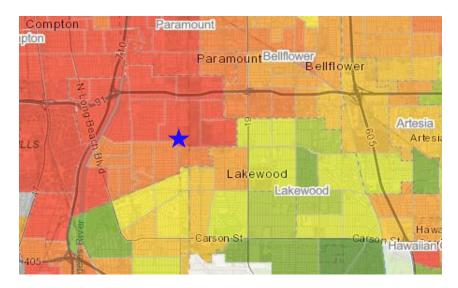
<sup>&</sup>lt;sup>23</sup> "Southern California warehouse boom a huge source of pollution. Regulators are fighting back." Los Angeles Times, May 2021, *available at:* <a href="https://www.latimes.com/california/story/2021-05-05/air-quality-officials-target-warehouses-bid-to-curb-health-damaging-truck-pollution">https://www.latimes.com/california/story/2021-05-05/air-quality-officials-target-warehouses-bid-to-curb-health-damaging-truck-pollution.</a>

facilities."<sup>24</sup> Additionally, a report authored by the Inland Empire-based People's Collective for Environmental Justice and University of Redlands states:

"As the warehouse and logistics industry continues to grow and net exponential profits at record rates, more warehouse projects are being approved and constructed in low-income communities of color and serving as a massive source of pollution by attracting thousands of polluting truck trips daily. Diesel trucks emit dangerous levels of nitrogen oxide and particulate matter that cause devastating health impacts including asthma, chronic obstructive pulmonary disease (COPD), cancer, and premature death. As a result, physicians consider these pollution-burdened areas 'diesel death zones.'"<sup>25</sup>

It is evident that the continued development of industrial warehouses within these communities poses a significant environmental justice challenge. However, the acceleration of warehouse development is only increasing despite the consequences on public health.

Long Beach, the setting of the proposed Project, has long borne a disproportionately high pollution burden compared to the rest of California. When using CalEnviroScreen 4.0, CalEPA's screening tool that ranks each census tract in the State for pollution and socioeconomic vulnerability, we found that the Project's census tract is in the 99<sup>th</sup> percentile of most polluted census tracts in the State (see excerpt below).<sup>26</sup>



<sup>&</sup>lt;sup>24</sup> "Location of warehouses and environmental justice: Evidence from four metros in California." Metro Freight Center of Excellence, January 2018, *available at:* 

https://www.metrans.org/assets/research/MF%201.1g Location%20of%20warehouses%20and%20environmental %20justice Final%20Report 021618.pdf, p. 21.

<sup>&</sup>lt;sup>25</sup> "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, available at:

https://earthjustice.org/sites/default/files/files/warehouse research report 4.15.2021.pdf, p. 4.

<sup>&</sup>lt;sup>26</sup> "CalEnviroScreen 4.0." California Office of Environmental Health Hazard Assessment (OEHHA), October 2021, available at: <a href="https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40">https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40</a>.

Furthermore, the Data Visualization Tool for Mates V, a monitoring and evaluation study conducted by SCAQMD, demonstrates that the City already exhibits a heightened residential carcinogenic risk from exposure to air toxics. Specifically, the location of the Project site is in the 83<sup>rd</sup> percentile of highest cancer risks in the South Coast Air Basin, with a cancer risk of 508 in one million (see excerpt below).<sup>27</sup>



Therefore, development of the proposed warehouse would disproportionately contribute to and exacerbate the health conditions of the residents in Long Beach.

In April 2022, the American Lung Association ranked Los Angeles County as the third worst for ozone pollution in the nation.<sup>28</sup> This year, the County continues to face the worst ozone pollution, as it has seen the highest recorded Air Quality Index ("AQI") values for ground-level ozone in California.<sup>29</sup> The U.S. Environmental Protection Agency ("EPA") indicates that ozone, the main ingredient in "smog," can cause several health problems, which includes aggravating lung diseases and increasing the frequency of asthma attacks. The U.S. EPA states:

"Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma."<sup>30</sup>

<sup>&</sup>lt;sup>27</sup> "Residential Air Toxics Cancer Risk Calculated from Model Data in Grid Cells." MATES V, 2018, available at: <a href="https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?views=Click-tabs-for-other-data%2CGridded-Cancer-Risk">https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?views=Click-tabs-for-other-data%2CGridded-Cancer-Risk</a>; see also: "MATES V Multiple Air Toxics Exposure Study." SCAQMD, available at: <a href="https://www.agmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v">https://www.agmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v</a>.

<sup>&</sup>lt;sup>28</sup> "State of the Air 2022." American Lung Association, April 2022, *available at:* 

https://www.lung.org/research/sota/key-findings/most-polluted-places. <sup>29</sup> "High Ozone Days." American Lung Association, 2022, *available at:* 

https://www.lung.org/research/sota/city-rankings/states/california.

<sup>&</sup>lt;sup>30</sup> "Health Effects of Ozone Pollution." U.S. EPA, May 2021, *available at*: <a href="https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution">https://www.epa.gov/ground-level-ozone-pollution</a>.

Furthermore, regarding the increased sensitivity of early-life exposures to inhaled pollutants, the California Air Resources Board ("CARB") states:

"Children are often at greater risk from inhaled pollutants, due to the following reasons:

- Children have unique activity patterns and behavior. For example, they crawl and play on the ground, amidst dirt and dust that may carry a wide variety of toxicants. They often put their hands, toys, and other items into their mouths, ingesting harmful substances. Compared to adults, children typically spend more time outdoors and are more physically active. Time outdoors coupled with faster breathing during exercise increases children's relative exposure to air pollution.
- Children are physiologically unique. Relative to body size, children eat, breathe, and
  drink more than adults, and their natural biological defenses are less developed. The
  protective barrier surrounding the brain is not fully developed, and children's nasal
  passages aren't as effective at filtering out pollutants. Developing lungs, immune, and
  metabolic systems are also at risk.
- Children are particularly susceptible during development. Environmental exposures during fetal development, the first few years of life, and puberty have the greatest potential to influence later growth and development."<sup>31</sup>

A Stanford-led study also reveals that children exposed to high levels of air pollution are more susceptible to respiratory and cardiovascular diseases in adulthood.<sup>32</sup> Thus, given children's higher propensity to succumb to the negative health impacts of air pollutants, and as warehouses release more smog-forming pollution than any other sector, it is necessary to evaluate the specific health risk that warehouses pose to children in the nearby community.

According to the above-mentioned study by the People's Collective for Environmental Justice and University of Redlands, there are 640 schools in the South Coast Air Basin that are located within half a mile of a large warehouse, most of them in socio-economically disadvantaged areas.<sup>33</sup> Regarding the proposed Project itself, the Staff Report states:

"Location R6 represents Harte Elementary School at 1671 E. Phillips Street, approximately 1,002 feet southwest of the Project site. Receptor R6 is placed at the building façade" (p. 51).

<sup>&</sup>lt;sup>31</sup> "Children and Air Pollution." California Air Resources Board (CARB), *available at:* https://ww2.arb.ca.gov/resources/documents/children-and-air-pollution.

<sup>&</sup>lt;sup>32</sup> "Air pollution puts children at higher risk of disease in adulthood, according to Stanford researchers and others." Stanford, February 2021, available at: <a href="https://news.stanford.edu/2021/02/22/air-pollution-impacts-childrens-health/">https://news.stanford.edu/2021/02/22/air-pollution-impacts-childrens-health/</a>.

<sup>&</sup>lt;sup>33</sup> "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, available at:

https://earthjustice.org/sites/default/files/files/warehouse research report 4.15.2021.pdf, p. 4.

As discussed, Harte Elementary School is located approximately 1,002 feet, or 0.19 miles from the Project site. Therefore, this Project poses a significant threat because, as outlined above, children are a vulnerable population that are more susceptible to the damaging side effects of air pollution. As such, the Project would have detrimental short-term and long-term health impacts on local children if approved.

A full CEQA analysis should be prepared to evaluate the disproportionate impacts of the proposed warehouse on the community adjacent to the Project, including an analysis of the impact on children and people of color who live and attend school in the surrounding area. Finally, in order to evaluate the cumulative air quality impact from the several warehouse projects proposed or built in a one-mile radius of the Project site, the full CEQA analysis should prepare a cumulative health risk assessment ("HRA") to quantify the adverse health outcome from the effects of exposure to multiple warehouses in the immediate area in conjunction with the poor ambient air quality in the Project's census tract.

### **Greenhouse Gas**

### Failure to Adequately Evaluate Greenhouse Gas Impacts

The GHG Analysis estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 1,666.60 metric tons of carbon dioxide equivalents per year during construction and operation ("MT CO<sub>2</sub>e/year") (p. 56, Table 3-8).

TABLE 3-8: PROJECT SCENARIO GHG EMISSIONS

Facination Courses	Emissions (MT/yr)				
Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO₂e	
Annual construction-related emissions amortized over 30 years	33.03	5.63E-03	8.51E-04	33.42	
Area Source	0.03	8.00E-05	0.00	0.03	
Energy Source	e 328.17 0.03		3.48E-03	329.87	
Mobile Source	1,311.37	0.06	0.14	1,354.26	
TRU Source		241.74			
On-Site Equipment	50.56	0.02	0.00	50.97	
Solid Waste Management	58.00	3.43	0.00	143.70	
Water Supply, Treatment, and Distribution	184.63	2.30	0.06	258.85	
Total Project CO₂e (All Sources)	2,412.86				
Existing	746.25				
Total Net CO₂e (All Sources)		1,66	6.60		

Source: CalEEMod output, See Appendices 3.1 and 3.4 for detailed model outputs.

As such, the GHG Analysis concludes:

"The Project would result in approximately 1,666.60 MT  $CO_2e/yr$ . As such, the Projects would not exceed the SCAQMD's numeric threshold of 3,000 MT  $CO_2e/yr$  if it were applied. Thus, the

Projects would not have the potential to result in a cumulatively considerable impact with respect to GHG emissions" (p. 57).

As discussed above, the GHG Analysis states that because emissions are not projected to exceed the threshold of 3,000 MT  $CO_2e/yr$ , the Project will result in a less-than-significant GHG impact. Furthermore, the GHG Analysis relies upon the Project's consistency with the CARB's 2017 Scoping Plan to conclude that the Project would result in a less-than-significant GHG impact (p. 58 – 63). However, the GHG Analysis's quantitative analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

- (1) The GHG Analysis's quantitative analysis relies upon a flawed air model;
- (2) The GHG Analysis's quantitative analysis relies upon an outdated threshold;
- (3) The AQIA's unsubstantiated air model indicates a potentially significant impact; and
- (4) The GHG Analysis fails to consider performance-based standards under CARB's 2017 scoping plan.

### 1) Incorrect and Unsubstantiated Quantitative Analysis of Emissions

As previously stated, the GHG Analysis estimates that the Project would generate net annual GHG emissions of 1,666.60 MT CO<sub>2</sub>e/year (p. 56, Table 3-8). However, the GHG Analysis's quantitative analysis is unsubstantiated. As previously discussed, when reviewing the Project's CalEEMod models, provided in the AQIA and the GHG Analysis within Attachment E to the Staff Report, we found that several of the values inputted into the models are not consistent with information disclosed in the Staff Report. As a result, the models may underestimate the Project's emissions, and the GHG Analysis's quantitative analysis should not be relied upon to determine Project significance. A full CEQA analysis should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the environment.

### 2) Incorrect Reliance on an Outdated Quantitative GHG Threshold

As previously stated, the GHG Analysis estimates that the Project would generate net annual GHG emissions of 1,666.60 MT CO<sub>2</sub>e/year, which would not exceed the SCAQMD threshold of 3,000 MT CO<sub>2</sub>e/year (p. 56, Table 3-8). However, the guidance that provided the 3,000 MT CO<sub>2</sub>e/year threshold, the SCAQMD's 2008 *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans* report, was developed when the Global Warming Solutions Act of 2006, commonly known as "AB 32", was the governing statute for GHG reductions in California. AB 32 requires California to reduce GHG emissions to 1990 levels by 2020.<sup>34</sup> Furthermore, AEP guidance states:

<sup>&</sup>lt;sup>34</sup> "Health & Safety Code 38550." California State Legislature, January 2007, *available at:* <a href="https://leginfo.legislature.ca.gov/faces/codes">https://leginfo.legislature.ca.gov/faces/codes</a> <a href="displaySection.xhtml?lawCode=HSC&sectionNum=38550">displaySection.xhtml?lawCode=HSC&sectionNum=38550</a>.

"[F]or evaluating projects with a post 2020 horizon, the threshold will need to be revised based on a new gap analysis that would examine 17 development and reduction potentials out to the next GHG reduction milestone." <sup>35</sup>

As it is currently February 2023, thresholds for 2020 are not applicable to the proposed Project and should be revised to reflect the current GHG reduction target. As such, the SCAQMD bright-line threshold of 3,000 MT CO<sub>2</sub>e/year is outdated and inapplicable to the proposed Project, and the Staff Report's less-than-significant GHG impact conclusion should not be relied upon. Instead, we recommend that the Project apply the SCAQMD 2035 service population efficiency target of 3.0 MT CO<sub>2</sub>e/SP/year, which was calculated by applying a 40% reduction to the 2020 targets.<sup>36</sup>

### 3) Failure to Identify a Potentially Significant GHG Impact

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as estimated by the GHG Analysis, to the SCAQMD 2035 efficiency target of 3.0 MT  $CO_2e/SP/year$ . When applying this threshold, the Project's incorrect and unsubstantiated air model indicates a potentially significant GHG impact.

As previously stated, the GHG Analysis estimates that the Project would generate net annual GHG emissions of 1,666.60 MT  $CO_2e/year$  (p. 56, Table 3-8). According to CAPCOA's *CEQA & Climate Change* report, a service population ("SP") is defined as "the sum of the number of residents and the number of jobs supported by the project."<sup>37</sup> According to the *Employment Density Study Summary Report* completed by the Southern California Association of Governments ("SCAG"), the project would support approximately 200 employees.<sup>38, 39</sup> As the project is not expected to support any residential land uses, we estimate an SP of 200 people. When dividing the Project's net annual GHG emissions, as estimated by the GHG Analysis, by an SP of 200 people, we find that the Project would emit approximately 8.3 MT  $CO_2e/SP/year$  (see table below).<sup>40</sup>

<sup>&</sup>lt;sup>35</sup> "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at*: <a href="https://califaep.org/docs/AEP-2016">https://califaep.org/docs/AEP-2016</a> Final White Paper.pdf, p. 39.

<sup>&</sup>lt;sup>36</sup> "Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15." SCAQMD, September 2010, *available at:* <a href="http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf">http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf</a>, p. 2.

<sup>&</sup>lt;sup>37</sup> "CEQA & Climate Change." California Air Pollution Control Officers Association (CAPCOA), January 2008, available at: <a href="http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf">http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf</a>, p. 71-72.

<sup>38</sup> Calculated: (303,972-SF warehouse) / (1,518-SF average per one warehouse employee in Los Angeles County) = 200.2 employees.

<sup>&</sup>lt;sup>39</sup> "Employment Density Study Summary Report." Southern California Association of Governments (SCAG), October 2001, *available at:* <a href="https://docplayer.net/30300085-Employment-density-study-summary-report-october-31-prepared-for-southern-california-association-of-governments.html">https://docplayer.net/30300085-Employment-density-study-summary-report-october-31-prepared-for-southern-california-association-of-governments.html</a>, p. 4.

<sup>&</sup>lt;sup>40</sup> Calculated: (1,666.60 MT CO<sub>2</sub>e/year) / (200 service population) = (8.3 MT CO<sub>2</sub>e/SP/year).

Project Greenhouse Gas Emissions				
Annual Emissions (MT CO <sub>2</sub> e/year)	1,666.60			
Service Population	200			
Service Population Efficiency (MT CO <sub>2</sub> e/SP/year)	8.3			
SCAQMD 2035 Target	3.0			
Exceeds?	Yes			

As demonstrated above, the Project's service population efficiency value exceeds the SCAQMD 2035 efficiency target of 3.0 MT CO<sub>2</sub>e/SP/year, indicating a potentially significant impact not previously identified or addressed by the GHG Analysis. As a result, the GHG Analysis's less-than-significant GHG impact conclusion should not be relied upon. A full CEQA analysis should be prepared, including an updated GHG analysis and incorporating additional mitigation measures to reduce the Project's GHG emissions to less-than-significant levels.

### 4) Failure to Consider Performance-based Standards Under CARB's 2017 Scoping Plan

As previously discussed, the GHG Analysis concludes that the Project would be consistent with CARB's 2017 Climate Change Scoping Plan (p. 58 - 63). However, this is incorrect, as the GHG Analysis fails to consider the performance-based measures proposed by CARB.

#### i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 *Scoping Plan* explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies. <sup>41</sup> CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015." <sup>42</sup> By dividing the projected daily VMT by the population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2024 (Project operational year), and 2030 (target years under SB 32) (see table below).

<sup>&</sup>lt;sup>41</sup> "California's 2017 Climate Change Scoping Plan." CARB, November 2017, *available at*: <a href="https://ww3.arb.ca.gov/cc/scopingplan/scoping">https://ww3.arb.ca.gov/cc/scopingplan/scoping</a> plan 2017.pdf, p. 25, 98, 101-103.

<sup>&</sup>lt;sup>42</sup> "Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions," California Air Resources Board (CARB), January 2019, *available at*: <a href="https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate">https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate</a>; see also:

<a href="https://ww2.arb.ca.gov/sites/default/files/2019-01/sp">https://ww2.arb.ca.gov/sites/default/files/2019-01/sp</a> mss vmt calculations jan19 0.xlsx.

2017 Scoping Plan Daily VMT Per Capita							
	Los Angeles County				State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita	
2010	9,838,771	216,979,222	22.05	37,335,085	836,463,980.46	22.40	
2024	10,627,846	219,237,757	22.62	41,994,283	926,776,780.89	22.07	
2030	10,868,614	215,539,586	19.83	43,939,250	957,178,153.19	21.78	

As the Staff Report fails to evaluate the Project's consistency with the performance-based daily VMT per capita projections from CARB's 2017 *Scoping Plan*, the Staff Report's claim that the proposed Project would be consistent with the *Scoping Plan* is unsupported.

Furthermore, as of November 16, 2022, CARB has released an updated scoping plan for achieving carbon neutrality. However, the GHG Analysis fails to discuss the updated CARB 2022 Scoping plan whatsoever. A full CEQA analysis should be prepared for the proposed Project to provide additional information and analysis to conclude less-than-significant GHG impacts.

### **Mitigation**

### Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality and GHG impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Feasible mitigation measures can be found in the California Department of Justice Warehouse Project Best Practices document.<sup>43</sup> Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

- Requiring off-road construction equipment to be hybrid electric-diesel or zero emission, where
  available, and all diesel-fueled off-road construction equipment to be equipped with CARB Tier
  IV-compliant engines or better, and including this requirement in applicable bid documents,
  purchase orders, and contracts, with successful contractors demonstrating the ability to supply
  the compliant construction equipment for use prior to any ground-disturbing and construction
  activities.
- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Using electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power.
- Designating an area in the construction site where electric-powered construction vehicles and equipment can charge.
- Limiting the amount of daily grading disturbance area.

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<sup>&</sup>lt;sup>43</sup> "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, September 2022, *available at*: <a href="https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf">https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf</a>, p. 8 – 10.

- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than three minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all
  equipment maintenance records and data sheets, including design specifications and emission
  control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.
- Requiring all heavy-duty vehicles engaged in drayage to or from the project site to be zeroemission beginning in 2030.
- Requiring all on-site motorized operational equipment, such as forklifts and yard trucks, to be zero-emission with the necessary charging or fueling stations provided.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the local air district, and the building manager.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Unless the owner of the facility records a covenant on the title of the underlying property
  ensuring that the property cannot be used to provide refrigerated warehouse space,
  constructing electric plugs for electric transport refrigeration units at every dock door and
  requiring truck operators with transport refrigeration units to use the electric plugs when at
  loading docks.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.

- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance)
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air
  monitoring station proximate to sensitive receptors and the facility for the life of the project,
  and making the resulting data publicly available in real time. While air monitoring does not
  mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the
  affected community by providing information that can be used to improve air quality or avoid
  exposure to unhealthy air.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring operators to establish and promote a rideshare program that discourages singleoccupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel
  technologies and compliance with CARB regulations, by attending CARB-approved courses. Also
  require facility operators to maintain records on-site demonstrating compliance and make
  records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay
  program, and requiring tenants who own, operate, or hire trucking carriers with more than 100
  trucks to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

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.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

A full CEQA analysis should be prepared to include all feasible mitigation measures, as well as include updated air quality and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The analysis should also demonstrate a 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.

#### **Disclaimer**

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,

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

Paul E. Rosenfeld, Ph.D.

Attachment A: Proportionally Altered Construction Schedule

Attachment B: Updated CalEEMod Output Files

Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

	Construction Schedule Calculations												
	Default Phase	Construction			Construction	Revised Ph	hase						
Phase	Length	Duration	%		Duration	Length							
Demolition	20		558	0.0358	3	63	13						
Site Preparation	10		558	0.0179	3	63	7						
Grading	30		558	0.0538	3	63	20						
Construction	300		558	0.5376	3	63	195						
Paving	20		558	0.0358	3	63	13						
Architectural Coating	20		558	0.0358	3	63	13						

	Total Default	Revised
	Construction	Construction
	Duration	Duration
Start Date	1/15/2023	1/15/2023
End Date	7/26/2024	1/13/2024
Total Days	558	363

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **Cherry Avenue Warehouse (Construction - Unmitigated)**

Los Angeles-South Coast County, Annual

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Urbanization

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	45.60	1000sqft	1.05	45,596.00	0
Unrefrigerated Warehouse-No Rail	258.38	1000sqft	5.93	258,376.00	0
Other Asphalt Surfaces	261.15	1000sqft	6.00	261,149.00	0
Parking Lot	559.00	Space	5.03	223,600.00	0

Precipitation Freq (Days)

33

#### 1.2 Other Project Characteristics

Urban

				• • • • • • • • • • • • • • • • • • • •	•
Climate Zone	9			Operational Year	2024
Utility Company	Southern California E	Edison			
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

2.2

Wind Speed (m/s)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the Staff Report's model.

Land Use - See SWAPE's comments on "Underestimated Parking Land Use Size"

Construction Phase - See SWAPE's comments on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - See SWAPE's comments on "Failure to Model All Required Demolition"

Demolition - See SWAPE's comments on "Failure to Model All Required Demolition"

Grading - Consistent with the Staff Report's model.

Architectural Coating - See SWAPE's comments on "Unsubstantiated Reductions to Architectural Coating Emission Factors"

Vehicle Trips - Consistent with the Staff Report's model.

Energy Use - Consitent with the Staff Report's model.

Water And Wastewater - Consistent with the Staff Report's model.

Solid Waste - Consistent with the Staff Report's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	10.00	7.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	2.73	0.00
tblEnergyUse	LightingElect	1.91	0.00
tblEnergyUse	NT24E	13.61	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.09	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24E	0.58	0.00
tblEnergyUse	T24NG	0.93	0.00
tblEnergyUse	T24NG	0.83	0.00
tblLandUse	LandUseSquareFeet	45,600.00	45,596.00
tblLandUse	LandUseSquareFeet	258,380.00	258,376.00

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	261,150.00	261,149.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	42.86	0.00
tblSolidWaste	SolidWasteGenerationRate	242.88	0.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	14.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	ST_TR	1.74	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	10,545,000.00	0.00
tblWater	IndoorWaterUseRate	59,750,375.00	0.00

## 2.0 Emissions Summary

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 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	ar tons/yr									MT/yr						
2023	0.7328	4.1921	4.9241	0.0124	0.8106	0.1686	0.9792	0.2239	0.1583	0.3822	0.0000	1,120.335 2	1,120.335 2	0.1556	0.0490	1,138.812 0
2024	1.2516	9.7500e- 003	0.0248	6.0000e- 005	3.9800e- 003	4.7000e- 004	4.4500e- 003	1.0600e- 003	4.7000e- 004	1.5200e- 003	0.0000	4.9491	4.9491	1.8000e- 004	8.0000e- 005	4.9765
Maximum	1.2516	4.1921	4.9241	0.0124	0.8106	0.1686	0.9792	0.2239	0.1583	0.3822	0.0000	1,120.335 2	1,120.335 2	0.1556	0.0490	1,138.812 0

## **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	ır tons/yr									MT/yr						
2023	0.7328	4.1921	4.9241	0.0124	0.8106	0.1686	0.9792	0.2239	0.1583	0.3822	0.0000	1,120.334 6	1,120.334 6	0.1556	0.0490	1,138.811 3
2024	1.2516	9.7500e- 003	0.0248	6.0000e- 005	3.9800e- 003	4.7000e- 004	4.4500e- 003	1.0600e- 003	4.7000e- 004	1.5200e- 003	0.0000	4.9491	4.9491	1.8000e- 004	8.0000e- 005	4.9765
Maximum	1.2516	4.1921	4.9241	0.0124	0.8106	0.1686	0.9792	0.2239	0.1583	0.3822	0.0000	1,120.334 6	1,120.334 6	0.1556	0.0490	1,138.811 3

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-15-2023	4-14-2023	1.2990	1.2990
2	4-15-2023	7-14-2023	1.2470	1.2470
3	7-15-2023	10-14-2023	1.2627	1.2627
4	10-15-2023	1-14-2024	2.3277	2.3277
5	1-15-2024	4-14-2024	0.0819	0.0819
		Highest	2.3277	2.3277

## 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	tons/yr										MT/yr					
Area	1.2787	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water					<del></del>	0.0000	0.0000	<del></del>   	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2787	1.3000e- 004	0.0143	0.0000	0.0000	5.0000e- 005	5.0000e- 005	0.0000	5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 2.2 Overall Operational

#### **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					ton	s/yr							MT	/yr		
Area	1.2787	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297
Energy	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
Mobile	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
Waste	1 1 1 1					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water	1 1 1 1					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2787	1.3000e- 004	0.0143	0.0000	0.0000	5.0000e- 005	5.0000e- 005	0.0000	5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297

	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/Crushing	Demolition	1/15/2023	2/1/2023	5	13	
2	Site Preparation	Site Preparation	2/2/2023	2/10/2023	5	7	
3	Grading	Grading	2/11/2023	3/10/2023	5	20	

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	3/11/2023	12/8/2023	5	195	
5	Paving	Paving	12/9/2023	12/27/2023	5	13	
6	Architectural Coating	Architectural Coating	12/28/2023	1/15/2024	5	13	

Acres of Grading (Site Preparation Phase): 24.5

Acres of Grading (Grading Phase): 60

Acres of Paving: 11.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 455,958; Non-Residential Outdoor: 151,986; Striped Parking Area:

29,085 (Architectural Coating - sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition/Crushing	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition/Crushing	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition/Crushing	Excavators	3	8.00	158	0.38
Demolition/Crushing	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	8.00	97	0.37

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Welders	2	8.00	46	0.45
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
Architectural Coating	Air Compressors	1	8.00	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/Crushing	7	18.00	10.00	1,730.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	331.00	129.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition/Crushing - 2023 <u>Unmitigated Construction On-Site</u>

#### ROG NOx CO SO2 Fugitive PM10 PM10 Fugitive PM2.5 PM2.5 Bio- CO2 NBio- CO2 Total CO2 CH4 N2O CO2e Exhaust Exhaust PM10 PM2.5 Total Total MT/yr Category tons/yr 0.1872 0.0284 0.0000 0.0000 0.0000 0.0000 Fugitive Dust 0.1872 0.0000 0.0284 0.0000 0.0000 0.0000 0.0177 0.1591 0.1558 7.4900e-7.0400e-26.0134 26.0134 6.4200e-3.0000e-7.4900e-0.0000 0.0000 Off-Road 7.0400e-26.1739 003 003 004 003 003 0.0177 Total 0.1591 0.1558 3.0000e-0.1872 7.4900e-0.1947 0.0284 7.0400e-0.0354 0.0000 26.0134 26.0134 6.4200e-0.0000 26.1739 004 003 003 003

	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	1.8200e- 003	0.1189	0.0303	5.1000e- 004	0.0149	7.1000e- 004	0.0156	4.0900e- 003	6.8000e- 004	4.7700e- 003	0.0000	50.4528	50.4528	2.7800e- 003	8.0100e- 003	52.9098
Vendor	7.0000e- 005	2.6200e- 003	9.8000e- 004	1.0000e- 005	4.1000e- 004	1.0000e- 005	4.2000e- 004	1.2000e- 004	1.0000e- 005	1.3000e- 004	0.0000	1.1818	1.1818	4.0000e- 005	1.7000e- 004	1.2335
Worker	3.7000e- 004	2.9000e- 004	3.9900e- 003	1.0000e- 005	1.2800e- 003	1.0000e- 005	1.2900e- 003	3.4000e- 004	1.0000e- 005	3.5000e- 004	0.0000	1.0205	1.0205	3.0000e- 005	3.0000e- 005	1.0291
Total	2.2600e- 003	0.1219	0.0353	5.3000e- 004	0.0166	7.3000e- 004	0.0173	4.5500e- 003	7.0000e- 004	5.2500e- 003	0.0000	52.6552	52.6552	2.8500e- 003	8.2100e- 003	55.1725

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition/Crushing - 2023

#### **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							MT	/yr		
Fugitive Dust					0.1872	0.0000	0.1872	0.0284	0.0000	0.0284	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0177	0.1591	0.1558	3.0000e- 004		7.4900e- 003	7.4900e- 003		7.0400e- 003	7.0400e- 003	0.0000	26.0134	26.0134	6.4200e- 003	0.0000	26.1739
Total	0.0177	0.1591	0.1558	3.0000e- 004	0.1872	7.4900e- 003	0.1947	0.0284	7.0400e- 003	0.0354	0.0000	26.0134	26.0134	6.4200e- 003	0.0000	26.1739

	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	1.8200e- 003	0.1189	0.0303	5.1000e- 004	0.0149	7.1000e- 004	0.0156	4.0900e- 003	6.8000e- 004	4.7700e- 003	0.0000	50.4528	50.4528	2.7800e- 003	8.0100e- 003	52.9098
Vendor	7.0000e- 005	2.6200e- 003	9.8000e- 004	1.0000e- 005	4.1000e- 004	1.0000e- 005	4.2000e- 004	1.2000e- 004	1.0000e- 005	1.3000e- 004	0.0000	1.1818	1.1818	4.0000e- 005	1.7000e- 004	1.2335
Worker	3.7000e- 004	2.9000e- 004	3.9900e- 003	1.0000e- 005	1.2800e- 003	1.0000e- 005	1.2900e- 003	3.4000e- 004	1.0000e- 005	3.5000e- 004	0.0000	1.0205	1.0205	3.0000e- 005	3.0000e- 005	1.0291
Total	2.2600e- 003	0.1219	0.0353	5.3000e- 004	0.0166	7.3000e- 004	0.0173	4.5500e- 003	7.0000e- 004	5.2500e- 003	0.0000	52.6552	52.6552	2.8500e- 003	8.2100e- 003	55.1725

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.3 Site Preparation - 2023

#### **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							MT	/yr		
Fugitive Dust					0.0762	0.0000	0.0762	0.0362	0.0000	0.0362	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1466	0.0640	2.0000e- 004		6.1500e- 003	6.1500e- 003		5.6600e- 003	5.6600e- 003	0.0000	17.5080	17.5080	5.6600e- 003	0.0000	17.6496
Total	0.0134	0.1466	0.0640	2.0000e- 004	0.0762	6.1500e- 003	0.0824	0.0362	5.6600e- 003	0.0418	0.0000	17.5080	17.5080	5.6600e- 003	0.0000	17.6496

	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		
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	2.0000e- 005	5.6000e- 004	2.1000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.2546	0.2546	1.0000e- 005	4.0000e- 005	0.2657
Worker	2.0000e- 004	1.6000e- 004	2.1500e- 003	1.0000e- 005	6.9000e- 004	0.0000	6.9000e- 004	1.8000e- 004	0.0000	1.9000e- 004	0.0000	0.5495	0.5495	1.0000e- 005	1.0000e- 005	0.5541
Total	2.2000e- 004	7.2000e- 004	2.3600e- 003	1.0000e- 005	7.8000e- 004	0.0000	7.8000e- 004	2.1000e- 004	0.0000	2.2000e- 004	0.0000	0.8041	0.8041	2.0000e- 005	5.0000e- 005	0.8198

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.3 Site Preparation - 2023

#### **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					ton	s/yr							МТ	/уг		
Fugitive Dust					0.0762	0.0000	0.0762	0.0362	0.0000	0.0362	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1466	0.0640	2.0000e- 004		6.1500e- 003	6.1500e- 003		5.6600e- 003	5.6600e- 003	0.0000	17.5080	17.5080	5.6600e- 003	0.0000	17.6496
Total	0.0134	0.1466	0.0640	2.0000e- 004	0.0762	6.1500e- 003	0.0824	0.0362	5.6600e- 003	0.0418	0.0000	17.5080	17.5080	5.6600e- 003	0.0000	17.6496

	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
V GIIGGI	2.0000e- 005	5.6000e- 004	2.1000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.2546	0.2546	1.0000e- 005	4.0000e- 005	0.2657
Worker	2.0000e- 004	1.6000e- 004	2.1500e- 003	1.0000e- 005	6.9000e- 004	0.0000	6.9000e- 004	1.8000e- 004	0.0000	1.9000e- 004	0.0000	0.5495	0.5495	1.0000e- 005	1.0000e- 005	0.5541
Total	2.2000e- 004	7.2000e- 004	2.3600e- 003	1.0000e- 005	7.8000e- 004	0.0000	7.8000e- 004	2.1000e- 004	0.0000	2.2000e- 004	0.0000	0.8041	0.8041	2.0000e- 005	5.0000e- 005	0.8198

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023
<u>Unmitigated Construction On-Site</u>

	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		
Fugitive Dust					0.0920	0.0000	0.0920	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0312	0.3341	0.2194	5.6000e- 004		0.0135	0.0135		0.0124	0.0124	0.0000	49.4846	49.4846	0.0160	0.0000	49.8847
Total	0.0312	0.3341	0.2194	5.6000e- 004	0.0920	0.0135	0.1055	0.0365	0.0124	0.0489	0.0000	49.4846	49.4846	0.0160	0.0000	49.8847

	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	1.6000e- 004	5.6400e- 003	2.1100e- 003	3.0000e- 005	8.8000e- 004	3.0000e- 005	9.1000e- 004	2.5000e- 004	3.0000e- 005	2.8000e- 004	0.0000	2.5455	2.5455	9.0000e- 005	3.7000e- 004	2.6568
Worker	6.3000e- 004	5.0000e- 004	6.8100e- 003	2.0000e- 005	2.1900e- 003	1.0000e- 005	2.2100e- 003	5.8000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.7445	1.7445	5.0000e- 005	5.0000e- 005	1.7592
Total	7.9000e- 004	6.1400e- 003	8.9200e- 003	5.0000e- 005	3.0700e- 003	4.0000e- 005	3.1200e- 003	8.3000e- 004	4.0000e- 005	8.7000e- 004	0.0000	4.2900	4.2900	1.4000e- 004	4.2000e- 004	4.4160

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

<u>Mitigated Construction On-Site</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
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0920	0.0000	0.0920	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0312	0.3341	0.2194	5.6000e- 004		0.0135	0.0135		0.0124	0.0124	0.0000	49.4845	49.4845	0.0160	0.0000	49.8846
Total	0.0312	0.3341	0.2194	5.6000e- 004	0.0920	0.0135	0.1055	0.0365	0.0124	0.0489	0.0000	49.4845	49.4845	0.0160	0.0000	49.8846

	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	1.6000e- 004	5.6400e- 003	2.1100e- 003	3.0000e- 005	8.8000e- 004	3.0000e- 005	9.1000e- 004	2.5000e- 004	3.0000e- 005	2.8000e- 004	0.0000	2.5455	2.5455	9.0000e- 005	3.7000e- 004	2.6568
Worker	6.3000e- 004	5.0000e- 004	6.8100e- 003	2.0000e- 005	2.1900e- 003	1.0000e- 005	2.2100e- 003	5.8000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.7445	1.7445	5.0000e- 005	5.0000e- 005	1.7592
Total	7.9000e- 004	6.1400e- 003	8.9200e- 003	5.0000e- 005	3.0700e- 003	4.0000e- 005	3.1200e- 003	8.3000e- 004	4.0000e- 005	8.7000e- 004	0.0000	4.2900	4.2900	1.4000e- 004	4.2000e- 004	4.4160

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.5 Building Construction - 2023 <u>Unmitigated Construction On-Site</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
Category					ton	s/yr							МТ	/yr		
	0.3016	2.7671	3.0463	5.1700e- 003		0.1327	0.1327		0.1250	0.1250	0.0000	444.6142	444.6142	0.1051	0.0000	447.2425
Total	0.3016	2.7671	3.0463	5.1700e- 003		0.1327	0.1327		0.1250	0.1250	0.0000	444.6142	444.6142	0.1051	0.0000	447.2425

	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	0.0142	0.5069	0.1897	2.3400e- 003	0.0793	2.4300e- 003	0.0817	0.0229	2.3300e- 003	0.0252	0.0000	228.6869	228.6869	7.6400e- 003	0.0329	238.6856
Worker	0.1024	0.0813	1.0996	3.0700e- 003	0.3536	2.1700e- 003	0.3558	0.0939	2.0000e- 003	0.0959	0.0000	281.4949	281.4949	7.4900e- 003	7.3300e- 003	283.8656
Total	0.1166	0.5882	1.2893	5.4100e- 003	0.4329	4.6000e- 003	0.4375	0.1168	4.3300e- 003	0.1211	0.0000	510.1818	510.1818	0.0151	0.0402	522.5512

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.5 Building Construction - 2023

#### **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							MT	/yr		
	0.3016	2.7671	3.0463	5.1700e- 003		0.1327	0.1327		0.1250	0.1250	0.0000	444.6136	444.6136	0.1051	0.0000	447.2420
Total	0.3016	2.7671	3.0463	5.1700e- 003		0.1327	0.1327		0.1250	0.1250	0.0000	444.6136	444.6136	0.1051	0.0000	447.2420

	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		
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	0.0142	0.5069	0.1897	2.3400e- 003	0.0793	2.4300e- 003	0.0817	0.0229	2.3300e- 003	0.0252	0.0000	228.6869	228.6869	7.6400e- 003	0.0329	238.6856
Worker	0.1024	0.0813	1.0996	3.0700e- 003	0.3536	2.1700e- 003	0.3558	0.0939	2.0000e- 003	0.0959	0.0000	281.4949	281.4949	7.4900e- 003	7.3300e- 003	283.8656
Total	0.1166	0.5882	1.2893	5.4100e- 003	0.4329	4.6000e- 003	0.4375	0.1168	4.3300e- 003	0.1211	0.0000	510.1818	510.1818	0.0151	0.0402	522.5512

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023
<u>Unmitigated Construction On-Site</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
Category					ton	s/yr							МТ	/yr		
1	6.7100e- 003	0.0663	0.0948	1.5000e- 004		3.3200e- 003	3.3200e- 003		3.0500e- 003	3.0500e- 003	0.0000	13.0175	13.0175	4.2100e- 003	0.0000	13.1227
Paving	0.0145	 	]   			0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0212	0.0663	0.0948	1.5000e- 004		3.3200e- 003	3.3200e- 003		3.0500e- 003	3.0500e- 003	0.0000	13.0175	13.0175	4.2100e- 003	0.0000	13.1227

	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	/уг		
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
	3.1000e- 004	2.5000e- 004	3.3200e- 003	1.0000e- 005	1.0700e- 003	1.0000e- 005	1.0700e- 003	2.8000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8504	0.8504	2.0000e- 005	2.0000e- 005	0.8576
Total	3.1000e- 004	2.5000e- 004	3.3200e- 003	1.0000e- 005	1.0700e- 003	1.0000e- 005	1.0700e- 003	2.8000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8504	0.8504	2.0000e- 005	2.0000e- 005	0.8576

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

<u>Mitigated Construction On-Site</u>

	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		
1	6.7100e- 003	0.0663	0.0948	1.5000e- 004		3.3200e- 003	3.3200e- 003		3.0500e- 003	3.0500e- 003	0.0000	13.0175	13.0175	4.2100e- 003	0.0000	13.1227
Paving	0.0145					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0212	0.0663	0.0948	1.5000e- 004		3.3200e- 003	3.3200e- 003		3.0500e- 003	3.0500e- 003	0.0000	13.0175	13.0175	4.2100e- 003	0.0000	13.1227

	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		
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	3.1000e- 004	2.5000e- 004	3.3200e- 003	1.0000e- 005	1.0700e- 003	1.0000e- 005	1.0700e- 003	2.8000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8504	0.8504	2.0000e- 005	2.0000e- 005	0.8576
Total	3.1000e- 004	2.5000e- 004	3.3200e- 003	1.0000e- 005	1.0700e- 003	1.0000e- 005	1.0700e- 003	2.8000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8504	0.8504	2.0000e- 005	2.0000e- 005	0.8576

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2023 <u>Unmitigated Construction On-Site</u>

	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		
Archit. Coating	0.2271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e- 004	1.7400e- 003	2.4100e- 003	0.0000	 	9.0000e- 005	9.0000e- 005		9.0000e- 005	9.0000e- 005	0.0000	0.3404	0.3404	2.0000e- 005	0.0000	0.3409
Total	0.2274	1.7400e- 003	2.4100e- 003	0.0000		9.0000e- 005	9.0000e- 005		9.0000e- 005	9.0000e- 005	0.0000	0.3404	0.3404	2.0000e- 005	0.0000	0.3409

	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		
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	2.1000e- 004	1.7000e- 004	2.2500e- 003	1.0000e- 005	7.2000e- 004	0.0000	7.3000e- 004	1.9000e- 004	0.0000	2.0000e- 004	0.0000	0.5757	0.5757	2.0000e- 005	1.0000e- 005	0.5805
Total	2.1000e- 004	1.7000e- 004	2.2500e- 003	1.0000e- 005	7.2000e- 004	0.0000	7.3000e- 004	1.9000e- 004	0.0000	2.0000e- 004	0.0000	0.5757	0.5757	2.0000e- 005	1.0000e- 005	0.5805

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2023

#### **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					ton	s/yr							МТ	/yr		
Archit. Coating	0.2271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
' ' ' '	2.6000e- 004	1.7400e- 003	2.4100e- 003	0.0000		9.0000e- 005	9.0000e- 005		9.0000e- 005	9.0000e- 005	0.0000	0.3404	0.3404	2.0000e- 005	0.0000	0.3409
Total	0.2274	1.7400e- 003	2.4100e- 003	0.0000		9.0000e- 005	9.0000e- 005		9.0000e- 005	9.0000e- 005	0.0000	0.3404	0.3404	2.0000e- 005	0.0000	0.3409

	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	/уг		
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	2.1000e- 004	1.7000e- 004	2.2500e- 003	1.0000e- 005	7.2000e- 004	0.0000	7.3000e- 004	1.9000e- 004	0.0000	2.0000e- 004	0.0000	0.5757	0.5757	2.0000e- 005	1.0000e- 005	0.5805
Total	2.1000e- 004	1.7000e- 004	2.2500e- 003	1.0000e- 005	7.2000e- 004	0.0000	7.3000e- 004	1.9000e- 004	0.0000	2.0000e- 004	0.0000	0.5757	0.5757	2.0000e- 005	1.0000e- 005	0.5805

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2024 <u>Unmitigated Construction On-Site</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
Category					ton	s/yr							MT	/yr		
Archit. Coating	1.2492					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I on read	1.3300e- 003	8.9400e- 003	0.0133	2.0000e- 005		4.5000e- 004	4.5000e- 004		4.5000e- 004	4.5000e- 004	0.0000	1.8724	1.8724	1.1000e- 004	0.0000	1.8750
Total	1.2505	8.9400e- 003	0.0133	2.0000e- 005		4.5000e- 004	4.5000e- 004		4.5000e- 004	4.5000e- 004	0.0000	1.8724	1.8724	1.1000e- 004	0.0000	1.8750

	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		
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	1.0700e- 003	8.2000e- 004	0.0115	3.0000e- 005	3.9800e- 003	2.0000e- 005	4.0000e- 003	1.0600e- 003	2.0000e- 005	1.0800e- 003	0.0000	3.0767	3.0767	8.0000e- 005	8.0000e- 005	3.1015
Total	1.0700e- 003	8.2000e- 004	0.0115	3.0000e- 005	3.9800e- 003	2.0000e- 005	4.0000e- 003	1.0600e- 003	2.0000e- 005	1.0800e- 003	0.0000	3.0767	3.0767	8.0000e- 005	8.0000e- 005	3.1015

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2024 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							MT	/yr		
Archit. Coating	1.2492					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	. 003 .	8.9400e- 003	0.0133	2.0000e- 005		4.5000e- 004	4.5000e- 004	1 1 1 1	4.5000e- 004	4.5000e- 004	0.0000	1.8724	1.8724	1.1000e- 004	0.0000	1.8750
Total	1.2505	8.9400e- 003	0.0133	2.0000e- 005		4.5000e- 004	4.5000e- 004		4.5000e- 004	4.5000e- 004	0.0000	1.8724	1.8724	1.1000e- 004	0.0000	1.8750

	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	1.0700e- 003	8.2000e- 004	0.0115	3.0000e- 005	3.9800e- 003	2.0000e- 005	4.0000e- 003	1.0600e- 003	2.0000e- 005	1.0800e- 003	0.0000	3.0767	3.0767	8.0000e- 005	8.0000e- 005	3.1015
Total	1.0700e- 003	8.2000e- 004	0.0115	3.0000e- 005	3.9800e- 003	2.0000e- 005	4.0000e- 003	1.0600e- 003	2.0000e- 005	1.0800e- 003	0.0000	3.0767	3.0767	8.0000e- 005	8.0000e- 005	3.1015

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

	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	<sup>-</sup> /yr		
Mitigated	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
Unmitigated	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

#### **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## **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
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		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
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Refrigerated Warehouse-No Rail	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Unrefrigerated Warehouse-No Rail	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

## 5.0 Energy Detail

Historical Energy Use: N

#### **5.1 Mitigation Measures Energy**

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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					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.2 Energy by Land Use - NaturalGas

#### **Unmitigated**

	NaturalGa s Use	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
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Asphalt Surfaces	0	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
Parking Lot	0	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
Refrigerated Warehouse-No Rail	0	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
Unrefrigerated Warehouse-No Rail	0	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
Total		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

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## **5.2 Energy by Land Use - NaturalGas**

### **Mitigated**

	NaturalGa s Use	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
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Asphalt Surfaces	0	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	i i i	0.0000	0.0000	     	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	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
Unrefrigerated Warehouse-No Rail	0	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
Total		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

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

#### <u>Mitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

## 6.0 Area Detail

## **6.1 Mitigation Measures Area**

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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			MT	/yr							
Mitigated	1.2787	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297
Unmitigated	1.2787	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297

## 6.2 Area by SubCategory

#### **Unmitigated**

	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					ton	s/yr				MT	/yr					
Architectural Coating	0.1476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1297					0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3200e- 003	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297
Total	1.2787	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 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					ton	s/yr				MT	/yr					
Coating	0.1476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	1.1297					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3200e- 003	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297
Total	1.2787	1.3000e- 004	0.0143	0.0000		5.0000e- 005	5.0000e- 005		5.0000e- 005	5.0000e- 005	0.0000	0.0279	0.0279	7.0000e- 005	0.0000	0.0297

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e	
Category	MT/yr				
		0.0000	0.0000	0.0000	
Unmitigated	0.0000	0.0000	0.0000	0.0000	

# 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0/0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	/yr	
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0/0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

# 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### Category/Year

	Total CO2	CH4	N2O	CO2e		
	MT/yr					
Mitigated	. 0.0000	0.0000	0.0000	0.0000		
Unmitigated	. 0.0000	0.0000	0.0000	0.0000		

# 8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e	
Land Use	tons	MT/yr				
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000	
Total		0.0000	0.0000	0.0000	0.0000	

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### 8.2 Waste by Land Use

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	-/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

# 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

#### **Boilers**

				5 " 5 "	
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

#### **User Defined Equipment**

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type Number

# 11.0 Vegetation

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **Cherry Avenue Warehouse (Construction - Unmitigated)**

Los Angeles-South Coast County, Summer

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Urbanization

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	45.60	1000sqft	1.05	45,596.00	0
Unrefrigerated Warehouse-No Rail	258.38	1000sqft	5.93	258,376.00	0
Other Asphalt Surfaces	261.15	1000sqft	6.00	261,149.00	0
Parking Lot	559.00	Space	5.03	223,600.00	0

Precipitation Freq (Days)

33

#### 1.2 Other Project Characteristics

Urban

		. ,			•
Climate Zone	9			Operational Year	2024
Utility Company	Southern California Edis	son			
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

2.2

Wind Speed (m/s)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the Staff Report's model.

Land Use - See SWAPE's comments on "Underestimated Parking Land Use Size"

Construction Phase - See SWAPE's comments on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - See SWAPE's comments on "Failure to Model All Required Demolition"

Demolition - See SWAPE's comments on "Failure to Model All Required Demolition"

Grading - Consistent with the Staff Report's model.

Architectural Coating - See SWAPE's comments on "Unsubstantiated Reductions to Architectural Coating Emission Factors"

Vehicle Trips - Consistent with the Staff Report's model.

Energy Use - Consitent with the Staff Report's model.

Water And Wastewater - Consistent with the Staff Report's model.

Solid Waste - Consistent with the Staff Report's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	10.00	7.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	2.73	0.00
tblEnergyUse	LightingElect	1.91	0.00
tblEnergyUse	NT24E	13.61	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.09	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24E	0.58	0.00
tblEnergyUse	T24NG	0.93	0.00
tblEnergyUse	T24NG	0.83	0.00
tblLandUse	LandUseSquareFeet	45,600.00	45,596.00
tblLandUse	LandUseSquareFeet	258,380.00	258,376.00

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	261,150.00	261,149.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	42.86	0.00
tblSolidWaste	SolidWasteGenerationRate	242.88	0.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	14.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	ST_TR	1.74	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	10,545,000.00	0.00
tblWater	IndoorWaterUseRate	59,750,375.00	0.00

# 2.0 Emissions Summary

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 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/d	day							lb/c	lay		
2023	227.5921	42.2577	45.1245	0.1273	31.4010	1.7597	32.6656	10.3922	1.6190	12.0112	0.0000	13,344.13 31	13,344.13 31	1.7906	1.3910	13,797.95 74
2024	227.5631	1.7565	4.6299	0.0103	0.7377	0.0855	0.8232	0.1957	0.0851	0.2808	0.0000	1,016.605 9	1,016.605 9	0.0362	0.0142	1,021.732 0
Maximum	227.5921	42.2577	45.1245	0.1273	31.4010	1.7597	32.6656	10.3922	1.6190	12.0112	0.0000	13,344.13 31	13,344.13 31	1.7906	1.3910	13,797.95 74

#### **Mitigated 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/d	day							lb/d	lay		
2023	227.5921	42.2577	45.1245	0.1273	31.4010	1.7597	32.6656	10.3922	1.6190	12.0112	0.0000	13,344.13 31	13,344.13 31	1.7906	1.3910	13,797.95 74
2024	227.5631	1.7565	4.6299	0.0103	0.7377	0.0855	0.8232	0.1957	0.0851	0.2808	0.0000	1,016.605 9	1,016.605 9	0.0362	0.0142	1,021.732 0
Maximum	227.5921	42.2577	45.1245	0.1273	31.4010	1.7597	32.6656	10.3922	1.6190	12.0112	0.0000	13,344.13 31	13,344.13 31	1.7906	1.3910	13,797.95 74

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 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/e	day							lb/d	day		
Area	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Energy	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
Mobile	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
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005	0.0000	4.1000e- 004	4.1000e- 004	0.0000	4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004	0.0000	0.2621

#### **Mitigated 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/e	day							lb/d	day		
Area	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Energy	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
Mobile	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
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005	0.0000	4.1000e- 004	4.1000e- 004	0.0000	4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004	0.0000	0.2621

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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/Crushing	Demolition	1/15/2023	2/1/2023	5	13	
2	Site Preparation	Site Preparation	2/2/2023	2/10/2023	5	7	
3	Grading	Grading	2/11/2023	3/10/2023	5	20	
4	Building Construction	Building Construction	3/11/2023	12/8/2023	5	195	
5	Paving	Paving	12/9/2023	12/27/2023	5	13	
6	Architectural Coating	Architectural Coating	12/28/2023	1/15/2024	5	13	

Acres of Grading (Site Preparation Phase): 24.5

Acres of Grading (Grading Phase): 60

Acres of Paving: 11.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 455,958; Non-Residential Outdoor: 151,986; Striped Parking Area: 29,085 (Architectural Coating – sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition/Crushing	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition/Crushing	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition/Crushing	Excavators	3	8.00	158	0.38
Demolition/Crushing	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
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
Architectural Coating	Air Compressors	1	8.00	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/Crushing	7	18.00	10.00	1,730.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	331.00	129.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Demolition/Crushing - 2023 <u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/c	lay		
Fugitive Dust					28.8064	0.0000	28.8064	4.3615	0.0000	4.3615			0.0000			0.0000
Off-Road	2.7193	24.4686	23.9699	0.0459		1.1519	1.1519		1.0823	1.0823		4,411.514 1	4,411.514 1	1.0891		4,438.742 3
Total	2.7193	24.4686	23.9699	0.0459	28.8064	1.1519	29.9582	4.3615	1.0823	5.4439		4,411.514 1	4,411.514 1	1.0891		4,438.742 3

# **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/d	day		
Hauling	0.2886	17.3652	4.6349	0.0778	2.3294	0.1095	2.4389	0.6387	0.1048	0.7435		8,552.322 9	8,552.322 9	0.4713	1.3581	8,968.818 9
Vendor	0.0115	0.3838	0.1487	1.8600e- 003	0.0641	1.9300e- 003	0.0660	0.0184	1.8500e- 003	0.0203		200.2825	200.2825	6.7100e- 003	0.0288	209.0311
Worker	0.0576	0.0402	0.6505	1.7800e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		180.0136	180.0136	4.5400e- 003	4.1500e- 003	181.3650
Total	0.3577	17.7892	5.4341	0.0815	2.5947	0.1127	2.7073	0.7105	0.1078	0.8182		8,932.619 0	8,932.619 0	0.4826	1.3910	9,359.215 1

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Demolition/Crushing - 2023

#### **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/d	day							lb/d	lay		
Fugitive Dust					28.8064	0.0000	28.8064	4.3615	0.0000	4.3615			0.0000			0.0000
Off-Road	2.7193	24.4686	23.9699	0.0459	 	1.1519	1.1519		1.0823	1.0823	0.0000	4,411.514 1	4,411.514 1	1.0891	       	4,438.742 3
Total	2.7193	24.4686	23.9699	0.0459	28.8064	1.1519	29.9582	4.3615	1.0823	5.4439	0.0000	4,411.514 1	4,411.514 1	1.0891		4,438.742 3

#### **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/d	day							lb/d	day		
Hauling	0.2886	17.3652	4.6349	0.0778	2.3294	0.1095	2.4389	0.6387	0.1048	0.7435		8,552.322 9	8,552.322 9	0.4713	1.3581	8,968.818 9
Vendor	0.0115	0.3838	0.1487	1.8600e- 003	0.0641	1.9300e- 003	0.0660	0.0184	1.8500e- 003	0.0203		200.2825	200.2825	6.7100e- 003	0.0288	209.0311
Worker	0.0576	0.0402	0.6505	1.7800e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		180.0136	180.0136	4.5400e- 003	4.1500e- 003	181.3650
Total	0.3577	17.7892	5.4341	0.0815	2.5947	0.1127	2.7073	0.7105	0.1078	0.8182		8,932.619 0	8,932.619 0	0.4826	1.3910	9,359.215 1

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.3 Site Preparation - 2023

#### **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/d	day							lb/d	lay		
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569		1.7577	1.7577		1.6171	1.6171		5,514.089 1	5,514.089 1	1.7834		5,558.673 3
Total	3.8307	41.8798	18.2937	0.0569	21.7780	1.7577	23.5357	10.3315	1.6171	11.9486		5,514.089 1	5,514.089 1	1.7834		5,558.673 3

#### **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/	day							lb/d	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	0.0000
Vendor	4.6100e- 003	0.1535	0.0595	7.4000e- 004	0.0256	7.7000e- 004	0.0264	7.3800e- 003	7.4000e- 004	8.1200e- 003		80.1130	80.1130	2.6800e- 003	0.0115	83.6124
Worker	0.0576	0.0402	0.6505	1.7800e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		180.0136	180.0136	4.5400e- 003	4.1500e- 003	181.3650
Total	0.0622	0.1937	0.7100	2.5200e- 003	0.2268	1.9800e- 003	0.2288	0.0607	1.8500e- 003	0.0626		260.1266	260.1266	7.2200e- 003	0.0157	264.9775

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.3 Site Preparation - 2023

#### **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/d	day							lb/d	lay		
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569	 	1.7577	1.7577		1.6171	1.6171	0.0000	5,514.089 1	5,514.089 1	1.7834		5,558.673 3
Total	3.8307	41.8798	18.2937	0.0569	21.7780	1.7577	23.5357	10.3315	1.6171	11.9486	0.0000	5,514.089 1	5,514.089 1	1.7834		5,558.673 3

#### **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/d	day							lb/d	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	0.0000
Vendor	4.6100e- 003	0.1535	0.0595	7.4000e- 004	0.0256	7.7000e- 004	0.0264	7.3800e- 003	7.4000e- 004	8.1200e- 003		80.1130	80.1130	2.6800e- 003	0.0115	83.6124
Worker	0.0576	0.0402	0.6505	1.7800e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		180.0136	180.0136	4.5400e- 003	4.1500e- 003	181.3650
Total	0.0622	0.1937	0.7100	2.5200e- 003	0.2268	1.9800e- 003	0.2288	0.0607	1.8500e- 003	0.0626		260.1266	260.1266	7.2200e- 003	0.0157	264.9775

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023
<u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Fugitive Dust	 				9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.1206	33.4100	21.9388	0.0563		1.3456	1.3456		1.2379	1.2379		5,454.739 4	5,454.739 4	1.7642		5,498.843 7
Total	3.1206	33.4100	21.9388	0.0563	9.2036	1.3456	10.5491	3.6538	1.2379	4.8917		5,454.739 4	5,454.739 4	1.7642		5,498.843 7

#### **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/d	day							lb/d	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	0.0000
Vendor	0.0161	0.5374	0.2082	2.6100e- 003	0.0897	2.7000e- 003	0.0924	0.0258	2.5800e- 003	0.0284		280.3955	280.3955	9.4000e- 003	0.0403	292.6436
Worker	0.0640	0.0446	0.7228	1.9800e- 003	0.2236	1.3400e- 003	0.2249	0.0593	1.2400e- 003	0.0605		200.0151	200.0151	5.0400e- 003	4.6200e- 003	201.5167
Total	0.0801	0.5820	0.9310	4.5900e- 003	0.3132	4.0400e- 003	0.3173	0.0851	3.8200e- 003	0.0889		480.4105	480.4105	0.0144	0.0449	494.1602

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

<u>Mitigated Construction On-Site</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
Category					lb/d	day							lb/c	lay		
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.1206	33.4100	21.9388	0.0563		1.3456	1.3456		1.2379	1.2379	0.0000	5,454.739 4	5,454.739 4	1.7642		5,498.843 7
Total	3.1206	33.4100	21.9388	0.0563	9.2036	1.3456	10.5491	3.6538	1.2379	4.8917	0.0000	5,454.739 4	5,454.739 4	1.7642		5,498.843 7

#### **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/d	day							lb/d	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	0.0000
Vendor	0.0161	0.5374	0.2082	2.6100e- 003	0.0897	2.7000e- 003	0.0924	0.0258	2.5800e- 003	0.0284		280.3955	280.3955	9.4000e- 003	0.0403	292.6436
Worker	0.0640	0.0446	0.7228	1.9800e- 003	0.2236	1.3400e- 003	0.2249	0.0593	1.2400e- 003	0.0605		200.0151	200.0151	5.0400e- 003	4.6200e- 003	201.5167
Total	0.0801	0.5820	0.9310	4.5900e- 003	0.3132	4.0400e- 003	0.3173	0.0851	3.8200e- 003	0.0889		480.4105	480.4105	0.0144	0.0449	494.1602

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.5 Building Construction - 2023

**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/d	day							lb/d	lay		
Off-Road	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610		1.2815	1.2815		5,026.699 7	5,026.699 7	1.1886		5,056.415 1
Total	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610		1.2815	1.2815		5,026.699 7	5,026.699 7	1.1886		5,056.415 1

#### **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/o	day							lb/d	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	0.0000
Vendor	0.1485	4.9515	1.9182	0.0240	0.8263	0.0249	0.8512	0.2379	0.0238	0.2617		2,583.643 9	2,583.643 9	0.0866	0.3715	2,696.501 3
Worker	1.0593	0.7385	11.9623	0.0328	3.6998	0.0223	3.7221	0.9812	0.0205	1.0017		3,310.249 5	3,310.249 5	0.0835	0.0764	3,335.101 2
Total	1.2078	5.6899	13.8805	0.0568	4.5261	0.0472	4.5733	1.2191	0.0443	1.2634		5,893.893 4	5,893.893 4	0.1701	0.4478	6,031.602 5

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.5 Building Construction - 2023

#### **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/d	day							lb/d	lay		
Off-Road	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610	1 1 1	1.2815	1.2815	0.0000	5,026.699 7	5,026.699 7	1.1886		5,056.415 1
Total	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610		1.2815	1.2815	0.0000	5,026.699 7	5,026.699 7	1.1886		5,056.415 1

### **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/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	0.0000
Vendor	0.1485	4.9515	1.9182	0.0240	0.8263	0.0249	0.8512	0.2379	0.0238	0.2617		2,583.643 9	2,583.643 9	0.0866	0.3715	2,696.501 3
Worker	1.0593	0.7385	11.9623	0.0328	3.6998	0.0223	3.7221	0.9812	0.0205	1.0017		3,310.249 5	3,310.249 5	0.0835	0.0764	3,335.101 2
Total	1.2078	5.6899	13.8805	0.0568	4.5261	0.0472	4.5733	1.2191	0.0443	1.2634		5,893.893 4	5,893.893 4	0.1701	0.4478	6,031.602 5

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023
<u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	2.2230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.2557	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

#### **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/o	day							lb/d	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	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
Worker	0.0480	0.0335	0.5421	1.4800e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		150.0113	150.0113	3.7800e- 003	3.4600e- 003	151.1375
Total	0.0480	0.0335	0.5421	1.4800e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		150.0113	150.0113	3.7800e- 003	3.4600e- 003	151.1375

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

<u>Mitigated Construction On-Site</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
Category					lb/d	day							lb/d	lay		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	2.2230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.2557	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6

#### **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/d	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	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
Worker	0.0480	0.0335	0.5421	1.4800e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		150.0113	150.0113	3.7800e- 003	3.4600e- 003	151.1375
Total	0.0480	0.0335	0.5421	1.4800e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		150.0113	150.0113	3.7800e- 003	3.4600e- 003	151.1375

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2023 <u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Archit. Coating	227.1253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e- 003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	227.3809	1.7373	2.4148	3.9600e- 003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253

#### **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/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	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
Worker	0.2112	0.1472	2.3852	6.5300e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		660.0498	660.0498	0.0166	0.0152	665.0051
Total	0.2112	0.1472	2.3852	6.5300e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		660.0498	660.0498	0.0166	0.0152	665.0051

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2023 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/d	day							lb/d	day		
Archit. Coating	227.1253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e- 003		0.0944	0.0944	       	0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253
Total	227.3809	1.7373	2.4148	3.9600e- 003		0.0944	0.0944		0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253

#### **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															
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
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
Worker	0.2112	0.1472	2.3852	6.5300e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		660.0498	660.0498	0.0166	0.0152	665.0051
Total	0.2112	0.1472	2.3852	6.5300e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		660.0498	660.0498	0.0166	0.0152	665.0051

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2024 <u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/d	lay		
Archit. Coating	227.1253		 			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2410	1.6251	2.4135	3.9600e- 003		0.0812	0.0812		0.0812	0.0812		375.2641	375.2641	0.0211		375.7923
Total	227.3664	1.6251	2.4135	3.9600e- 003		0.0812	0.0812		0.0812	0.0812		375.2641	375.2641	0.0211		375.7923

#### **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/d	day							lb/d	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	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
Worker	0.1968	0.1314	2.2164	6.3500e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		641.3419	641.3419	0.0151	0.0142	645.9397
Total	0.1968	0.1314	2.2164	6.3500e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		641.3419	641.3419	0.0151	0.0142	645.9397

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2024 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/d	day							lb/d	lay		
Archit. Coating	227.1253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2410	1.6251	2.4135	3.9600e- 003		0.0812	0.0812		0.0812	0.0812	0.0000	375.2641	375.2641	0.0211		375.7923
Total	227.3664	1.6251	2.4135	3.9600e- 003		0.0812	0.0812		0.0812	0.0812	0.0000	375.2641	375.2641	0.0211		375.7923

#### **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/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	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
Worker	0.1968	0.1314	2.2164	6.3500e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		641.3419	641.3419	0.0151	0.0142	645.9397
Total	0.1968	0.1314	2.2164	6.3500e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		641.3419	641.3419	0.0151	0.0142	645.9397

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

	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		
Mitigated	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
Unmitigated	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

#### **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

# **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
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		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
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
Other Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Refrigerated Warehouse-No Rail	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Unrefrigerated Warehouse-No Rail	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

# 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					lb/d	day							lb/c	lay		
NaturalGas Mitigated	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
NaturalGas Unmitigated		0.0000	0.0000	0.0000		0.0000	0.0000	i i	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# **5.2 Energy by Land Use - NaturalGas**

#### **Unmitigated**

	NaturalGa s Use	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
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	i i	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	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
Refrigerated Warehouse-No Rail	0	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
Unrefrigerated Warehouse-No Rail	0	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
Total		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

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# **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/d	day							lb/d	day		
Other Asphalt Surfaces	0	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
Parking Lot	0	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
Refrigerated Warehouse-No Rail	0	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
Unrefrigerated Warehouse-No Rail	0	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
Total		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

#### 6.0 Area Detail

# **6.1 Mitigation Measures Area**

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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/day									
Mitigated	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Unmitigated	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621

# 6.2 Area by SubCategory

#### **Unmitigated**

	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	0.8089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	6.1903					0.0000	0.0000	       	0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004	       	4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 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	lb/day						lb/day									
Coating	0.8089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Products	6.1903					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621

# 7.0 Water Detail

# 7.1 Mitigation Measures Water

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 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**

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

#### **Boilers**

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

#### **User Defined Equipment**

Equipment Type	Number

# 11.0 Vegetation

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **Cherry Avenue Warehouse (Construction - Unmitigated)**

Los Angeles-South Coast County, Winter

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Urbanization

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	45.60	1000sqft	1.05	45,596.00	0
Unrefrigerated Warehouse-No Rail	258.38	1000sqft	5.93	258,376.00	0
Other Asphalt Surfaces	261.15	1000sqft	6.00	261,149.00	0
Parking Lot	559.00	Space	5.03	223,600.00	0

Precipitation Freq (Days)

33

#### 1.2 Other Project Characteristics

Urban

		. , ,			•
Climate Zone	9			Operational Year	2024
Utility Company	Southern California Edis	son			
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

2.2

Wind Speed (m/s)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the Staff Report's model.

Land Use - See SWAPE's comments on "Underestimated Parking Land Use Size"

Construction Phase - See SWAPE's comments on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

Off-road Equipment - Consistent with the Staff Report's model.

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - See SWAPE's comments on "Failure to Model All Required Demolition"

Demolition - See SWAPE's comments on "Failure to Model All Required Demolition"

Grading - Consistent with the Staff Report's model.

Architectural Coating - See SWAPE's comments on "Unsubstantiated Reductions to Architectural Coating Emission Factors"

Vehicle Trips - Consistent with the Staff Report's model.

Energy Use - Consitent with the Staff Report's model.

Water And Wastewater - Consistent with the Staff Report's model.

Solid Waste - Consistent with the Staff Report's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	10.00	7.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	2.73	0.00
tblEnergyUse	LightingElect	1.91	0.00
tblEnergyUse	NT24E	13.61	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.09	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24E	0.58	0.00
tblEnergyUse	T24NG	0.93	0.00
tblEnergyUse	T24NG	0.83	0.00
tblLandUse	LandUseSquareFeet	45,600.00	45,596.00
tblLandUse	LandUseSquareFeet	258,380.00	258,376.00

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	261,150.00	261,149.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	42.86	0.00
tblSolidWaste	SolidWasteGenerationRate	242.88	0.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	14.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	ST_TR	1.74	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	10,545,000.00	0.00
tblWater	IndoorWaterUseRate	59,750,375.00	0.00

## 2.0 Emissions Summary

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 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/d	day							lb/c	lay		
2023	227.6078	43.0455	44.2178	0.1273	31.4010	1.7597	32.6659	10.3922	1.6190	12.0112	0.0000	13,343.99 56	13,343.99 56	1.7906	1.3929	13,798.34 04
2024	227.5785	1.7702	4.4526	9.9700e- 003	0.7377	0.0855	0.8232	0.1957	0.0851	0.2808	0.0000	982.8532	982.8532	0.0364	0.0151	988.2709
Maximum	227.6078	43.0455	44.2178	0.1273	31.4010	1.7597	32.6659	10.3922	1.6190	12.0112	0.0000	13,343.99 56	13,343.99 56	1.7906	1.3929	13,798.34 04

#### **Mitigated 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/d	day							lb/c	lay		
2023	227.6078	43.0455	44.2178	0.1273	31.4010	1.7597	32.6659	10.3922	1.6190	12.0112	0.0000	13,343.99 56	13,343.99 56	1.7906	1.3929	13,798.34 04
2024	227.5785	1.7702	4.4526	9.9700e- 003	0.7377	0.0855	0.8232	0.1957	0.0851	0.2808	0.0000	982.8532	982.8532	0.0364	0.0151	988.2709
Maximum	227.6078	43.0455	44.2178	0.1273	31.4010	1.7597	32.6659	10.3922	1.6190	12.0112	0.0000	13,343.99 56	13,343.99 56	1.7906	1.3929	13,798.34 04

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## Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 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/d	day							lb/d	day		
Area	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Energy	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
Mobile	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
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005	0.0000	4.1000e- 004	4.1000e- 004	0.0000	4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004	0.0000	0.2621

#### **Mitigated 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/e	day							lb/c	lay		
Area	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Energy	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
Mobile	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
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005	0.0000	4.1000e- 004	4.1000e- 004	0.0000	4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004	0.0000	0.2621

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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/Crushing	Demolition	1/15/2023	2/1/2023	5	13	
2	Site Preparation	Site Preparation	2/2/2023	2/10/2023	5	7	
3	Grading	Grading	2/11/2023	3/10/2023	5	20	
4	Building Construction	Building Construction	3/11/2023	12/8/2023	5	195	
5	Paving	Paving	12/9/2023	12/27/2023	5	13	
6	Architectural Coating	Architectural Coating	12/28/2023	1/15/2024	5	13	

Acres of Grading (Site Preparation Phase): 24.5

Acres of Grading (Grading Phase): 60

Acres of Paving: 11.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 455,958; Non-Residential Outdoor: 151,986; Striped Parking Area: 29,085 (Architectural Coating – sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition/Crushing	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition/Crushing	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition/Crushing	Excavators	3	8.00	158	0.38
Demolition/Crushing	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
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
Architectural Coating	Air Compressors	1	8.00	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/Crushing	7	18.00	10.00	1,730.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	331.00	129.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition/Crushing - 2023 <u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Fugitive Dust					28.8064	0.0000	28.8064	4.3615	0.0000	4.3615			0.0000			0.0000
Off-Road	2.7193	24.4686	23.9699	0.0459		1.1519	1.1519		1.0823	1.0823		4,411.514 1	4,411.514 1	1.0891		4,438.742 3
Total	2.7193	24.4686	23.9699	0.0459	28.8064	1.1519	29.9582	4.3615	1.0823	5.4439		4,411.514 1	4,411.514 1	1.0891		4,438.742 3

## **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/d	day		
Hauling	0.2700	18.1307	4.6986	0.0779	2.3294	0.1098	2.4392	0.6387	0.1051	0.7437		8,561.337 5	8,561.337 5	0.4703	1.3596	8,978.245 9
Vendor	0.0111	0.4019	0.1534	1.8600e- 003	0.0641	1.9400e- 003	0.0660	0.0184	1.8600e- 003	0.0203		200.6203	200.6203	6.6800e- 003	0.0289	209.3911
Worker	0.0619	0.0444	0.5979	1.6900e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		170.5237	170.5237	4.6000e- 003	4.4400e- 003	171.9610
Total	0.3430	18.5770	5.4499	0.0815	2.5947	0.1130	2.7076	0.7105	0.1080	0.8185		8,932.481 5	8,932.481 5	0.4816	1.3929	9,359.598 0

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition/Crushing - 2023

#### **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/d	day							lb/d	lay		
Fugitive Dust					28.8064	0.0000	28.8064	4.3615	0.0000	4.3615			0.0000			0.0000
Off-Road	2.7193	24.4686	23.9699	0.0459	 	1.1519	1.1519		1.0823	1.0823	0.0000	4,411.514 1	4,411.514 1	1.0891	       	4,438.742 3
Total	2.7193	24.4686	23.9699	0.0459	28.8064	1.1519	29.9582	4.3615	1.0823	5.4439	0.0000	4,411.514 1	4,411.514 1	1.0891		4,438.742 3

## **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/d	day		
Hauling	0.2700	18.1307	4.6986	0.0779	2.3294	0.1098	2.4392	0.6387	0.1051	0.7437		8,561.337 5	8,561.337 5	0.4703	1.3596	8,978.245 9
Vendor	0.0111	0.4019	0.1534	1.8600e- 003	0.0641	1.9400e- 003	0.0660	0.0184	1.8600e- 003	0.0203		200.6203	200.6203	6.6800e- 003	0.0289	209.3911
Worker	0.0619	0.0444	0.5979	1.6900e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		170.5237	170.5237	4.6000e- 003	4.4400e- 003	171.9610
Total	0.3430	18.5770	5.4499	0.0815	2.5947	0.1130	2.7076	0.7105	0.1080	0.8185		8,932.481 5	8,932.481 5	0.4816	1.3929	9,359.598 0

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.3 Site Preparation - 2023

#### **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/d	day							lb/d	day		
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569		1.7577	1.7577		1.6171	1.6171		5,514.089 1	5,514.089 1	1.7834	       	5,558.673 3
Total	3.8307	41.8798	18.2937	0.0569	21.7780	1.7577	23.5357	10.3315	1.6171	11.9486		5,514.089 1	5,514.089 1	1.7834		5,558.673 3

#### **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/d	day							lb/d	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	0.0000
Vendor	4.4500e- 003	0.1608	0.0614	7.5000e- 004	0.0256	7.8000e- 004	0.0264	7.3800e- 003	7.4000e- 004	8.1200e- 003		80.2481	80.2481	2.6700e- 003	0.0116	83.7564
Worker	0.0619	0.0444	0.5979	1.6900e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		170.5237	170.5237	4.6000e- 003	4.4400e- 003	171.9610
Total	0.0663	0.2051	0.6593	2.4400e- 003	0.2268	1.9900e- 003	0.2288	0.0607	1.8500e- 003	0.0626		250.7718	250.7718	7.2700e- 003	0.0160	255.7175

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.3 Site Preparation - 2023

#### **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/d	day							lb/d	lay		
Fugitive Dust	1 1 1 1 1				21.7780	0.0000	21.7780	10.3315	0.0000	10.3315		i i	0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569		1.7577	1.7577		1.6171	1.6171	0.0000	5,514.089 1	5,514.089 1	1.7834		5,558.673 3
Total	3.8307	41.8798	18.2937	0.0569	21.7780	1.7577	23.5357	10.3315	1.6171	11.9486	0.0000	5,514.089 1	5,514.089 1	1.7834		5,558.673 3

#### **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/	day							lb/d	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	0.0000
	4.4500e- 003	0.1608	0.0614	7.5000e- 004	0.0256	7.8000e- 004	0.0264	7.3800e- 003	7.4000e- 004	8.1200e- 003		80.2481	80.2481	2.6700e- 003	0.0116	83.7564
Worker	0.0619	0.0444	0.5979	1.6900e- 003	0.2012	1.2100e- 003	0.2024	0.0534	1.1100e- 003	0.0545		170.5237	170.5237	4.6000e- 003	4.4400e- 003	171.9610
Total	0.0663	0.2051	0.6593	2.4400e- 003	0.2268	1.9900e- 003	0.2288	0.0607	1.8500e- 003	0.0626		250.7718	250.7718	7.2700e- 003	0.0160	255.7175

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023
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/d	day							lb/d	day		
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.1206	33.4100	21.9388	0.0563		1.3456	1.3456		1.2379	1.2379		5,454.739 4	5,454.739 4	1.7642	; : : :	5,498.843 7
Total	3.1206	33.4100	21.9388	0.0563	9.2036	1.3456	10.5491	3.6538	1.2379	4.8917		5,454.739 4	5,454.739 4	1.7642		5,498.843 7

#### **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/d	day							lb/d	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	0.0000
Vendor	0.0156	0.5626	0.2147	2.6100e- 003	0.0897	2.7200e- 003	0.0924	0.0258	2.6000e- 003	0.0284		280.8684	280.8684	9.3500e- 003	0.0404	293.1475
Worker	0.0688	0.0493	0.6644	1.8700e- 003	0.2236	1.3400e- 003	0.2249	0.0593	1.2400e- 003	0.0605		189.4707	189.4707	5.1100e- 003	4.9300e- 003	191.0678
Total	0.0843	0.6119	0.8791	4.4800e- 003	0.3132	4.0600e- 003	0.3173	0.0851	3.8400e- 003	0.0890		470.3392	470.3392	0.0145	0.0454	484.2154

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

<u>Mitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.1206	33.4100	21.9388	0.0563		1.3456	1.3456		1.2379	1.2379	0.0000	5,454.739 4	5,454.739 4	1.7642	       	5,498.843 7
Total	3.1206	33.4100	21.9388	0.0563	9.2036	1.3456	10.5491	3.6538	1.2379	4.8917	0.0000	5,454.739 4	5,454.739 4	1.7642		5,498.843 7

#### **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/d	day							lb/d	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	0.0000
Vendor	0.0156	0.5626	0.2147	2.6100e- 003	0.0897	2.7200e- 003	0.0924	0.0258	2.6000e- 003	0.0284		280.8684	280.8684	9.3500e- 003	0.0404	293.1475
Worker	0.0688	0.0493	0.6644	1.8700e- 003	0.2236	1.3400e- 003	0.2249	0.0593	1.2400e- 003	0.0605		189.4707	189.4707	5.1100e- 003	4.9300e- 003	191.0678
Total	0.0843	0.6119	0.8791	4.4800e- 003	0.3132	4.0600e- 003	0.3173	0.0851	3.8400e- 003	0.0890		470.3392	470.3392	0.0145	0.0454	484.2154

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.5 Building Construction - 2023 <u>Unmitigated Construction On-Site</u>

	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		
	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610		1.2815	1.2815		5,026.699 7	5,026.699 7	1.1886		5,056.415 1
Total	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610		1.2815	1.2815		5,026.699 7	5,026.699 7	1.1886		5,056.415 1

## **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/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	0.0000
Vendor	0.1434	5.1841	1.9785	0.0241	0.8263	0.0251	0.8514	0.2379	0.0240	0.2619		2,588.001 9	2,588.001 9	0.0862	0.3724	2,701.145 2
Worker	1.1381	0.8157	10.9953	0.0310	3.6998	0.0223	3.7221	0.9812	0.0205	1.0017		3,135.740 4	3,135.740 4	0.0846	0.0816	3,162.172 2
Total	1.2815	5.9998	12.9739	0.0551	4.5261	0.0473	4.5734	1.2191	0.0445	1.2636		5,723.742 3	5,723.742 3	0.1708	0.4540	5,863.317 4

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.5 Building Construction - 2023

#### **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/d	day							lb/c	lay		
	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610		1.2815	1.2815	0.0000	5,026.699 7	5,026.699 7	1.1886		5,056.415 1
Total	3.0930	28.3801	31.2440	0.0530		1.3610	1.3610		1.2815	1.2815	0.0000	5,026.699 7	5,026.699 7	1.1886		5,056.415 1

## **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/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	0.0000
Vendor	0.1434	5.1841	1.9785	0.0241	0.8263	0.0251	0.8514	0.2379	0.0240	0.2619		2,588.001 9	2,588.001 9	0.0862	0.3724	2,701.145 2
Worker	1.1381	0.8157	10.9953	0.0310	3.6998	0.0223	3.7221	0.9812	0.0205	1.0017		3,135.740 4	3,135.740 4	0.0846	0.0816	3,162.172 2
Total	1.2815	5.9998	12.9739	0.0551	4.5261	0.0473	4.5734	1.2191	0.0445	1.2636		5,723.742 3	5,723.742 3	0.1708	0.4540	5,863.317 4

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023
<u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	2.2230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.2557	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

### **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/d	day							lb/d	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	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
Worker	0.0516	0.0370	0.4983	1.4100e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		142.1030	142.1030	3.8300e- 003	3.7000e- 003	143.3009
Total	0.0516	0.0370	0.4983	1.4100e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		142.1030	142.1030	3.8300e- 003	3.7000e- 003	143.3009

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

<u>Mitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	2.2230	 	 		 	0.0000	0.0000		0.0000	0.0000			0.0000	 	 	0.0000
Total	3.2557	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584	0.7140		2,225.433 6

#### **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/d	day							lb/d	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	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
Worker	0.0516	0.0370	0.4983	1.4100e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		142.1030	142.1030	3.8300e- 003	3.7000e- 003	143.3009
Total	0.0516	0.0370	0.4983	1.4100e- 003	0.1677	1.0100e- 003	0.1687	0.0445	9.3000e- 004	0.0454		142.1030	142.1030	3.8300e- 003	3.7000e- 003	143.3009

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2023 <u>Unmitigated Construction On-Site</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
Category					lb/d	day							lb/d	day		
Archit. Coating	227.1253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e- 003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	227.3809	1.7373	2.4148	3.9600e- 003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253

### **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/d	day							lb/d	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	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
Worker	0.2269	0.1627	2.1924	6.1900e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		625.2534	625.2534	0.0169	0.0163	630.5238
Total	0.2269	0.1627	2.1924	6.1900e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		625.2534	625.2534	0.0169	0.0163	630.5238

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2023

## **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/d	day							lb/d	day		
Archit. Coating	227.1253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e- 003		0.0944	0.0944		0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253
Total	227.3809	1.7373	2.4148	3.9600e- 003		0.0944	0.0944		0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253

#### **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/d	day							lb/d	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	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
Worker	0.2269	0.1627	2.1924	6.1900e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		625.2534	625.2534	0.0169	0.0163	630.5238
Total	0.2269	0.1627	2.1924	6.1900e- 003	0.7377	4.4400e- 003	0.7422	0.1957	4.0900e- 003	0.1997		625.2534	625.2534	0.0169	0.0163	630.5238

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2024 <u>Unmitigated Construction On-Site</u>

	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/d	day		
Archit. Coating	227.1253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2410	1.6251	2.4135	3.9600e- 003		0.0812	0.0812		0.0812	0.0812		375.2641	375.2641	0.0211		375.7923
Total	227.3664	1.6251	2.4135	3.9600e- 003		0.0812	0.0812		0.0812	0.0812		375.2641	375.2641	0.0211	-	375.7923

### **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/d	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	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
Worker	0.2121	0.1451	2.0391	6.0100e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		607.5891	607.5891	0.0153	0.0151	612.4786
Total	0.2121	0.1451	2.0391	6.0100e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		607.5891	607.5891	0.0153	0.0151	612.4786

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#### Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2024 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/d	day							lb/d	lay		
Archit. Coating	227.1253		 			0.0000	0.0000	1 1 1	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2410	1.6251	2.4135	3.9600e- 003		0.0812	0.0812	       	0.0812	0.0812	0.0000	375.2641	375.2641	0.0211		375.7923
Total	227.3664	1.6251	2.4135	3.9600e- 003		0.0812	0.0812		0.0812	0.0812	0.0000	375.2641	375.2641	0.0211		375.7923

#### **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/d	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	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
Worker	0.2121	0.1451	2.0391	6.0100e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		607.5891	607.5891	0.0153	0.0151	612.4786
Total	0.2121	0.1451	2.0391	6.0100e- 003	0.7377	4.2500e- 003	0.7420	0.1957	3.9100e- 003	0.1996		607.5891	607.5891	0.0153	0.0151	612.4786

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

	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/d	lay		
Mitigated	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
Unmitigated	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

## **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## **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
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

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Cherry Avenue Warehouse (Construction - Unmitigated) - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		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
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
Other Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Refrigerated Warehouse-No Rail	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Unrefrigerated Warehouse-No Rail	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

## 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated		0.0000	0.0000	0.0000		0.0000	0.0000	i i	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

### **Unmitigated**

	NaturalGa s Use	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
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Asphalt Surfaces	0	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
Parking Lot	0	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
Refrigerated Warehouse-No Rail	0	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
Unrefrigerated Warehouse-No Rail	0	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
Total		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

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## **5.2 Energy by Land Use - NaturalGas**

## **Mitigated**

	NaturalGa s Use	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
Land Use	kBTU/yr		lb/day									lb/day					
Other Asphalt Surfaces	0	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
Parking Lot	0	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
Refrigerated Warehouse-No Rail	0	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
Unrefrigerated Warehouse-No Rail	0	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
Total		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

## 6.0 Area Detail

## **6.1 Mitigation Measures Area**

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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/day						
Mitigated	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Unmitigated	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621

## 6.2 Area by SubCategory

### **Unmitigated**

	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	0.8089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.1903					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 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						
Coating	0.8089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	6.1903					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621
Total	7.0099	1.0400e- 003	0.1146	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004		0.2460	0.2460	6.4000e- 004		0.2621

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 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**

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

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

#### **User Defined Equipment**

Equipment Type	Number

## 11.0 Vegetation



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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization Investigation and Remediation Strategies Litigation Support and Testifying Expert Industrial Stormwater Compliance CEQA Review

#### **Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984. B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

#### **Professional Certifications:**

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

#### **Professional Experience:**

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

#### Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 present);
- Geology Instructor, Golden West College, 2010 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989– 1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 1998);
- Instructor, College of Marin, Department of Science (1990 1995);
- Geologist, U.S. Forest Service (1986 1998); and
- Geologist, Dames & Moore (1984 1986).

#### **Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA)
  contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA
  compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

#### With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking
  water treatment, results of which were published in newspapers nationwide and in testimony
  against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

#### **Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

#### **Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

- public hearings, and responded to public comments from residents who were very concerned about the impact of designation.
- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed
  the basis for significant enforcement actions that were developed in close coordination with U.S.
  EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

#### Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the
  potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking
  water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

- principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

#### **Geology:**

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aguifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

#### Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

#### **Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.,** 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

**Hagemann, M.F.,** 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

**Hagemann, M.F.,** 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.,** 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F.**, 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F.**, 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F.**, 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

Van Mouwerik, M. and **Hagemann**, M.F. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.**, Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.**, Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann**, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.**F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

# Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.



#### SOIL WATER AIR PROTECTION ENTERPRISE

2656 29th Street, Suite 201 Santa Monica, California 90405 Attn: Paul Rosenfeld, Ph.D. Mobil: (310) 795-2335 Office: (310) 452-5555

Fax: (310) 452-5550 Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

**Education** 

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

**Professional Experience** 

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

# **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner

UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)

UCLA School of Public Health; 2003 to 2006; Adjunct Professor

UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator

UCLA Institute of the Environment, 2001-2002; Research Associate

Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist

National Groundwater Association, 2002-2004; Lecturer

San Diego State University, 1999-2001; Adjunct Professor

Anteon Corp., San Diego, 2000-2001; Remediation Project Manager

Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager

Bechtel, San Diego, California, 1999 – 2000; Risk Assessor

King County, Seattle, 1996 – 1999; Scientist

James River Corp., Washington, 1995-96; Scientist

Big Creek Lumber, Davenport, California, 1995; Scientist

Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist

Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

# **Publications:**

**Rosenfeld P. E.,** Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233**, 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). The Risks of Hazardous Waste. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & Rosenfeld, P.E. (2011). Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & Rosenfeld, P.E. (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & Rosenfeld, P.E. (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

- Wu, C., Tam, L., Clark, J., Rosenfeld, P. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. WIT Transactions on Ecology and the Environment, Air Pollution, 123 (17), 319-327.
- Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.
- Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.
- Hensley, A.R. A. Scott, J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.
- **Rosenfeld, P.E.,** J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.
- **Rosenfeld, P. E.,** M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.
- Sullivan, P. J. Clark, J.J.J., Agardy, F. J., Rosenfeld, P.E. (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing
- Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.
- **Rosenfeld P. E.,** J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC)* 2004. New Orleans, October 2-6, 2004.
- **Rosenfeld, P.E.,** and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.
- Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.
- **Rosenfeld, P.** E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.
- **Rosenfeld, P.E.,** Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.
- **Rosenfeld, P.E.**, and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.
- **Rosenfeld, P.E.,** and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.
- **Rosenfeld**, **P.E.**, C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.
- **Rosenfeld, P.E.,** and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

- **Rosenfeld, P.E.,** and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.
- Chollack, T. and **P. Rosenfeld.** (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.
- Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. Heritage Magazine of St. Kitts, 3(2).
- **Rosenfeld, P. E.** (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).
- **Rosenfeld, P. E.** (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.
- Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.
- **Rosenfeld, P. E.** (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

# **Presentations:**

- **Rosenfeld, P.E.**, "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.
- **Rosenfeld, P.E.,** Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. 44th Western Regional Meeting, American Chemical Society. Lecture conducted from Santa Clara, CA.
- Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.
- Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.
- **Rosenfeld, P.E.** (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. 2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting, Lecture conducted from Tuscon, AZ.
- Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. 2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting. Lecture conducted from Tuscon, AZ.
- Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.
- **Rosenfeld, P. E.** (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

- **Rosenfeld, P. E.** (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.
- **Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water. Lecture conducted from University of Massachusetts, Amherst MA.
- **Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.
- **Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.
- Hensley A.R., Scott, A., Rosenfeld P.E., Clark, J.J.J. (August 21 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.
- Hensley A.R., Scott, A., Rosenfeld P.E., Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.
- **Paul Rosenfeld Ph.D.** (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.
- **Paul Rosenfeld Ph.D**. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.
- **Paul Rosenfeld Ph.D**. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.
- **Paul Rosenfeld Ph.D**. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.
- **Paul Rosenfeld Ph.D.** (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.
- **Paul Rosenfeld Ph.D.** (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. 2005 National Groundwater Association Ground Water And Environmental Law Conference. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.
- **Paul Rosenfeld Ph.D**. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. 2005 National Groundwater Association Ground Water and Environmental Law Conference. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.
- **Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

**Paul Rosenfeld, Ph.D.** (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference Orlando, FL.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants.*. Lecture conducted from Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

**Paul Rosenfeld, Ph.D.** (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E**. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

**Rosenfeld, P.E.** and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

**Rosenfeld. P.E.** (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

**Rosenfeld. P.E.** (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

**Rosenfeld, P.E.** (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.**, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.**, and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

**Rosenfeld, P.E.**, C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

**Rosenfeld, P.E.**, C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.**, C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

# **Teaching Experience:**

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

# **Academic Grants Awarded:**

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

# **Deposition and/or Trial Testimony:**

In the Superior Court of the State of California, County of San Bernardino

Billy Wildrick, Plaintiff vs. BNSF Railway Company

Case No. CIVDS1711810

Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia

Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company

Case No. 10-SCCV-092007

Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana

Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.

Case No. 2020-03891

Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division

Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad

Case No. 18-LV-CC0020

Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division

Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.

Case No. 20-CA-5502

Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri

Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.

Case No. 19SL-CC03191

Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division

Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.

Case No. NO. 20-CA-0049

Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District

Greg Bean, Plaintiff vs. Soo Line Railroad Company

Case No. 69-DU-CV-21-760

Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington

John D. Fitzgerald Plaintiff vs. BNSF

Case No. 3:21-cv-05288-RJB

Rosenfeld Deposition 8-11-2022

### In Circuit Court of the Sixth Judicial Circuit, Macon Illinois

Rocky Bennyhoff Plaintiff vs. Norfolk Southern

Case No. 20-L-56

Rosenfeld Deposition 8-3-2022

## In Court of Common Pleas, Hamilton County Ohio

Joe Briggins Plaintiff vs. CSX

Case No. A2004464

Rosenfeld Deposition 6-17-2022

## In the Superior Court of the State of California, County of Kern

George LaFazia vs. BNSF Railway Company.

Case No. BCV-19-103087

Rosenfeld Deposition 5-17-2022

### In the Circuit Court of Cook County Illinois

Bobby Earles vs. Penn Central et. al.

Case No. 2020-L-000550

Rosenfeld Deposition 4-16-2022

## In United States District Court Easter District of Florida

Albert Hartman Plaintiff vs. Illinois Central

Case No. 2:20-cv-1633

Rosenfeld Deposition 4-4-2022

## In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida

Barbara Steele vs. CSX Transportation

Case No.16-219-Ca-008796

Rosenfeld Deposition 3-15-2022

## In United States District Court Easter District of New York

Romano et al. vs. Northrup Grumman Corporation

Case No. 16-cv-5760

Rosenfeld Deposition 3-10-2022

### In the Circuit Court of Cook County Illinois

Linda Benjamin vs. Illinois Central

Case No. No. 2019 L 007599

Rosenfeld Deposition 1-26-2022

### In the Circuit Court of Cook County Illinois

Donald Smith vs. Illinois Central

Case No. No. 2019 L 003426

Rosenfeld Deposition 1-24-2022

## In the Circuit Court of Cook County Illinois

Jan Holeman vs. BNSF

Case No. 2019 L 000675

Rosenfeld Deposition 1-18-2022

### In the State Court of Bibb County State of Georgia

Dwayne B. Garrett vs. Norfolk Southern

Case No. 20-SCCV-091232

Rosenfeld Deposition 11-10-2021

### In the Circuit Court of Cook County Illinois

Joseph Ruepke vs. BNSF Case No. 2019 L 007730 Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska

Steven Gillett vs. BNSF Case No. 4:20-cv-03120 Rosenfeld Deposition 10-28-2021

## In the Montana Thirteenth District Court of Yellowstone County

James Eadus vs. Soo Line Railroad and BNSF

Case No. DV 19-1056

Rosenfeld Deposition 10-21-2021

#### In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois

Martha Custer et al.cvs. Cerro Flow Products, Inc.

Case No. 0i9-L-2295

Rosenfeld Deposition 5-14-2021

Trial October 8-4-2021

### In the Circuit Court of Cook County Illinois

Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,

Case No. 18-L-6845

Rosenfeld Deposition 6-28-2021

#### In the United States District Court For the Northern District of Illinois

Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail Case No. 17-cv-8517

Rosenfeld Deposition 5-25-2021

# In the Superior Court of the State of Arizona In and For the Cunty of Maricopa

Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.

Case No. CV20127-094749

Rosenfeld Deposition 5-7-2021

## In the United States District Court for the Eastern District of Texas Beaumont Division

Robinson, Jeremy et al vs. CNA Insurance Company et al.

Case No. 1:17-cv-000508

Rosenfeld Deposition 3-25-2021

# In the Superior Court of the State of California, County of San Bernardino

Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.

Case No. 1720288

Rosenfeld Deposition 2-23-2021

## In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse

Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.

Case No. 18STCV01162

Rosenfeld Deposition 12-23-2020

### In the Circuit Court of Jackson County, Missouri

Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.

Case No. 1716-CV10006

Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey

Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.

Case No. 2:17-cv-01624-ES-SCM

Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division

M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant.

Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237

Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles - Santa Monica

Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants

Case No. BC615636

Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles - Santa Monica

The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants

Case No. BC646857

Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado

Bells et al. Plaintiffs vs. The 3M Company et al., Defendants

Case No. 1:16-cv-02531-RBJ

Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District

Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants

Cause No. 1923

Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa

Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants

Cause No. C12-01481

Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois

Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants

Case No.: No. 0i9-L-2295

Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi

Guy Manuel vs. The BP Exploration et al., Defendants

Case No. 1:19-cv-00315-RHW

Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles

Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC

Case No. LC102019 (c/w BC582154)

Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division

Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants

Case No. 4:16-cv-52-DMB-JVM

Rosenfeld Deposition July 2017

### In The Superior Court of the State of Washington, County of Snohomish

Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants

Case No. 13-2-03987-5

Rosenfeld Deposition, February 2017

Trial March 2017

### In The Superior Court of the State of California, County of Alameda

Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants

Case No. RG14711115

Rosenfeld Deposition September 2015

### In The Iowa District Court In And For Poweshiek County

Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants

Case No. LALA002187

Rosenfeld Deposition August 2015

# In The Circuit Court of Ohio County, West Virginia

Robert Andrews, et al. v. Antero, et al.

Civil Action No. 14-C-30000

Rosenfeld Deposition June 2015

### In The Iowa District Court for Muscatine County

Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant

Case No. 4980

Rosenfeld Deposition May 2015

### In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida

Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.

Case No. CACE07030358 (26)

Rosenfeld Deposition December 2014

# In the County Court of Dallas County Texas

Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.

Case No. cc-11-01650-E

Rosenfeld Deposition: March and September 2013

Rosenfeld Trial April 2014

## In the Court of Common Pleas of Tuscarawas County Ohio

John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants

Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)

Rosenfeld Deposition October 2012

## In the United States District Court for the Middle District of Alabama, Northern Division

James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.

Civil Action No. 2:09-cv-232-WHA-TFM

Rosenfeld Deposition July 2010, June 2011

### In the Circuit Court of Jefferson County Alabama

Jaeanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants

Civil Action No. CV 2008-2076

Rosenfeld Deposition September 2010

# In the United States District Court, Western District Lafayette Division

Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.

Case No. 2:07CV1052

Rosenfeld Deposition July 2009

**From:** jordan@jrsissonlaw.com [mailto:jordan@jrsissonlaw.com]

Sent: Tuesday, April 18, 2023 11:59 AM

**To:** CityClerk <CityClerk@longbeach.gov>; Amy Harbin <Amy.Harbin@longbeach.gov> **Cc:** 'kirk davis' lionkirkd@gmail.com>; 'Laurie Angel' <lcangel2012@gmail.com> **Subject:** Item 25, Link Logistics Warehouse Project (5910 Cherry Avenue) Appeal

#### -EXTERNAL-

Dear Hon. City Council and Ms. Harbin:

On behalf of appellants Kirk Davis and Laurie Angel (Appellants), please see attached comments that include a 3-page cover letter and four exhibits attached thereto (totaling 193 pages).

In short, the City has informed Appellants that the above-referenced project's SPR application has been withdrawn and no Appeal hearing will be held (see Exhibit A). Please notify Appellants and this office for any future application involving the project site. As discussed in the attached cover letter, the site plan review process provides the City discretion to address environmental concerns. Appellants urge the City to use that discretion to ensure adequate CEQA review for any future project, including considering additional mitigation measures—like those specifically recommended in the attached expert noise, air quality, GHGs, VMTs comments (see Exhibits B-D).

Please place the attached 193-page comment letter in the Project's administrative record.

Please also confirm receipt of this message.

Thank you for your time and consideration.

#### IORDAN R. SISSON

Law Office of Jordan R. Sisson 3993 Orange St., Ste. 201 Riverside, CA 92501 Office: 951-405-8127 Direct: 951-542, 2735

Direct: 951-542-2735 jordan@jrsissonlaw.com

PRIVILEGED AND CONFIDENTIAL: This electronic message contains information from the Law Office of Jordan R. Sisson and is attorney work product confidential or privileged. The information is intended solely for the use of the individual(s)or entity(ies) named above. If you have received this transmission in error, please destroy the original transmission and its attachments without reading or saving in any manner.

From: Megan Lorraine [mailto:meganldebin@gmail.com]

**Sent:** Tuesday, April 18, 2023 11:03 AM **To:** CityClerk < CityClerk@longbeach.gov>

Subject: April 18th, 2023, City Council agenda item # 25

#### -EXTERNAL-

April 18, 2023

Honorable Mayor and Long Beach City Council 411 W Ocean Blvd Long Beach, CA

Re: Proposed warehouse project at 5910 Cherry Ave. Long Beach, CA 90805

The undersigned community member and Grant neighborhood homeowner and resident, representing a broad constituency of Long Beach residents, demand the City Council approve the appeal filed by Long Beach residents, Kirk Davis and Laurie Angel and request a full environmental review for the proposed warehouse project at 5910 Cherry Avenue, 90805.

The developer and City have failed to meaningfully engage the communities that would be impacted by this project and in doing so fall short of achieving an essential goal of allowing the public to provide informed input on this proposed project. Moreover, the analysis contained in the developer's own environmental and traffic reports do not assess the full and cumulative impacts of the project. The reports also fail to consider the harm this project will have on environmental justice communities, including those adjacent to the site from potentially heavy traffic by diesel trucks.

Children's health studies show that children who grow up near diesel sources of pollution have measurable lung damage and an increased risk for asthma. Decreased lung function may lead to weaker and smaller lungs as an adult as well as chronic respiratory problems. Also, researchers have found that air pollution can make asthma symptoms worse and trigger asthma episodes.

The developer's environmental and traffic reports do not provide the necessary analysis to determine whether this project built near a freight corridor will have significant impacts on communities already overburdened with pollution. Given the existing health and environmental impacts on the surrounding neighborhoods, it is especially important that the environmental documents contain the necessary analysis to allow the public and decision makers to understand how the warehouse may increase these impacts. Additional truck traffic will expose families in the nearby neighborhoods to even more toxic vehicle emissions, which have proven to be detrimental to the health of the children and families. It is crucial to prioritize the health impacts this project will have on an already vulnerable community.

Link Logistics fails to provide adequate analysis and evidence to support their assertions that there will be no or limited impacts on the surrounding community from this project. Despite the incomplete and opaque evaluation, there are some indications that the impacts from this project may be significant and may not be adequately avoided, minimized, or mitigated as described, such as: Noise, traffic, and environmental and health impacts in neighborhoods already suffering from disproportionate health impacts and systemic vulnerability.

In conclusion, the City Council should reject the project until Link Logistics provide a CEQA-compliant EIR subject to public review to ensure that the health of community members will not be jeopardized. I respectfully request that the *City Council grant the appeal* and *reject the proposed warehouse project* at 5910 Cherry Avenue until a full environmental impact rereview has been completed. This request is made with the deepest respect and intent to ensure that new developments lead to more equitable outcomes that will benefit all Long Beach residents and improve both environmental and health outcomes for the North Long Beach area as a whole. I stand ready to clarify my position in any way that would be helpful and assist in your due diligence. As ever, I appreciate your leadership.

Sincerely

Dr Megan Lorraine Debin

Homeowner and Resident 6051 Gaviota Ave Long Beach, CA 90805

--

Dr Megan Lorraine Debin Professor of Art History Fine Arts Division, Fullerton College mdebin@fullcoll.edu

MA, Latin American Studies, UCLA PhD, Art History, UCLA meganldebin@gmail.com

Art is not a mirror held up to reality, but a hammer with which to shape it. -Vladimir Mayakovski

From: Dr. Erwin Munoz, Psy.D, LCSW [mailto:msw562@yahoo.com]

**Sent:** Tuesday, April 18, 2023 6:09 AM **To:** CityClerk < CityClerk@longbeach.gov>

Subject: 5910 Cherry Ave, LB, CA. Warehouse development

## -EXTERNAL-

Our household at 1811 E. MCkenzie St, Long Beach, CA. 90805 do NOT support the building of this environmentally hazardous building and its related work activity (increased vehicle traffic, increased noise levels, air n ground pollutants impacting the health, well being, n safety of those residing in Grant neighborhood. Signed. Alfonso Iniguez and Erwin Munoz

Sent from my Verizon, Samsung Galaxy smartphone





























April 18, 2023

Honorable Mayor and Long Beach City Council 411 W Ocean Blvd Long Beach, CA

Re: Proposed warehouse project at 5910 Cherry Ave. Long Beach, CA 90805

The undersigned organizations, community groups, community leaders and stakeholders representing a broad constituency of Long Beach residents, demand the City Council approve the appeal filed by Long Beach residents, Kirk Davis and Laurie Angel and request a full environmental review for the proposed warehouse project at 5910 Cherry Avenue, 90805.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> http://longbeach.legistar.com/View.ashx?M=F&ID=11608754&GUID=AF79C672-CA0C-4ABC-B42B-5484D297D596.

The developer and City have failed to meaningfully engage the communities that would be impacted by this project and in doing so fall short of achieving an essential goal of allowing the public to provide informed input on this proposed project. Moreover, the analysis contained in the developer's own environmental and traffic reports do not assess the full and cumulative impacts of the project. The reports also fail to consider the harm this project will have on environmental justice communities, including those adjacent to the site from potentially heavy traffic by diesel trucks.

Children's health studies show that children who grow up near diesel sources of pollution have measurable lung damage and an increased risk for asthma.<sup>2</sup> Decreased lung function may lead to weaker and smaller lungs as an adult as well as chronic respiratory problems.<sup>3</sup> Also, researchers have found that air pollution can make asthma symptoms worse and trigger asthma episodes.<sup>4</sup>

The developer's environmental and traffic reports do not provide the necessary analysis to determine whether this project built near a freight corridor will have significant impacts on communities already overburdened with pollution. Given the existing health and environmental impacts on the surrounding neighborhoods, it is especially important that the environmental documents contain the necessary analysis to allow the public and decision makers to understand how the warehouse may increase these impacts. Additional truck traffic will expose families in the nearby neighborhoods to even more toxic vehicle emissions, which have proven to be detrimental to the health of the children and families. It is crucial to prioritize the health impacts this project will have on an already vulnerable community.

Link Logistics fails to provide adequate analysis and evidence to support their assertions that there will be no or limited impacts on the surrounding community from this project. Despite the incomplete and opaque evaluation, there are some indications that the impacts from this project may be significant and may not be adequately avoided, minimized, or mitigated as described, such as: Noise,<sup>5</sup> traffic, and environmental and health impacts in neighborhoods already suffering from disproportionate health impacts and systemic vulnerability.<sup>6</sup>

In conclusion, the City Council should reject the project until Link Logistics provides a CEQA-compliant EIR subject to public review to ensure that the health of community members will not be jeopardized. We respectfully request that the <u>City Council grant the appeal</u> and <u>reject the proposed warehouse project</u> at 5910 Cherry Avenue until a full environmental impact rereview has been completed. This request is made with the deepest respect and intent to ensure that new developments lead to more equitable outcomes that will benefit all Long Beach residents and improve both environmental and health outcomes for the North Long Beach area as a whole. We stand ready to clarify our position in any way that would be helpful and assist in your due diligence. As ever, we appreciate your leadership.

Sincerely

# **Organizational Support**

Hilda Gaytan Puente Latino Association Inc. Executive Director and Co-Founder

Mary Gallardo Cherry Manor NA Board Member

<sup>&</sup>lt;sup>2</sup> The Children's Health Study | California Air Resources Board

<sup>&</sup>lt;sup>3</sup> The Children's Health Study | California Air Resources Board

<sup>&</sup>lt;sup>4</sup> The Links Between Air Pollution and Childhood Asthma | US EPA

<sup>&</sup>lt;sup>5</sup> https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm

<sup>&</sup>lt;sup>6</sup> https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts

Araceli Sanchez Cherry Manor Neighborhood Association Board Member

Monica Keller Starr King Neighborhood Association President

Linda Wilson College Square Neighborhood Association Board Member Secretary

Paula Wood Success in Challenges, Inc. Executive Director

Jan Victor Andasan East Yard Communities for Environmental Justice Community Organizer

Jessica Quintana Centro Cha Executive Director

Irene Burga Green Latinos Climate Justice and clean air Program Director

Gaby Hernandez LB Immigrant Rights Coalition Executive Director

Brian Ulaszewski City Fabric Principal + Executive Director

Armando Vázquez-Ramos California-Mexico Studies Center Founder CEO

Jesus Esparza Washington Neighborhood Association President

Juan E Ovalle River Park Coalition President

David Salazar Long Beach Community Design Ctr.

# **Community leaders Endorsements**

\* For individual community leaders endorsements, organization and titles are for identification purposes only

Octavio Mojica Puente Latino Asociation Vice President Parent Involvement Specialist Jordan High school

Melissa Shilling Puente Board Member

Manuel Valenzuela California hight President

Renee Lawler Riverpark Coalition Board Member

Mariela Salgado
Long Beach Education Connection
Committee member

Joseph M Weinstein Citizens About Responsible Planning (CARP) President, CARP

Regina Peavler Ridgewood Cove Neighborhood Assn

Donna Bergeron-Birge Ridgewood Triangle NA

Raul Cedillo, MBA
The National Society of Leadership and Success

Jontue Hudson Starr King Neighborhood Association Regina Peavler Ridgewood Cove Neighborhood Assn

Lauren Christine James Soldiers For Love

Sylvia Betancourt LB Alliance for Children with Asthma Program Manager

Sona Kalapura Coffee, MPP (she, her, hers) Sustainable City Commissioner City of Long Beach

# **Long Beach Residents**

**Donald Morrison** 

# Lime Avenue 90805 Neyham Neighborhood

Mark Perras Homeowner East Poinsettia 90805 Neyham Neighborhood

Debora Galindo Homeowner Lime Ave 90805 Neyham Neigorhood

Janet Lugo Homeowner 64th st 90805 Neyham Neighborhood

Yadira Salbatierra 3201 E 61st 90805 Neyham Neighborhood

Suzanne Broughton 5896 John Ave, 90805 Neyham Neighborhood

Alex Martinez Walnut 90805 Hamilton Neighborhood

Elena Tussi 201 W. Bixby Rd.

German Ramirez Germs Ink

Kevin Demeules 6135 Gardenia Ave, Long Beach, CA 90805

Cristina Alvarez 1910 East McKenzie Street Long Beach CA 90805

Adrian Lopez 1609 E. Hungerford St, Long Beach, CA 90805

Tamy Smith 1604 e 64th street 90805

Signature	Printed Name	Address (Street /Zip Code)
A william	Deraid Metig	5845 gardenia av. 90805
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Karing Ablite	having Aburto	S966 gardenia ave
S. C. T. C. S. C.	CHUDS WAIGHT	1903 2. 59" St. 90805
Magae	Maria Glaser	1835 ESGHUST 90800
S A Sull	Ricardo A. Cara	1871 E 54 HSJ 90807
Caladan	J. Solve Caballer	1823 F. 5944 90 BOS.
Contractor	Sustavo Martines	5890 Rose av
Du milia L	Francisco Luna.	5890 Rose Aug.
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Signature	Printed Name	Address (Street /Zip Code)
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Signature .	Printed Name	Address (Street / Lip Code)
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Chulon Maybe	Javie Mayquez	19151 Gurdenla Ade. 90805
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1 dans	Vandy Siens	2301 /2 Harding st 90805
T. O. Y.	TAVAKE S. LHUMASIMA	2311 E HARDINGST. 40805
Charles of the same	ANA SCHARCAC	2300 10004 St GOOD
	Christina Solance	1305 E 100011 St 20805
	Missio Timeres	1365 E 19894 51 18, 90805
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Signature	Printed Name	Address (Street /Zip Code)
Mrs. : Glosses yours	Moria Elenia Gorge	515E 525T, 90805
	Monico Delacdo	phills Delando 1620 E. Watret LB 1805
	Lisbeth Medina	1529 E. Phillips St 90805
Terret.	FRANCEIC MEDINA	1529 PHUMPS ST 90305
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Mario Timos	Marie Turner	5940 Rox A Long Bon
We are not against jobs or development. We are for resi	for responsible development that protects ove	ponsible development that protects overall health and serves our communities. This

Signature	Printed Name	Address (Street /Zip Code)
	TUTUILA LEITUALA	1827 E Pansetha St. Long Beach Oct
	Joshua Jones	1835 E. Poinsetta St.
Bares	MOM MEAS	1849 E POINSetta L. 13 908
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	Juan Esaveda	2133 Emcken2165 40805
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1 Pritht	Keith Pritchett	2109 McKENZIE LB 96805
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JAMMA BIRANI EN	Norma Dawlysz	2152 E. WITH ST LM GOOD

Signature /	Printed Name	Address (Street /Zip Code)
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Orman Godles	Ramon Voguez	1915 E. Poinsettia St 9080s
Juin Raya	Luisa Raya	1617 E. Poinsettia St.
Ha. Luisa Yoquez	me dung poques	1915 E. Poinsettia St 90805
Upp manox	LISO MAYYOGULA	1901 E. Poth settin 5+ 90801
Oylanda Odullu	Yolancla Cedillo	1617 E Painsettigst. 90505
Verylo Raya	Verulo Rania	1617 E. Poinsettia St 90805
MARIK PERRAS	What aferragge	1541 E. Poinsettia ST 90805
Gilbert CONDESMS		1541 E. Poinsettin ST 90805
Pryscilla MUNO2		1531 E poinsettia St 40006

Signature	Printed Name	Address (Street /Zip Code)
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	LUIS limenie	1721 E. Hungorford St 15 CA
	Diana Jimenez	1721 E. Hundaford & LB 1080
Care de la commentante della c	Sarah Araya	1715 E HUMPROLUSTUB 90005
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Me are not accept to the or development We are for re-	We are for responsible development that protects	sponsible development that protects overall health and serves our communities. This

Signature	Printed Name	Address (Street /Zip Code)
Himby & Memon	FLORISTA L. Patterson	1840 E, 418, L. Beach 20805
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Douglas H Patterson	Douglas H PATTERSON	1540E CIST L. Beach CA 4080
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Vorena Garcia	Lorens Carria	1831 Harding stgo805
Leinterer	Lucia torez	1838 E. + Arcling St. 908d
John Rayn	Johnhaun	6301 St 10415 AVE GGOS
74	Centos Deniz	6325 St 10013 AVE 00805
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	Michael God 20 202	6428 ST LOUGE BUS 50805
N. C.	ROSAND ACOURTED COURTS ST LOND 2018	6425 5T (200 2018 5
		rid Toolston construction of the control of the con

We, the affected residents of the 5910 Cherry Ave warehouse project, find the proceedings of the approval process to reflect injustice to our health, homes, neighborhoods, and communities. We hereby sign-on to this petition to voice our complaint

that the Planning Commission's actions have violate		d key principles of Environmental and Social Justice. <b>We submit our</b> make a formal request for an EIR and CEOA review for the 5910 Cherry
Aye warehouse project.		
Jasepina garcia	Josepha Garcia	5977 Findenave Long 13 tach.
		Address (Street /Zip Code)
y Chrain	Nacine Charle	6115 Ginder Ave LR 90805
Unilogue		1826 E. Harding st. LB. 90805
Lange Mariand &	7	1800 F Harding St. LB 90805
a Company	Coury Roque	1826 E Hardan St-UB GOSTO
Medianos	Verny Hak	1826 E. Harding Street LR gasa
0	Arrest Owers	(SA Hardmy (F. Un ales
	Rodricos Rogue	1725 Harding St. 90805
Amy Br	Lawin Rogin	1725 E. Hardling 15+ CA 90pos
Leuke a Dane	Softa Olmos	6688 Falcon AV L-13 eA 2080
Yadia Charco		6415 Atlantic lare 90885
Rosa Casian	96	410 E-South SA. 444 gaga
dicio Malic	Lefficion Majila	1039 CMan of Stown B
Many Rang	Meneral Rouse	ESII Cherry AV
Will Savin	Wita Coxcia	GOSG Falon AVELIB (1908as
Burgy Harre	ENligre Krows So	\$902 WOLNUT AVE LBC
We are not against jobs or development. We are for responsible development that property will be located within one of the most polluted residential areas in California.	are for responsible development that protects over	We are not against jobs or development. We are for responsible development that protects overall health and serves our communities. This 70% or project will be located within one of the most polluted residential areas in California.

1 4 5 project will be located within one of the most polluted residential areas in California. verna Rivera

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Signature	Printed Name	Address (Street /Zip Code)
	Dorthe Bell	2344 14 61216 BJ. 90805
Lak mek-	Lay ( Me/ Dag	2267 72 (Server) 24 (326
	CLONIATHAN ESPINOSH	2110 Mckenzie 90805
the our	James Dele	2210 E. POINSETTIA ST. 9085
M. V. G. M. C. C.	Lay ofender -	2109 E 6554 CAY BOULL
HANG S. YOUR	MARIA S CRUZ	2017 E 65 st Long Boach.
Maria Matorre		305 E 65 St Leng Beccu
- / m / 24 KS. L.	JAM) Jacks- 42	2105 65# CG
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2/2/2/2	Jours Jurs	7145 665 11 St. las Down Co
Shir More	Elvia Velasco	215365 TG
Cho. Calle	Cindy Callowar	2161865454 6.8
Jessych Yeir	(85517# P6182.)	2305 E (05 th (B.
Silver Tour Cours	Harin IPSUS TO ANGUNT 1229 E GS 11 LB	7229 £ 65 11 LB

Signature	Printed Name	Address (Street /Zip Code)
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Ledia Ame	Softa Olmos	6638 Felen A1 Lang Br 70803
Ringi Marley	King on Mando Ja	HOO TIMBENINGSIDS OF 1
sold fun Jaca	, Tose L. Garcia	246E 6724 Way LB 90805
More J. Hores.	, u/	-846E67841124 LB 90805
hova & hundora	Mavia 6 Mendoza	a 6 Mendoza 400£ Morningside 571B Pose
Belie Mark	Otelia C Alvarez	5425 Ligare L. B. 90805
MAN DEER	JOSE DIBLEACITS	4535+348 For Bayon
Some gran	Silvia Prosenson	5364 POCI SICDUL 2. BC090805
Maria Gerantes	Hagia C	562) 984 7923
PExas Rics	Esmin 12,05	562 219-19-00
mile Machifel	MARIA MADRICAI	569-675-1197
Park Cathr	RAUL-CORTEZ	AHO- LONG BUCH CHOKEN
YADILA ROYNOSO	VADILA POVNOSO	CALderin HU Long Bench aged
SIME, REY NOCH	EDDIE POYNOSO	GALDONIN RULING BONDOCT
We are not against Jobs or development. We an	e for responsible development that protects ove	against Jobs or development. We are for responsible development that protects overall health and serves our communities. This 980

Signature	Printed Name	Address (Street /Zip Code)
beilyn MUR OZ		1531 E poinsattiast 900005
Robert Gomes	ROBERT GROWES	2301 E. 65TH STREET, 90805
Pavery Brown Did	NAMIN GOPPIEL COSTES	2301 E. 65th Speed, 9,805
Prosola Eminer		2141 & MCKNZIRST 90308
B		241 E MCKINZIE STADBOS
Marine Marine	Maria Madriace	2036E Handing St. 20805
CAT Market		
Of me	Caroline Hontano	2036 E. Hardma st 70805
May ac Herrords	562	21048-69.51 90565
3	(501) 533-0075	1650 E. POINSEHIUST. 00805
BAUDELIU SALVATI EKKA	Buck Salute	1650 E. noinsettia st. 90805
PYRSO SAMAHENO	Town of leten	1650 E MINSHIA ST 90805
SOL CMY	Oscol in	63/6 RASMOND AUT POBES
Moturies	GlABGS GUTTERREZ	6324 RAYMOND BUR 90805
	JOSGE GUTTERNEZ	6524 RAYINOW AUR 90405

Signature	Printed Name	Address (Street /Zip Code)
Sign	Tuan Estada	2936 EMCKWZ. ST 40865
	TUD (,0,172 (12	2236 E. McKenzie st 80805
Will Ru	William Rowa	2227 McKunzie St 90805
workelle. Evans	Rochelle Evans	2259 E. MCKENZEST LB, CO
	Louis Evens	2259 E. MCKENZUSTURA
Chara Su-	Chase Evans	2259 E. McKen Zu St LB, Cas
The state of the s	Jaime E. Silva	6373 St Louis Ava 1BKH 40855
K. G. Sh	Karina G Silva	10273 St. Luis the loves Bach CA 40 Bos
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(mlo (han ka	Carlos Chantes	6280 Ray non 1 Avol 18 4-95
Kurri	Kinin Pract	Us 50 sternmend the most
My Mes	Karina Wartinez	2259 E 4319 St LB 90805

Signature //	Printed Name	Address (Street /Zip Code)
Vielen Go.	2 Shey Garcia	2210 E 65TH 57 LBCA
Mary B.	Maria Garcia	2210 E. 65+11 St LIBOR
Norman Wontessian	Lacina Mentena	2218 E 65th St
int m	the Word	2225 E 64+6 54 LB C
	5ATH . SE	2249 Poinselliast
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Jarier Garcia 18	James Garin 17	2233 E Poinsettia S.t
Janier Caras	Tayled Gust us	2233 FPOINSEHIA St
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Just W	Toru Alisailez	2114 & 101 WSUTT (# ST

We, the affected residents of the 5910 Cherry Ave warehouse project, find the proceedings of the approval process to reflect signatures to oppose the project as presented and make a formal request for an EIR and CEQA review for the 5910 Cherry Injustice to our health, homes, geighborhoods, and communities. We hereby sign-on to this petition to voice our complaint that the Planning Commission's actions have violated key principles of Environmental and Social Justice. We submit our Ave warehouse project.

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Chil me	C4VIC2 +17=9e/411	6402 typyand st
" Ry	FRANKIN	6426 RATMOND AK 90805
Mary Frank	DARREI FRANKIN	6476 RAYMOND AME GOODS
Grandy Man	Euronda Dans	1426 RAYMOND AIR 90805 *
Sall re	JACRUILEN PRREPER	wen Propher 6272 Regumend ( De give)
- 1) much Greekar	IGHALID ESCUBOR	6364 RAY MOND AT C.C. 5080.
1 Javia E 25. 0 Mg	MARIA ELLIRO EXCROS	6304 RAYINOND ALK-COLS RYGUME
Midual City (a)	Sindy Ortegu	6356 Raymond are 10805
PALOLA M LLax	Phullis Gai	6348 Raymond Ave, LB 90805
May 2	Robert Dunker 102	6332 RAVAG ML. CR40000
CAN	January Horman	4500 Raymond AUS CB 90807
Noc "Palacies L	Noe Palacios	

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Signature	Printed Name	Address (Street /Zip Code)
W 0 10 18	Prudencio Martines	2259 E 63rd St (B 90805
Mide to Chilli	Heidi CSolis	1228 E 630151 LB 90805
0 5,1cm 50115	Down Solis	2228 E 632d5TIR 90805
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1 dth sen	than mos	- 7 c Es Jaco Atha Mas
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Carlo Village	Berryce Velazavez	6308 Rugmond Aro
Enveny 1/ch in	FNORINGE VELALUNEZ	(308 Re, Mand A)
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		Address (Change / 73:
Signature	Printed Name	Address (Street / Lip Lode)
Ce Sum	Karen Busano	2258 E Poinsetta St. Low Row
. Demiller	FERMINDS Missipa	2250E JUNSTRY57.11 "
Kiting by gard fle	Kristine Sysaunthur	2218 ETRIVEHIA 14.
Thank or	Thronking Arredas	A 309 & Puncettia st.
gaz Cena	Elvia Ameola	2202 E Painsettra st
May Kinne	MAKA Hernander	2151 E Poine 11. SI CA
	JACKLIE POTITIOLET	2158 & poinseriff 57 las
1 AM	LUTS ZANGEL	2124 E POINSETTER STIR
A.M. Swartta	>	2116 E. Poinsettia St.
Maria	BREWOA CWANTED	MAXIES SILK. Fausethe CE
	e e e e e e e e e e e e e e e e e e e	

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Signature	Printed Name	Address (Street /Zip Code)
J. J. 13, // P	South BellinA	2221. E. GSTH ST 1.B 90805
Toy &		2235 E. M. Kuzie St. 16 1805
John Limin		. 1250 P125
blond Varez	Llovie The	6450 Raymond thee
	Ke Manawadul	2243 E. MCKENZIEST LB 90865
	INOYE MUMERCALL	2243 Ellick Aprile ST &B 9680
Signalista Lopez de Ruiz	1	2132 e. Poinsettia St. L. B. Foxes
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R. Billiams	Penselios Hutierrez	2241 E.64th St. Lib 90505
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Signature	Printed Name	Address (Street /Zip Code)
	Salvador Imenez	6280 Keymone Aur goros
Owelling of me	Angeline Jimenez	(250 Rayman Av 9050)
my kny	Marihel Jimenez	6380 Raymond Ave gross
monto ou Oaksa	Noemi De La Rusa	2201 E WITHST LB CA 908DE
Grien M. L. Dolo	Kin Dola 2050	64th 4 Januaged 90805
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	Mo O A Remain	6072 ROSE AU CI POSUI
Parl Rame		5886 Cordenia 4Up 20805
flowell &	Tationa pague	HARDING ST. 90805
Grand Stranger	Launen RIOS TOLANO	Hardmy St. 90805
	Victor Contreras	5851 Courota Ave, Long Beuch 9080E
The state of the s	Eduardo Contreras	5851 gavola Au. Com Beach
1 Jac Graff	HORDED DAVID	2265 Elyth T lowar Beach Corpose
Office May wis	Olivia Magaña	3717 E. 64th ST. Long Beach, 9080
Dime morac	Doma Modic	2266 C 64M J 90805
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Firma	Nombre	Calle y código postal
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Show	Elsa Lopiz	51 St Long Beach
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Chaver Ween or	BLMWCA ALCHZIAR	360 Norton St & B. 562 7 90805
May Novita		153 Sunset 90805
	/ JSMRX O ISUC	3753 MY-000
Kingel Backing	KMIGEL BREVIN	6831 eveluge Ave Gosos

Firma	Nombre	Calle y código postal
AKunzy	Angela Ruiz	Sunset 5+ 90805
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Minor Human Com	Karina Rangel	69 th way \$0805
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Complete Com	( aghud	841 Daisy ave # B 90815

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Migsel Carolin	Miguel Canoo ku	1823. Poinsettia St 90805
Haria Ganache	How ved Canache	Sauce a vobo 90885
ina	Maria	5934 Rose Ave LONG Briens
Janier Gumbea	Jav 1.87	Sg 34 Rose Ave Long Beach
bee Villabors	SAPP.	5934 Rose Averlong 8ad 101
Wilda Mozak	4110x Arzabe	5833 Rose Ave 1B 90845
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Ser Server	Grisch Peño	151853 ROSE AVE. 1B, 90805
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manga, to Carlo	Margarita Cardos	Pardos 1823 Ehunger Fords
		SONOS

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Firma Magallanes Jana	Nombre	Calle y código postal
Lillis Magallaves	18029 Hargalla Nes	129 Hargalla Nes 4222 gardenna 90805
Moria Slowa Gorda	Maria Eleva Garcia	10 Eleva Garcia 515 E 52st 90805
Patricis Mass Planes 1	Patricio Magallanes	ricio Magallanes 70 dewn 30805
Eviko Marquez	Fr: 16 Marquez	Market 40805
Maner aut.	Lancela Avalos	562) 277-2886
Muse Main	Grown Nixxes	Mixxes (562) 5782879. 88
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NRIGUE RESMUSO	Envione Remosa	90805
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Firma	Nombre	Calle v código postal
		2352 & McKenzie ST.
Moon Saleshon	Maria Gallarelo	Long Deuch, 04 do805
		7352 E. Mukenziest.
Mush Sucasa	Mario Gallardo	Cong Beach, CA 90805
	,	3732 E. McKenziest.
alexa Guersa	Alexa contrardo	Lond Beuch, CA doses
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James Glangs	David Gallardo	Long Beach, M gosos
- 4		2157 E MCYONZIO ST
( Hope of Lanene)	Stemanie dimonez	Lang Beach CA 90805
Many Pear		1935 E 53rd St
monde utem.	Mary Pech	Long Breach of 90806
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Every Green	Pung Cherrens	60 96 california (. 13
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alone Dila Reso	gloria Dela Rosa	64+hst LB. CA 96805
Rain Emp	1 Kenn	2103 PONCETINGOS
Arapli Surher	S	128 E McKenzie St
Senakan Year	Sonakun Yen/ (Phalim)	`
18 SX	Ramin Ruelas	
Maria Ros Loper	6000	2122 E Poinsettia St
Adrian Rus Lopez	Adrian Ris Lopes	run Rur Lopez 21328 Poinsethust

Firma	Nombre	Calle y código postal
Whoodalise Trille	Maria 6 Travillo	Trustillo Atlantic pue gasas
Jenny t. Granen	Jenny Esmenthe Grands	Atlantic Aug. 90805
	Jose GARCIA	2000 CHESTAUTAYE 90606
Joens Jours	Agus Buez	6509 FH Low MUE Lasgo 865
Hoyang It deade	MARGARITA SALCIDO	Cochela 90805-
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Maria Uricostegui	Maria Uriostagui	416 E. Adair st 90805
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Cthi Sanola	Otilio Gancalez	110 Garalez 63735×26013AVE 90805
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Hustor Real	NESTOR REAL	2202 € 65Th 5/L 850805
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( mesolodies	VANESSA RODRIGIEZ	2156 E. 64th St. 90005
	Jaime Chaver	ACKEN 2.C St 9225
Mb	Placins Cnovez	2260 McKenzie St 908105
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Almes Garde		chestautave 90806
Domingo Herman ly	DOMINGA HERNANDEZ	LONG Beach Bld 90805
B. C. C.		6468 Calitoria Ave goods
Maria Camposay	1	Cherry Aver 80807
Varoni Mentra	Yessilla Norbles	watint goses
Digga Liamman	Diente Lieupe	58 86 Line Ave 90805
Moeni Coxtes	Voemi Cortes	1434 Cedas Au 90813

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Missie flow Lallagh	Maria Elena Gallarolo	His Elena Gallardo 70805
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Rothy my	Rovthan a Vanny	2146 E McHenzit st 1 Long Boach, CA 40805

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Firma	Nombre	Calle y código postal
Lidia Orosco	Lidia Orazco	1431 cedar ave 90813
Gre158/84 GAWERA	GN158101 GAUGI	14/9 CED # NY, GO813
Angola Osorio		5 5 26 Land AV. 90005
Jana mendora	Juana mendoza	6475 Albute Ave 90805
Volan do Maria		4869 and 10 cost Due 908
Wagana andyof de pangel	Unating Verduge is-p	90805 MEGGHERY
Jongs. Allowar	Jorge Alchza	260 E NOrtow ST 9030
May	16's Hermanche	6308 £ 5/hr 3 9818
Nova Delia Colo	NORA HELLANGEL	OrA HELLANDER 630 E Esther # 4 EDER
Cathre	GALLOS PORA	6731 Loug Deach Bld #12 903

Firma	Nombre	Calle y código postal
Sinter Lither	SANTIAS SANTILLAN	ting - SANTILLANGESO ATLANTIC Pl. 40305
Longa Lemis	\0 \0 \0 \0	693) Long Beach.
The Mark	1) Petisasahun -	C 13 Sus 225
You Durall	1010 (50 NZA/02	6310 Dears Hue 50305
Jamon Gonzalez	Ramon (20129) CZ	2903 64 57 8082º
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